

Submitted to

**Central Zoo Authority** 

New Delhi



Gujarat Ecological Education and Research (GEER) Foundation



# INDRODA NATURE PARK ZOO Annual Report 2022-23



Gujarat Ecological Education and Research (GEER) Foundation

#### FROM THE DIRECTOR'S DESK



Indroda Nature Park, one of Gandhinagar's foremost modern attractions, traces its origins back to a visionary project that was initiated in 1977 and was aimed at establishing a "Wildlife Park and Natural History Museum" complex. A Deer Park ("Haranodyan") was established in December 1978 under this project for creating awareness about wildlife and biodiversity in the public. It was established as a part of the Gandhinagar Capital Project and was inaugurated by the then Hon'ble Governor of Gujarat State. After nearly half decade, when the Gujarat Ecological Education and Research (GEER) Foundation was established in June 1982 by the Forests and Environment Department, Govt. of Gujarat, many feathers were gradually added in the cap of the original deer park premises in the form of various enclosures and moats for a variety of wild mammals, reptiles and birds. As a result, what the visitors see today, i.e., Indroda Nature Park Zoo" has come into existence that has been categorized as a medium-sized zoo by the Central Zoo Authority (CZA) of India.

Today, alongside the zoo, visitors can immerse themselves in a natural environment, explore the Botanical Garden, and journey back in time at the Dinosaur and Fossil Park. Furthermore, the GEER Foundation has recently initiated the development of an "urban forest" known as "Nagar Van," providing citizens with an opportunity to experience the serenity of a forest near the city.

Within the Park's boundaries, individuals can revel in the beauty of nature while observing its diverse elements. The GEER Foundation is unwavering in its commitment to animal welfare and nurturing people's affinity for nature. Through constant efforts, the Foundation ensures the maintenance and growth of the zoo. I am delighted to present the endeavours and activities undertaken by the zoo in the past year through our annual report, titled "Indroda Nature Park Zoo Annual Report 2022-23". This report accentuates the strategies employed to achieve the zoo's objectives and mission. Additionally, it offers valuable insights into the organizational structure and the various facilities within and surrounding Indroda Nature Park Zoo.

Over the course of the year, significant renovations have been carried out in numerous enclosures, which have been enriched with new features, signages, and landscaping. Furthermore, new infrastructure and visitor amenities have been developed, ensuring an enhanced experience for all. GEER Foundation has placed considerable effort in maintaining the

highest standards of healthcare and animal husbandry practices. This achievement has been made possible through the dedicated work of our zoo veterinary officer, the invaluable guidance of the health advisory committee, and the external support of Kamdhenu University and the Department of Animal Husbandry regarding vital healthcare matters. In order to ensure the efficiency of our workforce involved in animal care, capacity-building programmes and health check-ups have been conducted for our staff.

Throughout the year 2022-23, numerous educational activities had been organized, including the celebration of World Wetlands Day, World Wildlife Day, World Environment Day, International Tiger Day, and Wildlife Week. These events have provided opportunities to visitors to engage with conservation efforts and deepen their understanding of the natural world. Looking ahead, the zoo has ambitious plans for the upcoming year, which involve the development of modern enclosures for sloth bear, foxes, jackal, hyena, and wolf. These new wild inhabitants in captivity will undoubtedly be a splendid addition to the array of attractions that are already existing at Indroda Nature Park. Furthermore, the Park is set to house a state-of-theart veterinary hospital, with the design already finalized, and construction scheduled to commence shortly. This facility will play a crucial role in providing healthcare services to sick, injured, and rescued zoo animals, as well as rehabilitating orphaned wildlife. Advanced veterinary intervention facilities will be installed to ensure the diagnosis and treatment of wild animals.

I would like to express my gratitude to the officials of the Gujarat Forest Department for their unwavering guidance and support in the continuous development of the zoo. I also commend the efforts of the Deputy Director (R&D) of the GEER Foundation and all the dedicated staff members of the zoo who contribute to the well-being of captive animals and the preservation of endangered species through ex-situ conservation efforts.

R. K. Sugoor, IFS
Director
GEER Foundation

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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 Udhyan 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 outsides 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 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 signage 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

No.  Basic Information about the Zoo  Indroda Nature Park Zoo  Year of Establishment  Telephone Number  Fax Number  E-mail address  Website  Website  Website  Distance from nearest  Airport: Ahmedabad-17 kms  Railway Station:  Gandhinagar (W.R.)- about 10 km;  Ahmedabad (W.R.)- 30 kms  Bus Stand:  Gandhinagar (Gujarat State Road Transport Corporation)- about 4 km  Recognition Valid upto (Date)  19708/2022	Sr.	Particulars	Information	
1 Name of the Zoo Indroda Nature Park Zoo 2 Year of Establishment 1978 3 Address of the Zoo Indroda Nature Park, P.O. Sector-7, 'J' Road, Gandhinagar-382007, Gujarat, India 4 State Gujarat 5 Telephone Number +91-7923977300, 23977311 6 Fax Number - 7 E-mail address dir-geer@gujarat.gov.in dydir-geer@gujarat.gov.in Website www.geerfoundation.gujarat.gov.in  8 Website Airport: Ahmedabad-17 kms Railway Station: Gandhinagar (W.R.)- about 10 km; Ahmedabad (W.R.)- 30 kms Bus Stand: Gandhinagar (Gujarat State Road Transport Corporation)- about 4 km	No.			
2 Year of Establishment  1978  Address of the Zoo  Indroda Nature Park, P.O. Sector-7, 'J' Road, Gandhinagar- 382007, Gujarat, India  4 State  Gujarat  5 Telephone Number  +91-7923977300, 23977311  6 Fax Number  -  7 E-mail address  dir-geer@gujarat.gov.in dydir-geer@gujarat.gov.in  Website  Website  Www.geerfoundation.gujarat.gov.in  Airport: Ahmedabad- 17 kms  Railway Station: Gandhinagar (W.R.)- about 10 km; Ahmedabad (W.R.)- 30 kms  Bus Stand: Gandhinagar (Gujarat State Road Transport Corporation)- about 4 km	Basic	Information about the Zoo		
Address of the Zoo Indroda Nature Park, P.O. Sector-7, 'J' Road, Gandhinagar- 382007, Gujarat, India  State Gujarat  Telephone Number +91-7923977300, 23977311  Fax Number  E-mail address dir-geer@gujarat.gov.in dydir-geer@gujarat.gov.in  Website www.geerfoundation.gujarat.gov.in  Airport: Ahmedabad- 17 kms  Railway Station: Gandhinagar (W.R.)- about 10 km; Ahmedabad (W.R.)- 30 kms  Bus Stand: Gandhinagar (Gujarat State Road Transport Corporation)- about 4 km	1	Name of the Zoo	Indroda Nature Park Zoo	
P.O. Sector-7, 'J' Road, Gandhinagar- 382007, Gujarat, India  State  Gujarat  Fax Number  Fax Number  E-mail address  dir-geer@gujarat.gov.in dydir-geer@gujarat.gov.in  Website  www.geerfoundation.gujarat.gov.in  Airport: Ahmedabad- 17 kms  Railway Station: Gandhinagar (W.R.)- about 10 km; Ahmedabad (W.R.)- 30 kms  Bus Stand: Gandhinagar (Gujarat State Road Transport Corporation)- about 4 km	2	Year of Establishment	1978	
Gandhinagar- 382007, Gujarat, India  State Gujarat  Telephone Number +91-7923977300, 23977311  Fax Number  E-mail address dir-geer@gujarat.gov.in dydir-geer@gujarat.gov.in  Website www.geerfoundation.gujarat.gov.in  Airport: Ahmedabad- 17 kms  Railway Station: Gandhinagar (W.R.)- about 10 km; Ahmedabad (W.R.)- 30 kms  Bus Stand: Gandhinagar (Gujarat State Road Transport Corporation)- about 4 km	3	Address of the Zoo		
5 Telephone Number +91-7923977300, 23977311  6 Fax Number -  7 E-mail address dir-geer@gujarat.gov.in dydir-geer@gujarat.gov.in  8 Website www.geerfoundation.gujarat.gov.in  9 Distance from nearest Airport: Ahmedabad- 17 kms  Railway Station: Gandhinagar (W.R.)- about 10 km; Ahmedabad (W.R.)- 30 kms  Bus Stand: Gandhinagar (Gujarat State Road Transport Corporation)- about 4 km				
6 Fax Number -  7 E-mail address dir-geer@gujarat.gov.in dydir-geer@gujarat.gov.in  8 Website www.geerfoundation.gujarat.gov.in  9 Distance from nearest Airport: Ahmedabad- 17 kms  Railway Station:  Gandhinagar (W.R.)- about 10 km;  Ahmedabad (W.R.)- 30 kms  Bus Stand:  Gandhinagar (Gujarat State Road Transport Corporation)- about 4 km	4	State	Gujarat	
7 E-mail address  dir-geer@gujarat.gov.in  dydir-geer@gujarat.gov.in  8 Website  www.geerfoundation.gujarat.gov.in  Airport: Ahmedabad- 17 kms  Railway Station:  Gandhinagar (W.R.)- about 10 km;  Ahmedabad (W.R.)- 30 kms  Bus Stand:  Gandhinagar (Gujarat State Road Transport  Corporation)- about 4 km	5	Telephone Number	+91-7923977300, 23977311	
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8 Website www.geerfoundation.gujarat.gov.in  9 Distance from nearest Airport: Ahmedabad- 17 kms  Railway Station:  Gandhinagar (W.R.)- about 10 km;  Ahmedabad (W.R.)- 30 kms  Bus Stand:  Gandhinagar (Gujarat State Road Transport Corporation)- about 4 km	7	E-mail address	dir-geer@gujarat.gov.in	
9 Distance from nearest  Airport: Ahmedabad- 17 kms  Railway Station:  Gandhinagar (W.R.)- about 10 km;  Ahmedabad (W.R.)- 30 kms  Bus Stand:  Gandhinagar (Gujarat State Road Transport  Corporation)- about 4 km			dydir-geer@gujarat.gov.in	
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Bus Stand:  Gandhinagar (Gujarat State Road Transport Corporation)- about 4 km			Gandhinagar (W.R.)- about 10 km;	
Gandhinagar (Gujarat State Road Transport Corporation)- about 4 km			Ahmedabad (W.R.)- 30 kms	
Corporation)- about 4 km				
			Gandhinagar (Gujarat State Road Transport	
Recognition Valid upto (Date) 19/08/2022				
	10	Recognition Valid upto (Date)	19/08/2022	

