

# INDRODA NATURE PARK ZOO

**2021-22**  
**Annual Report**



Submitted to  
**Central Zoo Authority**  
New Delhi



**Gujarat Ecological Education and Research (GEER) Foundation**

Indroda Nature Park, P. O. Sector-7, Gandhinagar - 382007, Gujarat, INDIA

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# 1. History of the Zoo

## INDRODA NATURE PARK (INP)

In pursuance of its objectives, Indroda Nature Park (INP), Gandhinagar initiated INP development works with the ecological insight, planning and management skills. From Mid 1970s, the Gujarat Forest Department had initiated plantation works in degraded Sabarmati River Banks as ravine reclamation works. Today, such afforestation has attained the shape of a dense forest. INP is now inhabited by a good number of birds, trees, shrubs, herbs, reptiles and mammals. The undulating terrain, with a background of a low-lying river provides for great scenic beauty.

Development of INP is aimed at imparting nature education to spread awareness about environmental conservation, providing opportunities of experiencing wilderness and protecting the rare and endangered species of animals and birds.

A **“Deer Park** was established by the Gujarat Forest Department during the year 1978. Later a snake park, crocodile pits and tortoise pits were developed in 1980. After the establishment of the GEER Foundation and its Indroda Nature Park, it was decided that the INP will have initially a Small and subsequently a Medium category Zoo. Accordingly, various existing animal enclosures were grouped as the INP Zoo Section of Western Part of the Park. The INP Zoo was, recognized as a Medium Zoo, by the Central Zoo Authority on 20/02/97. During the Year 2006-07, it was decided to extent INP Zoo area to the East Bank by creating Safari Park.

## 2. Vision:

*“Indroda Nature Park Zoo to be a part of overall Indroda Nature Park (West Bank & Aranya Udhyaan on East Bank) as a MEDIUM CATEGORY ZOO for the purposes of (i) Research, (ii) Captive conservation breeding and (iii) Education of general public for the subject of wild animals and their role in natural ecosystem”*

## 3. Mission

*“Participate in National Endeavour for conservation of threatened wild animals through captive conservation, captive breeding, research and education of general public”.*

## 4. Objectives

The main objective of the Indroda Nature Park (INP) Zoo, in accordance to the National Zoo Policy, 1998, is to complement and strengthen the National efforts in conservation of wild fauna.

Detailed objectives of the INP Zoo are as under:

**1. Conservation:**

*Ex-situ captive conservation of the protected wild animals to strengthen the national efforts in conservation of wild fauna.*

**2. Captive Conservation Breeding:**

*Captive conservation breeding of selected and prioritized wild ungulates for supporting in-situ conservation of these species and their associate fauna through participating in planned introduction, re-introduction and enrichment of wild ungulates in Protected Areas (PAs).*

**3. Research and studies:**

*Providing opportunities for scientific studies and research useful for conservation of wild animals in captivity.*

**4. Conservation Education and Awareness:**

*Providing opportunities to zoo visitors in order to (a) get inspiration for empathy towards wild animals, (b) learn, understand and be aware about the life cycle, habitat requirement and ecology of wild animals and (c) get inspired for holistic nature conservation.*

➤ **STRATEGY FOR ACHIEVING THE OBJECTIVES**

1. Indroda Nature Park will continue to provide natural environment including adequate natural environment sections in the INP Zoo Section of the Park in order to provide adequate opportunity to visitors to experience such natural environment.
2. INP Zoo will give priority to endangered species of wild animals in its Collection Plan and wild animals will be acquired and maintained as per the Collection Plan approved by the Central Zoo Authority (CZA).
3. INP Zoo will endeavour to modify old animal enclosures and construct new animal enclosures for providing better housing, upkeep, health care and any special requirements such as shelters, perches, withdrawal areas, wallow, drinking water etc. of wild animals. The INP Zoo will have two types of wild animal enclosures viz. (a) traditional modern enclosures where visitors can view wild animals from outside and (b) safari type [topsy-turvy zoo] Herbivores / Wild Ungulate Park in the Eastern Section of the INP Zoo wherein, visitors will be allowed in a highly regulated manner inside the Herbivores / Wild Ungulate Safari Park in appropriate Four-Wheel silent / less noisy vehicles.

4. The wild animals will be provided adequate space for their natural behaviour including their social & breeding requirements and protect them from adverse climate and visitor disturbance influences.
5. The INP Zoo will endeavour to provide for adequate nutrition in the form of proper diet and a veterinary health care. Overall hygiene and sanitation shall be maintained as measures for better health of animals and disease prevention.
6. The INP Zoo will endeavour to procure and maintain adequate breeding stock of wild ungulates including (a) Spotted Deer; (b) Sambar; (c) Black Buck; (d) Barking Deer, (e) Chinkara / Chinkara and (f) Chausingha for supporting captive conservation breeding at INP Zoo as well as at identified PAs.
7. The INP Zoo is a part of overall organization set up of the Gujarat Ecological Education and Research (GEER) Foundation, Gandhinagar. The primary / main objectives of the GEER Foundation are (a) Ecological Research and (b) Ecological Education. The GEER Foundation, as part of pursuing its primary / main objectives, shall endeavour to promote research in the INP Zoo with a focus on ecology and conservation of endangered species.
8. The GEER Foundation, as part of pursuing its primary / main objective of ecological education, shall endeavour to promote studies and education on the subjects of ecology and conservation of endangered species.
9. The INP Zoo will endeavour to modernize its signages to make it (a) appropriately informative and (b) compatible to the natural surroundings of the INP.
10. The INP Zoo will endeavour to provide adequate and suitable visitor amenities including (a) proper entry and walking foot paths in display areas; (b) drinking water and other services; (c) proper resting places; (d) directional signages; (e) passive interpretation service through an orientation centre / reception centre and (f) active interpretation service through recognized guides / nature educators.
11. The GEER Foundation will endeavour to maintain high standards of security and safety of the INP including INP Zoo as well as of the visitors visiting the INP and INP Zoo.

The overall strategy of INP Zoo Management will be to properly integrate it with the overall INP management, which has ongoing plans for development of other sections, in specially designated different areas, including Botanical Garden, Earth Exhibits, Fossil Exhibits, Dinosaur Park, Nature Education Camp Sites, etc.

## 5. About Us

### 5.1 Basic and administrative information

S.No.	Particulars	Information
<b>Basic Information about the Zoo</b>		
1	Name of the Zoo	<b>Indroda Nature Park Zoo</b>
2	Year of Establishment	<b>1978</b>
3	Address of the Zoo	<b>Indroda Nature Park, P.O. Sector-7, 'J' Road, Gandhinagar- 382007, Gujarat, India</b>
4	State	<b>Gujarat</b>
5	Telephone Number	<b>+91-7923977300, 23977311</b>
6	Fax Number	-
7	E-mail address	<a href="mailto:dir-geer@gujarat.gov.in">dir-geer@gujarat.gov.in</a> <a href="mailto:dydir-geer@gujarat.gov.in">dydir-geer@gujarat.gov.in</a>
8	Website	<b>www.geerfoundation.gujarat.gov.in</b>
9	Distance from nearest	Airport: <b>Ahmedabad</b> - 17 kms Railway Station: <b>Gandhinagar (W.R.)</b> - about 10 km; <b>Ahmedabad (W.R.)</b> - 30 kms Bus Stand: <b>Gandhinagar (Gujarat State Road Transport Corporation)</b> - about 4 km

<b>S.No.</b>	<b>Particulars</b>	<b>Information</b>																																																																										
10	Recognition Valid upto (Date)	<b>19/08/2022</b>																																																																										
11	Category of zoo	<b>Medium Zoo</b>																																																																										
12	Area (in Hectares)	<b>428 Hactares (157 ha- Western bank and 271 ha. - Eastern bank of river Sabarmati)</b>																																																																										
13	<p>Number of Visitors (2021-22):</p> <p>Indroda Nature Park attracts visitors from Gandhinagar and Ahmedabad city.</p> <p>Visitation of Indroda Nature Park is increasing day by day. The annual footfall of Indroda Nature Park zoo in the year 2021-22 remained 3.81 lakh visitors. Annual visitation shows decreasing pattern due to Covid-19 Pandemic and the park was closed between April to June as per the Government guidelines and directions.</p> <p>The detailed information about visitation is given in table below.</p> <table border="1"> <thead> <tr> <th><b>Sr. No.</b></th> <th><b>Month</b></th> <th><b>Adults</b></th> <th><b>Children</b></th> <th><b>Students</b></th> <th><b>Complimentary to the Divyangs and others</b></th> <th><b>Total</b></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>April-2021</td> <td>4586</td> <td>423</td> <td>00</td> <td>03</td> <td>5012</td> </tr> <tr> <td>2</td> <td>May- 2021</td> <td>00</td> <td>00</td> <td>00</td> <td>00</td> <td>00</td> </tr> <tr> <td>3</td> <td>June-2021</td> <td>5657</td> <td>667</td> <td>00</td> <td>02</td> <td>6326</td> </tr> <tr> <td>4</td> <td>July-2021</td> <td>15509</td> <td>1974</td> <td>00</td> <td>08</td> <td>17491</td> </tr> <tr> <td>5</td> <td>August-2021</td> <td>40672</td> <td>6061</td> <td>198</td> <td>63</td> <td>46994</td> </tr> <tr> <td>6</td> <td>September-2021</td> <td>30919</td> <td>3880</td> <td>360</td> <td>11</td> <td>35170</td> </tr> <tr> <td>7</td> <td>October-2021</td> <td>17670</td> <td>1887</td> <td>331</td> <td>50</td> <td>19938</td> </tr> <tr> <td>8</td> <td>November-2021</td> <td>73552</td> <td>13147</td> <td>316</td> <td>84</td> <td>87099</td> </tr> <tr> <td>9</td> <td>December-</td> <td>40569</td> <td>5278</td> <td>873</td> <td>26</td> <td>46746</td> </tr> </tbody> </table>						<b>Sr. No.</b>	<b>Month</b>	<b>Adults</b>	<b>Children</b>	<b>Students</b>	<b>Complimentary to the Divyangs and others</b>	<b>Total</b>	1	April-2021	4586	423	00	03	5012	2	May- 2021	00	00	00	00	00	3	June-2021	5657	667	00	02	6326	4	July-2021	15509	1974	00	08	17491	5	August-2021	40672	6061	198	63	46994	6	September-2021	30919	3880	360	11	35170	7	October-2021	17670	1887	331	50	19938	8	November-2021	73552	13147	316	84	87099	9	December-	40569	5278	873	26	46746
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		2021					
	10	January-2022	37462	4492	101	14	42069
	11	February-2022	30174	3523	525	21	34243
	12	March-2022	33604	4119	2212	17	39952
	<b>Total</b>	<b>2021-22</b>	330374	45451	4916	299	381040
14	Visitors' Facilities Available in Zoo			1) Drinking water kiosks at 3 different places 2) Toilet blocks at 3 different places 3) Souvenir shop 4) Resting areas, gardens and benches 5) First aid kits 6) Fruit kiosk			
15	Weekly Closure Day of the Zoo			The Zoo remains closed for visitors on Monday every week.			
<b>Management Personnel of the zoo</b>							
16	Name with designation of the Officer in-charge			<b>1) Shri U. D. Singh,</b> <b>Director, GEER Foundation</b>  <b>2) Shri V.N. Goswami,</b> <b>Dy. Director (R &amp;D), GEER Foundation</b>			
	Name of the Assistant Director			<b>Ms. Vibhaben Goswami</b>			
	Name of the Veterinary Officer			<b>Dr. Aniket B. Patel</b>			
	Name of the Curator			<b>Post of the curator is vacant the work of curator is being jointly carried out by the Park Warden (R.F.O.)- Mr. A.B. Theba &amp; Veterinary Officer - Dr.A.B.Patel</b>			
	Name of the Biologist			<b>Shri Sandeep Munjapara (i/c)</b>			



