

# Greens Zoological, Rescue and Rehabilitation Centre

Annual Report

2020-2021

## 1. Report of the Director

I am extremely pleased to present the Annual Report of the Greens Zoological, Rescue & Rehabilitation Centre (GZRRC), Jamnagar for the financial year 2020-21. The GZRRC aims to create awareness amongst people about the importance of biodiversity and be a nodal centre for rescue & rehabilitation of animals, which are in need of immediate care. GZRRC also aims to be conservation breeding centre working towards bringing back endangered Indian species from the region which are on the brink of extinction.

At GZRRC, the satellite rescue facility housing leopards have been functional along with the quarantine area, rest of the facilities are being planned and constructed. Reassessing the need for rehabilitating animals in India, GZRRC has expanded the space to house various other species received from locally, other regions of India or from abroad. In addition, we have continued the process of hiring experienced zoo personnel's to provide world-class husbandry to take care of our animals.

We are now giving high quality care to leopards (*Panthera pardus*) that were brought in from Sakkarbaug Zoo and Assam State Zoo who reached out to us for help. The animals bounced back to good health, thanks to the special care and attention that our veterinary team is providing. These leopards are now thriving in our facility.

We have started to resolve persistent issues with regard to the care of captive animals in India. For example, over 1500 mugger crocodiles (*Crocodylus palustris*) are being kept in the Madras Crocodile Bank Trust (MCBT) in crowded enclosures since 1994. MCBT is also struggling financially to take care of such large number of muggers. GZRRC has accepted MCBT's request for help and is in the process of bringing 1000 muggers and other reptiles to GZRRC. These animals from MCBT will be given adequate space, food and care at GZRRC.

Our veterinarians and animal keepers participated in the workshops that were facilitated by the CZA. Our staff found the workshops very useful for their day-to-day activities. GZRRC has also nominated its personal for the Prani Mitra awards.

I am happy and proud to report that despite the COVID-19 pandemic, our operations have not been greatly affected. Routine sanitization drills and testing of staff for COVID-19 have ensured that our animals are not at any risk of infection. We continued to provide quality all-round care to our animals which are under watch by regularly deworming, vaccinating and testing for zoonotic diseases. This will continue to be our top priority and will always be highest standard in any circumstances.

**Dr. Brij Kishor Gupta**

**Director**

**Greens Zoological, Rescue & Rehabilitation Centre**

## **2. History of the Rescue Centre**

Reliance Industries Ltd. (RIL), in its letter dated 5<sup>th</sup> September 2017 to the Honorable Chief Minister of Gujarat, had expressed the willingness for the establishment of Zoo cum Wildlife Rehabilitation Center at Jamnagar. RIL also requested in-principle approval and advice to get respective department like Forest and Environment Departments, Revenue Department and other relevant departments to grant necessary approval for the implementation of the project. Subsequently, on 7<sup>th</sup> January 2019, RIL submitted a proposal to the Member Secretary, CZA along with application for recognition under section 38 (H) sub section 2 of the Wild Life (Protection) Act, 1972 for the proposed establishment of Greens Zoological Rescue and Rehabilitation Centre (GZRRC) at village Kalanus, Taluka Lalpur, District Jamnagar, Gujarat.

In the meantime, the Chief Wildlife Warden (CWLW), Government of Gujarat wrote to the Member Secretary, CZA vide letter dated 23<sup>rd</sup> Jan 2019 requesting for the establishment of GZRRC at Jamnagar as it will strengthen the state's effort in conservation, education and awareness of wildlife in general and especially of Gujarat. The CWLW also mentioned that in view of the infrastructure, financial and organization strength of the agency, he recommends the grant of approval to the proposed GZRRC at Jamnagar in accordance with the CZA guidelines. On 14 Feb 2019, CZA granted approval for the establishment under section 38 H (1A) of the Wildlife Protection Act, 1972 for the establishment of GZRRC subject to certain conditions. CZA evaluated GZRRC facilities on 8<sup>th</sup> August 2020 and the recognition was granted on 17<sup>th</sup> August 2020 and is valid until 16<sup>th</sup> August 2023. On 10<sup>th</sup> March 2021, Greens Zoological Rescue and Rehabilitation Centre Society (GZRRCs) was registered Societies Registration Act, 1860. Since then, the GZRRCs has been looking after the day-to-day operation of the GZRRC.

## **3. Mission:**

The Greens Zoological Rescue and Rehabilitation Centre is committed to saving species by uniting our expertise in animal care and conservation science with our dedication in inspiring passion for nature through best practices of management and bringing education and awareness among people.

## **4. Vision:**

For the establishment of the Greens Zoological, Rescue and Rehabilitation Centre, the following vision has been outlined:

- (i) The Greens Zoological, Rescue and Rehabilitation Centre aims at making the facility as International standards following the modern trend of design as open, naturalistic, and eco-friendly Zoo. No activity would be undertaken by the Greens Zoological, Rescue and Rehabilitation Centre that disturbs the natural landscape of the area. The design of animal enclosures and the support infrastructure would be such that they can merge fully in the environment of the Greens Zoological, Rescue and Rehabilitation Centre.

- (ii) The Greens Zoological, Rescue and Rehabilitation Centre shall house only such species, which can be provided quality life of adequate longevity so that they can breed and lead to self-sustaining and genetically and behaviorally viable population at the zoo.
- (iii) The Greens Zoological, Rescue and Rehabilitation Centre shall maintain highest standards of educative signage and interpretation facilities at the animal enclosures to enable the visitors in having a rewarding experience at the zoo.
- (iv) Greens Zoological, Rescue and Rehabilitation Centre shall endeavor to maintain and enhance the naturalistic and aesthetic value of the area.

