



**DR. Shyamaprasad Mukherjee Zoological Garden**

**Surat Municipal Corporation**

**Surat, Gujarat**

**Annual Report for the Year**

**2019-20**

## CONTENTS

S.No	Section	Page Number
1.	Report of the Officer-in-charge	3-4
2.	History of the Zoo	5
3.	Vision	5
4.	Mission	5
5.	Objectives	6
6.	About us	6-9
7.	Organizational Chart	10
8.	Human Resources	11
9.	Capacity Building of the Zoo personnel	12
10.	Zoo Advisory Committee	12
11.	Health Advisory Committee	12
12.	Statement of income and expenditure of the Zoo	12-13
13.	Daily feed Schedule of animals	14-16
14.	Vaccination Schedule of animals	16
15.	De-worming Schedule of animals	17
16.	Disinfection Schedule	17-18
17.	Health Check-up of employees for Zoonotic diseases	18-19
18.	Development Works carried out in the zoo during the year	19-20
19.	Education and Awareness programmes during the year	20
20.	Important Events and happenings in the Zoo	20
21.	Seasonal special arrangements for upkeep of animals	20
22.	Research Work carried out and publications	20
23.	Conservation Breeding Programme of the Zoo	20
24.	Animal acquisition / transfer / exchange during the year	21
25.	Rescue and rehabilitation of the wild animals carried out by the zoo	21
26.	Annual Inventory of animals	22-25
27.	Mortality of animals.	26
28.	Status of the Compliance with conditions stipulated by the Central Zoo Authority	27-29
29.	List of free living wild animals within the zoo premises	30-31

## **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 46 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 18 species of mammals, 06 species of reptiles, 22 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 more than 0.732 million visitors during the year 2019-20. 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 were organized during the year 2019-20. Many species of indigenous and exotic animals including Black buck, Rhesus Macaque, Mouse deer, Smooth Coated Otter, Sambar, Hippopotamus, Spotted deer, Emu, Night Heron, Alexandrine parakeet, White Ibis, etc. have bred successfully in the Zoo during the year.

During the year 2019-20 off exhibit quarantine facilities, new toilet block construction at main gate created, further main entry gate redevelopment work is undertaken.

This financial year we have welcomed 02 new animals rescued by forest official to our collection for conservation and display and one Sloth Bear & pair of Jackale is donated to Virmata Jijabai Bhosale Zoo (Byculla Zoo) , Mumbai in exchange of pair of African Grey Perrot, pair of Barking deer and two pair of Painted stork.

There has been a substantial improvement in the field of health care reflected in there reduced annual death rate of 7.83 % 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 Mukerjee Zoological Garden, Surat during the year 2019-20 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.

A handwritten signature in blue ink, appearing to read 'Shyamaprasad Mukerjee', is centered on the page. The signature is written in a cursive style with a horizontal line underneath.

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

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

Dr. Shyamprasad 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. More than 0.732 million visitors visited the Zoological Park during 2019-20. Most of the animals of Dr. Shyamprasad Mukharjee 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.

Striving for the financial self-sufficiency of the organization.

## **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	0261-2575611 0261-2578036
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)	19 <sup>th</sup> August, 2021
11.	Category of Zoo	Medium
12.	Area (in Hectares)	32.78 Hectares
13.	Number of Visitors (Financial Year)	Adult : Zoo : 5,81,428 Butterfly park : 19,346
		Children : Zoo : 1,29,029 Butterfly park : 2,630
		Total Indian : 7,32,378
		Total Foreigners : 55
		Total Visitors :7,32,433

<b>14.</b>	Visitor's Facilities Available in Zoo	Parking, Toilets, Water huts, Wheel Chair, Canteen / Cafeteria, Battery Operated Passenger Trolleys(BOPT) for zoo round.
<b>15.</b>	Weekly Closure Day of the Zoo	Monday
<b>Management Personnel of the Zoo</b>		
<b>16.</b>	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>		
<b>17.</b>	Name of the Operator	Municipal Commissioner (Surat Municipal Corporation)
<b>18.</b>	Address of the Operator	Gordhandas Chokhawala Marg, Mugalisara,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 31.03.2020	Mammals	18
	Birds	22
	Reptiles	06
	Total	46
No. of animal House	nos. 383 (covered - 252, Open moated -131)	
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
- Toilets at convenient locations
- Special toilets, wheel chairs and ramps for differently abled 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)
- Emission free battery operated vehicle
- Guide maps

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

Butterfly garden and insect kingdom

Wildlife interpretation centre with Light and Sound show.