S.No.	Particulars	Information																								
	Name of the Education Officer	<b>Shri Alap Pandit (i/c)</b>																								
	Name of the Compounder/ Lab Assistant	<b>Shri Hitesh S. Desai</b>																								
<b>Owner / Operator of the Zoo</b>																										
17	*Name of the Operator	<b>Shri V.N. Goswami</b>																								
18	Address of the Operator	<b>Dy. Director (R &amp; D), GEER Foundation, Indroda Nature Park, P.O.-Sector-7, 'J' Road, Gandhinagar- 382007, Gujarat, India.</b>																								
19	Contact details/Phone number of Operator	<b>Phone: +91-79-23977302, +91-79-23977300</b>																								
20	E-mail address of Operator	<a href="mailto:dydir-geer@gujarat.gov.in"><b>dydir-geer@gujarat.gov.in</b></a>																								
21	Other Information  <b>Entry Fees</b>	<table border="1"> <thead> <tr> <th>Category</th> <th>Ticket Rates (INR)</th> </tr> </thead> <tbody> <tr> <td>Child below 5 years of age</td> <td>Free entry</td> </tr> <tr> <td>Child between 5-12 years of age</td> <td>15.00</td> </tr> <tr> <td>Person above 12 years of age</td> <td>30.00</td> </tr> <tr> <td>School and college students (on educational tour)</td> <td>08.00</td> </tr> <tr> <td>Physically challenged (Divyangs)</td> <td>Free entry</td> </tr> <tr> <td>Institutional/ general/ life members of GEER Foundation</td> <td>Free entry</td> </tr> <tr> <td>Two wheeler parking</td> <td>15.00</td> </tr> <tr> <td>Four wheeler parking</td> <td>30.00</td> </tr> <tr> <td>Heavy motor vehicles- bus, truck etc. (on educational tour)</td> <td>90.00</td> </tr> <tr> <td>Heavy motor vehicles- bus, truck etc.</td> <td>120.00</td> </tr> <tr> <td>Filming (up to four hours)</td> <td>6000.00</td> </tr> </tbody> </table>	Category	Ticket Rates (INR)	Child below 5 years of age	Free entry	Child between 5-12 years of age	15.00	Person above 12 years of age	30.00	School and college students (on educational tour)	08.00	Physically challenged (Divyangs)	Free entry	Institutional/ general/ life members of GEER Foundation	Free entry	Two wheeler parking	15.00	Four wheeler parking	30.00	Heavy motor vehicles- bus, truck etc. (on educational tour)	90.00	Heavy motor vehicles- bus, truck etc.	120.00	Filming (up to four hours)	6000.00
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S.No.	Particulars	Information	
	<b>Zoo Timings</b>	Filming (for more than four hours in a day)	12000.00
		08:00 Am to 05.30 pm	

## 5.2 Information pertaining to different sections of the INP:

### 5.2.1 INP Forest

The entire land of the park on the western bank of river Sabarmati supports over 1.33 lakhs indigenous trees, interspersed with several ornamental exotic trees. Over 136 species of trees have been recorded in the wilderness park.

### 5.2.2 Earth Section

In this section, exhibits of genesis of solar system and earth, geological evolution of earth and its continents, biogeography of the world, India and Gujarat are presented.

### 5.2.3 Dinosaur and Fossil Section

Gujarat boasts of having one among the most abundant of dinosaur hatcheries in the world at Rahioli in Kheda district. This unique natural history of occurrence of dinosaur eggs, bones, skin impressions etc. suggest a widespread presence of dinosaurs in ancient geological time. A Dinosaur & Fossil Section has been established at INP.

### 5.2.4 Botanical Garden

The Botanical Garden at INP has been developed to increase public awareness about plant science and medicinal plants. It aims at collecting, compiling, translating and publishing popular science works. At present, the Botanical Garden has a collection of about 800 plant species. It also provides a wonderful out-of-classroom experience for learning about plants to school students. It comprises of following 4 sections.

*Arboretum* is a collection of tree species, in the form of plantation with proper display of botanical details of the plant. There are 327 tree species identified in Gujarat state. The arboretum plot in the botanical garden is spread over an area of 2.5 ha. So far 250 tree species have been planted in this plot.

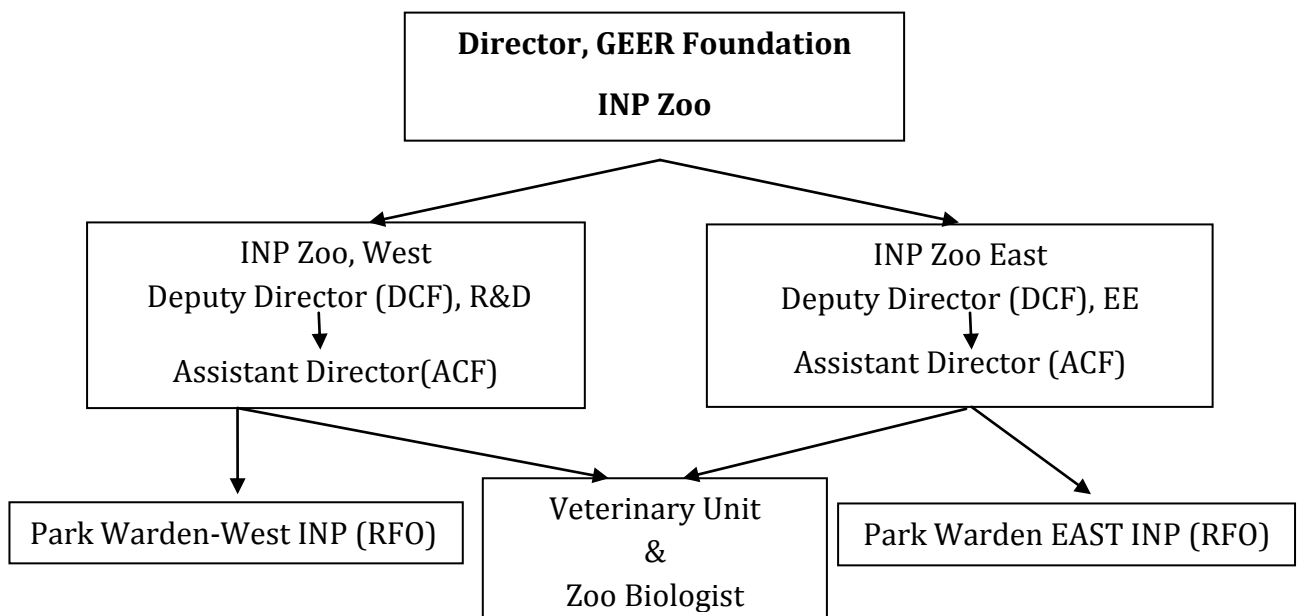
**Cactus house** contains more than 80 species of these succulent plants. The information about species, habitat, etc. is displayed for the knowledge of the visitors. The beautiful flowery plants are one of the major attractions.

**Bamboo collection** has all six species of bamboo found in Gujarat. It is being developed to raise all the species occurring in Western India and a few other species.

**Medicinal plant and grass section** has about 250 species of plant species having medicinal and / or livelihood values.

## 6 Organizational chart

The INP Zoo is part of overall Organization of the Gujarat Ecological Education and Research (GEER) Foundation. The GEER Foundation Administrative Office is the Office of the Director, GEER Foundation and is located near to the Main Entrance and Ticket Window in a separate sub campus of administrative and other research and education facilities. At present there are two Deputy Directors, viz. (i) Deputy Director, Research and Development (R&D) and (ii) Deputy Director, Ecological Education (EE). They, besides their other duties, are in charge of development and management of INP Zoo sections West and East, respectively. For the purpose of the INP Zoo administration as part of overall GEER Foundation Administration, following administrative organization is established:



## 7. Human Resource

INP Zoo is, and it will continue to be the part of the INP under the administrative control of the GEER Foundation. The GEER Foundation will continue its endeavour to manage and develop the INP Zoo towards (a) its overall mandate of ecological education and ecological research, (b) its mission to contribute to conservation, restoration and enrichment of ecosystem and natural heritage and (c) to the national vision for conservation of threatened wild animals through captive conservation, captive conservation breeding, research and education.

The GEER Foundation is an autonomous society and public trust constituted and currently under the administration of the Forests & Environment Department, Government of Gujarat. For the purpose of administrative linkages with the Government of Gujarat, the GEER Foundation is partially under the administrative control of the Wildlife Wing of the Gujarat Forest Department. The Foundation receives Operations & Management as well as Development grant as a Grant-in-Aid from the Government of Gujarat through the Forests & Environment Department and the Gujarat Forest Department. Accordingly, one of the units of the GEER Foundation, INP Zoo is also under the administration of the Government of Gujarat as a part of an autonomous Foundation.

At present, GEER Foundation has following human resources for effective administration of Indroda Nature Park.

**Table-8.1:** Details of the posts of officer cadre

<b>Sr.No.</b>	<b>Designation</b>	<b>Number of Sanctioned Posts</b>	<b>Names of the incumbent</b>
1	Director and Addl. Principal Chief Conservator of Forests	1	Shri U.D. Singh
2	Dy. Director (R & D) and Dy. Conservator of Forests	1	Shri V.N. Goswami (i/c)
3	Dy. Director (EE) and Dy. Conservator of Forests	1	Shri V.N.Goswami (i/c)
4	Assistant. Director and ACF	2	Ms. Vibhaben Goswami
5	Veterinary Officer	1	Dr. Aniket B. Patel
6	Park Warden cum Range Forest Officers	2	Shri A.B.Theba (i/c) Shri Raghav Joshi

**Table-8.2:** Details of the posts of employee cadre

<b>Sr. No.</b>	<b>Name of Cadre</b>	<b>No. of Post Sanctioned</b>	<b>Names of the Incumbent</b>
<b>INP Zoo Eastern part</b>			
1	Forester	1	Shri A. B. Theba
2	Snake Cum Wildlife Park Keeper	1	Shri R. J. Patel
3	Asstt. Snake Cum Wildlife Park Keeper	1	Vacant
4	Veterinary Assistant	1	Shri Hitesh S. Desai
5	Head Animal Keeper	1	Vacant
6	Forest Guard	01	Ms. V.S.Thakor Addl. Proposed post-1
7	Sweeper cum keeper	01	Shri Baldevbhai Vaghela
8	Accountant	1	Vacant Shri Baldevbhai B.Parmar (i/c)
9	Bird Breeder	1	Vacant
10	Driver	1	Shri Kanubhai K. Prajapati Addl. Proposed posts-2
11	Zoo Education Guide	0	Proposed posts-3
12	Ticket Window Clerk	0	Proposed posts- 2
13	Ticket Checker	0	Proposed posts-2
14	Store clerk	0	Proposed posts-1
15	Plumber Cum Pump Operator	1	Vacant
16	Watchman	1	Vacant Addl. Proposed posts-3
17	Watchman Cum Mali	1	Post to be accounted for different section of INP other than zoo
18	Welder Cum Attendant	1	Post to be accounted for different section of INP other than zoo