## 5. Objective

The objective of establishing this Greens Zoological, Rescue and Rehabilitation Centre is to provide a safe, natural, unpolluted, undisturbed and ambient space for animals and animals which shall come as injured, orphaned, or rescued or due to man-animal conflict or by way of exchange from zoos or as surplus from other zoos.

- The Main objective of establishing this Greens Zoological, Rescue and Rehabilitation Centre is to complement and strengthens the national efforts in conservation of the rich biodiversity of the country.
- Greens Zoological, Rescue and Rehabilitation Centre aims to conserve endangered species by breeding, increase healthy population by rehabilitating them back in the wild.
- Providing opportunities for scientific studies useful for conservation of wildlife and creation of database for sharing between the state and central government.
- To collect and collate the scientific data on the biology, behavior and healthcare of various species of wild animals housed at the Greens Zoological, Rescue and Rehabilitation Centre and use the same in future management of the Greens Zoological, Rescue & Rehabilitation Centre . These data will also help in wildlife management.
- To create among the visitors' compassion towards wild animals through better understanding of the linkages of long term survivals of various species of wild animals to availability of fertile soil, potable drinking water and pollution free environment
- To assist in conservation of various species of wild animals and their habitat by sensitizing the people about the benefits of adopting sustainable life styles.
- To provide the opportunities to the public to see the wild animals' close quarters, so the Greens Zoological, Rescue and Rehabilitation Centre will have a sensational value not only for general public but for children also. This will certainly bring the happiness movement in their life.
- Greens Zoological, Rescue and Rehabilitation Centre will act as a Rescue center for orphaned/ Seized/ Accidental/ injured/ imprinted from human habitation, wild animals. Rescue animal will be released in the wild as soon as possible after treatment.
- To educate and aware zoo visitors for conservation, protection and to explain them their role in balancing the Eco-System.

- To provide rescue facility to injured wild animals through best veterinary services.
- To provide shelter to the animals which have strayed out of their habitat and cannot be released back in the wild.
- Conservation breeding of endangered species of wild animals, available within central highlands of India.
- To provide housing and upkeep to the orphaned animals of endangered of species rescued from the wild.

The proposed Greens Zoological, Rescue and Rehabilitation Centre will provide an opportunity to strengthen the initiatives taken for conservation of rich bio diversity of the state.

## 6. About us

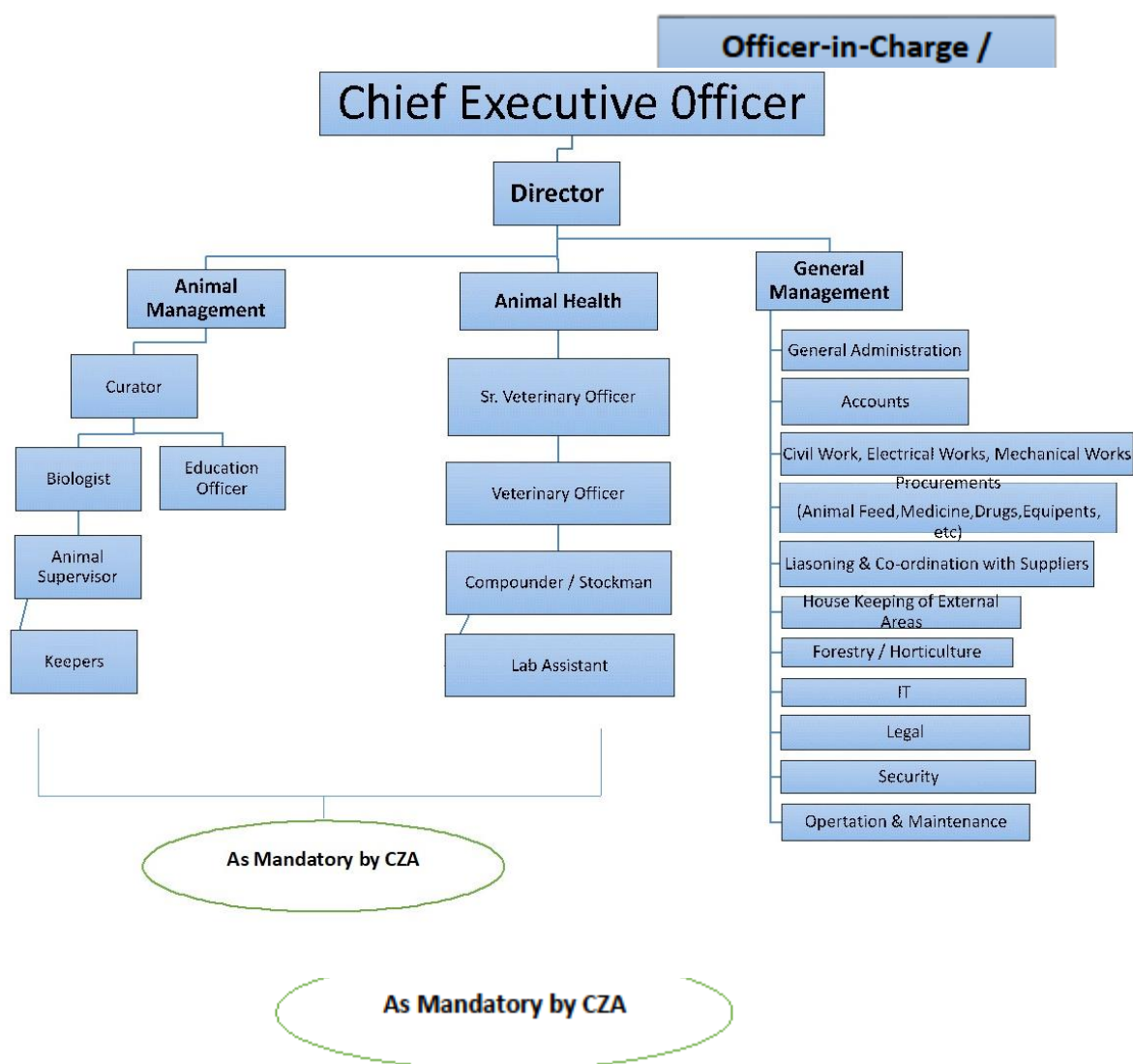
### About the GZRRC:

Sl .No.	Particulars	Information
<b>Basic Information about the Zoo</b>		
1	Name of the Zoo	Greens Zoological, Rescue and Rehabilitation Centre
2	Year of Establishment	2019
3	Address of the Zoo	Greens Zoological, Rescue and Rehabilitation Centre SSO, A5, Village Moti Khavdi District Jamnagar, Gujarat 361 142
4	State	Gujarat
5	Telephone Number	0288-3519890
6	Fax Number	-
7	E-mail address	<a href="mailto:gzrrc@outlook.com">gzrrc@outlook.com</a>
8	Website	-
9	Distance from nearest	Jamnagar Airport: 24 km
		Jamnagar Railway Station: 30.4

Sl .No.	Particulars	Information
		Bus Stand: 30 Km
10	Recognition Valid upto (Date)	16-08-2023
11	Category of zoo	Mini Zoo
12	Area (in Hectares)	171.97
13	Number of Visitors (Financial Year)	Adult : NA
		Children : NA
		Total Indian : NA
		Total Foreigners : NA
		Total Visitors: NA
14	Visitors' Facilities Available in Zoo	NA
15	Weekly Closure Day of the Zoo	NA
<b>Management Personnel of the zoo</b>		
16	Name with designation of the Officer in-charge	Dr. Brij Kishor Gupta
	Name of the Veterinary Officer	Dr. Navnath Nighot
	Name of the Curator	Mr. Ajay Kartik
	Name of the Biologist	Dr. Akshaya Mane
	Name of the Education Officer	-
	Name of the Compounder/ Lab Assistant	-
<b>Owner / Operator of the Zoo</b>		
17	*Name of the Operator	Greens Zoological Rescue and Rehabilitation Centre Society

Sl .No.	Particulars	Information
18	Address of the Operator	Greens Zoological Rescue and Rehabilitation Centre Society, "Vraj", Paldi, Ahmedabad, Gujarat, India - 380007
19	Contact details/Phone number of Operator	0288-3519890
20	E-mail address of Operator	gzrrc@outlook.com

## 7. Organization Chart



**8. Present Human Resource for the Management of the Satellite Rescue Centre and GZRRC:**

Sl. No.	Designation	Number of Sanctioned Posts	Names of the incumbent
1.	Chief Executive Officer	1	Mr. Vivaan Karani
2.	Director	1	Dr. Brij Kishor Gupta
3.	Facility Manager	1	Mr. Naman Hitesh Dani
4.	Senior Veterinary Doctor	1	Dr. Navnath Keshav Nighot
5.	Veterinary Doctor	1	Dr. Ajay Deshmukh
6.	Curator (Reptiles)		Mr. Ajay Kartik
7.	Biologist	1	Dr. Akshaya Mane
8.	Control Room Operator	1	Mr. Vipin Singh Pathania
9.	Control Room Operator		Mr. Balbir Singh
10.	Supervisor	2	Mr. Ashok Modaram Dewasi, Mr. Avinash Biju Chhetri
11.	Animal Keeper	16	Mr. Ravishankar S Tiwari, Mr. Gopal Bhausahab Deshmukh, Mr. Chandrakant Dhondu Kokane, Mr. Pankaj Rathin Barman, Mr. Kumar Dhanbahadur Chhetri, Mr. Hem Kumar R Mahapatra, Mr. Dinesh Shankarrao Pawar, Mr. Sitaram Ramdash Pal, Mr. Sohit Binod Pahari, Mr. Sujit Pahari Binod, Mr. Shiv Kumar Dhan Bdr Gurung, Mr. Rakesh Fanindra Karjee, Mr. Ketan Naresh Jadhav, Mr. Rinku Prafull Roy, Mr. Rajesh Kumar Mangal Singh, Mr. Surajbhan Chotte Lal Yadav

**9. Capacity Building for the Satellite Rescue Centre Personnel**

The following staff of the Satellite Rescue Centre had participated in the various training programmes conducted by the CZA and Zoos