Batter operated passenger trolley for zoo round for all age visitors.

Digitalized payment and issuing facility for entry ticket

### **OTHER SERVICES OF THE ZOO**

1. Interactive education and awareness program.
2. Conduct tour for school children.
3. Availability of zoo guided tour.



## 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

### 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 :

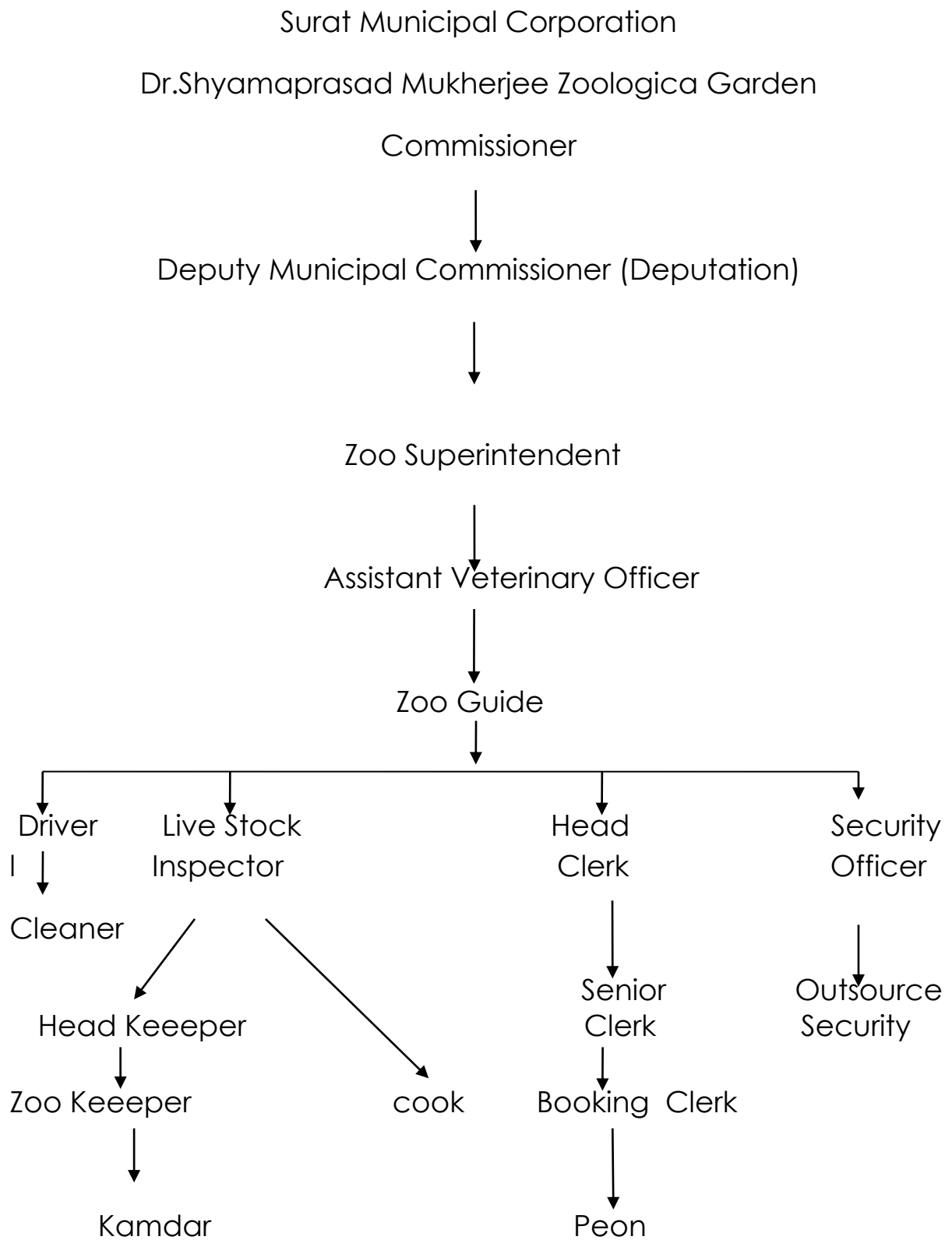
Visiting Hour's : 10.00 A.M to 5.00 P.M.