<b>Sr. No.</b>	<b>Name of Cadre</b>	<b>No. of Post Sanctioned</b>	<b>Names of the Incumbent</b>
19	Watchman Cum Camp Attendant	1	Post to be accounted for different section of INP other than zoo
20	Nature Education Assistant	1	Post to be accounted for different section of INP other than zoo
21	Artist	1	Post to be accounted for different section of INP other than zoo
22	Kitchen Manager Cum Supervisor	1	Post to be accounted for different section of INP other than zoo
23	Library Attendant	1	Post to be accounted for different section of INP other than zoo
24	Animal keepers	Permanent/ fix labours	Shri Sardarji Gandaji Thakor Shri Ranjitji Ataji Makawana Shri Gabhabhai Jagabhai Raval Shri Narsinhji Udaji Thakor Shri Bharatji Amaraji Thakor Shri Maheshkumar B. Thakor Shri Kanubhai Bhalabhai Raval Shri Govaji Masangji Thakor Shri Bhagvanji R. Makawana Shri Sureshkumar G. Thakor Shri Alkeshkumar R. Kori Shri Punabhai Vahjibhai Raval Shri Dashrathji R. Thakor Shri Amrutbhai I. Prajapati Shri Manojkumar P. Thakor Shri Pravinji Viraji Makawana Shri Somabhai Dahyabhai Raval
25	Night Watchmen and reliver	Permanent/ fix labours	Shri Kirankumar Bhalaji Thakor Shri Rameshji Maganji Thakor

Sr. No.	Name of Cadre	No. of Post Sanctioned	Names of the Incumbent
			Shri LalajiBhalaji Thakor Shri RamdhirajRambadal Kori Shri JugajiBakaji Thakor Shri KarmanbhaiR. Desai Shri Shantilal Mangaruram Kori
<b>INP Zoo Eastern part</b>			
2	Accountant	1	Vacant Shri Jagdishbhai Chauhan (i/c)
3	Forester	1	Shri A.B. Theba (i/c)
4	Forest Guard	1	Shri R.R.Makwana
5	Zoo Education Guide	0	Proposed posts- 2
6	Sweeper Cum Keeper	0	Proposed posts-2
7	Driver	0	Proposed posts-1
8	Watchman	0	Proposed posts-2

## 8. 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. V .N. Goswami, Dy. Director ( R & D)	National conference for zoo directors and veterinarians	10-11 October, 2021	Sardar Patel Zoological Park, Kevadiya, Gujarat
2	Dr. Aniket Patel, Veterinary Officer			
3	Shri A.B. Theba, Park Warden (i/c).			
02	Shri Somaji Abhuji Thakor Animal Keeper	Regional Zoo Keepers training programme -CZA sponsored	20 - 26March,2021	Kamla Nehru Zoological Garden, Kakariya, Ahmedabad.
03	Shri Amrutji Raybhanji Thakor, Animal Keeper			

## 9. Zoo Advisory Committee -

- A. Date of constitution: An expert adviser on zoo animal veterinary care is appointed vide this office letter no. B/T.6/WLP/INP Zoo/HAC-6302-05, 15/11/2014
- B. Members: Dr.D.B. Patil, Professor and Head, Department of Surgery, Veterinary College, Anand. Currently he is holding the post of Director of Research, Kamdhenu University.
- C. Dates on which Meetings held during the year: During the financial year 2021-22, no meeting was held.

## 10. Health Advisory Committee-

- A. Date of constitution: 09/07/2020
- B. Members:

Sr. No.	Name	Designation	Office	Appellation in committee
1	Dr. D. B. Patil	Director (Research)	Kamdhenu University, Gandhinagar	Chairman
2	Dr. Amit Kanani	Dy. Director	Animal Disease Investigation Office, Department of Animal Husbandry	Member
3	Dr. R. F. Kadivar	Veterinary Officer	Sakkarbaug Zoo, Junagadh	Member
4	Dr. Aniket Patel	Veterinary Officer	GEER Foundation, Gandhinagar	Coordinator

- C. Date on which Meetings held during the year: 08/12/2021.

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

Sr. No.	Budget head	Allocated budget from GoG (Amount in Lakhs) INR	Utilization of allocated budget (Amount in Lakhs) INR	Utilization of budget in percentage
1	Provision for wild animal feed and nutrition related requirements of INP Zoo	83.00	74.08	89.25%
2	Provision for Prophylactic measures to be taken for prevention and control of diseases and disorders in captive wild animals of INP Zoo	6.00	3.86	64.33%



Sr. No.	Budget head	Allocated budget from GoG (Amount in Lakhs) INR	Utilization of allocated budget (Amount in Lakhs) INR	Utilization of budget in percentage
3	Provisions for capacity building of Officers and employees of INP Zoo, First aid training, health check up camps etc..	1.50	0.02	0.01%
4	Provision for awareness of nature conservation to visitors	0.50	0.00	0.00%
5	Provision for procurement of medicines and feed supplements, veterinary equipment's, rescue instruments etc.. for veterinary hospital	8.00	6.30	78.75%
6	Provision for Salary of the employees working in the zoo	60.00	56.82	94.70%
7	Maintenance of Gardens of INP	107.00	109.77	102.59%
8	Protection works and Fencing maintenance	55.00	43.88	79.78%
9	Water Supply and electricity bills	33.00	28.01	84.88%
10	General maintenance	14.00	25.95	185.36%
11	Vehicle maintenance and vehicle on rent	1.50	2.06	137.33%
12	Office expense	8.00	17.36	217.00%
<b>Income received from sale of tickets and other sources</b>				
Sr. No.	Particulars	Amount in lakhs (INR)		
1	Entry Fees, Indroda Nature Park, Gandhinagar	126.80		
2	Rent for Aahar Kendra	0.15		
3	Sale of Publication Park	0.02		
4	Tender Form Fees/Sale of old Materials/Other	1.20		

## 12. Daily feed Schedule of animals

### Mammals:

#### (A) Carnivore animals

Sr. No	Animal	Feed	Quantity/animal/day (Kg)	
			Winter	Summer
1	Royal Bengal Tiger ( <i>Panthera tigris</i> )	Buffalo meat	8	6-7

Sr. No	Animal	Feed	Quantity/animal/day (Kg)	
			Winter	Summer
1	Asiatic Lion ( <i>Panthera leo persica</i> )	-----do-----	8	6-7
2	Leopard ( <i>Panthera pardus</i> )	-----do-----	3.0	2-2.5
3	Indian Grey Wolf ( <i>Canis lupespallipes</i> )	-----do-----	2.0	1.5
4	Jackal ( <i>Canis aureus</i> )	Poultry meat	0.5	0.5
5	The Indian Fox ( <i>Vulpes bengalensis</i> )	-----do-----	0.3	0.3
6	Striped Hyaena ( <i>Hyaena hyaena</i> )	-----do-----	1.0	1.0

Note: Animals mentioned above are kept on fast for one day in a week on Monday.

(B) Herbivore Animals

Sr. No.	Animal	Quantity of Feed/Animal/day (Kg)			
		Green Grass	Dry roughage	Chick pea	Concentrate mixture
1	Sambar ( <i>Cervus unicolor</i> )	10	1	0.2	0.7
2	Spotted Deer ( <i>Axis axis</i> )	5	0.8	0.2	0.3
3	Black Buck ( <i>Antelope cervicapra</i> )	4	0.7	0.1	0.2
4	White Black Buck ( <i>Antelope cervicapra</i> )	4	0.7	0.1	0.2
5	Chinkara ( <i>Gazellagazellabennetti</i> )	3	0.5	0.1	0.2
6	Chousingha / Four-horned Antelope ( <i>Tetraceros quadricornis</i> )	3	0.5	0.1	0.2
7	Barking Deer ( <i>Muntiacusmuntjak</i> )	4	0.7	0.1	0.2
		<b>Feed/Animal/day (Kg)</b>			
<b>Rodentia</b>		<b>Chick pea</b>		<b>Fruits and Vegetables</b>	
1	Indian porcupine ( <i>Hystrix indica</i> )	0.5		1	

Note: The feed to above mentioned animals is offered all days in a week without fasting.

**Aves:**

Sr. No.	Bird	Quantity of Feed/Bird/day (Kg)			
		Grains/legume seeds	Vegetable / Fruit	Meat	Fish
1	Crane Common ( <i>Grus grus</i> )	0.40			
2	Crane Sarus ( <i>grusantigone</i> )	0.30			
3	Duck Pintail ( <i>Anas acuta</i> )	0.15			
4	Goose Bar-Headed ( <i>Anser indicus</i> )	0.15			
5	Parakeet Alexandrine ( <i>Psittaculaeupatria</i> )	0.01	0.15		
6	Teal Lesser Whistling ( <i>Dendrecygnabicolor</i> )	0.15			
7	Dove little Brown( <i>spilopeliasenegalensis</i> )	0.05			
8	Duck Comb ( <i>Sarkidiornismelanotos</i> )	0.20			
9	Cocketil( <i>Nymphicuspalustris</i> )	0.03			
10	White Peafowl ( <i>Pavo cristatus</i> )	0.20	0.20		
11	Silver pheasant( <i>Lophuranycthemera</i> )	0.10	0.20		
12	Heron Night ( <i>Nycticoraxnycticorax</i> )				0.34
13	White Ibis ( <i>Threskiornisacthiopica</i> )				0.34
14	Owl Indian Greater horned( <i>Bubo virginianus</i> )			0.25	
15	Rosy Pelican / White ( <i>Pelecanusonocrotalus</i> )				1.00
16	Painted Stork ( <i>Mycteriaeucocephala</i> )				0.50
17	Steppe Eagle( <i>Aquila nipalensis</i> )			0.50	
18	Cormorant little ( <i>phalacroraxniger</i> )				0.30
19	Brahminy Kite - ( <i>Tadornaferruginea</i> )			0.25	
20	Barn Owl ( <i>Tato alba</i> )			0.25	
21	White Spoonbill ( <i>Platalealeucorodia</i> )				0.30
23	White Stork ( <i>Ciconia ciconia</i> )				0.50

Note: carnivore birds are kept on fast once in a week on Monday

**Reptiles:**

Sr. No.	Animal	Quantity of feed /Animal		
		Dressed Meat (kg/week)	Vegetables (kg/ Day)	Other feed grams/Week
1	Indian Cobra( <i>Naja naja</i> )			200
2	Marsh Crocodile (Mugger) ( <i>Crocodylus palustris</i> )	0.700		
3	IndianRock Python ( <i>Python molurusmolurus</i> )			1000
4	Indian Rat Snake /Dhaman ( <i>Pryasmucosus</i> )			200
5	Russel'sViper ( <i>Viperarussellii</i> )			200
6	Common Indian Krait ( <i>Bungaruscaerulus</i> )			100
7	Common Sand Boa ( <i>Eryxjohini</i> )			150
8	Red Sand Boa( <i>Eryxconicus</i> )			150
9	Indian Star Tortoise ( <i>Geochelone elegans</i> )		0.150	
10	Ganges Soft-shell Turtle ( <i>Aspideratesgangeticus</i> )	0.500		

Note: The feeding regimen for above said animals is adjusted according to the seasonal physiological needs.