Sr. No.	Particulars	Information
11	Category of zoo	Medium Zoo
12	Area (in Hectares)	428 Hectares (157 ha- Western bank and
		271 ha Eastern bank of river Sabarmati)

# 13 **Number of Visitors (2022-23):**

Indroda Nature Park attracts visitors from Gandhinagar and Ahmedabad city.

Visitation of Indroda Nature Park is increasing day by day. The annual footfall of Indroda Nature Park zoo in the year 2022-23 remained 5.63 lakh visitors.

The detailed information about visitation is given in table below.

Sr. No.	Month	Adults	Children	Students	Complimentary to the Divyangs and others	Total
1	April-2022	17317	1675	1927	7	20926
2	May- 2022	35458	6871	240	36	42605
3	June-2022	37956	6317	972	308	45553
4	July-2022	34339	4105	1471	17	39932
5	August- 2022	45554	6205	1190	49	52998
6	September- 2022	24702	2345	3041	571	30659
7	October- 2022	55056	9564	2837	80	67537
8	November- 2022	40331	6618	3953	663	51565
9	December- 2022	39367	5190	14228	1630	60415
10	January- 2023	40964	4543	19504	663	65674
11	February- 2023	27217	2890	17425	620	48152
12	March- 2023	27514	3230	5978	478	37200
Total	2022-23	425775	59553	72766	5122	563216
Visitor Zoo	rs' Facilities A	vailable in	1) Di	<u> </u>	r kiosks at 3 differe t 3 different places	•

Sr. No.	Particulars	Information		
		<ul> <li>3) Souvenir shop</li> <li>4) Resting areas, gardens and benches</li> <li>5) First aid kits</li> <li>6) Fruit kiosk</li> <li>7) Wheel chairs for "Divyang Jan"</li> </ul>		
15	Weekly Closure Day of the Zoo	The Zoo remains closed for visitors on Monday every week.		
Manag	gement Personnel of the zoo			
16	Name with designation of the Officer in-charge	<ol> <li>Shri R.K. Sugoor,         Director &amp; Additional Principal Chief         Conservator of Forest, Gujarat         Ecological Education and Research         (GEER) Foundation</li> <li>Shri R.P. Gelot,         Dy. Director (R &amp;D), GEER Foundation</li> <li>Shri R.B. Solanki,         Dy. Director (E. E), GEER Foundation</li> </ol>		
	Name of the Veterinary Officer	Dr. Aniket B. Patel		
	Name of the Curator	Post of the curator is vacant the work of curator is being carried out by the Park Warden (R.F.O.)- Shri. A.C. Dodia		
	Name of the Biologist	Dr. Sandeep Munjpara (i/c)		
	Name of the Education Officer	Shri Alap Pandit (i/c)		
	Name of the Compounder/ Lab Assistant	Shri Hitesh S. Desai		
Owne	r / Operator of the Zoo			
17	*Name of the Operator	Shri R.P. Gelot,		
18	Address of the Operator	Dy. Director (R & D), GEER Foundation, Indroda Nature Park, P.OSector-7, 'J' Road, Gandhinagar- 382007, Gujarat, India.		
19	Contact details/Phone number	Phone: +91-79-23977302,		
20	of Operator  E-mail address of Operator	+91-79-23977300 dydir-geer@gujarat.gov.in		

Sr. No.	Particulars	Information	
21	Other Information		
	Entry Fees	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
		Filming (for more than four hours in a day)	12000.00
		Amateur Camera for Photography (except mobile)	40.00
		Amateur Camera for Videography (except mobile)	
		Professional Camera for Photography (S.L.R/D.S.L.R)	200.00
		Professional Camera for Videography (S.L.R/D.S.L.R)	3500.00
	Zoo Timings	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.

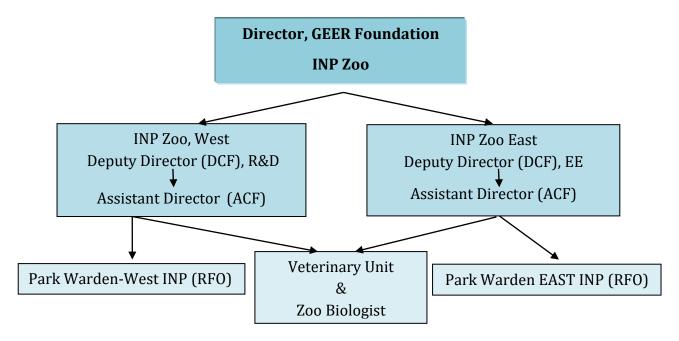
*Cactus house* contains more than 80 species of these succulent plants. The information about species, habitat, etc. is displayed for the knowledge of the visitors. The beautiful flowery plants are one of the major attractions.

**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 - 7.1:** Details of the posts of officer cadre

Sr.	Designation	Number of	Names of the incumbent
No.		Sanctioned Posts	
1	Director and Addl. Principal	1	Shri R.K. Sugoor
	Chief Conservator of Forests		
2	Dy. Director (R & D) and Dy.	1	Shri R.P. Gelot
	Conservator of Forests		
3	Dy. Director (EE) and Dy.	1	Shri R.B. Solanki
	Conservator of Forests		
4	Assistant. Director and ACF	2	Shri R.P. Gelot (i/c)
5	Veterinary Officer	1	Dr. Aniket B. Patel
6	Park Warden cum Range	2	Shri A.C. Dodia
	Forest Officers		

**Table-7.2:** Details of the posts of employee cadre

Sr. No.	Name of Cadre	No. of Post Sanctioned	Names of the Incumbent
	INP Z	oo Eastern part	t
1	Forester	1	Shri R.R. Makwana
2	Snake Cum Wildlife Park Keeper	1	Vacant
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	Shri V.S. Thakor Addl. Proposed post-1

7	Sweeper cum keeper	01	Shri Baldevbhai S. Vaghela
8	Accountant	1	Vacant
			Shri Baldevbhai B. Parmar (i/c)
9	Bird Breeder	1	Vacant
10	Driver	1	Vacant
			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
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
25	Night Watchmen and reliver	Permanent/	Shri Kirankumar Bhalaji Thakor
		fix labours	Shri Rameshji Maganji Thakor
			Shri Lalaji Bhalaji Thakor
			Shri Ramdhiraj Rambadal Kori
			Shri Jugaji Bakaji Thakor
			Shri Karmanbhai R. Desai
			Shri Balvantji J. Thakor
			Shri Baldevji Ataji Makwana
	INP Z	oo Eastern part	-
1	Accountant	1	Vacant
			Shri Jagdishbhai Chauhan (i/c)
2	Forester	1	Shri R.R. Makawana (i/c)
3	Forest Guard	1	Shri V.S. Thakor (i/c)
4	Zoo Education Guide	0	Proposed posts- 2
5	Sweeper Cum Keeper	0	Proposed posts-2
6	Driver	0	Proposed posts-1
7	Watchman	0	Proposed posts-2

# 8. Capacity Building of the 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
2	Shri. R.P. Gelot, Dy. Director (R & D) Dr. Aniket Patel, Veterinary Officer	Co-creation One Health Workshop Gujarat	15 <sup>th</sup> March, 2023	Indian Institute of Public Health, Gandhinagar.
03	Shri Hitesh S. Desai, Vet. Asst. Shri Maheshkumar Kalabhai Raval	Regional capacity enhancement workshop for Zoo Keepers	16 -18 March,2023	Nahargarh Biological Park, Jaipur, Rajasthan.
05	Dr. Sandeep Munjpara	Capacity Enhancement Workshop for Zoo Biologists	21-23 March, 2023	Central Zoo Authority and GZRRC, Jamnagar, Gujarat

# 9. Zoo Advisory Committee -

**A. Date of constitution:** The Zoo Advisory committee is constituted vide GEER Foundation's order no.: EST/1/A- 7922-28, Date: 28/02/2023.

