Sardar Patel Zoological Park

Ekta Nagar, Gujarat

ANNUAL REPORT for the year 2023-24



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1. Report of the Officer-in-Charge

Sardar Patel Zoological Park (Zoo), nestled in the scenic surroundings of the Narmada River and the Vindhyachal Mountain Range, is a prime destination for nature enthusiasts and wildlife lovers. Known for its diverse animal species from around the globe, the Zoo offers an immersive educational experience in a serene environment. Committed to animal welfare, the Zoo ensures ethical treatment and top-notch veterinary care for its inhabitants. With a focus on conservation education, it engages visitors through interactive programs, enhancing their understanding of biodiversity. The Zoo's sustainable practices and participation in global conservation efforts make it a beacon of responsible wildlife management and preservation.

On 28th July 2023, a Memorandum of Understanding (MOU) was entered into between the Kevadia Jungle Safari (Sardar Patel Zoological Park) Society (KJSS), Ekta Nagar (an organization under the Statue of Unity Area Development & Tourism Governance Authority (SoUADTGA), Government of Gujarat) and the Greens Zoological Rescue and Rehabilitation Centre Society, Jamnagar (GZRRCS), an NGO. This agreement signifies a collaborative effort in the Public Private Partnership to enhance the Zoo's management and conservation practices. The transition of operational management took place over September and October, ensuring a smooth and efficient handover. This partnership aims to leverage the expertise of both organisations, combining resources to improve animal welfare, conservation education, and ethical operations. Through this partnership, the Zoo aspires to set new standards in wildlife management and visitor engagement, solidifying its status as a premier destination for nature and animal enthusiasts.

The renovation of the administration office has been completed, marking a significant milestone in the Zoo's ongoing improvements. The entire network of roads on the campus has been metalled. The veterinary facilities have been upgraded with new animal restraining equipment, advanced machines for the pathology lab, a post-mortem room, and an incinerator, enhancing the quality of care for the animals. To engage visitors and school students, the Zoo has introduced guided walks and keeper talks, providing educational and interactive experiences. Additionally, the Docent Program has been launched, enabling the Zoo to reach a broader audience and raise awareness about various species. Through these initiatives, the Zoo remains dedicated to advancing animal welfare services and conservation education, continuously striving to improve its operations and deepen the connection between the public and wildlife.

In January, the Zoo welcomed new animals, including a Bornean Orangutan, African White Lions, and Jaguars, adding to its diverse collection of species. The reptile house has been completed and opened to visitors, offering a fascinating glimpse into the world of reptiles. The Zoo also celebrated successful egg incubation processes, introducing beautiful new family members of Ostriches to its animal community. To enhance the visitor experience, the Zoo has improved facilities by installing water coolers, offering golf cart services, and expanding its educational programs.

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These enhancements aim to provide a more comfortable, engaging, and informative visit, reinforcing the Zoo's commitment to animal welfare, conservation education, and exceptional visitor services.

During Zoo Week and World Forest Day, Sardar Patel Zoological Park organised the plantation of native plant species within the zoo premises, allowing visitors to actively participate in conservation efforts. Additionally, the Zoo conducted Veterinary Internship and Zoo Trainee Programs, designed to spark interest in wildlife and its management among young minds. These initiatives aim to educate and inspire the next generation of conservationists while promoting the importance of native flora and fauna and providing hands-on experience in veterinary and zoo management practices.

We extend our heartfelt gratitude to the Chairman of KJSS & CEO of SoUADTGA; the Member Secretary of the KJSS; the management of GZRRCS; the Chairpersons of the Zoo Monitoring Committee and the Zoo Health Advisory Committee; and the Chief Wildlife Warden of Gujarat State for their unwavering support of the Zoo's operations. The dedicated team of veterinarians, biologists, administrative personnel, educators, technical personnel, zookeepers, drivers, guides, and security personnel form the backbone of Sardar Patel Zoological Park. Despite facing long and challenging days, their kindness and passion have driven us to overcome obstacles and provide an exceptional visitor experience while ensuring the well-being of our animals.

Together, we stand strong, committed to saving animals and serving our community.