In addition to feed mentioned above, essential macro & micro- minerals viz. calcium, phosphorus manganese, sulphur, copper, zinc, sodium, molybdenum, iron, chloride, Vitamins viz. Vitamin-A, Colecalciferol, Thiamine, Riboflavin, Pyridoxine, Cyanocobalamin, Nicotinamide, Ascorbic acid, Biotin, Carbohydrate, Salt is offered to animals by mixing it into daily concentrate feed for herbivores and into meat for carnivores. Hepato-protectant is also added to the diet of herbivore animals in form of powder to enhance the functional capacity of the liver.

### 13. Vaccination Schedule of animals

Sr. No	Species	Disease vaccinated for	Name of the Vaccine and dosage/ quantity used	Periodicity
1	Felines	Feline Rhino tracheitis, Feline panleucopenia, Feline calicy virus	Fel-O-Vac PCT	Cubs of two month of age and booster dose every year
2	Canines	(a) Anti Rabies (b) Parvo Virus (c) Leptospira (d) Canine distemper (e) Herpes virus (f) Parainfluenza	Vanguard 5L4	Pups at 45 days of age and booster dose every year
3	Aves	New Castle Disease	-	If need arises in case of epidemics.

### 14. De-worming Schedule of animals

Sr.No.	Species	Drug used	Month
1	Carnivores except canines	Ivermectin and Fenbendazole (alternative) Praziquantel, Pyrantel Pamoate	December, March, June, September
2	Canines	Praziquantel, Pyrantel Pamoate, Fenbendazole	December, March, June, September
2	Herbivores	Ivermectin and Fenbendazole (alternative)	December, March, June, September

## 15. Disinfection and Hygiene Protocol of INP Zoo

Sr. No.	Species	Type of enclosure	Activities	Disinfectants used	Frequency
1	Carnivore (Feline, Canine, Reptiles, Aves)	Night shelter/ Cubicle	Removal of the animal excreta and leftover feed followed by cleaning with clean water. Change of	-	Daily
			Disinfection of the floors	Glutaraldehyde	Daily
2	Carnivore (Feline, Canine, Reptiles, Aves)	Loafing ground/ Kraal	Disinfection of the enclosure/Loafing Ground by spraying safe disinfectant	Glutaraldehyde	Every Monday
3	Carnivore (Feline, Canine, Reptiles, Aves)	Night shelter/ Cubicle	Ecto-parasites such as ticks, mites, etc. crevices in civil construction should be burnt with the flame stove.	-	Quarterly
4	Herbivores	Loafing ground and shed	Disinfection of the enclosure/Loafing Ground by spraying safe disinfectant	Glutaraldehyde	Every Monday
5	Reptiles and aves	Ponds	Cleaning and sanitation of pond and addition of water sanitizer (safe for aqua culture)	Sokrena	<ul style="list-style-type: none"> <li>• Small ponds- fortnightly,</li> <li>• Medium ponds- monthly,</li> <li>• Large ponds- quarterly.</li> </ul>
6	All animals	All enclosures	Proper disposal of both liquid and solid wastes generated in the zoo, far away from the animal	-	Daily

Sr. No.	Species	Type of enclosure	Activities	Disinfectants used	Frequency
			enclosure.		
7	All animals	All enclosures	Dry organic garbage burning, far away from animal enclosure		Once in a week
8	All animals	All enclosures	All leftover food items, animal excreta and garbage removal from every enclosure and safe disposal in to garbage pit		Daily
9	All animals	All enclosures	Disposal of dead animal carcass by Burning/burial method with utmost care to prevent the spread of disease to other animal		When need arises
10	Herbivores	Open enclosures	Cleaning of water troughs of enclosure		Every alternate day

## **16. Health check-up of officers and employees of INP.**

During the year 2021-22, Covid-19 epidemic was on peak, therefore general and hospitals were engaged in the providing services to the patients affected with covid-19 and other emergency medical cases. As the keepers are coming in direct contact of wild animals, they may acquire nosocomial Covid-19 infection and transmit it to the wild felids and other wild animals. In this context, detailed health screening of the entire staff was not carried out. As per the directions of the Central Zoo Authority, GEER Foundation had screened the staff members associated with upkeep of Wild Felids against SARS-CoV-2 on date 04/05/2021 through RT-PCR tests at Gujarat Biotechnology Research Centre, Gandhinagar.

## **17. Developmental works carried out in the Indroda Nature Park during the year 2018-19.**

Old enclosure of lion was constructed 20 years ago, which was developed beside the enclosure of herbivore animals. At the time of revision of lay out plan of

Indroda Nature Park Zoo in the year 2014-2016, the new enclosures for big cats were placed at a distance of around 300 meters away from the herbivore animals to reduce the chances of disease transmission and to provide disturbance free ambience to the herbivore animals. The enclosure for Asiatic lions, tigers and leopards were established according to the approved lay out plan of the Indroda Nature Park Zoo. The newly developed section for Asiatic lions, tigers and leopards is popularly known as carnivore abode. This abode has plantation of many indigenous trees, shrubs and creepers. Specially Miyawaki forest patch is developed in front of the Tiger enclosure. The dense plantation around this carnivore abode not only gives a look of natural landscape but also provide benefits of forests to the animals of enclosures. Every enclosure have more than 10,000 litre capacity of Ground water tank to make each enclosure self-sustainable for routine use washing and cleaning of enclosures, plant & garden watering and maintenance works. Very well developed drainage facility along with channel of duct and deep soak pit has been created to safely discard the liquid waste.

**17.1 Establishment of new Lion enclosure:** Asiatic lion is the main attraction of Indroda Nature Park. Open moat modern enclosure for the Asiatic lion wherein, visitors can see the animal in to entirely natural settings was constructed during the year 2020-21 and 2021-22. The construction work delayed due to covid-19 lock down and post-covid crisis. The finishing of beautification and plantation work was carried out during the summer of 2021. After raising the plantation the animals were shifted to the new enclosure from the old enclosure. Visitors can see the lions roaming in the natural loafing ground without any visual obstruction. The enclosure can accommodate 6 lions at a time. The enclosure has in built examination and minor treatment facility. For intensive treatment the animal can be taken in to squeeze cage and kept in the service gallery for the entire course of treatment. It adds the faster recovery of animals as the animal is not taken away from its natural shelter. Enrichment according to the species requirement is carried out in the enclosure.

**17.2 Establishment of new Tiger enclosure:** Apart from lion, the tigers attract most of visitors in the zoo. The enclosure for tigers was also designed in



similar pattern beside the lion enclosure. Open moat enclosure with beautiful water fall and large water body has been developed for immersion of animals into its natural habitat. An open moat enclosure along with hot wire facility is specially created to prevent escape of the animal out of the enclosure. The enclosure can accommodate 6 animals at a time. This enclosure also has in-built facility of close examination and treatment of the animals without shifting the animals away from its natural shelter.

**17.3 Establishment of new Leopard enclosure:**An enclosure of open to sky design has been developed along with hot wire facility to prevent escape of the animals for the leopards. This enclosure can also accommodate 6 animals at a time. It also has in-built facility of close examination and treatment of the animals without shifting the animals away from its natural shelter.

**17.4 Acquisition of Tigers in the new enclosure:** Indroda Nature Park received a pair of White Tiger (Male: Female:: 1:1) from Rajkot Zoo. The animals were kept in quarantine upon their arrival. During this period of quarantine, the animals were acquainted with their new place, schedule and keepers. Upon request of Sardar Patel Zoological Park, Kevadiya the female White tiger was exchanged with the normal tiger female in the month of August 2021.

## **18. Education and Awareness programmes during the year**

### **18.1 Education activity:**

(a) **Nature Education Camps:**The Financial Year 2021-22 was also very challenging for all of us due to COVID-19. Due to prevailing restrictions, the Nature Education Camps were not organized by the Foundation during the FY 2021-22.

(b) **One day programme for organised tours of trainees or college students:**

On request of any educational or training institute/ academy, Indroda Nature Park under the supervision of GEER Foundation conducts special one day exposure programme for the Forest Officer trainees (Indian Forest Services and State Forests Services), subordinate forest staff trainees and college students. This programmes focus on visit of various sections of INP and interactions with

the field officers i.e. Veterinary Officer (Zoo & Wildlife), Assistant Director and managerial officers i.e. Dy. Director and Director. The details of organised one day programme conducted in the financial year 2018-19 are given in following table.

<b>Sr. no.</b>	<b>Date</b>	<b>Participants detail</b>
<b>State or central academy for forest officers'/ subordinate staff's training</b>		
1	19/09/2021	Thematic Tour of IFS Probationers of 2020-22 batches from Indira Gandhi National Forest Academy (Group 1)
2	20/09/2021	Thematic Tour of IFS Probationers of 2020-22 batches from Indira Gandhi National Forest Academy (Group 2)
3	30/10/2021	Range Forest Officers training batch from Gujarat Forest Rangers College, Rajpipla
4	07/12/2021	Range Forest Officers training batch from Gujarat Forest Rangers College, Rajpipla
5	24/12/2021	Range Forest Officers training batch from Karnataka Forest Academy
6	08/01/2022	Forest Guard training batch from Forest Training Centre, Kakrapar
7	27/03/2022	FRO trainee Officers batch from Kundal Academy of Development, Administration and Management, (Forest) Kundal's
<b>Special Batch for College Students</b>		
1	15/04/2021	Exposure visit batch from D.N. Institute of P.G. Studies, Anand

**(c) Bird Watching Programme:**

Indroda Nature Park organises a birding programme namely "Appreciation training programme on bird ecology and conservation" popularly known as "Bird watching programme". This programme held on 4 Sundays of every month in winter season. The programme is conducted in the premise of Indroda Nature Park and Thol Bird Sanctuary. This programme is of special kind wherein, any person of any age can participate. The terrestrial bird watching is done in

woodlands of Indroda Nature Park and session of wetland bird watching is conducted in the Thol bird sanctuary. The bird watching is followed by interpretative presentations of ornithologists and field experts. The bird watching programme is functionally operated by trained, skilled and experienced staff of Indroda Nature Park. The participants are charged nominal fees for the formal registration process and in return, the participants are provided hard copy of study materials, soft copy of study materials in CD-Rom. Light breakfast is provided to the participants on all four days. In the year 2021-2022, total two batches of January and February were conducted. Total 84 participants obtained benefits by this programme.

## **18.2 Awareness activities:**

### **a. World Environment Day 2021**

This year, the Government of Gujarat initiated the massive plantation drive on WED under the theme Tulsi Van. The drive specially focused on plantation of Tulsi plants near COVID-19 care centres with a message to review our local ecosystem. The GEER Foundation, Gandhinagar organized the plantation activity on the same theme and planted 108 Tulsi saplings in the office premise 5th June 2021.

The programme began with knowledgeable talk of Shri U.D. Singh, Director, GEER Foundation. He explained the importance of the WED and the theme of the year. Dr. Ketan Tatu, Sr. Scientist, GEER Foundation, discussed the importance of every components of an ecosystem. Dr. Sandeep Munjpara, RA, GEER Foundation discussed the importance of Grassland ecosystem and emphasized the works carried out to study the ecosystem by GEER Foundation. Dr. Devanshi Joshi, RA, GEER Foundation also discussed that the effect of the disturbance in the ecosystem are not reflected in short time; so we all should always ensure the minimum disturbance to the ecosystem functioning.

The celebration followed by the plantation activity in the office premises. In addition to together 08 sapling of Tulsi plant, plantation of few exotic species has also been done by the office dignitaries in the office premises.