**B. Members:** The details of the committee members are as under.

Sr.	Name	Designation	Appellation in
No.			committee
1	Shri M.J. Parmar	APCCF (Rtd), Gujarat Forest	Chairman of Zoo
_		Department	Advisory committee
2	Dr. K.K. Hadiya	Hospital Superintendent Cum	Member of Zoo
		Associate professor Anand College	Advisory committee
		of Vet. Science & A.H Kamdhenu	
		University	
3	Dr. C.B. Patel	Veterinary Officer (Rtd.) of Baroda	Member of Zoo
		Zoo, Baroda	Advisory committee
4	Shri R.P. Gelot	Dy. Director (R&D)	Member of Zoo Advisory
•		GEER Foundation	committee
5	Dr. A.B. Patel	Veterinary Officer	Member of Zoo Advisory
		GEER Foundation	committee
6	Shri A.C. Dodiya	Park Warden cum R.F.O	Member Secretary of
J		Indroda Nature Park, Gandhinagar	Zoo Advisory committee

# $\hbox{C. \ \, Date on which Meetings held during the year:} 24/03/2023. \\$





Visit of committee members of Zoo Advisory Committee

# 10. Health Advisory Committee-

A. Date of constitution: The Health Advisory committee is constituted vide

GEER Foundation's order no.: WLP/T-6/B- 7609-11,

Date: 14/02/2023.

**B. Members:** The details of the committee members are as under.

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: 01/03/2023.





Field visit and discussion during Health Advisory Committee meeting.

# 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 (Unaudited amount)	Utilization of budget in percentage
1	Provision for wild animal feed and nutrition related requirements of INP Zoo	91.00	86.02	94.53 %
2	Provision for Prophylactic measures to be taken for prevention and control of diseases and disorders in captive wild animals of INP Zoo	3.5	2.36	67.43 %
3	Provisions for capacity building of Officers and employees of INP Zoo, First aid training, health check up camps etc	2.00	1.24	62 %
4	Provision for awareness of nature conservation to visitors	0.50	0.53	106 %
5	Provision for procurement of medicines and feed supplements, veterinary equipment's, rescue instruments etc for veterinary hospital	6.00	7.01	116.83 %
6	Provision for Salary of the employees working in the zoo	65.00	54.49	83.83 %
7	Maintenance of Gardens of INP	105.00	107.59	102.47 %
8	Protection works and Fencing maintenance	60.50	68.16	112.66 %
9	Water Supply and electricity bills	30.00	28.54	95.13 %
10	General maintenance	15.50	16.39	105.74 %
11	Vehicle maintenance and vehicle on rent	2.00	2.72	136 %
12	Office expense	8.50	10.74	126.35 %

# Income received from sale of tickets and other sources

Sr. No.	Particulars	Amount in Indian Rupees
1	Entry Fees, Indroda Nature Park, Gandhinagar	1,74,15,726.00
2	Rent for Aahar Kendra	32,500.00
3	Sale of Publication Park	59,450.00
4	Tender Form Fees/Sale of old Materials/Other	21,770.00
	Total	1,75,29,446.00

# 12. Daily feed Schedule of animals

### **Mammals:**

# (A) Carnivore animals

Sr. No	Animal	Feed	Quantity/ani	mal/day (Kg)
			Winter	Summer
1	Royal Bengal Tiger	Buffalo meat	8	6-7
	(Panthera tigris tigris)			
1	Asiatic Lion	do	8	6-7
	(Panthera leo persica)			
2	Leopard (Panthera pardus)	do	3.0	2-2.5
3	Indian Grey Wolf	do	2.0	1.5
	(Canis lupes pallipes)			
4	Jackal	Poultry meat	0.5	0.5
	(Canis aureus)			
5	The Indian Fox	do	0.3	0.3
	(Vulpes bengalensis)			
6	Striped Hyaena	do	1.0	1.0
	(Hyaena hyaena)			
Note: An	imals mentioned above are ke	pt on fast for one	e day in a week o	on Monday.

# (B) <u>Herbivore Animals</u>

Sr.		Quantity of Feed/Animal/day (Kg)			
No.	Animal	Green Grass	Dry roughage	Chick pea	Concentrate mixture
1	Sambar (Cervus unicolor)	10	1	0.2	0.7
2	2 Spotted Deer(Axis axis)		0.8	0.2	0.3
3	Black Buck (Antilope cervicapra)		0.7	0.1	0.2
4	White Black Buck (Antilope cervicapra)	4	0.7	0.1	0.2
5	Chinkara (Gazella gazella bennetti)	3	0.5	0.1	0.2
6	Chousingha / Four-horned Antelope (Tetraceros quadricornis)	3	0.5	0.1	0.2
7	7 Barking Deer (Muntiacus muntjak)		0.7	0.1	0.2
		Feed/Animal/day (Kg)			
	Rodentia	Chick pea Fruits and Vegetables			

1	Indian porcupine (Hystrix indica)	0.5	1		
Note: The feed to above mentioned animals is offered all days in a week without fasting.					

### **Aves:**

Sr.		Quantity	d/day (I	Kg)	
No.	Bird	Grains/leg ume seeds	Vegetable / Fruit	Meat	Fish
1	Crane Common (Grus grus)	0.40			
2	Crane Sarus (grus antigone)	0.30			
3	Duck Pintail (Anas acuta)	0.15			
4	Goose Bar-Headed (Anser indicus)	0.15			
5	Parakeet Alexandrine (Psittaculaeupatria)	0.01	0.15		
6	Teal Lesser Whistling (Dendrecygna bicolor)	0.15			
7	Dove little Brown(spilopeliasenegalensis)	0.05			
8	Duck Comb (Sarkidiornismelanotos)	0.20			
9	Cocketil (Nymphicuspalustris)	0.03			
10	White Peafowl (Pavo cristatus)	0.20	0.20		
11	Silver pheasant (Lophuranycthemera)	0.10	0.20		
12	Heron Night (Nycticoraxnycticorax)				0.34
13	White Ibis ( Threskiornisacthiopica )				0.34
14	Owl Indian Greater horned(Bubo virginianus)			0.25	
15	Rosy Pelican / White (Pelecanusonocrotalus)				1.00
16	Painted Stork ( Mycterialeucocephala)				0.50
17	Steppe Eagle(Aquila nipalensis)			0.50	
18	Cormorant little (phalacroraxniger)				0.30
19	Brahminy Kite - (Tadornaferruginea)			0.25	
20	Barn Owl (Tato alba)			0.25	
21	White Spoonbill (Platalealeucorodia)				0.30
23	White Stork (Ciconia ciconia)				0.50
Note	: carnivore birds are kept on fast once in	a week on Mo	nday		

### **Reptiles:**

		Quan	tity of feed /A	nimal
Sr. No.	Animal	Dressed Meat (kg/week)	Vegetables (kg/ Day)	Other feed grams/Week
1	Indian Cobra(Naja naja)			200
2	Marsh Crocodile (Mugger) (Crocodylus palustris)	0.700		
3	IndianRock Python (Python molurusmolurus)			1000
4	Indian Rat Snake /Dhaman (Pryasmucosus)			200
5	Russsel's Viper (Viperarussellii)			200
6	Common Indian Krait (Bungaruscaerulus)			100
7	Common Sand Boa (Eryxjohini)			150
8	Red Sand Boa(Eryxconicus)			150
9	Indian Star Tortoise (Geochelone elegans)		0.150	
10	Ganges Soft-shell Turtle (Aspideratesgangeticus)	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. Taurine supplementation of meat is also done for carnivore animals of felid species. 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	<ul><li>(a) Anti Rabies</li><li>(b) Parvo Virus</li><li>(c) Leptospira</li><li>(d) Canine distemper</li><li>(e) Herpes virus</li><li>(f) Parainfluenza</li></ul>	Vanguard 5L4	Pups at 45 days of age and booster dose every year
3	Aves	New Castle Disease	1	If need arises in case of epidemics.

# 14. De-worming Schedule of animals

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

Sr. No.	Species	Type of enclosure	Activities	Disinfectants used	Frequency	
1101			floors	4504		
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> <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 enclosure.	-	Daily	
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		Daily	

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Sr. No.	Species	Type of enclosure	Activities	Disinfectants used	Frequency
			to garbage pit		
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

Sr.	Name	Designation	Date of	Findings of	
No			Health	Health	
			Check up	Check up	
01	Shri Anupsinh C.Dodiya	Park Warden	24/11/2023	Individual	
02	Dr. Aniket Patel	Veterinary Officer	24/11/2023	health check	
03	Shri Rajesh R.Makwana	Forester	24/11/2023	up of all staff	
04	Shri Hiteshkumar S.Desai	Veterinary Assistant	24/11/2023	members	
05	Shri Vikram S. Thakor	Forest Guard	24/11/2023	revealed	
06	Shri Baldevbhai Vaghela	Sweeper cum	24/11/2023	following	
		keeper		results:	
07	Shri Irshad N.Theba	Permanent labour	24/11/2023	no any major	
08	Shri Alkeshkumar R. Kori	Permanent labour	24/11/2023	abnormalities	
09	Shri Amrutbhai I. Prajapati	Permanent labour	24/11/2023	or contagious	
10	Shri Sardarji Gandaji Thakor	Permanent labour	24/11/2023	disease	
11	Shri Ramdhiraj Rambadar Kori	Permanent labour	24/11/2023	detected in	
12	Shri Govaji Masangji Thakor	Permanent labour	24/11/2023	any of the	
13	Shri Bhagvanji R. Makawana	Permanent labour	24/11/2023	staff member	
14	Shri Lalaji B. Thakor	Permanent labour	24/11/2023	in said	
15	Shri Pravinji V. Makawana	Permanent labour	24/11/2023	health	
16	Shri Ranjitji Ataji Makawana	Permanent labour	24/11/2023	screenings	
17	Shri Bharatji A. Thakor	Permanent labour	24/11/2023		
18	Shri Dashrathji R. Thakor	Permanent labour	24/11/2023		
19	Shri Mohanbhai J.Raval	Permanent labour	24/11/2023		
20	Shri Kirankumar B. Solanki	Permanent labour	24/11/2023		
21	Shri Jugaji Bakaji Thakor	Permanent labour	24/11/2023		
22	Shri Sureshkumar G. Thakor	Permanent labour	24/11/2023		
23	Shri Rameshji M.Thakor	Permanent labour	24/11/2023		
24	Shri Gabhabhai J. Raval	Permanent labour	24/11/2023		
25	Shri Maheshkumar B. Thakor	Permanent labour	24/11/2023		
26	Shri Narsinhji Udaji Thakor	Permanent labour	24/11/2023		
27	Shri Punabhai V. Raval	Permanent labour	24/11/2023		