<b>Sl. No.</b>	<b>Name and designation of the Rescue Centre personnel</b>	<b>Subject matter of Training</b>	<b>Period of Training</b>	<b>Name of the Institution where the Training attended</b>
1	Dr. Navnath Keshav Nighot	Refresher training on wildlife health management for veterinary health professionals organized by CZA	23.02.2021 to 25.02.2021	Central Zoo Authority, New Delhi.
2	Dr. Ajay Deshmukh	Refresher training on wildlife health management for veterinary health professionals organized by CZA	23.02.2021 to 25.02.2021	Central Zoo Authority, New Delhi.
3	Mr. Avinash Chhetri	13 <sup>th</sup> Animal Keepers Training Programme of CZA	14.02.2021 to 18.02.2021	Kamla Nehru Zoological Garden, Ahmedabad
4	Mr. Sujit Pahari	13 <sup>th</sup> Animal Keepers Training Programme of CZA	14.02.2021 to 18.02.2021	Kamla Nehru Zoological Garden, Ahmedabad
5	Mr. Sitaram Pal	13 <sup>th</sup> Animal Keepers Training Programme of CZA	14.02.2021 to 18.02.2021	Kamla Nehru Zoological Garden, Ahmedabad
6	Mr. Sohit Pahari	13 <sup>th</sup> Animal Keepers Training of CZA Programme	14.02.2021 to 18.02.2021	Kamla Nehru Zoological Garden, Ahmedabad
7	Mr. Chandrakant Kokane	13 <sup>th</sup> Animal Keepers Training Programme of CZA	14.02.2021 to 18.02.2021	Kamla Nehru Zoological Garden, Ahmedabad
8	Mr. Ravi Shankar Tiwari	13 <sup>th</sup> Animal Keepers	14.02.2021 to 18.02.2021	Kamla Nehru Zoological

		Training Programme of CZA		Garden, Ahmedabad
9	Mr. Gopal B. Deshmukh	13 <sup>th</sup> Animal Keepers Training Programme of CZA	14.02.2021 to 18.02.2021	Kamla Nehru Zoological Garden, Ahmedabad
10	Mr. Hem Kumar Mohapatra	13 <sup>th</sup> Animal Keepers Training Programme of CZA	14.02.2021 to 18.02.2021	Kamla Nehru Zoological Garden, Ahmedabad
11	Mr. Dinesh Pawar	13 <sup>th</sup> Animal Keepers Training Programme of CZA	14.02.2021 to 18.02.2021	Kamla Nehru Zoological Garden, Ahmedabad
12	Mr. Shiv Kumar Gurung	National Zoo Keepers Training on Captive Management of Reptile organized by CZA	15.03.2021 to 17.03.2021	Indira Gandhi Zoological Park, Visakhapatnam
13	Mr. Rakesh Karjee	National Zoo Keepers Training on Captive Management of Reptile organized by CZA	15.03.2021 to 17.03.2021	Indira Gandhi Zoological Park, Visakhapatnam

## 10. Zoo Advisory Committee

The following members are part of the committee.

1. Dr. Brij Kishor Gupta, Director, GZRRC
2. Dr. Riyaz Kadivar, Veterinary Officer, Sakkarbaug Zoological Park
3. Dr Navnath Nigot, Senior Veterinary Doctor, GZRRC
4. Dr Ajay Deshmukh, Veterinary Doctor, GZRRC
5. Dr. Boon Allwin, Veterinary Doctor, Khodiyar Animal Welfare Trust

## 11. Health Advisory Committee

The following members are part of the committee.

1. Dr. Brij Kishor Gupta, Director, GZRRC
2. Dr. Riyaz Kadivar, Veterinary Officer, Sakkarbaug Zoological Park

3. Dr Navnath Nigot, Senior Veterinary Doctor, GZRRC
4. Dr Ajay Deshmukh, Veterinary Doctor, GZRRC
5. Dr. Boon Allwin, Veterinary Doctor, Khodiyar Animal Welfare Trust

## 12. Statement of Income and Expenditure of the Zoo

Income (Rs.): 0 Expense (Rs.): 188 Crores (Construction cost towards Rescue, Rehabilitation Centre and Quarantine)

## 13. Daily Feed Schedule of the Animals.

- The large carnivores is fasted one day in a week.
- The meat is rinsed in a solution of Potassium permanganate (One pinch of potassium permanganate in one litre of water) or 60 ° C hot water.
- Multi vitamin, Calcium and Taurine is added in the feed on daily basis.

## 14. Vaccination Schedule of the Animals

Sl. No.	Species	Disease vaccinated for	Name of the Vaccine and Dosage / quantity used	Periodicity	Remarks
1.	Leopard- Cub	Feline Rhinotracheitis, Calici and Panleucopenia Virus	Feligen CRP 1 ml- S/C	At the age of 6-8 week	Booster dose- After 4 week of first dose
		Feline Rhinotracheitis, Calici and Panleucopenia Virus	Feligen CRP 1 ml – S/C	At the age of 12 week	Booster dose- Annually
		Rabies (Anti-rabies)	Rabigen mono / Nobivac R/ Rabisin 1 ml – S/C	At the age of 14 week	Booster dose- Annually
2.	Leopard - Adult	Feline Rhinotracheitis, Calici and Panleucopenia Virus	Feligen CRP 1 ml – S/C	Annually September/ October	Booster dose- Annually
		Rabies (Anti rabies)	Rabigen mono/ Nobivac R/ Rabisin	Annually September/ October	Booster dose- Annually

			1 ml – S/C		
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### 15. De-worming Schedule of the Animals