### **b. World Ozone Day 2021**

The GEER Foundation, Gandhinagar observed the World Ozone Day 2021 on 16 September 2021 jointly with Government Arts College Gandhinagar. About 35 students participated in the activities. Students learnt about importance of ozone layer, its protection and most importantly how an individual can contribute to protect the ozone layer through various activities and talks. By field exposure

visit to Indroda Nature Park, they all learnt about how a healthy ecosystem helps in protecting and conserving ozone layer.

### **c. World Ozone Day 2021**

Every year during October 2 to 8, Governments, environmentalists, activists, educators organize different activities to accelerate the awareness of wildlife conservation among people. India, being a mega-storehouse of various species, is also able to manage several conferences, awareness programs, and public meetings among the nature lovers. Schools and educational institutions organize events such as wildlife related movie screening, painting competition/essay writing/ debate competition for young children with wild life as the theme.

Indroda Nature Park under guidance and supervision of GEER Foundation organizes various activities during the Wildlife Week every year. For the Wildlife Week 2018too, Indroda Nature Park organized following activities:

- I. Free entry to all visitors in Indroda Nature Park and Aranya Udhyaan, Gandhinagar during wildlife week to promote awareness about wildlife.
- II. Wildlife Photo Gallery and Digital Interactive Kiosks were installed in Indroda Nature Park to spread information about wildlife of Gujarat and India to visitors.
- III. **“Knowing Plants Around Us” a plant exploration trail with students of L.H. Science College, Mansa:**A special nature trail at Indroda Nature Park with a focused on plants “Knowing Plants Around Us” was planned for students of L.H. Science College, Mansa on October 06, 2021. Participants were taken into the Indroda Nature Park and guided by Shri Chandrakant Damor, Botanical Garden Supervisor, Shri Rakesh Gujar, SRF and Shri Vinesh Gamit, JRF. They were explained various ecological concepts pertaining to plant ecology with plant identification & taxonomy. At the outset, they all explored various indigenous plants and studied about their importance.
- IV. **Nature Exploration Visit for underprivileged children of Vadaj and Sabarmati area of Ahmedabad with support from Jeevantirth Foundation:** A special nature exploration visit was planned for underprivileged children of Vadaj and Sabarmati area of Ahmedabad with support from Jeevantirth Foundation on October 06, 2021 at Indroda Nature Park, Gandhinagar. All participants were taken on special

zoo trail for field exposure by Shri Alap Pandit, Nature Educator, Shri Irshad Theba, Vaishali Popat, Asst. Programme Coordinator and Ms. Kusumben Suthar. In this field exposure, they were explained basics of ecology, ecosystem, habit & habitat, food-chain, food-web etc. by actually showing different elements of nature. In this session they explored various elements of nature and its interactions pertaining to wildlife.

- V. **Special “Butterfly & Spider Walk” exploration trail with the special children from Children House, Gandhinagar:** A special nature exploration visit “Butterfly & Spider Walk” was planned for special children from Children House, Sector 19, Gandhinagar October 07, 2021. They are all HIV+ and orphans or having single parents. They hardly get a chance for such exploration in the wild. The GEER Foundation took the opportunity to create awareness among them by organizing a special nature trail for them at AranyaUdyan, Gandhinagar. During this field exposure, they were introduced to the amazing world of butterflies and spiders. They all visited the Butterfly Park and explored various butterflies and spiders around them. They were guided by Ms. KalavantiMokariya, SRF, Shri DhruvPrajapati, JRF, Shri AlapPandit, Nature Educator during their visit. They also visited the Butterfly Interpretation Centre and enriched their knowledge on butterflies. They were also explained various types of habitat, food-chain, food-web etc. by actually showing different elements of nature.

- (d) **Special “Bird Walk” exploration trail with the students of Faculty of Physical Education, Gujarat Vidyapith, Sadra:** A special “Bird Walk” was organized for the students of Faculty of Physical Education, Gujarat Vidyapith, Sadra to raise the awareness on birds on October 08, 2021. Participants were taken into the Indroda Nature Park and guided by Shri Arif Theba, RFO cum Park Warden, Indroda Nature Park, Shri Alap Pandit, Nature Educator, Shri Jigar Joshi, SRF, Ms. Kinjal Joshi, SRF and Shri Irshad Theba. They were explained various ecological concepts pertaining to bird ecology with bird watching & identification. Ms. Vibhaben Goswami, Dy. Director (EE), GEER Foundation interacted with the participants. During her interaction, few participants also shared their experiences of the bird walk. They all appreciated the efforts of the Foundation and showed their commitment for wildlife conservation. At the outset, she explained the importance of wildlife for our own existence.

## 19. Important Events and happenings

- **Inauguration of newly created enclosures for wild felids for public visitation:**The Indroda Nature Park had developed modern enclosures for the Asiatic Lion, Tiger and Leopards as mentioned in the chapter 18 of this annual report. In a formal inaugural ceremony held on 24/08/2021. The carnivore animals were put to display after the ceremony for public visitation. The inauguration was carried out by Shri Ganpatsinh Vasava, Hon. Minister of Tribal Development, Forests, Women & Child Welfare, Govt. of Gujarat in presence of special guest Shri Ramanlal Patkar, Hon. Minister of state, Forests & Tribal Development, Govt. of Gujarat. The function was organised in special presence of (1) Shri Arunkumar Solanki, Additional Chief Secretary, Forests and Environment department, Govt. of Gujarat, (2) Shri Dineshkumar K. Sharma, Principal Chief Conservator of the Forests (Head of the Forest Force), Department of Forests, Gujarat state, (3) Shri Shyamal Tikadar, Principal Chief Conservator of the Forests (Wildlife) & Chief wildlife warden, Department of Forests, Gujarat state, (4) Shri U.D. Singh, Director, GEER Foundation remained present at the function.

➤ **Animal care and veterinary section:**

Veterinary hospital of Indroda Nature Park is established to take care of captive wild animals of Indroda Nature Park with following facilities. (1) Treatment room, (2) Medicine and equipment store room (3) Veterinary Officer's chamber. The unit has a post-operative isolation ward, an open yard, avian enclosure and treatment/trap cages of various sizes for the treatment and post treatment holding of the wild animals and birds at the hospital. The unit is well cordoned with compound wall to secure the sick animals and birds. The unit is taken care of by full time Veterinary Officer, Veterinary Assistant and Hospital/field assistant. Veterinary hospital is equipped with following equipment and instruments:

Sr. No.	Instrument/ Equipment	No. of units
01	Hydraulic operation table	01
02	Syringe projector	01
03	Dart gun	01
04	Blow pipe	01
05	Portable stretcher on wheel	01
06	Multiparameter monitor	01
07	Electro cautery	01
08	Suction apparatus	01
09	Operation theatre halogen light apparatus	01
10	Compound light microscope	01

<b>Sr. No.</b>	<b>Instrument/ Equipment</b>	<b>No. of units</b>
11	Fumigator	01
12	Small animal surgery kit	01
13	Large animal surgery kit	01
14	Nursing trolley	01
15	Medicine storage and instrument cupboards	02
16	Reference books store cupboards	01
17	Refrigerator	01
18	Instrument sterilizer	01
19	Formalin chamber	01
20	Autoclave	01
21	Weighing scale (Digital) (500kg capacity)	01

Apart from above said instruments and equipment, veterinary hospital keeps sufficient stock of various drugs, medicines and feed supplements for treatment of the captive wild animals of the zoo. For specialised veterinary interventions, Veterinary Officer of the zoo obtains help of Department of Animal Husbandry (Govt. of Gujarat), Kamdhenu University (Veterinary Division) and Veterinary College (Anand Agricultural University).

The glimpses of veterinary interventions of Indroda Nature Park during the year 2021-22 are as under:

1. Treatment of rescued leopard from Kheralu range of North Gujarat region: The female leopard (Grishma) was brought to Indroda Nature Park for the intensive critical care as the animal was in completely unconscious state. The animal had very poor prognosis when arrived at the hospital of Indroda Nature Park. Initially the animal was continuously refusing the feed. Even on forceful feeding, the animal was ejecting out the fed pieced. The animal was provided treatment for more than 20 days, the animal started taking food after 18 the day on its own and started consuming normal quantum of feed after 20 days of treatment.
2. Treatment of rescued leopard cub: The female leopard cub of with hind quarter paresis was brought in the Indroda Nature Park on 18/05/2021 during Tauktae storm. The animal was brought in a condition with complete stiffness of both hind limbs. The animal was dragging its body through fore limbs. The animal was provided long term intensively treatment and physiotherapy to reduce the hind limb stiffness. The stiffness was reduced up to 80% and the animal started walking on all its four limbs.
3. Shifting of lions in to the new abode: As the pair of lion was well acquainted with the enclosures and its ambience, the task to shift the lions into its new enclosure was a challenge. Both the lion and the lioness were smoothly crated in transport

cages and shifted to the new enclosures. Extra care and attention was provided to the animals during the adjustment phase of the animal in to new set up.

4. Treatment of lioness: The lioness developed chronic bacterial infection in the month of July, 2021. The animal was taken in to the squeeze cage and intensive treatment for the period of more than 15 days was provided and the animal was successfully recovered from the illness.
5. Assistance to the Department of Forests, GoG to control the herd of elephants in Rathyatra-2021 (a religious procession) held on 12/07/2021 in Ahmedabad.
6. Treatment of status epilepticus in female leopard for critical instance of seizures for around 5 months.

Apart from these activities, the veterinary hospital carries out prophylactic measures to prevent various diseases and disorders by means of annual vaccination deworming at every three months interval. Routine sanitation measures i.e. cleaning of enclosures, debris and leftover removal & disposal, disinfection are supervised by the veterinary hospital. Aquatic ponds in the enclosures are routinely emptied, cleaned and refilled with clean potable water at regular interval to prevent water borne infections in animals and birds.

➤ **Events organised for staff members.**

- i. **Certificate awarding to the best performer employee:** continuing an initiative, the best performer officer/employee including zoo keeper were awarded with certificates of appreciation by the Director, GEER Foundation on the Independence Day and the Republic Day.

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

Indroda Nature Park Zoo provides enough care to the captive wild animals against seasonal extremisms. These are as follows:

- Winter:
  - During winter season quantity of feed is increased in general to the all wild animals.
  - Gunny bag curtains are hanged on the doors and windows of night shelters from outside to prevent hypothermia though cold breezes.
  - Stacking of dry straws of crop residues is done inside the night shelter of animals.
  - Nylon net curtains are applied over enclosure fences of aviaries.



- Summer:
  - Foggers are installed in the enclosures of carnivore animals for periodical spraying of mist over the animal to cool down the ambient temperature.
  - Water based air coolers are used for carnivore animals during extreme hot hours of the day.
  - Khus curtains are hanged on the enclosure fences and periodical spraying of water over the curtains keeps the ambient temperature down.
  - Rehydrating additives are incorporated in drinking water of animals.
  - Sprinklers are used in some enclosure to provide natural coolness to the captive wild animal to get relief from extreme heat.
- Monsoon:
  - Feeding cubicle/ night shelters are tried to keep clean and dry. Animals are prevented to become continuously wet through rain by keeping them inside the cubicle during heavy rain.
  - Quick lime powder is sprayed during monsoon season to mitigate the risk of disease occurrence.

## 21. Research Work carried out and publications

During the year 2021-22, no any particular research or publication work has been carried out related to INP Zoo.

## 22. Conservation Breeding Programme of the Zoo

During the year 2021-22, the great white pelican successfully bred and given one hatchling on 18/09/2021. The parent birds reared the chick. The chick successfully grown up.