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Bipul Chakrabarty Director & Officer-in-Charge Sardar Patel Zoological Park, Ekta Nagar, Gujarat

2. History of the Zoo

The Government of Gujarat, via resolution No. VPS-102019-S.F-4-W dated 1st June 2019, constituted the Kevadia Jungle Safari (Sardar Patel Zoological Park) Society with the objective to promote, support, assist, mobilise, and manage resources for ex-situ and in-situ conservation of wildlife. Alongside offering educative entertainment, the society aims to encourage study, research, and public awareness through the Sardar Patel Zoological Park.

The decision to establish a Zoological Park near the Statue of Unity led to the selection of land formerly used by M/s Jaiprakash Associates. This site, lying on the banks of the river Narmada and near the Sardar Sarovar Dam in the Vindhyanchal Mountain Ranges, was deemed suitable. The Statue of Unity, the world's tallest statue commemorating Sardar Vallabhbhai Patel, is located 2.5 km from the Zoological Park.

An area of 56 hectares (138.32 acres) was handed over to the Kevadia Jungle Safari Society (KJSS) by the Sardar Sarovar Narmada Nigam Limited (SSNL) for the establishment of the Zoological Park. The Central Zoo Authority approved the layout plan on 28th October 2019, and construction of animal exhibits, visitor conveniences, a hospital, and education infrastructure commenced thereafter. The zoo was inaugurated by Shri Narendra Modi, Hon'ble Prime Minister of India, on 30th October 2020, coinciding with the 145th birth anniversary of Sardar Vallabhbhai Patel. The zoo, nicknamed 'Jungle Safari' by visitors, offers a unique opportunity to explore diverse wildlife in environments that closely mimic their natural habitats.



An Indian gazelle in a naturalistic habitat

3. Vision

Our vision is to be a leading zoological park dedicated to wildlife conservation, education, and research, while providing an engaging and enriching experience for visitors.



Immersive experiences

4. Mission

To promote the conservation of wildlife through education, research, and sustainable practices, while providing an engaging and immersive experience for visitors. We strive to enhance public awareness and appreciation for biodiversity, support ex-situ and in-situ conservation efforts, and foster a deep connection between people and the natural world.

5. Objectives of the Zoo

- 1. **Conservation and Preservation:** To contribute to the conservation of wildlife through both ex-situ and in-situ efforts, including breeding programs for endangered species and habitat restoration projects, in alignment with the strategies laid under the National Zoo Policy.
- 2. Education and Awareness: To educate the public about biodiversity, the importance of wildlife conservation, and the interdependence of ecosystems through interactive exhibits, educational programs, and community outreach.
- 3. **Research and Scientific Study:** To support and conduct research on animal behaviour, genetics, breeding, and veterinary science, contributing to the global knowledge base and improving conservation strategies.
- 4. **Animal Welfare:** To ensure the highest standards of animal care, welfare, and ethical treatment, providing a safe and enriching environment for all species housed within the zoo.
- 5. **Sustainable Practices:** To implement and promote sustainable practices in all aspects of zoo management, including waste reduction, energy conservation, and eco-friendly construction and maintenance.
- 6. **Visitor Engagement and Experience:** To create an engaging and immersive visitor experience that fosters a deeper connection with nature and wildlife, encouraging repeat visits and long-term support for conservation efforts.
- 7. **Community Involvement:** To actively involve the local community through volunteer programs, educational workshops, and collaborative conservation projects, fostering a sense of shared responsibility for wildlife preservation.
- 8. **Global Conservation Efforts:** To participate in and support global conservation initiatives, collaborating with other zoos, conservation organisations, and governmental bodies to protect biodiversity on a larger scale.
- 9. **Innovation and Improvement:** To continuously innovate and improve zoo operations, exhibits, and educational programs, staying at the forefront of zoological and conservation science.
- 10. **Cultural and Recreational Value:** To provide a culturally enriching and recreational space for visitors, integrating local cultural elements and ensuring a pleasurable and memorable experience for all.
- 11. **Training and Capacity Building:** To provide ongoing training and capacity-building programs for zoo staff, veterinarians, biologists, and conservationists, enhancing their skills and knowledge in modern zoological practices.
- 12. **Modernising Indian Zoos:** To contribute to the modernisation of Indian zoos by adopting best practices in animal care, exhibit design, visitor engagement, and conservation strategies, serving as a model for other zoos in the country.