Sl. No.	Species	Drug used	Periodicity	Month
1.	Leopard ( <i>Panthera pardus</i> )	Tab.Prazisam @ 1 Tab/ Kg B.W/Animal	03 months	May
		Tab.Drontal plus @1 tab/kg B.W/Animal	03 months	September
		Tab.Kioff XL@1 tab/40 Kg B. W./ Animal	03 months	December
		Tab.Kioff XL@1 tab/40 Kg B. W./ Animal	03 months	March

### 16. Disinfection Schedule

Sl. No.	Species	Type of enclosure	Disinfectant used and method	Frequency of disinfection
1.	Leopard	Night cell	Liq. Kohrsoline TH 2 ml / Lit of water, Rinsing	Daily
			Pow. Vircon S 2 % solution, Spray	Once in Week
2.	Leopard	Keeper Gallery / Room	Liq. Kohrsoline TH 2 ml / Lit of water, Rinsing	Daily
3.		Hospital	Liq. Kohrsoline TH 2 ml / Lit of water, Rinsing	Daily
			Pow. Vircon S 2 % solution, Spray	Once in Week
4.		Operation Theater	35 mL of formalin (40 percent formaldehyde) + 10 gm potassium permanganate per cubic metre of space, Fumigation	Fortnight
			Liq. Kohrsoline TH 2 ml / Lit of water, Rinsing	Daily
			Pow. Vircon S 2 % solution, Spray	Once in Week
5	Animal Feed Room	35 mL of formalin (40 percent formaldehyde) + 10 gm potassium permanganate per cubic metre of space, Fumigation	Fortnight	

			Liq. Kohrsoline TH 2 ml / Lit of water , Rinsing	Daily
			Pow. Vircon S 2 % solution, Spray	Once in Week
6	Post mortem room		Liq. Kohrsoline TH 2 ml / Lit of water , Rinsing	Daily
			Pow. Vircon S 2 % solution, Spray	Alternate day
			35 mL of formalin (40 percent formaldehyde) + 10 gm potassium permanganate per cubic metre of space.	After every post mortem
7	Garbage Room		Liq. Kohrsoline TH 2 ml / Lit of water, Rinsing	Daily basis after removal of garbage.
			Pow. Vircon S 2 % solution, Spray	Alternate day
			35 mL of formalin (40 percent formaldehyde) + 10 g potassium permanganate per cubic metre of space, Fumigation	Fortnight
8	Foot Bath		Liq. Kohrsoline TH 2 ml / Lit of water as foot dip solution.	Cleaning foot bath on daily basis
9	Passage Area between Paddocks/ Inner circular Road / Outer circular Road		Pow. Vircon S 2 % in water, Spray	Daily basis - evening

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

Sl. No.	Name	Designation	Date of Health Check up	Findings of Health Check up
1.	Dr. Navnath Keshav Nighot	Senior Veterinary Doctor	19.12.2020	Normal Health
2.	Dr. Ajay Bhaurao Deshmukh	Veterinary Doctor	19.12.2020	Normal Health
3.	Dr. Akshaya Mohan Mane	Biologist	19.12.2020	Normal Health
4.	Mr. Avinash Biju Chhetri	Supervisor	19.12.2020	Normal Health

5.	Mr. Dinesh Shankarrao Pawar	Animal Keeper	19.12.2020	Normal Health
6.	Mr. Hem Kumar Ramesh Mahapatra	Animal Keeper	19.12.2020	Normal Health
7.	Mr. Pankaj Rathin Barman	Animal Keeper	19.02.2020	Normal Health
8.	Mr. Omkar Santosh Ghatge	Animal Keeper	19.12.2020	Normal Health
9.	Mr. Chandrakant Dhondu Kokane	Animal Keeper	19.12.2020	Normal Health
10.	Mr Kumar Danbahadur Chhetri	Animal Keeper	19.12.2020	Normal Health
11.	Mr. Gopal Bhausaheb Deshamukh	Animal Keeper	19.12.2020	Normal Health
12.	Mr. Ravishankar Shyamsundar Tiwari	Animal Keeper	19.12.2020	Normal Health
13.	Mr. Naman Hitesh Dani	Facility Manager	19.12.2020	Normal Health
14.	Mr. Ajay Kartick	Curator, Reptiles	19.12.2020	Normal Health
15.	Mr. Ashok Modaram Dewasi	Animal Keeper	19.12.2020	Normal Health
16.	Mr, Sitaram Ramdash Pal	Animal Keeper	19.12.2020	Normal Health
17.	Mr. Sohiti Binod Pahari	Animal Keeper	19.12.2020	Normal Health
18.	Mr. Sujit Pahari Binod	Animal Keeper	19.12.2020	Normal Health
19.	Mr. Shiv Kumar Dhan Bdr Gurung	Animal Keeper	19.12.2020	Normal Health
20.	Mr, Rakesh Fanindra Karjee	Animal Keeper	19.12.2020	Normal Health
21.	Mr. Ketan Naresh Jadhav	Animal Keeper	19.12.2020	Normal Health
22.	Mr. Rinku Prafull Roy	Animal Keeper	19.12.2020	Normal Health
23.	Mr. Rajesh Kumar Mangal Singh	Animal Keeper	19.12.2020	Normal Health
24.	Mr. Surajbhan Chotte Lal Yadav	Animal Keeper	19.12.2020	Normal Health

#### 18. Development Works carried out in the Rescue Centre during the year

We are in the process of extending the rescue centre to be able to give care to more animals.

## 19. Education and Awareness programmes during the year

Since Zoo is not functional yet, we have not conducted any educational or awareness programmes.