28	Shri Kanubhai B.Raval	Permanent labour	24/11/2023	
29	Shri Manubhai Kalaji Makwana	Permanent labour	24/11/2023	
30	Shri Maheshkumar K.Raval	Permanent labour	24/11/2023	
31	Shri Amrutji Raybhanji Thakor	Permanent labour	24/11/2023	
32	Shri Balwantji Jalamaji Thakor	Permanent labour	24/11/2023	
33	Shri Somaji Abhuji Thakor	Permanent labour	24/11/2023	
34	Shri Kamleshkumar T.Rathod	Permanent labour	24/11/2023	
35	Shri Karmanbhai R. Desai	Permanent labour	24/11/2023	









# 17. Developmental works carried out in the Indroda Nature Park during the year 2022-23.

### 17.1 Nagar Van Yojana at Indroda Nature Park

In the Protected forest of Indroda Nature Park, a Nagarvan project is conceptualised. In this Nagarvan people all around the city will be benefitted for various organised forest components

**Vision:** To create Nagar Van in city which having municipal corporation for providing whole some healthy living environment for the residents and thus contributing to growth of clean, green, healthy and sustainable city.

### **Objective:**

- Creating green space and aesthetic environment.
- Creating awareness about plants and biodiversity and develop environment stewardship.
- Facilitating in-situ conservation of important flora of the region.
- Contributing to environmental improvement of city by pollution mitigation, providing cleaner air, noise reduction, water harvesting and reduction of heat islands effect.
- Extend health benefits to residents of the city.
- Help cities become climate resilient.

#### **Scheme outcome:**

- Improved air quality, pollution abatement, carbon sequestration, reduction in temperature and urban heat island effect, water and soil conservation.
- Creation of a green space having aesthetic value with cooling and calming effect on the minds of people.
- Indirect effects could be promotion of tourism and expansion of business and trade thus improving local economy.
- Urban forests could offer several positive community physical and mental health benefits.

### **Details of components of Nagarvan**

Climber Valley, Tunnel, Foot Mark Print, Flower Valley, Grass/Green Valley, Swing Bridge, Bamboo Hut, Kuba, Wood House, Rock House, Visitor Facility, Tree House, Wooden Bridge, Bamboo Valley, Selfie Point.

- **17.2 Development of new ticket vending window:** a modern ticket vending window has been created in the parking area of Indroda Nature Park Zoo wherein it is planned to create facilities for offline and online tickets purchase by the visitors for getting entry to the Indroda Nature Park. Multiple windows in this facility will help the visitors to get hasslefree tickets and the waiting time will be reduced.
- **17.3 Plantation work:** Development of green belt around zoo area by plantation of medicinal plants saplings & its rearing. The Herbivore section and bird section of the Indroda Nature Park. It will become a paradise for various free ranging birds in near future. The same vegetation patch will also serve an opportunity to the camp student to learn about medicinal plant identification & its properties at present Total: 79 species & 5180 numbers of plants are planted in this plot.



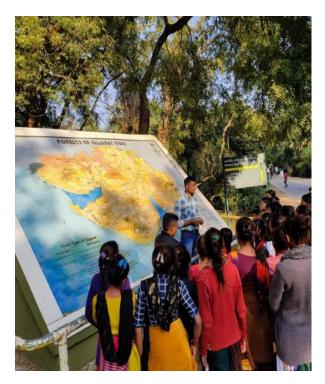


# 18. Education and Awareness programmes during the year

### 18.1 Education activity:

(a) Nature Education Camps: Indroda Nature Park invites school students for nature education camp of three days from different regions of Gujarat state. A batch of around 45-50 school students along with their faculty members are provided accommodation and food at the cost of GEER Foundation. The students are taught and given exposure about ecosystem, ecology, importance of nature and natural resources, wildlife etc. during nature trails, zoo visit, birding exercise, expert interactions in these three days span. The Indroda Nature Park has skilled staff i.e. nature educators to conduct these Nature Education Camps. The details of Nature Education Camps organized and conducted in Indroda Nature Park in the financial year 2022-23 are as follows:

Sr.	Section	No. of	Partio	cipants	Total
No.		camps	Students	Faculty members	
01	Indroda Nature Park (East part)	48	2166	182	2348











### 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), Park warden and managerial officers i.e. Dy. Director and Director. The details of organised one day programme conducted in the financial year 2022-23 are given in following table.

Sr. No	Date	Details		
1	12-04-2022	Students of L.J. Institute of Applied Sciences, Ahmedabad		
2	02-06-2022	Students of STEM Quiz Winners Bootcamp by GUJCOST		
3	07-06-2022	Students of STEM Quiz Winners Bootcamp by GUJCOST		
4	16-06-2022	Students of STEM Quiz Winners Bootcamp by GUJCOST		
5	22-06-2022	Students of STEM Quiz Winners Bootcamp by GUJCOST		
6	08-08-2022	FRO Officers from Central Academy for State Forest Service, Coimbatore		
7	11-08-2022	Forest Range Officers Trainees from Central Academy for State Forest Service, Burnihat, Assam		
8	22-08-2022	IFS Probationers of 2021-23 batch, Indira Gandhi National Forest Academy		
9	26-08-2022	IFS Probationers of 2021-23 batch, Indira Gandhi National Forest Academy		
10	14-09-2022	Wildlife Training Programme, Training Division, GFD (Gujarat Vidyapith, Randheja, Gandhinagar)		
11	23-09-2022	Wildlife Training Programme, Training Division, GFD (Framseva Mahavidlaya, Amrapur, Gandhinagar)		
12	27-09-2022	Wildlife Training Programme, Training Division, GFD (Govt. Science College, Gandhinagar)		
13	17-11-2022	Sectional Officers Trainees from Kundal Academy of Development Administration and Management (Forests), Kundal		
14	21-11-2022	Students from College of Forestry, Navsari Agricultural University, Navsari		
15	14-12-2022			
16	17-12-2022	Sectional Officers Trainees from Kundal Academy of Development Administration and Management (Forests), Kundal		
17	17-12-2022	RFO Trainees from Kundal Academy of Development, Administration and Management (Forests), Kundal		
18	27-12-2022	FRO Trainees from Himachal Pradesh Forest Academy, Sundernagar, HP		
19	21-01-2023	FRO Trainees from Forest Training Institute, Chail, HP		
20	09-02-2023	Shri D.N. Institute of PG Studies in Commerce College, Anand		
21	12-02-2023 Students from Tamilnadu Agricultural University, Fore College and Research Institute, Mettupalayam, Tamilnadu			
22	21-02-2023	RFO Trainees from Karnataka Forest Academy, Gungargatti, Dharwad, Karnataka		
23	16-03-2023	03-2023 RFO Trainees from Karnataka Forest Academy, Gungargatti, Dharwad, Karnataka		



### a) 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 2022-2023, total three batches of December, January and February were conducted. Total 126 participants obtained benefits by this programme.

#### b) Awareness activities:

- 1) World Earth Day: On the 22<sup>nd</sup> of April month in 2022 the World earth day was celebrated worldwide. This year too, the GEER Foundation has organised an awareness programme on "Invest in our planet" for the students of L.J. institute of applied science, Ahmedabad. In this programme students participated. The Participated of the programme were brought to the visit of Indroda Nature Park after interactive session at GEER Foundation.
- **2) World Migratory birds Day:** On 14/05/2023, the world migratory bird day was celebrated in Indroda Nature Park in association with Nisarg Science community centre and Happy youth club. The Indroda Nature Park had

organised a bird walk in the park. Total 45 participants took part in the event. The participants were taken to trail for observing various terrestrial birds of the park. In which their identification, behaviour, ecology and importance of birds in the eco system were discussed by the educators.

**3) World Environment Day:** In continuation of celebration of world environment day every year, various activities related to environment conservation were carried out at Indroda Nature Park. These activities are:

**Plastic waste cleanup drive:** In this drive total 80 voulneers and staff members participated. All participants collected plastic waste from the premise of Indroda Nature Park and made the park plastic free.

**Seedball making:** This year, one more activity of making seed balls and its distribution for germination was carried out. This activity was open for all. Total more than 500 seed balls were made. Participants were taught how to make seed balls by the tutors and they learnt to make it. They prepared seed balls for entire day and remaining seeds were used for plantation during nature education camps.