6. About Us

Basic Information about the Zoo

S. No.	Particulars	Information			
1	Name of the Zoo	Sardar Patel Zoological Park			
2	Year of Establishment	2019			
3	Address of the Zoo	Sardar Patel Zoological Park, Near Statue of Unity, Ekta Nagar, Dist. Narmada, Gujarat 393151.			
4	State	Gujarat			
5	Telephone Number	02640-299173 (Landline)			
6	Fax Number	-			
7	E-mail Address	Director.SPZP@gmail.com			
8	Website	https://statueofunity.in/jungle-safari/ https://www.soutickets.in/#/services-venue-list			
9	Distance from Nearest	Airport: 95 km (Vadodara) Railway Station: 9 km (Ekta Nagar) Bus Station: 8 km (Ekta Nagar)			
10	Recognition Valid upto	17/10/2022			
11	Category of the Zoo	Mini			
12	Area (in Hectares)	56			
13	Number of Visitors (2023-24)	Adult: 7,84,765 Children:2,78,731 Total Indian:10,63,496 Total Foreigners: Nil Total Visitors: 10,63,496			

Basic Information about the Zoo

S. No.	Particulars	Information
14	Visitors Facility Available in the Zoo	Online Ticket Booking, Drinking Water Kiosk, Toilets, Rest Area, Sit-outs, Food Court, Canteen, Cloak Room, Perambulator for Children, First Aid, Help Booth, Battery Operated Vehicle, Zoo Maps, Publications, Souvenir Shops, Special Toilet, Ramps, and Wheelchairs for differently abled person.
15	Weekly Closure of the Zoo	Monday

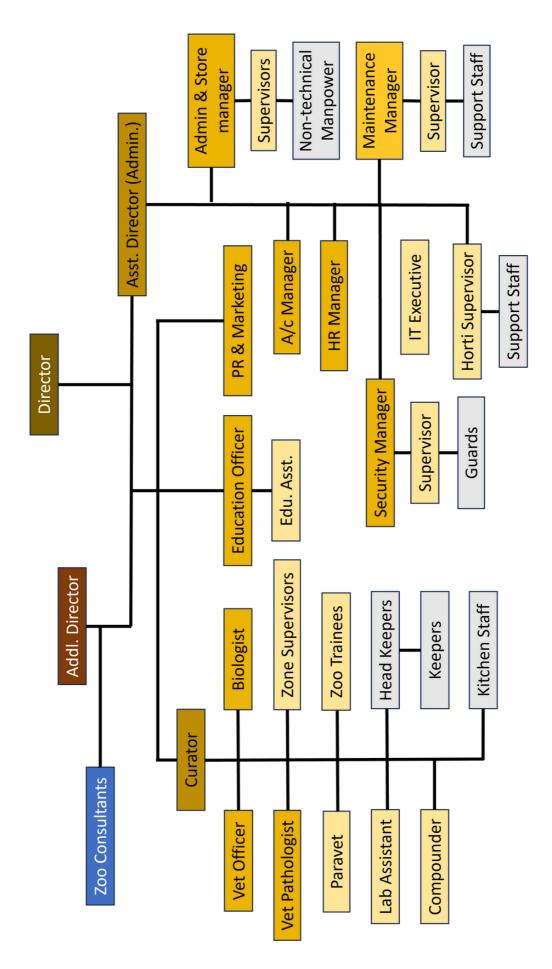
Management Personnel of the Zoo

S. No.	Particulars	Information		
	Name with Designation of the Officer-in-Charge	1.Dr. Ram Ratan Nala, IFS (up to 31/10/2023) 2.Mr. Bipul Chakrabarty (w.e.f. 01/11/2023)		
	Name of the Additional Director	Mr. Soham Mukherjee		
	Name of the Curator	Dr. Chetan Patond		
16	Name of the Veterinary Officer	1.Dr. Ushma Patel 2.Dr. Amey Wagh		
	Name of the Biologist	Mr. Krunal Trivedi		
	Name of the Education Officer	Dr. Shashikant Sharma		
	Name of the Compounder/ Lab Assistant	1.Mr. Shubham Lakhara 2.Mr. Jay Sharma		

Owner/ Operator of the Zoo

S. No.	Particulars	Information		
17	Name of the Operator	Statue of Unity Area Development and Tourism Governance Authority		
18	Address of the Operator	Chief Executive Officer, Administrative Building, Ekta Nagar, Dist. Narmada 393151, Gujarat		
19	Contact Details/Phone Number of Operator	-		
20	E-mail Address of the Operator	Ceo-sou@gujarat.gov.in		