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



## 8. Human Resources

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

## 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
-	-	-	-	-

## 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 7 years

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

### Income of Zoo during the 2019-2020

Sr.No.	Perticulars	Income ( Rs.)
1	Zoo entry fees	19924030=00
2	Butterfly park entry fees	413220=00
3	Canteen / cafeteria rent	2867399=00
4	Mango tree auction income	230000=00
5	Income from parking contract	1680000=00
6	Tender fees income	64826=00
7	Battery operated passenger vehicle income	239544=00
<b>Total Income</b>		<b>25419019=00</b>

**Expenditure of Zoo during the 2018-2019**

<b>Sr. No.</b>	<b>Particulars</b>	<b>Amount</b>
<b>1</b>	Zoo staff Salary	20782393=00
<b>2</b>	Feed cost of animals	5598113=00
<b>3</b>	Medicine cost	100254=00
<b>4</b>	Security	4413600=00
<b>5</b>	Electricity	1280000=00
<b>6</b>	Miscellaneous	643074=00
<b>7</b>	Garden and butterfly park maintenance	1529900=00
<b>Total Expenditure</b>		<b>34347334=00</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	Barking deer	Green fodder + Concentrate	2.5 Kg + 100 gm	2.5 Kg + 100 gm	Nil
5	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
6	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
7	Jackal	Beef	1.0 kg	750 gm	Monday
8	Monkey Bonnet	Sprouted legume grains+Seasonal Green vegetable & fruits	500 gm	500 gm	Nil
9	Monkey Rhesus	Sprouted legume grains+ Seasonal Green vegetable & fruits	500 gm	500 gm	Nil
10	Panther	Beef	3.5 kg	3.0 kg	Monday
11	Porcupine	Sprouted legume grains +seasonal green vegetable and fruits	1.0 kg.	1.0 kg	Nil
12	Tiger	Beef	10 kg	8 kg	Monday
13	Otter	Fish	1.5 kg	1.4 kg	Nil
14	Mouse Deer	Green fodder+Green leafy vegetables +Seasonal fruits	250 gm	200 gm	Nil
15	Crocodile Marsh	Beef	1 kg / week	1.5 kg / week	--
16	Crocodile Siamese	Beef	1 kg / week	1.5 kg / week	--
17	Crocodile Caiman	Beef	0.750 kg /week	1 kg / week	--
18	Tortoise	Mix Green	100gm	100 gm	Nil

		Vegetable+Sproutd Leguminous grains Roots+Underground stem.			
19	Gharial	fish	2.5 kg / week	2.5 kg / week	--
20	Indian Rock python	Rabbit / Gunea pig	3.0 kg monthly	3.0 kg fort nightly	--
21	Crane Saras	Boiled Rice + fish + Cereals grains	100 gm + 500gm	100 gm + 500gm	Nil
22	White Peafowl	Grains +Gramms+ Green Leafy Vegetable+Cabbage	200 gm	200 gm	Nil
23	Indian Peafowl	Grains +Gramms+green palak +cabbage	200 gm	200 gm	Nil
24	Night heron	Small Fish	150 gm	150 gm	Nil
25	Spoon bill	Small Fish	150 gm	150 gm	Nil
26	White ibis	Small Fish	150 gm	150 gm	Nil
27	Black kite	Beef (Minced)	50 gm	50gm	Nil
28	Alexandrine parakeet	Seasonal fruits + milk + bread	50 gm + 25 gm	50 gm + 25 gm	Nil
29	Cockatiel	maize + grains	5-10 gm	5-10 gm	Nil
30	Cockatoo (Umbrella)	seasonal fruits + milk + bread + sunflower seed	100 gm + 50 gm	100 gm + 50 gm	Nil
31	Cockatoo (Sulphar)	seasonal fruits + milk + bread + sunflower seed	100 gm + 50 gm	100 gm + 50 gm	Nil
32	Emu	poultry layer mash	600 gm	600 gm	Nil
33	Flamingo	small fish	500 gm	500 gm	Nil
34	Lorrikeet Rainbow	seasonal fruits + milk + bread	50 gm + 25 gm	50 gm + 25 gm	Nil
35	Lorrikeet Red	seasonal fruits + milk + bread	50 gm + 25 gm	50 gm + 25 gm	Nil
36	Lorrikeet Chetering	seasonal fruits + milk + bread	50 gm + 25 gm	50 gm + 25 gm	Nil
37	Parrakeet African Grey	seasonal fruits + milk + bread + sunflower seed	100 gm + 50 gm	100 gm + 50 gm	Nil
38	Pelican Rosey	Fish	1.5 kg	1.5 kg	Nil
39	Phesant Lady amhrest	grains + layer mash + milk + bread	25 gm + 25gm + 25 gm	25 gm + 25gm + 25 gm	Nil
40	Torecco Hertube	seasonal fruits + milk + bread	50 gm + 25 gm	50 gm + 25 gm	Nil
41	Golden Phesant	grains + layer mash + milk + bread	25 gm +5gm + 25 gm	25 gm + 25gm + 25 gm	Nil
42	Swann Black	Layer mash+ green	200gm + 100	200gm + 100	Nil