**Spot Painting & Quiz Competition for kids:** To involve youth in the celebration of the world environment day, the Indroda Nature Park organised a painting competition and quiz competition. No prior registration were required to take part in these events. On-spot registration and play kind of activities attracted 150 participants in the Painting competition and 175 Participants in Quiz competition. Overwhelming response was obtained in these two activities.



#### **Green Talk by Zoo Keeper**



**4)** Wildlife week: Indroda Nature Park under guidance and supervision of GEER Foundation organizes various activities during the Wildlife Week everyyear. For the Wildlife Week 2022too, Indroda Nature Park organized following activities:

#### **INTRODUCTION**

From time immemorial, our wildlife has been closely associated with our legendary beliefs and our folklores, with our epics and our history. Our lives would be very much poorer without these varied forms that build up the balance of nature. Wildlife preservation in fact implies active and planned wildlife management under which all forms of life would progress side by side with human progress, each in its own sphere of influence and utility and without any detriment to human interests. In fact, it is with this end in view that wildlife sanctuaries and national parks have been established and developed in suitable localities all over the country. Therefore, in order to create a general awakening in the common man in favour of protection of wildlife, the Indian Board for wildlife decided to observe the Wildlife Week during October 2-8 every year. Since then, every year during October 2 to 8, governments, environmentalists, activists, educators organize different activities to accelerate the awareness of wildlife conservation among people.

Being Ecological Education one of its primary mandate the GEER Foundation organizes various wildlife awareness programmes every to celebrate the Wildlife Week. For the Wildlife Week 2022 too, the Foundation organized various activities for spreading awareness on wildlife conservation. This year the theme for the Wildlife Week was

"Recovering key species for ecosystem restoration" In Indroda Nature Park, The GEER Foundation, Gandhinagar organised various activities like;

- Free entry into Indroda Nature Park and Aranya park, Gandhinagar
- Distribution of various resource materials
- Organized Wildlife Photography Competition for wildlife photographers of Gujarat
- Butterfly Walk and Expert Talk on Butterflies of Gujarat in Aranya park.
- Bird Walk and Expert Talk on Birds of Gujarat
- Awareness talk on Snakes
- Wildlife Photography and Painting Exhibition at Indroda Nature Park
- Students workshops and trainings
- Training of frontline staff of forest department
- Wildlife photographers workshop etc.

#### ACTIVITIES AT GANDHINAGAR (INDRODA NATURE PARK, ARANYA UDHYAN)

#### October 02-09, 2022

# Free Entry to Indroda Nature Park and Aranya Udhyan during the Wildlife Week 2022

During the Wildlife Week 2022, the visitors were given free entry into Indroda Nature Park and Aranya Udhyan to create mass awareness on Wildlife Conservation. Following are the details of the visitors during the Wildlife Week 2022.

Sr. No.	Place	Adults	Children	Total
1	Indroda Nature Park	20530	2018	22548
2	Aranya Udhyan	130	4	134
	Total	20660	2022	22682





#### October 02-09, 2022 Spot Quiz for children

Spot Quiz on Wildlife of Gujarat was organised during the entire week. More than 300 children participated in the same during the week.





#### October 02-08, 2022 Distribution of informative materials, Bird Nests, Notebook Stickers etc.

Various informative materials like books, magazines, newsletters and documentary film CDs, Bird Nests, Notebook Stickers were also distributed during the entire week for spreading awareness.











#### October 03, 2022 Butterfly Walk and Wetland Study

A special nature exploration visit "Butterfly Walk and Wetland Study" was organised on 03-10-2022 at Aranya Udhyan with students of Calorx International School, Ahmedabad. During this field exposure, they were introduced to the amazing world of butterflies. They were guided by Shri Alap Pandit, Programme Officer (EE) during their visit. They also visited the wetland at Aranya Udhyan and also learned about studying various wetland parameters from Dr. Rajal Patel, RA (ENV) and Shri Ronak Gupta, JRF.













#### October 03, 2022 Plant Walk - Knowing Plants Around Us

A special nature exploration visit "Plant Walk - Knowing Plants Around Us" was organised on 03-10-2022 at Indroda Nature Park. Students of Shri L.H. Science College, Mansa participated into the programme with great enthusiasm. Participants were taken into the Indroda Nature Park and guided by Shri Vinesh Gamit, JRF and Shri Irshad Theba.





#### October 04, 2022 Bird Walk – Knowing birds around us

A special "Bird Walk" was organized on 04-10-2022. Participants include students from Government Science College, Gandhinagar, Gramseva Mahavidyalaya, Gujarat Vidyapith, Randheja and Volunteers from Saras Conservation Project, Kheda. Shri R.B. Solanki, Dy. Director (EE), GEER Foundation interacted with the participants and talked about importance of co-existence with wildlife. Dr. Ketan Tatu, Sr. Scientist provided information on Birds of Gujarat and they were guided by Shri Alap Pandit, Programme Officer (EE), and Shri Irshad Theba during their field visit to Indroda Nature Park.













#### October 06, 2022 Snakes – Snakes Identification and Snakebite Mitigation

During the Wildlife Week 2022, the GEER Foundation organized expert talk on awareness on Snakes and Snakebite Mitigation targeting college as well as school students. Dr. Devanshi Joshi, RA (Fauna) provided information on Snake identification and Shri Irshad Theba, Bird Breeder provided the information on Snakebite Mitigation. The programme was also broadcasted live on YouTube targeting eco clubs of Gujarat. More than 800 schools with about 4,000 plus students took the benefit of the programme. Shri R.K. Sugoor, Director, GEER Foundation also addressed them all and gave message of wildlife conservation.











**NGC Eco Club Schools watching LIVE boradcasting** 

# October 07-09, 2022 Wildlife Photography and Painting Exhibition

The GEER Foundation organised Wildlife Photography competition for the enthusiastic wildlife photographers of Gujarat with on a theme "Click the Wild". The competition invited entries in five categories namely Butterflies, Birds, Landscapes, Mammals and Reptiles. The Foundation received more than 270+ entries for the competition. Selected entries were exhibited during the Wildlife Photography and Painting Exhibition. Wildlife paintings made by various young artists from the schools across the Gujarat were also exhibited with the help of Ashoy Explorers, Jamnagar. The Foundation also exhibited 100+ best photographs of renowned wildlife photographers of Gujarat in the exhibition.





















#### Indroda Nature Park Zoo Annual Report 2022-23

















Wildlife Photo Gallery and Digital Interactive Kiosks were installed in Indroda Nature Park to spread information about wildlife of Gujarat and India to visitors.

### 19. Important Events and happenings

#### 19.1 Ceremonial Plantation of "NAGARVAN" and Hariyali Mahotsav - 2022

With an objective of creation of Grrenary and beautiful vegetation patches in the urban areas "Khatmuhurt" of Nagarvan on 08<sup>th</sup> July 2022 Khatmurat of this Nagarvan was done by the honourable Mayor of Gandhinagar Municipal corporation Mr. Hiteshbhai Makawana .On this occasion Shri Arunkumar Solanki, IAS, Additional Chief Secretary, Gujarat Forest and Environment Department, Government of Gujarat, Shri Ramkumar, IFS, Additional Principal chief conservator of forest, Social Forestry, Forest Department. And the Director of GEER Foundation, Additional Principal chief conservator of forest Shri R.K. Sugoor, IFS were present. In the event Director GEER Foundation Outlined the scheme and explained its benefits in detail.



#### **Ceremonial Plantation of "NAGARVAN**

#### **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, avianen closure 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
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 2022-23 are as under:

- 1. Tigress srushti of 18 years of age developed chronic diarrhoea. Initial empirical treatment didn't respond very well for two days. Systematic approach for diagnostic procedure the veterinarian to reach the conclusion on pyometra. The nulliparous animal had developed pus in her uterus, the micro organisms involved in the development of this condition was identified through cultural isolation and the antimicrobial drug sensitivity tests were carried out. The sensitive medicines were infused in intravenous route of administration. Which cured the condition of pyometra. Due to advancement of age, this condition was found reoccurring for two times in a year.
- 2. The veterinary team assisted to the Department of Forests, GoG in Rathyatra procession on 01/07/2022, where in total 18 Asian elephants were involved for entire day on prescribed route in Ahmedabad city. Total around 25 lakh devotees visit this pious procession. The team assisted to prevent any mishap or accident caused by elephants during the event.
- 3. One sambar male animal was facing multiple senile complications, the long term intravenous therapy was provided to the animal for its recovery. The animal initially respond to the treatment but finally the various system shut down was observed one by one. The animal was provided treatment till the end day to make the animal pain and suffering free.
- 4. Many a times common langur in Gandhinagar city and districts cause meance through biting humans and domestic animals. The menacing langurs are very alert and practive so that capture of these animals aren't very easy. In two such instance the veterinary team of Indroda Nature Park had provided its expert services to the local forest divisions. On 01/10/2022, one adult male langur was severely injured in attack of the fellow langur of same troop in sector-3 area of Gandhinagar. The team was called for the rescue of this langur. On arrival the team assessed the condition of the animal and accordingly helped the department staff in rescue of the animal. The animal was then shifted to Van chetana Kendra for further treatment and care.

In an another instance, Jethlaj and Sanavad village of Kalol range of Gandhinagar Division, the langur became uncontrolled. The animal had bitten more than 10 persons in three days. The team of Indroda Nature Park went for the rescue of this langur for three times in the month of December, 2022. The animal intelligently escaped all the times away from the range of remote drug delivery equipment. Finally the animal was mixed in the another group of langur away from the village. The animal settled in the group and no further complaints of bite was received.