## 20. Important Events and happenings

Sl. no.	Date	Training Events (Topic)
1	21.12.2021	"Training on Fire Management"
2	01.01.2021	"Care and Health safety Management of rescue and rehabilitation centre"
3	01.02.2021	"Mock drill - Fire Management"
4	07.02.2021	"Keeper role at rescue and rehabilitation centre"
5	01.07.2021	"Training on PCR – Positive Reinforcement Training to facility leopards"
6	12.09.2021	" Handle Restraining Devices"

## 21. Seasonal Special Arrangement for Upkeep of the Animals

### Monsoon Season Plan

1. Deworming of all leopards to be done before Monsoon.
2. In Rainy and monsoon season, maintain Night Enclosure temperature and humidity.
3. Change diet of individual animals according to extreme cold and heavy rain.
4. Provide extra wooden platform and logs in enclosures.
5. Close observation of cub and older animals.
6. Proper drainage and rectification to avoid water stagnation in and around enclosures.
7. Check the roof water seepage to avoid fungal growth.
8. Provide proper adlib drinking water and food during rain.
9. Arrangement of one-week advance storage food during the heavy rainy days and check the quality on daily basis before feeding the animals.
10. Check the water and food sample at every 15-day intervals.
11. Close observation of individual leopards particularly during this season.
12. Close behavior observation of all leopards.
13. To check and apply sanitization protocol to each enclosures to avoid infection.

### Summer Season Plan

1. Provide Foggers system at paddock area to cool effect during extreme hot condition.
2. Provide adlib drinking water in enclosure.
3. Night enclosure provide HVAC system for animals to maintain appropriate temperature according the situation.
4. Arrangement of four industrial water cooler in stand by position.
5. Deworming of all leopards done before summer.
6. To check the water and food sample at every 15-day intervals.

7. Provide sitting platform at paddock area on height to cool effect of air.
8. Add electrolyte powder to drinking water to avoid dehydration of animals.
9. Add supplement in food to avoid dehydration.
10. Change diet of individual animals according to extreme heat condition.

### Winter Season Plan

1. Deworming of all leopards done before winter season.
2. Arrangement of room heater in stand by position.
3. Provide grass bedding to corner of enclosure to warm the animals.
4. Provide wooden platform and logs to sit and sleep arrangement for animals.
5. Change diet of individual animals according to extreme cold.
6. Maintain Night Enclosure temperature and humidity to avoid coldness.

### 22. Research Work carried out and publications

1. Collected baseline data of blood values of captive leopards.
2. Research work carried out on endoparasites and ecto parasites of leopard in seasonal changes.
3. Research work carried out on behavioral changes through various enrichments.
4. Observation on some reproductive traits and behavior during estrus period in captive leopards.

### 23. Conservation Breeding Programme of the Zoo

At present nil.

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

A	Animals arriving in the Zoo				
	SI.NO.	Species	Number (M:F)	From which Zoo	Date of arrival in the zoo
	1	Leopard ( <i>Panthera pardus</i> )	3:9	Gujarat/Sakkarbaug Zoo, Junagadh	26.11.2020
	2	Leopard ( <i>Panthera pardus</i> )	4:8	Gujarat/Sakkarbaug Zoo, Junagadh	29.11.2020
	3	Leopard ( <i>Panthera pardus</i> )	8:2	Gujarat/Sakkarbaug Zoo, Junagadh	02.12.2020
	4	Leopard ( <i>Panthera pardus</i> )	7:3	Gujarat/Sakkarbaug Zoo, Junagadh	05.12.2020



	5	Leopard ( <i>Panthera pardus</i> )	6:6	Gujarat/Sakkarbaug Zoo, Junagadh	23.12.2020
	6	Leopard ( <i>Panthera pardus</i> )	3:1	Gujarat/Sakkarbaug Zoo, Junagadh	26.12.2020
	7	Leopard ( <i>Panthera pardus</i> )	1:1	Assam/Assam State Zoo, Guwahati	16.01.2021
<b>Animals going from the zoo</b>					
<b>B</b>	<b>SI.NO.</b>	<b>Species</b>	<b>Number (M:F)</b>	<b>From which Zoo</b>	<b>Date of arrival in the zoo</b>
		Nil			

## 25. Rescue and Rehabilitation of Wild Animals

No animal has been rehabilitated in the wild during the reporting period.

## 26. Annual Inventory of animals & Mortality of Animals

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

Inventory Report for the Year: 2020-21

Endangered Species\*

S . N o.	Animal Name	Scientific Name	Opening Stock as on 01.04.2 020				Birth			Acquisitio ns			Disposals			Deaths			Closing Stock as on 31.03.2020						
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T			
1.	Leopard	<i>Panthera pardus</i>	0	0	0	0	4	2		32	30	0	0	0	0	0	0	0	0	0	0	36	32	0	68

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

## 27. Mortality of Animals

- Mortality not reported in Year 2020-21.