		fodder	gm	gm	
43	Ostrich	layermash+green fodder +lucern	2.0-2.5 kg	2.0 -2.5kg	Nil
44	Deer Hog	Green Grass + Concentrate	2.5 Kg + 100 gm	2.5 Kg + 100 gm	Nil
45	Deer Samber	Green Grass + Concentrate	10 Kg + 300 gm	10 Kg + 300 gm	Nil
46	Deer Spotted	Green Grass + Concentrate	2.5 Kg + 100 gm	2.5 Kg + 100 gm	Nil
47	Hynae	Beef	2.0 kg	2.0 kg	Monday
48	Hippopotemus	Green fodder+Concentrate + potato + banana	45kg+2.0kg+3.0 kg+2.0kg	45kg+2.0kg+3.0kg+2.0kg	
49	Nilgai	Green Grass + Concentrate	8 Kg + 200 gm	8 Kg + 200 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-2019 September-2019 January-2020
2	Canines (Hyena, Jackal, Otter,)	Albendazole Ivermectin Fenbandazole	June-2019 September-2019 January-2020
3	Omnivorous (Bears)	Albendazole Ivermectin Fenbandazole	June-2019 September-2019 January-2020
4	Herbivorous(All Deers)	Albendazole Ivermectin Fenbandazole	June-2019 September-2019 January-2020
5	Hippopotamus,	Albendazole Ivermectin Fenbandazole	June-2019 September-2019 January-2020
6	Birds (All Parakeet,lorrikeet,water birds,Peafowl,Phesants, pelican, etc.)	Albendazole Ivermectin Fenbandazole	June-2019 September-2019 January-2020
7	Reptiles (python)	Albendazole Ivermectin Fenbandazole	June-2019 September-2019 January-2020
8	Monkey	Albendazole Ivermectin Fenbandazole	June-2019 September-2019 January-2020

### 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.

Sr. No.	Name	Designation	Date of Health Check up	Finding of Health Check up
1	Rajeshkumar A. Patel	Assist.Vet.Officer	23/08/2019	Negative for T.B. vaccinated for Rabies
2	Hinaben Chirag Patel	Zoo Guide	23/08/2019	"
3	Priteshkumar Navinlal Patel	Livestock Inspector	22/08/2019	"
4	Tejas s.Patel	Horticulture Assistant	22/08/2019	"
5	Dhanjibhai Bhimabhai Parghi	Zoo Keeper	22/08/2019	"
6	Dahyabhai Malabhai Vijuda	Zoo Keeper	22/08/2019	"
7	Rameshbhai SomabhaiChaudhari	Zoo Keeper	23/08/2019	"
8	Sureshbhai Sravanbhai Vasava	Zoo Keeper	23/08/2019	"
9	Sureshchandra Chhotulal Patel	Zoo Keeper	22/08/2019	"
10	Sumabhai Mavjibhai Bariya	Beldar	23/08/2019	"
11	Balvantbhai Manibhai Parmar	Cook	22/08/2019	"
12	Shankarbhai Chandulal Randeri	Beldar	23/08/2019	"