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

A.	Animals arriving in the Zoo				
	House No.	Species	Number (M:F)	From which Zoo	Date of arrival in the zoo
	Tiger cage	<i>Patheratigris</i> (white)	1:1	Rajkot Zoo	Male Gautam: 29/03/2021 Female Godavari: 29/03/2021

	Tiger cage	<i>Patheratigristigris</i> (Normal)	0:1	Sardar Patel Zoological Park, Kevadiya	Female Srushti: 12/08/2021
Nil					
B.	Animals going from the zoo				
	<b>H.NO.</b>	<b>Species</b>	<b>Number (M:F:U)</b>	<b>Going to which Zoo</b>	<b>Date of disposition from the zoo</b>
	White Black buck	<i>Antilope cervicapra</i>	3:7	Sakkarbaug Zoological Park	03/06/2021
	Tiger cage	<i>Patheratigris</i> (white)	0:1	Sardar Patel Zoological Park, Kevadiya	Female Godavari: 12/08/2021
	Marsh Crocodile - 02	<i>Crocodilus palustris</i>	0:0:10	Sardar Patel Zoological Park, Kevadiya	10/12/2021

## 24. Rescue and Rehabilitation of wild animals carried out by the Zoo

Rescue operations carried out in the year 2018-19				
Sr. No.	Date	Species, (M:F:U), Number of animals	Place	Details of operations
1	23/04/2021	Leopard(F), (01)	Mahesana	The animal was rescued by the Forest department and brought to Indroda Nature Park for Intensive Critical Care.
2	18/05/2021	Leopard Cub (01)	Sabarkantha	The animal was rescued by the Forest department and brought to Indroda Nature Park for Intensive treatment of hind quarter stiffness and paresis.

## 25. Annual Inventory of animals of INP Zoo

ANNUAL INVENTORY REPORT OF APRIL-2021 TO MARCH-2022																					
INDRODA NATURE PARK, GEER Foundation, Gandhinagar, GUJARAT																					
Sr. No.	Animal Name / Scientific Name	Opening stock				Birth			Acquisition			Disposal			Death			Closing stock			
		M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
<b>BIRDS</b> (other than endangered species)																					
1	Cormorant little ( <i>Phalacrocorax niger</i> )	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
2	Crane Common ( <i>Grus grus</i> )	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
3	Crane Sarus ( <i>Grus antigone</i> )	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
4	Duck Knob-billed ( <i>Sarkidiornis melanotos</i> )	3	2	18	23	0	0	0	0	0	0	0	0	0	0	1	3	2	17	22	
5	Duck Pin Tail ( <i>Anas acuta</i> )	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
6	Egret Little ( <i>Egretta garretta</i> )	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
7	Goose Bar Headed ( <i>Anser indicus</i> )	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
8	Heron Night ( <i>Nycticorax nycticorax</i> )	0	0	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20
9	Ibis White ( <i>Threskiornis aethiopicus</i> )	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4
10	Owl Barn ( <i>Tyto alba</i> )	1	0	0	1	0	0	0	0	0	4	0	0	0	1	0	0	0	0	4	4
11	Great White Pelican ( <i>Pelecanus onocrotalus</i> )	0	0	3	3	0	0	2	0	0	0	0	0	0	0	0	0	1	1	3	5
12	Parakeet Alexandrine ( <i>Psittacula eupatria</i> )	10	13	0	23	0	0	0	0	0	0	0	0	0	0	0	0	10	13	0	23
13	Stork Painted ( <i>Mycteria leucocephala</i> )	1	2	5	8	0	0	0	0	0	0	0	0	0	0	0	0	1	2	5	8
14	Kite brahminy ( <i>Tandorna ferruginea</i> )	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
15	Goose Gray Leg ( <i>Anser anser</i> )	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
16	Tael Lesser Whistling ( <i>Dendrecygnis Javanica</i> )	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
17	Eagle Tawney ( <i>Aquila rapax</i> )	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
18	Parakeet Rose Ring ( <i>Psittacula krameri</i> )	2	4	0	6	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0	6
<b>Total Birds</b>		<b>23</b>	<b>27</b>	<b>58</b>	<b>108</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>23</b>	<b>28</b>	<b>61</b>	<b>112</b>
Sr. No.	Animal Name / Scientific Name	Opening stock				Birth			Acquisition			Disposal			Death			Closing stock			
		M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
<b>MAMMALS</b> (other than endangered species)																					
1	Deer Sambhar ( <i>Cervus unicolor</i> )	5	19	3	27	0	0	5	0	0	0	0	0	0	0	0	0	7	20	5	32
2	Deer Spotted ( <i>Axis axis</i> )	20	42	6	68	0	0	0	0	0	0	0	0	0	2	0	0	22	44	0	66
<b>Total Mammals...</b>		<b>25</b>	<b>61</b>	<b>9</b>	<b>95</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>2</b>	<b>0</b>	<b>0</b>	<b>29</b>	<b>64</b>	<b>5</b>	<b>98</b>

<b>REPTILES</b>		<b>(other than endangered species)</b>																			
1	Krait – Common Indian ( <i>Bungarus caeruleus</i> )	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
2	Sand Boa ( <i>Eryx johini</i> )	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
3	Sand Boa – red ( <i>Eryx conicus</i> )	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
4	Tortoise Indian Star ( <i>Geochelone elegans</i> )	3	4	23	30	0	0	0	0	0	0	0	0	0	0	0	3	4	23	30	
5	Gangetic Soft Shell Turtle ( <i>Nilssonia gangetica</i> )	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
	<b>Total Reptiles...</b>	<b>4</b>	<b>4</b>	<b>29</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>29</b>	<b>37</b>		
	<b>Total Animals (birds + mammals +reptiles)...</b>	<b>52</b>	<b>92</b>	<b>96</b>	<b>240</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>56</b>	<b>96</b>	<b>95</b>	<b>247</b>	

**ANNUAL INVENTORY REPORT FROM APRIL-2021 TO MARCH-2022**

**INDRODA NATURE PARK, GEER Foundation, Gandhinagar, GUJARAT**

**Endangered Species**

Sr. No.	Animal Name / Scientific Name	Opening stock				Birth			Acquisition			Disposal			Death			Closing stock			
		M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
<b>BIRDS</b>																					
1	Peafowl (White) ( <i>Pavo cristatus</i> )	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
2	Spoonbill White ( <i>Platalea leucorodia</i> )	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
3	Steppe Eagle ( <i>Aquila Nipalensis</i> )	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
	<b>Total Birds</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>4</b>	
<b>MAMMALS</b>																					
1	Black Buck ( <i>Antilope cervicapra</i> )	40	50	9	99	0	0	15	0	0	0	0	0	0	3	4	0	42	50	15	107
2	White Black Buck ( <i>Antilope cervicapra</i> )	16	29	3	48	0	0	2	0	0	0	3	7	0	1	0	0	14	23	2	39
3	Chinkara – Indian Gazelle ( <i>Gazella bennetti</i> )	2	3	1	6	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	4
5	Leopard ( <i>Panthera pardus</i> )	3	1	0	4	0	0	0	0	2	0	0	0	0	3	0	0	3	0	0	3
6	Indian Porcupine ( <i>Hystrix indica</i> )	1	1	2	4	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	4
7	Asiatic Lion ( <i>Panthera leo persica</i> )	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
8	Tiger ( <i>Panthera tigris tigris</i> ) (White + Normal)	1	1	0	2	0	0	0	0	1	0	0	1	0	0	0	0	1	1	0	2
	<b>Total Mammals...</b>	<b>64</b>	<b>86</b>	<b>15</b>	<b>165</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>8</b>	<b>0</b>	<b>4</b>	<b>9</b>	<b>0</b>	<b>64</b>	<b>78</b>	<b>19</b>	<b>161</b>
<b>REPTILES</b>																					
1	Cobra Indian ( <i>Naja naja</i> )	2	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	3
2	Crocodile Marsh (Mugger) ( <i>Crocodylus Palustris</i> )	6	10	19	35	0	0	0	0	0	0	0	0	10	0	0	3	6	10	6	22
3	Python Indian – Rock ( <i>Python molurus molurus</i> )	6	3	4	13	0	0	0	0	0	0	0	0	0	0	0	0	8	5	0	13
4	Snake Rat / Dhaman ( <i>Pryas mucosus</i> )	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
5	Viper Russel's ( <i>Vipera ruselli</i> )	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2

6	Saw scaled viper ( <i>Echis carinatus</i> )	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	<b>Total Reptiles...</b>	<b>14</b>	<b>13</b>	<b>30</b>	<b>57</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>10</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>16</b>	<b>15</b>	<b>13</b>	<b>44</b>
	<b>Total ANIMALS (Birds + Mammals + Reptiles)...</b>	<b>80</b>	<b>100</b>	<b>47</b>	<b>227</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>8</b>	<b>10</b>	<b>4</b>	<b>9</b>	<b>4</b>	<b>82</b>	<b>94</b>	<b>33</b>	<b>209</b>

## 26. Mortality Report of animals

INDRODA NATURE PARK, GANDHINAGAR, GUJARAT.  
(1st April-2021 to 31st March-2022)

Sr.	Species	Date	Sex	Cause of death as diagnosed through P.M.
<b>BIRDS</b>				
1	Steppe eagle	20/10/2021	U (M)	Multiple senile complications
2	Barn owl	06/12/2021	U (M)	Multiple senile complications
3	Knob-billed duck	03/01/2022	U (M)	Multiple senile complications
<b>MAMMALS</b>				
1	Black buck	19/05/2021	F	Acute pneumonia
2	Black buck	19/05/2021	M	Acute pneumonia
3	Chinkara	19/05/2021	F	Acute pneumonia
4	Black buck	22/07/2021	M	Respiratory tract infection
5	Chinkara	03/08/2021	F	Infighting complications
6	Black buck	08/10/2021	F	Respiratory tract infection
7	Leopard	08/10/2021	F	Cardiac insufficiency
8	Leopard	12/08/2021	F	Severe pulmonary insufficiency
9	Spotted Deer	09/11/2021	M	Multiple senile complications
10	Black buck	25/11/2021	F	Respiratory tract infection
11	Black buck	24/12/2021	M	Infighting complications
12	White Black buck	16/01/2022	M	Infighting complications
13	Spotted Deer	24/01/2022	F	Respiratory tract infection
14	Leopard	17/02/2022	F	Chronic neurological disorder & its sequelae
15	Blackbuck	09/03/2022	F	Multiple senile complications
<b>REPTILES</b>				
1	Marsh crocodile	12/12/2021	U (M)	Multiple infighting complications
2	Marsh crocodile	19/03/2022	U (M)	Multiple infighting complications

**27. Status of compliance of conditions stipulated by Central Zoo Authority vide letter F. No.19-33/92-CZA(72)(Vol.V)(E) /147868 dated 11-01-2021**

S. No.	Norm No.	Condition Stipulated	Status
<b>1. General Requirements</b>			
1.	10.1	Planted saplings should be protected from langurs and bluebull	Complied. Indroda Nature Park had developed Miyawaki forest in past two years by intensive protection of the saplings through cage type tree guards and round the clock human guarding.
2.	10.1(7)	A nallah from adjoining locality enters the zoo and across the zoo. This nallah has sewage of the locality. It should be diverted outside the zoo or sewer line should be laid.	The nallah is a natural drain line for the rain water. Sewage pumping station of the adjoining locality was in non-functional condition at the time of visit. Hence the sewage water was passing through the nallah. The office of GEER Foundation had repeatedly requested to repair the pump of the station to the executive engineer of Patnagar Yojana Bhavan, Municipal corporation and Collector of Gandhinagar in past five years. In this context, the sewage pumping station of Indroda Village is functional at present and no sewage water is passing through the nallah. The foundation is vigilant in the same to prevent the entry of swage in the nallah.