7. Organisational Chart



8. Human Resources

Management Team Members

Sr. No.	Designation	Number of Post	Name of Incumbent
1	Director	1	Mr. Bipul Chakrabarty
2	Additional Director	1	Mr. Soham Mukherjee
3	Assistant Director	1	Mr. Pradyumn Prakash
4	Curator	1	Dr. Chetan Patond
5	Veterinary Officer	1	Dr. Ushma Patel
6	Veterinary Pathologist	1	Dr. Amey Wagh
7	Biologist	1	Mr. Krunal Trivedi
8	Education Officer	1	Dr. Shashikant Sharma
9	Protocol Manager	1	Mr. Pushkar Tiwari
10	HR Manager	1	Mr. Kandarp Shah
11	Admin. & Stores Manager	1	Mr. Amit Modha
12	Accounts Manager	1	Mr. Tushar Mankad
13	Maintenance Manager	1	Mr. Aalekh Patel
14	Security Manager	1	Mr. Bhanupratap Singh Rathore

Operations Team Members

Sr. No.	Designation	Number of Post	Name of Incumbent	
1	Animal Keeper	65	 Daksha R. T., Yakun B. T., Haresh K. T. Kajal P. T, Nayana J. T, Dakshit M. V, Nitesh R. T, Jaya D. T, Jigar D. T, Hemant G. T, Kirtan B. T, Hemaxi Y. T. Nilang K. T, Vilash A. T, Dharmendra R. B, Hetal S. T, Anil K. T, Anil S. T, An B. T, Naresh V. T, Anil K. T, Mahesh C. V, Daxa G. T, Jignesh N. T, Chetan M. T, Atesh S. T, Tejash K. T, Jagdish J. T Gautam T. T, Ramji C. V, Vikram B. B, Chandrakant D. T, Jignesh P. T, Keyur J. T, Umesh A. T, Sunil B. T, Pradip N. T, Bhagyashreedevi K. T, Ketan B. T, Nayan G. T, Minesh G. T, Pratap J. T, Bhadresh H. V, Arjun J. T, Jyotish B. T Chetan S. T, Kaushik K. T, Smita S. T, Alkesh S. T, Jaydeep A. T, Ajay I. T, Gita V. T, Raksha R. T, Dilip C. T, Pravin R. T, Dakshesh R. T, Hitendra J T, Rajnikant A. T, Sarita K. T, Dhaval, K, T, Dinanath K. T, Vanita A. T, Nital M. T, Asmita J. T, Pankaj B. T. 	
2	Computer Operator	3	Devyani S. T, Narmada R. T, Roshni D. T.	
3	Receptionist	1	Shital A. Tadvi	
4	Office Assistant	2	Piyush N. S, Vihar J. C.	
5	Driver	18	Yogesh R. P, Yogesh S. T, Chirag A. T, Dinesh D. T, Kaushik R. V, Ankit G. T, Vipul D. D, Ramu L. T, Chiman R. T, Vipul R. T, Ashwin B. T, Anil R. T, Laxman S. T, Bhavesh B. T, Naresh A. T, Jaydev D. T, Ajay R. R, Fakirmahammad K. M.	
6	Head Gardener	2	Ananda S. V, Ranjit B. T.	
7	Gardener	13	Navin R. T, Hitesh S. T, Dinesh R. T, Mukesh C. T, Suresh S. T, Haridas R. T, Mayank I. T, Jaynti M. T, Mahesh G. T, Manjula R. T, Kaushik M. T, Vishal C. V, Padma M. T,	