13	Nareshbhai A.Makavana	Beldar	22/08/2019	"
14	Kasubhai Maknabhai Damor	Beldar		"
15	Vijya Kanji Jethva	Beldar	22/08/2019	"
16	Mahendra Ratilal Valhe	Zoo Keeper	22/08/2019	"
17	Mohanbhai K Charaniya	Beldar	23/08/2019	"
18	Atulbhai Dineshbahi Gamit	Beldar	22/08/2019	"
19	Mayur Prakashbahi Patel	Beldar	22/08/2019	"
20	Rakeshbahi Hasmukhbhai Gamit	Beldar	22/08/2019	"
21	Ganeshbhai Dilipbhai Deshmukh	Beldar	23/08/2019	"
22	Mukeshbahi Naranbhai Parmar	Beldar	22/08/2019	"
23	SunilKumar Kashinathbahi Mali	Beldar	22/08/2019	"
24	Jitesh Lalji Parmar	Beldar	22/08/2019	"
25	Bhikhabahi Jerambhai Vaghela	Beldar	23/08/2019	"
26	Kanubahi N. Panada	Beldar	23/08/2019	"
27	Dilipkumar Kukabahi Damor	Beldar	22/08/2019	"
28	Vipulkumar Dhansukhbahi Patel	Beldar	22/08/2019	"
29	Rajeshkumar Ratilal Damkia	Beldar	22/08/2019	"
30	Rupsing D.Bariya	Beldar	22/08/2019	"
31	Manohar K.Desale	Zoo Keeper Trainee	22/08/2019	"
32	Pavan R.Patil	Zoo Keeper Trainee	22/08/2019	"
33	Chetan S.Patil	Zoo Keeper Trainee	22/08/2019	"
34	Mrutunjay R.Mahire	Zoo Keeper Trainee	22/08/2019	"
35	Girish J.Chaudhary	Zoo Keeper Trainee	22/08/2019	"
36	Jayesh M.Mahajan,	Zoo Keeper Trainee	22/08/2019	"
37	Akash V.Parmar	Zoo Keeper Trainee	22/08/2019	"

#### 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 modern Toilet Block at the main Entrance

- Construction of Off exhibit otter breeding facilities at Quarantine 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 year: • All deer enclosures were provided with new thatched 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 Mouse deer, Black buck, smooth coated Indian otter, Hippopotamus and other animals 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	Parakeet African Grey	1:1	Veer Mata Jijabai Udhyan (Byculla Zoo) Mumbai	17/05/2019
	2	Painted stork	2:2	Veer Mata Jijabai Udhyan (Byculla Zoo) Mumbai	17/05/2019
	3	Barking deer	2:2	Veer Mata Jijabai Udhyan (Byculla Zoo) Mumbai	17/05/2019
B.	Animals going from the Zoo				
	H. No.	species	Number (M:F)	To which Zoo	Date of disposal from the Zoo
	1	Sloth Bear	0:1	Veer Mata Jijabai Udhyan (Byculla Zoo) Mumbai	18/05/2019
	2	Jackal	1:1	Veer Mata Jijabai Udhyan (Byculla Zoo) Mumbai	18/05/2019

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

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	01/09/2019	Leopard( 0 : 1 )	RFO (South Dang)	on 01/09/2019 received through CWLW permission	Not rehabilitated	Having forelimb fractured unfit to survive in the forest
2	08/12/2019	Leopard( 1 : 0 )	RFO (Mangrol)	on 08/12/2019 received through CWLW permission	Not rehabilitated	Having neck bone fractured unfit to survive in the forest