S. No.	Norm No.	Condition Stipulated	Status
3.	10.1(9)	Necessary arrangements be made to stop the entry of dogs and cattle into zoo premise	The GEER Foundation has started constructing boundary wall around Indroda Nature Park in phased manner according to the availability of budget. Total 690 running meter of R.C.C. boundary wall of 2.0 meter height on the southern boundary of Indroda Nature Park is constructed in the year 2018-19 to prevent the entry of dogs and cattle. As soon as the next budget is allocated, the remaining boundary wall shall be created to secure the porous area of Indroda Nature Park zoo against the entry of dogs and cattle.
<b>2.Administrative and Staffing pattern</b>			
4.	10.2(2)	Posts of the curator, the education officer and the Biologists be sanctioned and recruitments be made.	The Foundation has sent the proposal for creation of the post of curator to the Government of Gujarat in the New Item of the Budget for the year 2023-24. The Foundation has requested to Government of Gujarat to change the nomenclature of the post of Snake and Wildlife park keeper to the Biologist and Nature Educator to Education Officer in the budget proposal for the year 2023-24.
<b>4.Animal Housing, display of animals and animal enclosures</b>			
5.	10.4(2)	Enclosures of exotic birds are small. They shall be made as per design and dimension prescribed by the CZA	As per the instructions given in the state level meetings for developmental works to be taken in

S. No.	Norm No.	Condition Stipulated	Status
			<p>Indroda Nature Park Zoo, the GEER Foundation has floated online tender for inviting bids through GeM for architectural designing consultancy for various developmental works in Indroda Nature Park in the month of May-2022&amp; August-2022. The appointment of Architect has been carried out based on scrutiny of the online tender bids. The appointed architect shall be provided the work to redesign of the all old enclosures of the Indroda Nature Park zoo in phased manner according to the budgetary allocation.</p>
6.	10.4(8)	Design for jackal enclosure not yet submitted to the CZA. Design be submitted to the CZA for approval.	<p>At present, there is no any Jackal in Indroda Nature Park animal stock.</p> <p>The foundation has proposed budgetary allocation of grants for creation of new enclosure for jackal in the budget of Government of Gujarat for the year 2023-24. The foundation has already appointed the architect for the redevelopment of Indroda Nature Park. The said architect has already started designing of the Jackal enclosure designs as per the norms and guidelines of the central Zoo Authority. The same shall be submitted to the Central</p>

S. No.	Norm No.	Condition Stipulated	Status
			Zoo Authority for approval.
7.	10.4(10)	Old sign boards installed and inside black buck and spotted deer should be removed.	Complied
8.	10.4(10)	Interpretation facilities should be made interactive.	The old interpretation facilities are planned to make interactive by use of innovative technology in the redevelopment work of Indroda Nature Park zoo.
<b>5.Upkeep &amp; health care of animals</b>			
9.	10.5(2)	Pre-slaughter pathological test of animals should be done.	Complied. The feed for the wild animals of Indroda Nature Park is supplied by the vendor who is registered and authorised by the Municipal corporation of Ahmedabad. Slaughter of the buffalo is carried out at the municipal corporation slaughter house after pre slaughter examination of the same by the Veterinary Officer of Municipal Corporation of Ahmedabad. Municipal corporation provide slip of slaughter fees. The said slip is submitted by the vendor to the Indroda Nature Park on daily basis.
10.	10.5(10)	Records pertaining to visual observation on daily pattern of activity and healthcare should be seen daily by the Curator/Veterinary Doctor.	Complied
11.	10.5(10)	Zoo Keeper's Diary should be maintained by the zoo keepers.	Complied
<b>6. Veterinary and infrastructure facilities:</b>			
12	10.6(1)	Appropriate footbath is also required	Complied

<b>S. No.</b>	<b>Norm No.</b>	<b>Condition Stipulated</b>	<b>Status</b>
		at the entry of the hospital.	
13.	10.6(1)	The hospital should have a proper operation theatre.	The redesigning of hospital is planned in which operation theatre along with all required facilities of surgical intervention shall be installed.
14.	10.6(3)	Quarantine facility should be established.	The budgetary allocation proposal for redevelopment plan of Indroda Nature Park has been submitted to the Government of Gujarat. The said plan includes quarantine facility of the rescued and newly arrived animals. Quarantine facility will be developed as soon as the budgetary allocation is obtained.
15.	10.6(6)	MoU should be signed on healthcare, preventive health management, surgical interventions, clinical tests, etc.	The Director of research of Veterinary University (Kamdhenu University) of Gujarat and Dy. Director of the Animal Husbandry department are appointed as the chairman and the member of the health advisory committee of the Indroda Nature Park. The said experts are providing their services along with their subordinate's services for health care, preventive health management, surgical interventions, clinical tests etc. through veterinary colleges and animal husbandry department facilities.
<b>9. Acquisition and breeding of animals</b>			

<b>S. No.</b>	<b>Norm No.</b>	<b>Condition Stipulated</b>	<b>Status</b>
116	10.9(1)	There is only one pair of Lion. The female is medically unfit for breeding. Zoo shall ensure self-sustaining population of the species.	It has been requested to allocate a
17	10.9(4)	Singly housed Jackal should be paired	At present, there is no jackal in the stock of Indroda Nature Park zoo.
<b>12. Visitors' facilities:</b>			
18	12.1	Cloak rooms for visitors should be provided.	It is proposed to create cloak room in the parking area of the Indroda Nature Park. The designing of the same shall be carried out by the appointed architect for approval. The facility will be created once the budgetary allocation is obtained.

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

Sr. No.	Common Name	Scientific Name
1	2	3
<b>Mammals</b>		
1	Hanuman Langur	<i>Presbytis entellus</i>
2	Indian Hare	<i>Lepus nigricollis</i>
3	Jackal	<i>Canis aureus</i>
4	Indian Porcupine	<i>Hystrix indica</i>
5	Grey Mongoose (Common Mongoose)	<i>Herpestesedwardsii</i>
6	Pale Hedgehog	<i>Hemiechinusmicropus</i>
7	Blue bull	<i>Boselaphustragocamelus</i>
8	Rusty-Spotted cat	<i>Prionailurusrubiginosus</i>
9	Five-striped Palm squirrel	<i>Funambulus palmarum</i>
10	Small Indian civet	<i>Viverricula indica</i>
<b>Birds</b>		
1	Alexandrine Parakeet	<i>Psittaculaeupatria</i>
2	Alpine Swift	<i>Tachymarptis melba</i>
3	Ashy Drongo	<i>Dicrurusleucophaeus</i>
4	Ashy Prinia	<i>Priniasocialis</i>
5	Ashy-crowned Sparrow-Lark	<i>Eremopterix grisea</i>
6	Asian Koel	<i>Eudynamysscolopacea</i>
7	Asian Openbill	<i>Anastomusoscitans</i>
8	Asian Palm Swift	<i>Cypsiurusbalasiensis</i>
9	Asian Paradise Flycatcher	<i>Terpsiphone paradisi</i>
10	Bank Myna	<i>Acridotheres ginginianus</i>
11	Barn-owl	<i>Tyto alba</i>
12	Baya Weaver	<i>Ploceusphilippinusphilippinus</i>
13	Bay-backed Shrike	<i>Lanius vittatus</i>
14	Black Drongo	<i>Dicrurusmacrocerus</i>

<b>Sr. No.</b>	<b>Common Name</b>	<b>Scientific Name</b>
<b>1</b>	<b>2</b>	<b>3</b>
15	Black Ibis	<i>Pseudibispapillosa</i>
16	Black Kite	<i>Milvus migrans</i>
17	Black Redstart	<i>Tringa tetanus</i>
18	Black-crowned Night-heron	<i>Nycticoraxnycticorax</i>
19	Black-headed Cuckooshrike	<i>Coracinamelanoptera</i>
20	Black-shouldered Kite	<i>Elanus caeruleus</i>
21	Black-winged Stilt	<i>Himantopus himantopus</i>
22	Blue Rock Thrush	<i>Monticolafiventris</i>
23	Blue-cheeked Bee-eater	<i>Merops persicus</i>
24	Blue-tailed Bee-eater	<i>Merops philippinus</i>
25	Bluethroat	<i>Luscinia svecica</i>
26	Booted Warbler	<i>Hippolais caligata</i>
27	Brahminy Duck	<i>Tadorna ferruginea</i>
28	Brahminy Starling	<i>Sturnus pagodarum</i>
29	Brown Rock Pipit	<i>Anthus similis</i>
30	Cattle Egret	<i>Bubulcus ibis</i>
31	Changeable Hawk-Eagle	<i>Spizaetus cirrhatus</i>
32	Chestnut-shouldered Petronia	<i>Petronia xanthocollis</i>
33	Citrine Wagtail	<i>Motacilla citreola</i>
34	Clamorous Reed Warbler	<i>Acrocephalus stentoreus</i>
35	Collared Scops-Owl	<i>Otus bakkamoena</i>
36	Comb Duck	<i>Sarkidiornis melanotos</i>
37	Common Babbler	<i>Turdoides caudatus</i>
38	Common Chiffchaff	<i>Phylloscopus collybita</i>
39	Common Coot	<i>Fulica atra</i>
40	Common Crane	<i>Grus grus</i>
41	Common Greenshank	<i>Tringanebularia</i>
42	Common Hawk-cuckoo	<i>Hierococcyx varius</i>
43	Common Hoopoe	<i>Upupa epops</i>

<b>Sr. No.</b>	<b>Common Name</b>	<b>Scientific Name</b>
<b>1</b>	<b>2</b>	<b>3</b>
44	Common Iora	<i>Aegithina tiphia</i>
45	Common Kestrel	<i>Falco tinnunculus</i>
46	Common Kingfisher	<i>Alcedo atthis</i>
47	Common Lesser Whitethroat	<i>Sylvia curruca</i>
48	Common moorhen	<i>Gallinula chloropus</i>
49	Common Myna	<i>Acridotheres tristis</i>
50	Common Pochard	<i>Aythya ferina</i>
51	Common Quail	<i>Cotumixcotumix</i>
52	Common Redshank	<i>Tringatotanus</i>
53	Common Sandpiper	<i>Actitis hypoleucos</i>
54	Common Snipe	<i>Gallinogallinago</i>
55	Common Stone Chat	<i>Saxicola torquata</i>
56	Common Swallow	<i>Hirundo rustica</i>
57	Common Tailorbird	<i>Orthotomussutorius</i>
58	Common Teal	<i>Anas crecca</i>
59	Common Woodshrike	<i>Tephrodornispondicerianus</i>
60	Coppersmith Barbet	<i>Megalaimahaemacephala</i>
61	Crested Bunting	<i>Melophslathami</i>
62	Crested Lark	<i>Galerida cristata</i>
63	Crested Serpent-Eagle	<i>Spilornischeela</i>
64	Darter	<i>Anhinga melanogaster</i>
65	Desert Wheatear	<i>Oenanthe deserti</i>
66	Dusky Crag-martin	<i>Hirundo concolor</i>
67	Eurasian Collared-dove	<i>Streptopeliadecaocto</i>
68	Eurasian Curlew	<i>Numenius arquata</i>
69	Eurasian Eagle-owl	<i>Bubo bubo</i>
70	Eurasian Golden Oriole	<i>Oriolusoriolus</i>
71	Eurasian Sparrowhawk	<i>Accipiter nisus</i>
72	Eurasian Spoonbill	<i>Platalealeucorodia</i>