5. One of the finest leopards of Indroda Nature Park "Veer" was in sufferings due to old age related complications. The animal upon observing reduction in feed

intake, was immediately taken in to treatment and diagnostic procedures. The animal was provided intravenous infusions of fluids and medicines till the last moment of his life. During treatment, the animal collapsed.

- 6. Industrial Biotech Training Programme was conducted as internship for 6 months duration by GEER Foundation. The participant interns were provided classroom talks, practical exposures and field exercises pertaining to zoo for specifically two weeks in Indroda Nature Park Zoo.
- 7. One female chinkara had developed injury and subsequent infection in hoof. The animal was provided medicines in the feed. The animal was rejecting the medicine mixed feed, the expected recovery was not obtained due to this reason. As the adult chinkara are very much prone to neurogenic shock and collapse upon its physical restrain. Hence, the team decided to deliver the medicines through intramuscular route via remote drug delivery system. Successful drug deliveries through darts were done to the sick animal and the animal recovered from the condition.
- 8. The Lion of around 16 years of age, developed acute gastro intestinal affection due to which feed indigestion problems started in the month of November, 2022. The lion was immediately taken in to treatment and subjected to therapy for more than one week. The animal completely recovered from the illness. Again in the month of February 2023, the animal became completely anorectic and continuous vomition was observed by the keeper and veterinary team. Considering the emergency the animal was safely taken in the squeeze cage, the animal was then subjected to the detailed diagnostic procedure and intensive treatment for longer duration. The animal was diagnosed with hepato-renal syndrome. The animal was kept on intravenous infusions of medicines and fluids for 45 days. During this period the animal's health assessment was carried out by the team of expert veterinarians. The prognosis was poor to grave although the animal recovered on account of long treatment.
- 9. Indroda Nature Park received one Cinereous Vulture for rehabilitation from Banaskantha district. The bird was received in the state of complete paralysis. It was shifted to Indroda Nature Park on 04/01/2023. It was kept in isolation ward of the Veterinary Hospital. The bird was provided due care, treatment during rehabilitation and it recovered completely from paralysis.
- 10. Every year on 14-15 January, Makarsankranti festival is celebrated all through out Gujarat state. During this festival, various birds get injured due to kite thread. A bird treatment and rehabilitation camp is organised every year by Indroda Nature Park. In the current year also, Indroda Nature Park had organised the camp in collaboration with local forest division. It was organised in premise of Ch-0 nursery where in entire veterinary hospital staff remained on duty between

- 14-16 January for the noble cause. During this camp, some of the important bird species like barn owl, kites etc. were received, treated and successfully reintroduced to nature by the forest division.
- 11. The lioness developed 50% blindness in both the eyes in the month of February, 2023. The animal was then taken in to observation and diagnostic procedure. The animal was suspected for progressive retinal atrophy and the same was confirmed by the human eye surgeon Dr. Harshad Chaudhary after his examination. As there is no other specific treatment to PRA, the animal was subjected to treatment of retinol and taurine supplementation in the feed. The treatment worked and further progression of retinal degeneration was stopped and the animal showed recovery in object identification from a distance. The hyper reflectivity of retina during day was reduced and the animal's pupil showing normal constriction which was remaining completely dilated before treatment.
- 12. One Cheetal female was observed limping on March 04, 2023. The animal was difficult to isolate for the treatment although with great efforts of keeper, the animal was isolated on the next day on 05/03/2023. The animal was then immobilised for diagnosis and surgical intervention. The metatarsal was showing complete fracture and distal part was attached only on one thread like muscle and tendon tissue. After careful consideration, the animal was subjected to surgical amputation of the distal part of the limb. The animal was then taken care of during rehabilitation for more than a week. The animal was showing recovery in healing but the animal was not taking feed in isolation. The animal was also kept on Intravenous therapy for initial few days, but after than, the animal was resisting the capture, hence oral therapy was continued. Despite of all these efforts, the animal got collapsed.
- 13. The Veterinary Officer was deployed for consultation of taking mitigation measures of crop raiding by wild animals in Dhrangadhra taluka of Surendranagar District by the local forest Division in the month of August, 2022.
- 14. The veterinary Officer is a member of health advisory committee at Sardar Patel Zoological Park, Kevadiya, Gujarat. He had attended meeting of the committee and review meeting held in the month of November and February respectively.

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.



Healthcare analysis by Zoo and health advisory committee members



Treatment of Lion for severe hepatorenal syndrome



Rathyatra procession-2022



Injured bird treatment and rehabilitation camp-2023



Lioness-Greeva under collection of samples for diagnosis and treatment



Treatment of sambar deer male for age related complications

Photo Plate showing various important veterinary interventions.

- **Events organised for staff members.** 
  - i. Certificate awarding to the outstanding performer employee on the Independence day: The outstanding performer officer/employee on the Independence Day including zoo keeper were awarded the certificate. The details are as follows:
    - 1. Shri Mohanbhai. J. Raval, Permanent labour
    - 2. Shri Jituji. P. Makwana, Permanent labour
    - 3. Shri Ranjitsinh. J. Rathod, Permanent labour
    - 4. Shri Bharatsinh. R. Rathod, Permanent labour
  - ii. Certificate awarding to the outstanding performer employee on the republic day: the outstanding performer officer/employee on the republic day including zoo keeper were awarded the certificate. The details are as follows:
    - 1. Shri R.R. Makwana, Forester
    - 2. Shri Amrutji. T. Thakor, Permanent labour
    - 3. Shri Kamleshji. T. Rathod, Permanent labour



Award ceremony at GEER Foundation Office.

#### 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 2022-23, no any particular research or publication work has been carried out related to INP Zoo.

#### 22. Conservation Breeding Programme of the Zoo

22.1 During the year 2022-23, the Painted stork successfully bred and given one hatchling on 10/10/2022. The parent birds reared the chick. The chick successfully grown up.



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

A.	Animals arriv	ing in the Zoo			
	House No.	Species	Number	From which	Date of arrival
			(M:F)	Zoo	in the zoo
			Nil		
B.	Animals goin	g from the zoo			
	H.NO.	Species	Number	Going to	Date of
			(M:F:U)	which Zoo	disposition from
					the zoo
			Nil		

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

Rescue operations carried out in the year 2022-23											
Sr. No.	Date	Species, (M:F:U), Number of animals	Place	Details of operations							
1	04/01/2023	Cinereous vulture	Kamboi village of Banaskantha	The bird was rescued by the Forest department and brought to Indroda Nature Park for Intensive Care.							

# 25. Annual Inventory of animals of INP Zoo

	ANNUAL INVENTORY REPORT OF APRIL-2022 TO MARCH-2023																				
	INDRODA NATURE PARK, GEER Foundation, Gandhinagar, GUJARAT																				
Sr. No.	,		pening stock			Birth			Acquisition			D	ispo	sal	Death			Closing stock			
NO.		M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
	Other than endangered species Birds																				
1	Northern Pintail (Anas acuta)	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
2	Grayleg Goose (Anser anser)	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
3	Bar-Headed Goose (Anser indicus)	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
4	Sarus Crane (Antigone antigone)	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
5	Lesser Whisthing Duck (Dendrecygna Javanica)	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
6	Littlle Egret (Egretta garretta)	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
7	Common Crane (Grus grus)	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
8	Brahminy Kite (Haliastur indus)	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
9	Little Cormorant (Microcarbo niger)	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
10	Painted Stork (Mycteria Ieucocephala)	1	2	5	8	0	0	1	0	0	0	0	0	0	0	0	0	1	2	6	9
11	Black-crowned Night Heron (Nycticorax nycticorax)	0	0	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20
12	Great White Pelican (Pelecanus onocrotalus)	1	1	3	5	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	5

13	Alexandrine Parakeet (Psittacula eupatria)	10	13	0	23	0	0	0	0	0	0	0	0	0	0	0	0	10	13	0	23
14	Rose-ringed Parakeet (Psittacula krameri)	2	4	0	6	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0	6
15	Comb Duck (Sarkidiornis sylvicolas)	3	2	17	22	0	0	0	0	0	0	0	0	0	0	0	0	3	2	17	22
16	Black-headed Ibis (Threskiornis melanocephalus)	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4
17	Common Barn Owl (Tyto alba)	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
	Total Birds	23	28	60	111	0	0	1	0	0	0	0	0	0	0	0	0	23	28	61	112
Sr. No.	Animal Name / Scientific Name	Oj	penin	g sto	ck		Birt	h	Aco	quisit	ion	Di	ispo	sal	Γ	)eat	h		Closin	g stoc	k
NO.		M	F	U	Т	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
01	ther than endangered species Mammals			ı							ı					1		1			
1	Sambhar Deer (Rusa unicolor)	7	20	5	32	0	0	7	0	0	0	0	0	0	1	2	0	9	24	3	36
2	Spotted Deer (Axis axis)	22	44	0	66	0	0	22	0	0	0	0	0	0	0	4	0	25	56	3	84
	Total Mammals	29	64	5	98	0	0	29	0	0	0	0	0	0	1	6	0	34	80	6	120
otl	ner than endangered species Reptiles																				
1	Common Krait (Bungarus caerulus)	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
2	Red Sand Boa (Eryx johini)	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
3	Common Sand Boa (Gongylophis conicus)		0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
4	Indian Star Tortoise (Geochelone elegans)		4	23	30	0	0	0	0	0	0	0	0	0	0	0	0	3	4	23	30
5	Saw scaled viper (Echis carinatus)	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1