26. Annual Inventory of animals

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

Inventory Report for the Year:2019-2020

Endangered Species

Sr. No.	Animal Name	Scientific Name	Opening Stock as on 01-04-2019				During the year												Closing Stock as on 31-03-2020			
							Birth			Aquisition			Disposal			Death						
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
1	Antelop four horned	Tetracerus quadricornis	4	3	0	7	1	0	0	0	0	0	0	0	0	3	1	0	2	2	0	4
2	Antelope Black buck	Antelop cervicapra	6	11	6	23	1	5	3	0	0	0	0	0	0	1	1	0	6	15	9	30
3	Antelope Black buck(White)	Antelop cervicapra	1	1	1	3	0	1	0	0	0	0	0	0	0	0	0	0	1	2	1	4
4	Barking deer	Antelop cervicapra	1	1	0	2	0	0	0	2	2	0	0	0	0	2	2	0	1	1	0	2
5	Bear sloth	Melursus urisinus	2	4	0	6	0	0	0	0	0	0	0	1	0	1	0	0	1	3	0	4
6	Bear (Himalayan Black)	Ursus thibetanus	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3
7	Jackal	Canis aureus	5	9	0	14	0	0	0	0	0	0	1	1	0	0	1	0	4	7	0	11
8	Monkey (Rhesus)	Macaca mulatta	6	7	2	15	0	0	0	0	0	0	0	0	0	0	0	0	6	7	2	15
9	Panther	Panthera parduas	2	1	0	3	0	0	0	2	0	0	0	0	0	0	0	0	4	1	0	5
10	Porcupine	Hystrix indica	1	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3
11	Tiger	Panthera tigris	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3
12	Otter	Lutrogale perspicillata	1	2	8	11	0	2	2	0	0	0	0	0	0	0	0	0	1	4	10	15
13	Mouse deer	Muntiacus muntjac	1	2	1	4	1	1	0	0	0	0	0	0	0	0	1	0	2	2	1	5
<b>TOTAL:-</b>			<b>34</b>	<b>44</b>	<b>19</b>	<b>97</b>	<b>3</b>	<b>9</b>	<b>5</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>7</b>	<b>6</b>	<b>0</b>	<b>33</b>	<b>47</b>	<b>24</b>	<b>104</b>

Sr. No.	Animal Name	Scientific Name	Opening Stock as on 01-04-2019				During the year												Closing Stock as on 31-03-2020						
							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>Reptiles :-</b>																									
1	Crocodile Marsh	Crocodylus palustris	1	1	10	12	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	1	14	16
2	Crocodile Siemese	Crocodylus siamensis	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
3	Crocodile Caiman	Caiman crocodilus	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
4	Tortoise-lissemys	Geochelone elegans	0	6	9	15	0	0	0	4	4	0	0	0	0	0	0	0	4	10	9	23			
5	Gharial	Gavialis gangaticus	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2			
6	Indian rock phython	Python molurus	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1			
<b>TOTAL :-</b>			<b>1</b>	<b>9</b>	<b>24</b>	<b>34</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>13</b>	<b>27</b>	<b>45</b>			
<b>Birds :-</b>																									
1	Crane (Saras)	Grus antegone	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2			
2	White peafowl	Pavo crestatus	1	6	2	9	0	0	3	0	0	0	0	0	0	0	0	1	1	6	4	11			
3	Indian peafowl	Pavo crestatus	2	3	1	6	0	0	0	0	0	0	0	0	0	0	0	0	2	3	1	6			
4	Night Heron	Nycticorax nycticorax	2	2	4	8	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	8			
5	Spoon Bill	Platalea leucordia	2	2	4	8	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	8			
6	Painted Stork	Mycteria leucocephala	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	2	2	0	4			
7	White Ibis	Threskiornis aethiopicus	1	2	4	7	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	7			
8	Black kite	Milvus migrans	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	4	4			
<b>Total Birds</b>			<b>8</b>	<b>15</b>	<b>22</b>	<b>45</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>10</b>	<b>17</b>	<b>23</b>	<b>50</b>			
<b>Total Animals.</b>			<b>43</b>	<b>68</b>	<b>65</b>	<b>176</b>	<b>3</b>	<b>9</b>	<b>12</b>	<b>10</b>	<b>8</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>7</b>	<b>6</b>	<b>3</b>	<b>48</b>	<b>77</b>	<b>74</b>	<b>199</b>			

No.	Animal Name	Scientific Name	Opening Stock as on 01-04-2019				During the year												Closing Stock as on 31-03-2020					
							Birth			Aquistion			Disposal			Death								
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T		
1	Alexandrine perakeet	psittacula eupatria	7	6	4	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	6	4	17
2	Cockatiel	Nymphicus hollandicus	0	0	126	126	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	126	126
3	Cockatoo (Umbrella crested)	Cacatua alba	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
4	Cockatoo (Greater sulpher )	Cacatua galrita	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
5	Emu	Dromaius novaehalladae	2	0	11	13	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	10	12	
6	Lorikeet Rainbow	Trichoglossus haematodus	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	
7	Lorikeet Red	Eos bornea	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
8	Lorikeet Chetaring	Lorius garrulus	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1		
9	Parakeet African Grey	Pisttocus erithacas	1	1	0	2	0	0	0	1	1	0	0	0	0	0	0	0	2	2	0	4		
10	Pelican (Rosey)	Pelecanus oncotatus	3	3	0	6	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	6		
11	Phesant Lady ampherest	Chrysolophus amherstiae	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1		
12	Golden phesant	Chrysolophus pictus	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2		
13	Swan Black	Cygnus atratus	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0		
14	Ostrich	Struthio camelus	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4			
<b>Total Birds.....</b>			<b>18</b>	<b>14</b>	<b>148</b>	<b>180</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>19</b>	<b>14</b>	<b>145</b>	<b>178</b>			