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

Sr. No	Norm No.	Particulars of suggestions/recommendation	Time Period to Comply	Status with regard to compliance of the conditions
1.	9 (2.0)	Keeping in view of the available large housing space at the Satellite	With Immediate Effect	As approved by the CWLW, Gujarat, at present we are

		Rescue Centre of Greens Zoological Rescue & Rehabilitation Centre shall keep up to 52 Nos. of Leopards		housing 66 (36:32) Nos. of Leopards
2.	10 (2.2)	The Zoo & Rescue Centre Operator should appoint an Education Officer before the zoo is opened to public.	Once the Zoo is opened, the Zoo Operator should the Education Officer.	As Zoo is not yet opened, the appointment of Education Officer does not arise; however, the GZRRC will appoint Education Officer once we open the Zoo.
3.	10 (3.1)	A master plan for the long-term development of the Zoo & Rescue Centre should be prepared and submitted to CZA for its approval.	One year	The Master Plan document will be submitted soon.
4.	10 (3.51)	The rescued animals to be housed at Rescue Centre should have prior approval from the CWLW, Gujarat.	With Immediate Effect	Complied. Approvals have been obtained for all the Leopards from CWLW, Gujarat.
5.	10 (5.1h)	Provision of footbath of adequate size with proper disinfectant at entry and exit points of animal house should be provided.	With Immediate Effect	Complied Every enclosures entry and exit points have been provided with foot bath of adequate size with proper disinfectant.
6.	10 (5.1i)	Indoor exhibits should have provision of ventilation in case the failure of air cooling system	With Immediate Effect	Complied At GZRRC we have made arrangements to keep the door open always connecting the night house to the paddock. We also have placed door with grill at all animal night houses, which allows good air circulation
7.	10 (5.2)3	The Rescue Centre should have appropriate storage for meat, in case there is law and order problem in the city or pandemics like COVID-19.	With Immediate Effect	Complied The GZRRC has built a deep freezer room, where we are able to maintain -70 degree Celsius of temperature and with the capacity to store approximately 2000 kg of meat. The meat is stored presently as per the facility requirement.
8.	10 (5.2)6	The Zoo/Rescue Centre Operator should take up the random food and water	Six Months	Complied At GZRRC, random food and water samples are being tested

		samples being tested periodically for microbiological, toxicological and any other contaminants at recognized laboratory		periodically for microbiological, toxicological and any other contaminants.
9.	10 (5.3) 3	All animal arriving at the Rescue Centre should be screened for parasitic loads as per written schedule prepared by the veterinary officer and prophylactic medicines administered as per clinical requirements and vaccination of animals against infectious diseases are done, as per the schedule prescribed by the Veterinary Officer.	One year	Complied All animals housed at the Rescue Centre are screened for parasitic load as of prescribed by the Veterinary Officer.
10.	10 (5.3) 4	The Zoo/Rescue Centre should have written schedule of vaccination and de-worming of different species of the zoo animals and displayed at the enclosure site.	With Immediate Effect	Complied The Satellite facility has written schedule of vaccination and de-worming of the animals housed.
11.	10 (5.3) 5	The Veterinary Officer at the Zoo/ Rescue Centre should maintain detailed records of observations of biological and social behaviour and health status of the animals including feed intake, medication and treatment provided in the keeper's diary, daily reports, animal history cards and treatment cards, as per standards specified by the Central Zoo Authority.	With Immediate Effect	Complied Detailed records of observations of biological and social behaviour and health status of the animals including feed intake, medication and treatment maintained in the keeper's diary, daily reports, animal history cards and treatment cards, as per standards specified by the Central Zoo Authority.
12.	10(5.3) 6	Are all staff involved with upkeep and healthcare of zoo animals screened against zoonotic diseases once every year and those found positive to any communicable disease are provided appropriate	With Immediate Effect	Complied All staff involved with upkeep and healthcare of Rescue Centre. Animals screened against zoonotic diseases and their records are to be maintained.

		treatment till they get cured and become free of the infection and during the period of such treatment, the infected employees are kept away from the responsibility of upkeep and healthcare of the animals		
13.	10 (5.3)8 10 (6.4)	The Zoo/Rescue Centre should have formal linkages through a MoU on healthcare, preventive, health management, surgical interventions, clinical tests, disease diagnosis and consultation in treatment and management during the period of convalescence, with some Veterinary University/Institution.	One Year	The Rescue Centre has initiated the process for formal linkage with a group of Veterinarians on health management.
14.	10 (6.2) 1	The Zoo/Rescue Centre should have appropriate animal restraint equipment, accessories and drugs.	With Immediate Effect	Complied  The facility has following animal restraining equipment: <ul style="list-style-type: none"> <li>• Pneu-dart X-Caliber Gauged CO2 syringe projector</li> <li>• Pneu-dart X-Caliber Gauged CO2 projector</li> <li>• Dan Inject Co2 syringe projector DK 2021 11597JM</li> <li>• Dan Inject JM model-single barrel</li> <li>• Pneudart G2 X-Caliber</li> <li>• Dan inject 12 mm blow pipe</li> </ul>
15.	10 (6.3)	The Zoo/Rescue Centre should appoint support staff (Lab Assistant & Compounder) as specified by the CZA.	Three Months	The Rescue Centre has initiated the process of the appointment of the support staff (Lab Assistant & Compounder).
16.	10 (8.1)	The Zoo/Rescue Centre should not euthanize any animal unless doing so is essential for relieving from suffering from incurable	With Immediate Effect	Noted, no animals has been euthanized so far at the GZRRC.

		disease /condition as per the norms of CZA.		
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**29. List of free living wild animals within the zoo premises**