	Total Reptiles	3	4	30	37	0	0	0	0	0	0	0	0	0	0	0	0	3	4	30	37
	Total Animals (birds + mammals +reptiles)	55	96	95	246	0	0	30	0	0	0	0	0	0	1	6	0	60	112	97	269
	ROM	APR	IL-2	022	го м	IAR	CH-2	023													
	INDROD	A NAT	TURE	PAR	K, GEE	R Fo	ounc	latio	n, Ga	ındhi	naga	r, Gl	UJAF	RAT							
End	engered Species																				
Sr. No.	Animal Name / Scientific Name	Oı	penir	ng sto	ck		Birt	h	Aco	quisit	ion	Di	ispo	sal	Ι	)eatl	1		Closin	g stoc	k
NO.		M	F	U	Т	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	Т
BIR	DS						ı														
1	Peafowl (leucistic) (Pavo cristatus)	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
2	Eurasian Spoonbill (Platalea leucorodia)	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
3	Steppe Eagle (Aquila Nipalensis)	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
4	Tawny Eagle (Aquila rapax)	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	Total Birds	2	1	2	5	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	5
MAI	MMALS	•					•			•						•					
1	Black Buck (Antilope cervicapra)	42	50	15	107	0	0	14	0	0	0	0	0	0	6	3	1	53	55	3	111
2	Black Buck (leucistic/white) (Antilope cervicapra)	14	23	2	39	0	0	10	0	0	0	0	0	0	2	0	0	15	28	4	47
3	Chinkara (Gazella bennetti)	2	2	0	4	0	0	2	0	0	0	0	0	0	0	1	0	2	2	1	5
5	Leopard (Panthera pardus)	3	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	2

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6	Indian Crested Porcupine ( <i>Hystrix indica</i> )	1	1	2	4	0	0	4	0	0	0	0	0	0	0	0	0	3	3	2	8
7	Asiatic Lion (Panthera leo persica)	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
8	Tiger (leucistic/white) (Panthera tigris)	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8	Bengal Tiger (Panthera tigris tigris)	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
	Total Mammals	64	78	19	161	0	0	30	0	0	0	0	0	0	9	4	1	77	90	10	177
REP	TILES	•																			
1	Spectacled Cobra (Naja naja)	2	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	3
2	Marsh Crocodile (Crocodylus Palustris)	6	10	6	22	0	0	0	0	0	0	0	0	0	1	2	1	5	8	5	18
3	Indian Rock Python (Python molurus)	8	5	0	13	0	0	0	0	0	0	0	0	0	1	0	0	7	5	0	12
4	Common Rat Snake (Ptyas mucosa)	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
5	Russel's Viper (Daboia ruselii)	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
6	Indian softshell Turtle, Ganges Softshell (Nilssonia gangetica)		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	Total Reptiles	17	15	12	44	0	0	0	0	0	0	0	0	0	2	2	1	15	13	11	39
_	Total ANIMALS (Birds + Mammals + Reptiles)	83	94	32	209	0	0	30	0	0	0	0	0	0	11	6	2	94	104	22	220

# 26. Mortality Report of animals

# INDRODA NATURE PARK, GANDHINAGAR, GUJARAT. (1st April-2022 to 31st March-2023)

Sr.	Species	Date	Sex	Cause of death as diagnosed through P.M.
		MA	AMMALS	
1	Sambar Deer	03/04/2022	F	Multiple senile complications
2	Black buck	18/06/2022	M	Multiple senile complications
3	Sambar Deer	29/06/2022	F	Multiple senile complications
4	Chinkara	25/07/2022	F	Multiple infighting complications
5	Black buck	29/07/2022	M	Cystic esophagitis
6	Sambar Deer	17/08/2022	M	Hepatic disorder
7	Black buck	22/08/2022	U (M)	Pneumonia
8	Black buck	23/08/2022	F	Senility
9	Spotted Deer	28/08/2022	F	Senility
10	White Black buck	22/09/2022	M	Multiple infighting complications
11	Black buck	28/09/2022	F	Respiratory tract infection
12	Spotted Deer	08/10/2022	F	Infighting complications
13	Leopard	09/10/2022	M	Multiple senile complications
14	White Black buck	28/10/2022	M	Multiple infighting complications
15	Black buck	31/10/2022	M	Hemorrhagic enteritis and hernia
16	Black buck	04/11/2022	F	Multiple senile complications
17	Black buck	21/11/2022	M	Old age- Senility
18	Black buck	06/12/2022	M	Hemorrhagic gastro-enteritis
19	Spotted Deer	03/01/2023	F	Senile complications-old age
20	Spotted Deer	15/03/2023	F	Shock and anorexia
21	Black buck	28/03/2023	M	Multiple organ failure in old age
		RI	EPTILES	
1	Indian Rock python	28/08/2022	M	Senility
2	Marsh crocodile	20/10/2022	U(M)	Renal insufficiency and gout
3	Marsh crocodile	12/01/2023	F	Multiple organ failure in old age
4	Marsh crocodile	05/02/2023	M	Severe trauma and shock due to
	_			infighting sequelae
5	Marsh crocodile	16/02/2023	F	Multiple complication of old age
				(senility)

# 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
1. Gener	al Require	ements	
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.
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

S. No.	Norm No.	Condition Stipulated	Status
			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.
2. <b>Admi</b> n	istrative a	nd Staffing pattern	
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.
4.Anima	l Housing,	display of animals and animal en	closures
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 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& 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.
6.	10.4(8)	Design for jackal enclosure not yet submitted to the CZA. Design be submitted to the CZA for approval.	At present, there is no any Jackal in Indroda Nature Park animal stock.  The foundation has proposed budgetary allocation of grants for

S. No.	Norm No.	Condition Stipulated	Status
			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 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.
5.Upkee	p & health	care of animals	
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. Indroda Nature Park has started preslaughter pathological tests along with ante mortem examination. The

S. No.	Norm No.	Condition Stipulated	Status	
			procedure is carried out once in every 15 days with the help of laboratory of Department of Animal Husbandry located at Ahmedabad.  If the animal found ill in this screening process, the meat of said animal is not accepted for the consumption of the carnivore wild animal.	
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	
6. Veteri	inary and i	nfrastructure facilities:		
12	10.6(1)	Appropriate footbath is also required 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	

S. No.	Norm No.	Condition Stipulated	Status	
			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.	
9. Acqui	sition and	breeding of animals		
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 pair of the lion to Sakkarbaug zoo The proposal will be sent to CZA once the primary consent is provided by Sakkarbaug zoo.	
17	10.9(4)	Singly housed Jackal should be paired	At present, there is no jackal in the stock of Indroda Nature Park zoo.	
12. Visit	ors' facilit	ies:		
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
Mammals		
1	Hanuman Langur	Presbytis entellus
2	Indian Hare	Lepus nigricollis
3	Jackal	Canis aureus
4	Indian Porcupine	Hystrix indica
5	Grey Mongoose (Common Mongoose)	Herpestes edwardsii
6	Pale Hedgehog	Hemiechinus micropus
7	Blue bull	Boselaphus tragocamelus
8	Rusty-Spotted cat	Prionailurus rubiginosus
9	Five-striped Palm squirrel	Funambulus palmarum
10	Small Indian civet	Viverricula indica
Birds		
1	Alexandrine Parakeet	Psittacula eupatria
2	Alpine Swift	Tachymarptis melba
3	Ashy Drongo	Dicrurus leucophaeus
4	Ashy Prinia	Prinia socialis
5	Ashy-crowned Sparrow-Lark	Eremopterix grisea
6	Asian Koel	Eudynamys scolopacea
7	Asian Openbill	Anastomus oscitans
8	Asian Palm Swift	Cypsiurus balasiensis
9	Asian Paradise Flycatcher	Terpsiphone paradisi
10	Bank Myna	Acridotheres ginginianus
11	Barn-owl	Tyto alba
12	Baya Weaver	Ploceus philippinus philippinus
13	Bay-backed Shrike	Lanius vittatus
14	Black Drongo	Dicrurus macrocercus
15	Black Ibis	Pseudibis papillosa
16	Black Kite	Milvus migrans

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

Sr. No.	Common Name	Scientific Name	
1	2	3	
46	Common Kingfisher	Alcedo atthis	
47	Common Lesser Whitethroat	Sylvia curruca	
48	Common moorhen	Gallinula chloropus	
49	Common Myna	Acridotheres tristis	
50	Common Pochard	Aythya ferina	
51	Common Quail	Cotumix cotumix	
52	Common Redshank	Tringa totanus	
53	Common Sandpiper	Actitis hypoleucos	
54	Common Snipe	Gallingo gallinago	
55	Common Stone Chat	Saxicola torquata	
56	Common Swallow	Hirundo rustica	
57	Common Tailorbird	Orthotomus sutorius	
58	Common Teal	Anas crecca	
59	Common Woodshrike	Tephrodornis pondicerianus	
60	Coppersmith Barbet	Megalaima haemacephala	
61	Crested Bunting	Melophs lathami	
62	Crested Lark	Galerida cristata	
63	Crested Serpent-Eagle	Spilornis cheela	
64	Darter	Anhinga melanogaster	
65	Desert Wheatear	Oenanthe deserti	
66	Dusky Crag-martin	Hirundo concolor	
67	Eurasian Collared-dove	Streptopelia decaocto	
68	Eurasian Curlew	Numenius arquata	
69	Eurasian Eagle-owl	Bubo bubo	
70	Eurasian Golden Oriole	Oriolus oriolus	
71	Eurasian Sparrowhawk	Accipiter nisus	
72	Eurasian Spoonbill	Platalea leucorodia	
73	Eurasian Thick-knee	Burhinus oedicnemus	
74	Eurasian Wryneck	Jynx torqilla	