**Other than Endangered Species**

No.	Animal Name	Scientific Name	Opening Stock as on 01-04-2019				During the year												Closing Stock as on 31-03-2020			
							Birth			Aquisition			Disposal			Death						
MAMMALS :-			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	T			
1	Deer Samber	Cervus unicolor	4	3	1	8	1	0	0	0	0	0	0	0	0	4	1	0	1	2	1	4
2	Deer Spotted	Axis axis	3	4	1	8	0	0	0	0	0	0	0	0	0	1	2	0	2	2	1	5
3	Hynae	Hyaena hyaena	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4
4	Hippopotemus	Hippopotamus amphibius	1	2	0	3	0	1	0	0	0	0	0	0	0	0	0	0	1	3	0	4
5	Nilgai	Boselaphus tragocamelus	0	4	0	4	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2
<b>Total Mammals :-</b>			<b>10</b>	<b>15</b>	<b>2</b>	<b>27</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>6</b>	<b>11</b>	<b>2</b>	<b>19</b>
<b>Total Animals :-</b>			<b>28</b>	<b>29</b>	<b>150</b>	<b>207</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>3</b>	<b>25</b>	<b>25</b>	<b>147</b>	<b>197</b>

## 27. Mortality of animals

1	Jackal	Canis auris	F	05/04/2019	Acute viral disease
2	Spotted Deer	Axis axis	F	25/04/2019	Chronic Respiratory Disease
3	Deer Samber	Cervus unicolor	M	19/05/2019	Traumatic shock
4	Antelop four horned	Tetracerus quadricornis	M	20/05/2019	Old age / Senility
5	Nilgai	Boselaphus tragocamelus	F	01/07/2019	senility
6	Nilgai	Boselaphus tragocamelus	F	02/07/2019	Acute Infection
7	Antelope Black buck	Antelop cervicapra	M	19/07/2019	Senility
8	Barking deer	Antelop cervicapra	M	30/07/2019	Acute Infection
9	Antelop four horned	Tetracerus quadricornis	M	31/07/2019	intussusception
10	Barking deer	Antelop cervicapra	M	06/08/2019	Acute Infection
11	Spotted Deer	Axis axis	F	09/08/2019	Acute Infection
12	Antelope Black buck	Antelop cervicapra	F	11/08/2019	Chronic Respiratory disease
13	Spotted Deer	Axis axis	M	17/08/2019	Senility
14	Barking deer	Antelop cervicapra	F	25/08/2019	Senility
15	Barking deer	Antelop cervicapra	F	06/09/2019	Senility
16	Mouse deer	Muntiacus muntjac	F	16/11/2019	Toxaemia / Rupture of Urinary bladder
17	Deer Samber	Cervus unicolor	M	20/11/2019	Chronic Respiratory disease
18	Antelop four horned	Tetracerus quadricornis	F	20/11/2019	Pragnancy toxaemia
19	Deer Samber	Cervus unicolor	M	06/01/2019	Chronic Respiratory disease
20	Deer Samber	Rusa unicolor	M	06/01/2020	Chronic Respiratory disease
21	Antelop four horned	Tetracerus qudricornis	M	19/02/2020	Old age
22	Deer Samber	Rusa unicolor	F	16/03/2020	Chronic Respiratory disease
23	Sloth Bear	Melursus ursinus	M	22/03/2020	Acute haemorrhagic enteritis
24	Lorikeet Rainbow	Trichoglossus haematodus	U	24/05/2019	Old age / Senility
25	Lorikeet Chetaring	Lorius garrulus	U	28/05/2019	Old age / Senility
26	Black kite	Milvis migrans	U	20/06/2019	Old age / Senility
27	Swan Black	Cygnus atratus	F	23/08/2019	Senility
28	White peafowl	Pavo crestatus	U	19/10/2019	Acute infection
29	Emu	Dromenius novahollandiae	U	22/03/2020	Acute infection
30	Indian rock python	Python molurus	U	13/01/2020	Old age