S. No.	Common Name	Scientific Name	Status in the Wild Life (Protection) Act, 1972
	<b>Mammals</b>		
1	Indian Grey Mongoose	<i>Herpestes edwardsii</i>	Schedule II
2	Indian Palm squirrel	<i>Funambulus palmarum</i>	Schedule IV
3	Indian Porcupine	<i>Hystrix indica</i>	Schedule III
4	Nilgai	<i>Boselaphus tragocamelus</i>	Schedule III
5	Black naped hare	<i>Lepus nigricollis</i>	Schedule IV
6	Wild Boar	<i>Sus scrofa cristatus</i>	Schedule III
7	Golden Jackal	<i>Canis aureus</i>	Schedule II
	<b>Birds</b>		
1	Asian koel	<i>Eudynamys scolopaceus</i>	Schedule IV
2	Asian Palm Swift	<i>Cypsiurus balasiensis</i>	Schedule IV
3	Black Drongo	<i>Dicrurus macrocercus</i>	Schedule IV
4	Black Ibis	<i>Pseudibis papillosa</i>	Schedule IV
5	Black Kite	<i>Milvus migrans</i>	Schedule IV
6	Black winged stilt	<i>Himantopus himantopus</i>	Schedule IV
7	Blue-tailed Bee-eater	<i>Merops philippinus</i>	Schedule IV
8	Cattle Egret	<i>Bubulcus ibis</i>	Schedule IV
9	Comb duck	<i>Sarkidiornis melanotos</i>	Schedule IV
10	Common Babbler	<i>Turdoides caudatus</i>	Schedule IV

11	Common Crow	<i>Corvus splendens</i>	Schedule V
12	Common Kingfisher	<i>Alcedo atthis</i>	Schedule IV
13	Common Myna	<i>Acridotheres tristis</i>	Schedule IV
14	Common Sand Piper	<i>Actitis hypoleucas</i>	Schedule IV
15	Common Swift	<i>Apus apus</i>	Schedule IV
16	Green bee eater	<i>Merops orientalis</i>	Schedule IV
17	Grey heron	<i>Ardea cinerea</i>	Schedule IV
18	House Sparrow	<i>Passer domesticus</i>	Schedule IV
19	Indian bush lark	<i>Mirafra erythroptera</i>	Schedule IV
20	Indian cormorant	<i>Phalacrocorax fuscicollis</i>	Schedule IV
21	Indian Peafowl	<i>Pavo cristatus</i>	Schedule-I
22	Indian Pond Heron	<i>Ardeola grayii</i>	Schedule IV
23	Indian Robin	<i>Saxicoloides fulicata</i>	Schedule IV
24	Indian Roller	<i>Coracias benghalensis</i>	Schedule IV
25	Painted stork	<i>Mycteria leucocephala</i>	Schedule IV
26	Pigeon	<i>Columba livia</i>	Schedule IV
27	Purple-rumped Sunbird	<i>Nectarinia zeylonica</i>	Schedule IV
28	Red Wattled Lawping	<i>Vanellus indicus</i>	Schedule IV
29	Red-vented Bulbul	<i>Pycnonotus cafer</i>	Schedule IV
30	Rock Bush Quail	<i>Perdica argoondah</i>	Schedule IV
31	Rosy pelican	<i>Pelecanus onocrotalus</i>	Schedule IV
32	Rose Ringed Parakeet	<i>Psittacula krameri</i>	Schedule IV
33	Rufus treepie	<i>Dendrocitta vagabunda</i>	Schedule IV
34	Shikra	<i>Accipiter badius</i>	Schedule I
35	Spot billed duck	<i>Anas poecilorhyncha</i>	Schedule IV
36	Spotted Dove	<i>Streptopelia chinensis</i>	Schedule IV
37	Western reef egret	<i>Egretta gularis</i>	Schedule IV
38	White bellied swiftlet	<i>Collocalia esculenta</i>	Schedule IV
39	White Wagtail	<i>Motacilla alba</i>	Schedule IV

40	Yellow-wattled Lapwing	<i>Vanellus malarbaricus</i>	Schedule IV
	<b>Reptiles</b>		
1	Common Krait	<i>Bungarus caeruleus</i>	Schedule IV
2	Common skink	<i>Mabuya carinata</i>	-
3	Garden lizard	<i>Calotes versicolor</i>	-
4	Rat snake	<i>Ptyas mucosus</i>	Schedule II
5	Russell's Viper	<i>Vipera russelli</i>	Schedule II
6	Spectacled cobra	<i>Naja naja</i>	Schedule II
7	<i>Sawscaled viper</i>	<i>Echis carinatus</i>	Schedule IV
	<b>Amphibians</b>		
1	Common Indian toad	<i>Bufo melanostictus</i>	IV
2	Common Frog	<i>Hoplobatrachus tigrinus</i>	IV
	<b>Butterflies</b>		
1	Blue tiger	<i>Tirumala limniacae</i>	-
2	Common grass dart	<i>Taractrocera maevius</i>	-
3	Common Mormon	<i>Papilio polytes</i>	-
4	Common sailor	<i>Neptis hylas</i>	-
5	Lemon pansy	<i>Junonia lemonias</i>	-
6	Yellow pansy	<i>Junonia hierta</i>	-
7	Damselflies		
8	Common Club tail -	<i>Ictinogomphus rapax</i>	-
9	Ground Skimmer	<i>Diplacodes trivialis</i>	-
10	Wandering Glider	<i>Pantala flavescens</i>	-
	<b>Dragonflies</b>		
1	Golden dartlet	<i>Ischnura aurora</i>	-
2	Yellow bush dart	<i>Copera marginipes</i>	-