Sr. No.	Designation	Number of Post	Name of Incumbent		
8	Cleaner	5	Ramesh R. H, Mohan G. H, Punam M. H, Vikram M. H, Sudha S. H.		
9	Electrician	4	Sukhram A. T, Mahesh A. T, Bhanu B. T, Manoj M. T.		
10	Carpenter/ Welder	3	Jetha D. T, Kamlesh K. T, Chandresh C. T.		
11	Pump Operator	2	Kalpesh A. B, Suresh S. P.		
12	Utility Helper	3	Ishawar B. T, Babu T, Jayanti V.		
13	Cook/Kitchen Helper	5	Divyesh, R. V, Shailesh, P. T, Rahul, C. T, Vijay S. T, Kamal U. S.		
14	Office Boy	2	Ajay R. T, Rakesh I. T.		
15	Site in-Charge	1	Md. Zuber Sheikh		
16	Technician	2	Ankit T, Dipak T.		
17	Site Supervisor	2	Jatin J. T, Moksh H. P.		
18	Security Supervisor	2	Yogendra Singh, Mukesh T.		
19	Security Guard	50	Khushbu B. S, Chanda R. P, Pammidevi K. M, Arvind I, T, Amit M. T, Sadhashran N. T, Gopal S. T, Harnesh R. T, Dilip R. T, Ramesh R. T, Vijay M. T, Rasik J. T, Sanjay T. T, Naran, N. T, Balu, K. T,Vijay, A, T, Sunil, U. T, Dilip, D. B, Ankit, V. T, Sanjay, G. T, Ambu, A. B, Kanti, K. T, Pravin, M. T, Mithun, S. T, Vishnu, G. T, Sahabdas, D. T, Premdas, D. T, Sanjay, F T, Ishvar, I. T, Nirav, N. T, Kishor, K. T, Rajesh, R. P, Nimisha, D. T, Bhalu, M. T, Karshan, K. T, Dipak, D. V, Rajnikant, V. T Gopal, G. T, Dinesh, C, B, Manoj, S. T, Kanu, K. T, Mukesh, S. T, Amrut, A. T, Pravin, A. T, Naresh, S. T, Abhesing, A. T Anil, N. T.		

Sr. No.	Designation	Number of Post	Name of Incumbent		
20	IT Executive	1	Chirag Tadvi		
21	Lab Assistant	1	Yagnik V.		
22	Paravet	3	Shubham L., Ketan B., Jay S.		
23	AV Technician	1	Shahrukh Sheik		
24	Housekeeping	2	Ramprasad Sharma, Ashraf Ali		
25	Steward	1	Ruptan Nag		
26	Janitor	4	Tuleshwar M, Sunil M, Mobin M, Mithun		
27	Plumber	1	Yogesh. T.		
28	Maintenance Supervisor	1	Aditya Ranjan		
29	Fabricator	1	Haresh T.		
30	Mason	1	Alpit T.		
31	Zoo Trainee	9	Vaibhav Kansara, Utsav Navadiya, Darshit Shah, Kapil Bariya, Jenish Panchal, Mitesh Patel, Dhruv Patel, Snehashish Mondal, Swarali Buchke		
	Total	211			

9. Capacity building of Zoo Personnel

Sr. No.	Name and Designation of the Zoo Personnel	Subject Matter of Training	Period of Training	Name of the Institution
1	1.Mr. Bipul Chakrabarty; Director 2.Dr. Chetan Patond; Curator	Shaping Zoos of the future through Scientific Management and Collaboration	2 Days	Greens Zoological, Rescue and Rehabilitation Centre, Jamnagar, Gujarat
2	Soham Mukherjee; Addl. Director	EAZA Academy Exhibit Design and Planning Course	3 Days	EAZA Executive Office, Amsterdam, The Netherlands.
3	 Vaibhav Kansara, Utsav Navadiya, Darshit Shah, Kapil Bariya, Jenish Panchal; Zoo Trainees Mitesh Patel, Snehashish Mondal, Swarali Buchke, Dhruv Patel; Zoo Tech Dr. Chetan Patond; Curator Dr. Ushma Patel; Vet Officer Krunal Trivedi; Biologist 	Husbandry and Management of Softbill Birds	1 Day	Training at SPZP by Mr. Simon Degenhard, Avian Expert, Australia.
4	 Mitesh Patel; Zoo Tech Dr. Chetan Patond; Curator Dr. Ushma Patel; Vet Officer Krunal Trivedi; Biologist 	Management of Apes and Small Primates	1 Day	Training at SPZP by Mr. Luke Minns, Ape and Primate Expert, UK.
5	 1. Mitesh Patel; Zoo Tech 2. Dr. Chetan Patond; Curator 3. Dr. Ushma Patel; Vet Officer 4. Krunal Trivedi; Biologist 	Husbandry and Management of Large Carnivores	1 Day	Training at SPZP by Mr. Douglas Richardson, Carnivore Expert, UK.