Sr. No.	Common Name	Scientific Name	
1	2	3	
75	Forest Wagtail	Dendronanthus indicus	
76	Glossy Ibis	Plegadis falcinellus	
77	Great Cormorant	Phalacrocorax carbo	
78	Great White Pelican	Pelecanus onocratalus	
79	Greater Coucal	Centropus sinensis	
80	Green Bee-eater	Merops orientalis	
81	Green Sandpiper	Tringa ochropus	
82	Greenish Leaf Warbler	Phyloscopus trochiloides	
83	Grey Francolin	Francolinus pondicerianus	
84	Grey Heron	Ardea cinerea	
85	Grey Wagtail	Motocilla cinerea	
86	Grey-breasted Prinia	Prinia hodgsonii	
87	Grey-headed Flycatcher	Culicicapa ceylonensis	
88	Hair-crested Drongo	Dicrurus hottentotus	
89	House Crow	Corvus splendens	
90	House Sparrow	Passer domesticus	
91	House Swift	Apus affinis	
92	Indian Bushlark	Mirafra erythroptera	
93	Indian Cuckoo	Cuculus micropterus	
94	Indian Grey Hornbill	Ocyceror Birostris	
95	Indian Nightjar	Caprimulgus asiaticus	
96	Indian Peafowl	Pavo cristatus	
97	Indian Pitta	Pitta brachyura	
98	Indian Pond-heron	Ardeola grayii	
99	Indian Robin	Saxicoloides fulicata	
100	Indian Roller	Coracias benghalensis	
101	Indian Silverbill	Lonchura malabarica	
102	Intermediate Egret	Mesophoyx intermedia	
103	Jungle Babbler	Turdoides striatus	

Sr. No.	Common Name	Scientific Name	
1	2	3	
104	Jungle Bush-quail	Perdicula asiatica	
105	Jungle Crow	Corvus macrorhynchos	
106	Jungle Owlet	Glaycidium radiatum	
107	Jungle Prinia	Prinia sylvatica	
108	Large Cuckoo-Shrike	Coracina macei	
109	Large Egret	Casmerodius albus	
110	Large Grey Babbler	Turdoides malcolmi	
111	Large Woodshrike	Tephrodrnis gularis	
112	Laughing Dove	Streptopelia senegalensis	
113	Lesser Golden-backed Woodpecker	Dinopium benghalense	
114	Lesser Whistling-duck	Dendrocygna javanica	
115	Little Cormorant	Phalacrocorax niger	
116	Little Egret	Egretta garzetta	
117	Little Grebe	Tachybaptus ruficollis	
118	Little Ringed Plover	Charadrius dubius	
119	Long-tailed Shrike	Lanius schach erythronotus	
120	Marshall's Iora	Aegithina nigrolutea	
121	Mottled Wood Owl	Strix ocellata	
122	Northern Pintail	Anas acuta	
123	Northern Shoveler	Anas clypeata	
124	Oriental Honey-buzzard	Pernis ptilorhyncus	
125	Oriental Magpie-Robin	Copsychus saularis	
126	Oriental Tree Pipit	Anthus trivialis	
127	Oriental White Ibis	Threskiornis melanocephalus	
128	Oriental White-eye	Zosterops palpebrosus	
129	Orphean Warbler	Sylvia hortensis	
130	Painted Stork	Mycteria leucocephala	
131	Pallid Harrier	Circus macrourus	
132	Pheasant-tailed Jacana	Hydrophasianus chirurgus	

Sr. No.	Common Name	Scientific Name
1	2	3
133	Pied Avocet	Recurvirostra avosetta
134	Pied Bush Chat	Saxicola caprata
135	Pied Creasted Cuckoo	Clamator jacobinus
136	Pied Kingfisher	Ceryle rudis
137	Plain Prinia	Prinia inornata
138	Plume-headed Parakeet	Psittacula cyanocephala
139	Purple Heron	Ardea purpurea
140	Purple Moorhen	Porphyrio porphyrio
141	Purple Sunbird	Nectarinia asiatica
142	Purple-rumped Sunbird	Nectarinia zeylonia
143	Red Collared-dove	Streptopelia tranquebarica
144	Red-breasted Flycatcher	Fichedula parva
145	Red-headed Falcon	Falco chicquera
146	Red-rumped Swallow	Hirundo daurica
147	Red-vented Bulbul	Pycnonotus cafer
148	Red-wattled Lapwing	Vanellus indicus
149	River Tern	Sterna aurantia
150	Rock Pigeon	Columba livia
151	Rose-ringed Parakeet	Psittacula krameri
152	Rosy Starling	Sturnus roseus
153	Rufous Fronted Prinia	Prinia buchanani
154	Rufous tailed Lark	Ammomanes phoenicura
155	Rufous Treepie	Dendrocitta vagabunda
156	Rufous-tailed Finch-Lark	Ammomanes phoenicurus
157	Savanna Nightjar	Caprimulgus affinis
158	Scaly-breasted Munia	Lonchura punctulata
159	Shikra	Accipiter badius cenchroides
160	Short-toaed Snake-Eagle	Circaetus gallicus
161	Short-toed sanke Eagle	Ciraetus gallicus

Sr. No.	Common Name	Scientific Name	
1	2	3	
162	Siberian Rubythroat	Luscinia calliope	
163	Singing Bushlark	Mirafra cantillans	
164	Sirkeer Malkoha	Phaenicophaeus leschenaultii	
165	Small Minivet	Pericrocotus cinnamomeus	
166	Southern Grey Shrike	Lanius meridionalis	
167	Spot-billed Duck	Anas poecilorhyncha	
168	Spotted Dove	Streptopelia chinensis	
169	Spotted Flycatcher	Muscicapa striata	
170	Spotted Owlet	Athene brama	
171	Streaked Weaver Bird	Ploceus manyar	
172	Streaked Wren-Warbler	Prinia gracilis	
173	Sulphur-bellied Warbler	Phylloscopus griseolus	
174	Sykes's Lark	Galerida deva	
175	Tawny-bellied Babbler	Dumetia hyperythra	
176	Tickell's Blue Flycatcher	Cyornis tickelliae	
177	Tickell's Fowerpecker	Dicaeum agile	
178	Ultramarine Flycatcher	Muscicapa superciliaris	
179	Variable Wheater	Oenanthe picata	
180	Verditer Flycatcher	Eumyias thalassina	
181	Western Marsh Harrier	Circus aeruginosus	
182	White Eyed Buzzard	Butastur teesa	
183	White Stork	Ciconia ciconia	
184	White Wagtail	Motacilla alba	
185	White-bellied Drongo	Dicrurus caerulescens	
186	White-bellied Minivet	Pericrocotus erythropygius	
187	White-breasted Waterhen	Amaurornis phoenicurus	
188	White-browed Bulbul	Pycnonotus luteolus	
189	White-browed Fantail Flycatcher	Rhipidura aureola	
190	White-eared bulbul	Pycnonotus leucotis	

Sr. No.	Common Name	Scientific Name	
1	2	3	
191	White-eyed Buzzard	Butaster teesa	
192	White-necked Stork	Ciconia episcopus	
193	White-throated Fantail Flycatcher	Rhipidura albicollis	
194	White-throated Kingfisher	Halcyon smyrnensis	
195	Wire-tailed Swallow	Hirundo smithii	
196	Wood Sandpiper	Tringa glareola	
197	Yellow fronted pied Woodpecker	Dendrocopos mahrattensis	
198	Yellow Wagtail	Motacilla flava	
199	Yellow-eyed Babbler	Chrysomma sinense	
200	Yellow-legged Green Pigeon	Treron phoenicoptera	
201	Yellow-wattled Lapwing	Vanellus malarbaricus	
Reptiles			
1	Indian Cobra	Naja naja	
2	Common Krait	Bungarus caeruleus	
3	Common San boa	Gongylophis conicus	
4	Red San-Boa	Eryx johnii	
5	Indian Rock Python	Python molurus	
6	Common Cat Snake	Boiga trigonata	
7	Small-banded Kukri Snake	Oligodon fasciolatus	
8	Common Worm Snake	Typhlina bramina	
9	Bronze back tree snake	Dendrelaphis gorei	
10	Russel's Viper	Daboia russelii	
11	Saw-scaled viper	Echis carinata	
12	Trinket Snake	Elaphe helena	
13	Indian Wolf Snake	Lycodon capucinus	
14	Barred Wolf Snake	Lycodon striatus	
15	Checkered keel-back	Xenochrophis piscator	
16	Common Garden Lizard	Calotes versicolor (Daudin)	
17	Common Indian Monitor	Varanus Bengalensis	
		au z ong atonoio	

Sr. No.	Common Name	Scientific Name	
1	2	3	
18	Fan-Throated Lizard	Sitana ponticeriana	
19	Brahminy Skink	Mabuya carinata	
20	Indian Flapshell	Lissemys punctata	





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