## 28. Compliance with conditions stipulated by the Central Zoo Authority

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	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	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.	Six 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	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.
<b>3.Development and planning :</b>					
4	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 will be submitted as early as possible in near future.
5	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	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. Development and Planning :</b>					
<b>6</b>	<b>4(3,4,&amp;5)</b>	The leopard enclosure should be provided 25% viewing area of the total exhibit to the visitors.	Three months	27/10/2018	We have stopped to trim the hedges. Once they will grow sufficiently, we will cut them in the manner, which will allow visitors to view the animal from 25% area only.
<b>7</b>	<b>4(3)</b>	All the aviaries at the zoo should have at least 10-20% area as kaccha floor with soil and live plants	Three months	27/10/2017	All the cages of the aviary have been facilitated with 20% natural bedding material (soil+sand) to provide kaccha floor to the captive birds. Live plants are already in existence.
<b>8</b>	<b>4(3)</b>	The aviaries should have elevated feeding platform for terrestrial birds.	Three months	27/10/2017	All the cages of the aviary have been facilitated with elevated platform.
<b>9</b>	<b>4(9)</b>	The stand-off barrier provided at various animals exhibits needs immediate repair.	With immediate effect	27/10/2017	All ready completed
<b>10</b>	<b>4(9)</b>	The stand-off barriers provided at the aviaries should at a distance of 150 cm from the chain link mesh	With immediate effect	27/10/2018	Pending being this work involves total changes in positioning of railing and walkway but it will be taken to the task soon.
<b>11</b>	<b>4(10)</b>	The zoo should provide directional signage to facilitate the visitors	Three months	27/10/2017	Work of directional signage through out the zoo premises has been completed.
<b>12</b>	<b>4(10)</b>	The signage provided at the zoo does not have much educational values. All the signage's should be assessed and should be upgraded. All signage should have educational value.	Three months	27/10/2017	Educational signage with upgraded version has been fixed up at required and desired places.
<b>5. Upkeep and healthcare of animals:</b>					
<b>13</b>	<b>5(1)</b>	The sub-adult Sloth bear at the zoo, housed in small cell for long period should be shifted to main enclosure area or it should be provided area as prescribed in the CZA norms.	With immediate effect	27/10/2017	Already shifted to main enclosures.
<b>14</b>	<b>5(2)</b>	The zoo should have diet schedule for each animals prepared and the same should be displayed in animal kitchen area	With immediate effect	27/10/2017	diet schedule for each animals prepared and displayed in animal kitchen area and also in all enclosures too.
<b>15</b>	<b>5(4)</b>	The MS sheet covered shade provided to Spotted deer should be covered by coconut leaves or other such material.	With immediate effect	27/10/2017	The MS sheet covered shade provided to Spotted deer has been covered with hay/dry grass/thatch.
<b>16</b>	<b>5(10)</b>	The zoo has failed to maintain the animal history cards in the format as prescribed by the CZA. The records should the maintained.	With immediate effect	27/10/2018	The zoo is maintaining animal history card in the format as prescribed by the cza. Zoo is also maintaining Livestock Register and keeping it always updated.
<b>6. Veterinary and infrastructure facilities:</b>					

17	6(1)	Dr.Shyama Prasad Mukherjee Zoological Garden, Surat, Gujarat being classified as a medium category zoo, but does not have adequate veterinary facility, including the basic veterinary equipments, x-ray machine etc. Should be complied.	Three months	27/10/2017	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.
18	6(3)	The Zoo does not have appropriately designs isolation and quarantine house. It should be located away from animal exhibit as well as existing veterinary hospital area.	Three months	27/10/2017	Surat zoo has constructed isolation and quarantine house/cages as per the design, drawing and location approved by the CZA and now it's not possible to redesigned and reconstructed elsewhere.
19	6(6)	The zoo should conduct mock drill and various other awareness campaigns including the training the zoo guards, keepers, and other support staff on the issues of disaster	With immediate effect	27/10/2017	Mock drill and various other awareness campaigns including the training the zoo guards, keepers, and other support staff on the issues of disaster are undertaken periodically throughout the year. Arrangement had been made for portable rope stairs at Tiger, Lion and Bear open moat in emergency use.
<b>9.Acquisition and breeding of animals:</b>					
20	9(7)	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.

## 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	Bubalbus 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	Eudynamis 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 benghalenses
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 / Dhama	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