Sr. No.	Name and Designation of the Zoo Personnel	Subject Matter of Training	Period of Training	Name of the Institution
6	 Mitesh Patel; Zoo Tech Dr. Chetan Patond; Curator Dr. Ushma Patel; Vet Officer Krunal Trivedi; Biologist 	Exhibit Design	1 Day	Training at SPZP by Dr. Iain Valentine, Zoo Expert, UK.
7	 Mitesh Patel; Zoo Tech Dr. Chetan Patond; Curator Dr. Ushma Patel; Vet Officer Krunal Trivedi; Biologist 	Strategic Planning for Zoos	3 Days	Training at SPZP by Dr. Iain Valentine, Zoo Expert, UK & Dr Jesus Moran, Zoo Expert, Spain.
8	 Vaibhav Kansara, Utsav Navadiya, Darshit Shah, Kapil Bariya, Jenish Panchal; Zoo Trainees Mitesh Patel, Snehashish Mondal, Swarali Buchke Dhruv Patel; Zoo Tech Dr. Chetan Patond; Curator Dr. Ushma Patel; Vet Officer Dr. Amey Wagh; Vet Pathologist Krunal Trivedi; Biologist 	Breeding and Management of Feeder Insects	1 Day	Training at SPZP by Ms. Akanksha Mukherjee, Zoo Consultant
9	Entire Security Team	Fire Fighting	1 Day	Training at SPZP by Ekta Nagar Fire Station

10. Zoo Advisory Committee

Government of Gujarat has constituted an advisory committee for SPZP vide Govt. resolution number: UDUHD/MSM/efile/18/2023/7325/L, Dt. 28/07/2023 (Refer to Annexure 1), with following as members:

Sr. No.	Name	Designation
1	Sh. Bharat Pathak, IFS (Rtd.)	Chairman
2	Chief Executive Officer, SoUADTGA	Member
3	Member Secretary, GZRRCS	Member
4	Director, Sardar Patel Zoological Park	Member
5	Addl. Director, Sardar Patel Zoological Park	Member
6	Accountant, GZRRCS	Member
7	Deputy Conservator of Forests, Kevadia Forest Division	Member Secretary

The advisory committee convened meetings on 14th November 2023 and 7th December 2023 to address key issues pertaining to the Sardar Patel Zoological Park. During these meetings, several critical topics were discussed, including:

1. Upgradation of the Zoological Park

• Plans and strategies for enhancing the park's facilities and overall visitor experience were reviewed.

2. Acquisition of New Animals

 Potential new species acquisitions were considered, focusing on both conservation priorities and the enrichment of the park's diverse animal collection.

3. Strengthening Veterinary Infrastructure

• Improvements to the veterinary infrastructure were deliberated, aiming to ensure the highest standards of care for the park's animal inhabitants.

11. Health Advisory Committee

The Health Advisory Committee of the Sardar Patel Zoological Park was reconstituted on 2 Jan 2024. The newly formed committee held its first meeting on 29 Jan 2024

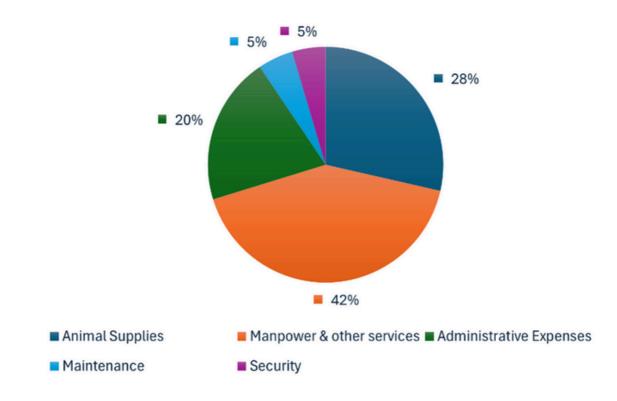
Sr. No.	Name	Designation
1	Dr. P. H. Tank Dean & Professor, Faculty of Veterinary Science and A.H, Kamdhenu University, Anand-388001	Chairman
2	Prof. (Dr.) V.S. Dabas Dept. of Veterinary Surgery, COVAS Navsari, Kamdhenu University.	Member
3	Prof. (Dr.) I. H. Kalyani Dept. of Veterinary Microbiology, COVAS Navsari, Kamdhenu University.	Member
4	Dr. J. Dave Deputy Director of Aimal Husbandry, District- Narmada, Gandhi Chowk, Vadia Road, Rajpipla.	Member
5	Dr. Chetan Patond, Curator, SPZP, Ekta Nagar.	Member
6	Dr. Amey C. Wagh, Veterinary Officer, SPZP, Ekta Nagar.	Member
7	Dr. Ushma Patel, Veterinary Officer, SPZP, Ekta Nagar.	Member & Convener
8	The Director SPZP, Ekta Nagar.	Permanent Invitee
9	The Additional Director SPZP, Ekta Nagar.	Permanent Invitee
10	Ms. Akanksha Mukherjee Zoo Consultant, LSET Foundation	Invitee
11	Mr. Krunal Trivedi Biologist, SPZP, Ekta Nagar.	Invitee