<b>Sr. No.</b>	<b>Common Name</b>	<b>Scientific Name</b>
<b>1</b>	<b>2</b>	<b>3</b>
73	Eurasian Thick-knee	<i>Burhinusoedicnemus</i>
74	Eurasian Wryneck	<i>Jynx torquilla</i>
75	Forest Wagtail	<i>Dendronanthus indicus</i>
76	Glossy Ibis	<i>Plegadisfalcinellus</i>
77	Great Cormorant	<i>Phalacrocorax carbo</i>
78	Great White Pelican	<i>Pelecanusonocratalus</i>
79	Greater Coucal	<i>Centropus sinensis</i>
80	Green Bee-eater	<i>Meropsorientalis</i>
81	Green Sandpiper	<i>Tringaochropus</i>
82	Greenish Leaf Warbler	<i>Phyloscopustrochiloides</i>
83	Grey Francolin	<i>Francolinuspondicerianus</i>
84	Grey Heron	<i>Ardea cinerea</i>
85	Grey Wagtail	<i>Motocilla cinerea</i>
86	Grey-breasted Prinia	<i>Priniahodgsonii</i>
87	Grey-headed Flycatcher	<i>Culicicapaceylonensis</i>
88	Hair-crested Drongo	<i>Dicrurushottentotus</i>
89	House Crow	<i>Corvus splendens</i>
90	House Sparrow	<i>Passer domesticus</i>
91	House Swift	<i>Apus affinis</i>
92	Indian Bushlark	<i>Mirafraerythroptera</i>
93	Indian Cuckoo	<i>Cuculusmicropterus</i>
94	Indian Grey Hornbill	<i>OcycerorBirostris</i>
95	Indian Nightjar	<i>Caprimulgus asiaticus</i>
96	Indian Peafowl	<i>Pavo cristatus</i>
97	Indian Pitta	<i>Pitta brachyura</i>
98	Indian Pond-heron	<i>Ardeolagrayii</i>
99	Indian Robin	<i>Saxicoloidesfulicata</i>
100	Indian Roller	<i>Coracias benghalensis</i>
101	Indian Silverbill	<i>Lonchuramalabarica</i>

<b>Sr. No.</b>	<b>Common Name</b>	<b>Scientific Name</b>
<b>1</b>	<b>2</b>	<b>3</b>
102	Intermediate Egret	<i>Mesophoyx intermedia</i>
103	Jungle Babbler	<i>Turdoides striatus</i>
104	Jungle Bush-quail	<i>Perdica asiatica</i>
105	Jungle Crow	<i>Corvus macrorhynchos</i>
106	Jungle Owlet	<i>Glacydium radiatum</i>
107	Jungle Prinia	<i>Prinia sylvatica</i>
108	Large Cuckoo-Shrike	<i>Coracinamacei</i>
109	Large Egret	<i>Casmerodius albus</i>
110	Large Grey Babbler	<i>Turdoides malcolmi</i>
111	Large Woodshrike	<i>Tephrodornis gularis</i>
112	Laughing Dove	<i>Streptopelia senegalensis</i>
113	Lesser Golden-backed Woodpecker	<i>Dinopium benghalense</i>
114	Lesser Whistling-duck	<i>Dendrocygna javanica</i>
115	Little Cormorant	<i>Phalacrocorax niger</i>
116	Little Egret	<i>Egretta garzetta</i>
117	Little Grebe	<i>Tachybaptus ruficollis</i>
118	Little Ringed Plover	<i>Charadrius dubius</i>
119	Long-tailed Shrike	<i>Lanius schacherythronotus</i>
120	Marshall's Iora	<i>Aegithina nigrolutea</i>
121	Mottled Wood Owl	<i>Strix ocellata</i>
122	Northern Pintail	<i>Anas acuta</i>
123	Northern Shoveler	<i>Anas clypeata</i>
124	Oriental Honey-buzzard	<i>Pernis ptilorhynchus</i>
125	Oriental Magpie-Robin	<i>Copsychus saularis</i>
126	Oriental Tree Pipit	<i>Anthus trivialis</i>
127	Oriental White Ibis	<i>Threskiornis melanocephalus</i>
128	Oriental White-eye	<i>Zosterops palpebrosus</i>
129	Orphean Warbler	<i>Sylvia hortensis</i>
130	Painted Stork	<i>Mycteria leucocephala</i>

<b>Sr. No.</b>	<b>Common Name</b>	<b>Scientific Name</b>
<b>1</b>	<b>2</b>	<b>3</b>
131	Pallid Harrier	<i>Circus macrourus</i>
132	Pheasant-tailed Jacana	<i>Hydrophasianuschirurgus</i>
133	Pied Avocet	<i>Recurvirostraavosetta</i>
134	Pied Bush Chat	<i>Saxicola caprata</i>
135	Pied Crested Cuckoo	<i>Clamatorjacobinus</i>
136	Pied Kingfisher	<i>Cerylerudis</i>
137	Plain Prinia	<i>Priniainornata</i>
138	Plume-headed Parakeet	<i>Psittaculacyanocephala</i>
139	Purple Heron	<i>Ardea purpurea</i>
140	Purple Moorhen	<i>Porphyrioporphyrio</i>
141	Purple Sunbird	<i>Nectarinia asiatica</i>
142	Purple-rumped Sunbird	<i>Nectariniazeylonia</i>
143	Red Collared-dove	<i>Streptopelia tranquebarica</i>
144	Red-breasted Flycatcher	<i>Ficedula parva</i>
145	Red-headed Falcon	<i>Falco chicquera</i>
146	Red-rumped Swallow	<i>Hirundodaurica</i>
147	Red-vented Bulbul	<i>Pycnonotuscafer</i>
148	Red-wattled Lapwing	<i>Vanellus indicus</i>
149	River Tern	<i>Sterna aurantia</i>
150	Rock Pigeon	<i>Columba livia</i>
151	Rose-ringed Parakeet	<i>Psittaculakrameri</i>
152	Rosy Starling	<i>Sturnus roseus</i>
153	Rufous Fronted Prinia	<i>Prinia b Buchananani</i>
154	Rufous tailed Lark	<i>Ammomanes phoenicura</i>
155	Rufous Treepie	<i>Dendrocitta vagabunda</i>
156	Rufous-tailed Finch-Lark	<i>Ammomanes phoenicurus</i>
157	Savanna Nightjar	<i>Caprimulgus affinis</i>
158	Scaly-breasted Munia	<i>Lonchura punctulata</i>
159	Shikra	<i>Accipiter badius cenchroides</i>

<b>Sr. No.</b>	<b>Common Name</b>	<b>Scientific Name</b>
<b>1</b>	<b>2</b>	<b>3</b>
160	Short-toaed Snake-Eagle	<i>Circaetusgallicus</i>
161	Short-toed sanke Eagle	<i>Ciraetusgallicus</i>
162	Siberian Rubythroat	<i>Luscinia calliope</i>
163	Singing Bushlark	<i>Mirafracantillans</i>
164	Sirkeer Malkoha	<i>Phaenicophaeusleschenaultii</i>
165	Small Minivet	<i>Pericrocotuscinnamomeus</i>
166	Southern Grey Shrike	<i>Lanius meridionalis</i>
167	Spot-billed Duck	<i>Anas poecilorhyncha</i>
168	Spotted Dove	<i>Streptopelia chinensis</i>
169	Spotted Flycatcher	<i>Muscicapa striata</i>
170	Spotted Owlet	<i>Athene brama</i>
171	Streaked Weaver Bird	<i>Ploceusmanyar</i>
172	Streaked Wren-Warbler	<i>Priniagracilis</i>
173	Sulphur-bellied Warbler	<i>Phylloscopusgriseolus</i>
174	Sykes's Lark	<i>Galerida deva</i>
175	Tawny-bellied Babbler	<i>Dumetiahyperythra</i>
176	Tickell's Blue Flycatcher	<i>Cyornistickelliae</i>
177	Tickell's Fowerpecker	<i>Dicaeum agile</i>
178	Ultramarine Flycatcher	<i>Muscicapasuperciliaris</i>
179	Variable Wheater	<i>Oenanthe picata</i>
180	Verditer Flycatcher	<i>Eumyiastralassina</i>
181	Western Marsh Harrier	<i>Circus aeruginosus</i>
182	White Eyed Buzzard	<i>Butasturtesa</i>
183	White Stork	<i>Ciconia ciconia</i>
184	White Wagtail	<i>Motacilla alba</i>
185	White-bellied Drongo	<i>Dicruruscaerulescens</i>
186	White-bellied Minivet	<i>Pericrocotuserythropygius</i>
187	White-breasted Waterhen	<i>Amauornisphoenicurus</i>
188	White-browed Bulbul	<i>Pycnonotusluteolus</i>

Sr. No.	Common Name	Scientific Name
1	2	3
189	White-browed Fantail Flycatcher	<i>Rhipidura aureola</i>
190	White-eared bulbul	<i>Pycnonotus leucotis</i>
191	White-eyed Buzzard	<i>Butastur teesa</i>
192	White-necked Stork	<i>Ciconia episcopus</i>
193	White-throated Fantail Flycatcher	<i>Rhipidura albicollis</i>
194	White-throated Kingfisher	<i>Halcyon smyrnensis</i>
195	Wire-tailed Swallow	<i>Hirundo smithii</i>
196	Wood Sandpiper	<i>Tringalareola</i>
197	Yellow fronted pied Woodpecker	<i>Dendrocopos mahrattensis</i>
198	Yellow Wagtail	<i>Motacilla flava</i>
199	Yellow-eyed Babbler	<i>Chrysommasinense</i>
200	Yellow-legged Green Pigeon	<i>Treron phoenicoptera</i>
201	Yellow-wattled Lapwing	<i>Vanellus malarbaricus</i>
<b>Reptiles</b>		
1	Indian Cobra	<i>Naja naja</i>
2	Common Krait	<i>Bungarus caeruleus</i>
3	Common San boa	<i>Gongylophis conicus</i>
4	Red San-Boa	<i>Eryx johnii</i>
5	Indian Rock Python	<i>Python molurus</i>
6	Common Cat Snake	<i>Boiga trigonata</i>
7	Small-banded Kukri Snake	<i>Oligodon fasciolatus</i>
8	Common Worm Snake	<i>Typhlinabramina</i>
9	Bronze back tree snake	<i>Dendrelaphis gorei</i>
10	Russel's Viper	<i>Daboia russelii</i>
11	Saw-scaled viper	<i>Echiscarinata</i>
12	Trinket Snake	<i>Elaphe helena</i>
13	Indian Wolf Snake	<i>Lycodon capucinus</i>
14	Barred Wolf Snake	<i>Lycodon striatus</i>
15	Checkered keel-back	<i>Xenochrophis piscator</i>

<b>Sr. No.</b>	<b>Common Name</b>	<b>Scientific Name</b>
<b>1</b>	<b>2</b>	<b>3</b>
16	Common Garden Lizard	<i>Calotes versicolor</i> (Daudin)
17	Common Indian Monitor	<i>Varanus Bengalensis</i>
18	Fan-Throated Lizard	<i>Sitanaponticeriana</i>
19	Brahminy Skink	<i>Mabuyacarinata</i>
20	Indian Flapshell	<i>Lissemys punctata</i>