12. Statement of Income and Expenditure of the Zoo

GZRRCS commenced management of the Sardar Patel Zoological Park on 1st October 2023. The financial overview for the period from 1st October 2023 to 31st March 2024 is detailed below.

Revenue Generated: ₹7.56 crores

Expenditure Breakdown: The expenditures for this period are illustrated in the pie chart below, showing the percentage allocation across various categories.



13. Daily Feed Schedules of Animals

The diet chart for each species at Sardar Patel Zoological Park is meticulously prepared in close consultation with Dr. Andrew Beer, Zoo Nutrition Consultant, from the LSET Foundation (India/EU). Each diet plan is tailored to ensure complete nutritional requirements are met, taking into account seasonal variations and species-specific needs.

In addition to expert consultations, we rigorously reviewed the latest scientific literature on zoo animal nutrition. This comprehensive approach ensures that our dietary plans incorporate the most current advances in nutritional science, providing optimal health and well-being for our diverse animal population.

Bengal Tiger		No of Animals in the enclosure - 2					
Deligai figei		Average adult body weight: (Male 180, Female 120)					
SN	Particular / Ingredients	Male (01) Female (01) Cub - Total (Kg)					
1	Carabeef with bones Or Chicken with bones	9 kg	6 kg		15 kg		
2	Supplements	As per recomme	endations.				
3	Enrichment	Cutlet / chevon	Cutlet / chevon /mutton (Once a week)				
4	Fasting	Twice a week. (S	unday and Tues	iday)			

Carnivores

	Asiatic Lion	No of Animals in Enclosure - 6					
	Asiatic Lion	Average adult	Average adult body weight- Male 170, Female 100)				
SN	Particular / Ingredients	Male (0)	Male (0) Female (02) Cub - (04) Tota				
1	Carabeef with bones		10 kg	20 kg	30 kg		
	Or						
	Chicken with bones		(5 kg/animal)	(5 kg/animal)			
2	Supplement	As per recomme	endations.				
3	Enrichment	Cutlet / chevon	/mutton (once a v	week)			
4	Fasting	Twice a week. (S	Twice a week. (Sunday and Tuesday)				
5	Suggestions	Boneless meat t	o be provided for	geriatric male Lion			

African White Lion		No of Animals in the enclosure - 2					
		Average adult I	Average adult body weigh(Male 200, Female 110)				
SN	Particular / Ingredients	Male (01) Female (01) Cub - Total (Kg)					
1	Carabeef with bones	9	6		15		
	Or						
	Chicken with bones						
2	Supplements	As per recomme	ndations.				
3	Enrichment	Cutlet / chevon /	Cutlet / chevon /mutton (Once a week)				
4	Fasting	Twice a week. (S	unday and Tuesd	ay)			

	Leopard	No of Animals in Enclosure 3+1					
	Leopard	Average adult	body weight 45	kg			
SN	Particular / Ingredients	Male (01)	Female (02)	Cub (1)	Total (In Kg)		
1	Carabeef with bones Or Chicken with bones	2.5 kg	4 kg	1.5 kg	8 kg		
2	Supplement	As per recomme	endations.				
3	Enrichment	Cutlet / chevon	Cutlet / chevon /mutton (Once a week)				
4	Fasting	Twice a week. (S	Sunday and Tuesd	ay)			

		No of Animals	No of Animals in the enclosure - 2					
Jaguar		Average adult	Average adult body weight- 80 kg					
SN	Particular / Ingredients	Male (01)	Female	(01)	Cub -	Т	otal (Kg)	
1	Carabeef with bones Or Chicken with bones	2-2.5	2-2.5			4	-5	
2	Supplements	As per recomm	endations.					
3	Enrichment	Cutlet / chevor	/mutton –	1 kg (0.	5 kg per animal)			
		Day old chicks		5 No. (1 / animal)			1	
		Rodents		5 No. (1 / animal)			Once a week	
		Rabbit As advise						
4	Fasting	Twice a week.	Sunday and	Tuesda	ау)			

	Wild Dog	No of Animals	No of Animals in Enclosure 5					
	Wild Dog	Average adult	body w	eight 18	kg			
SN	Particular / Ingredients	Male (01)	Female (01)		Sub-adult (03)	Total	(in Kg)	
1	Carabeef with bones Or Chicken with bones	1.3 kg	1.3 kg		kg 3.9 kg		g	
2	Supplement	As per recomm	endation	ıs.				
3	Enrichment	Rodents		· ·	/ animal) / animal) se		Once a week	
4	Fasting	Twice a week.	Twice a week. (Sunday and Tuesday)					

	Indian Wolf	No of Anima	No of Animals in Enclosure 2 Average adult body weight 20 kg					
		Average adu						
SN	Particular / Ingredients	Male (01)	Female (01)	Puppies	Total (in kg)			
1	Carabeef with bones Or Chicken with bones	1.25 kg	1.25 kg	-	2.5 kg			
2	Supplement	As per recom	mendations.					
3	Enrichment	Day old chick	s	2 No. (1 / animal)				
		Rodents		2 No. (1 / animal)	Once a week			
		Rabbit	Rabbit		1			
4	Fasting	Twice a week	. (Sunday and Tue	sday)				

Striped Hyena		No of Animals in Enclosure 1					
engeenyena		Average adul	Average adult body weight 40 kg				
SN	Particular / Ingredients	Male (0)	Female (01)	Cub	Total (in kg)		
1	Carabeef with bones Or Chicken with bones		2.5 kg	-	2.5 kg		
2	Supplement	As per recomm	nendations.				
3	Enrichment	Cutlet / chevo	Cutlet / chevon /mutton (Once a week) 1 kg per animal				
4	Fasting	Twice a week.	(Sunday and Tuesd	lay)			

	Silver Fox	No of Anima	No of Animals in Enclosure 1					
	SilverTOX	Average adu	Average adult body weight 8-9 kg					
SN	Particular / Ingredients	Male (01)	Female (0)	Puppies	Total (In Kg)			
1	Chicken- Boiled (with water)	300 g	-	-	300 g			
2	Boiled Egg (Occasional)	1	-	-	1			
3	Rabbit / Chick /Rodent	1	-	-	1			
4	Dry Dog Food	50 g	-	-	50 g			
5	Wet Dog Food (Occasional)	40 g	-	-	40 g			
6	Supplement	As per recom	As per recommendations.					
7	Suggestions	Provide food	Provide food all days in week.					

	Serval	No of Animals in Enclosure 3					
	Scrvar	Average adult body weight 8 kg					
SN	Particular / Ingredients	Male (02)	Female (01)		Cub	Total	
1	Carabeef / Rabbit / Chicks (Occasional)	200 gm	100 gm		-	300 gm	
2	Chicken-Boiled (with water)	600 gm	300 gm		-	900 gm	
3	Boiled Egg	2	1		-	3	
4	Wet cat Food (Occasional)	100 gm	50 gm		-	150	gm
5	Supplement	As per recomme	endations.				
	Enrichment	Carabeef / Cutlet / chevon /mutton 200 gm/Anima			nal/Day	Once	
		Day old chicks /	Rodent		2 Chicks/Anin	nal/Day	a week



Novel feed presentation



Whole carcass feeding in a social group

Provision of browse feed

Omnivores

	Sloth Bear	No of Animals in Enclosure 2					
	oloth Deal	Average adu	ult body weig	ht 90 kg			
SN	Particular / Ingredients	Male (in kg)		Female (in kg)		Total (in kg)	
1	Watermelon	3		3		6	
2	Muskmelon	1	1			2	
3	Papaya/ Jambun without seeds.	1 250 Gm		1	250 Gm	2	500 Gm
4	Apple	0.5		0.5		1	
5	Sapota (Chickoo)/ Mango without seeds.	1		1		2	
6	Banana	1		1		2	
7	Pineapple/ Mulberry	1		1		2	
8	Sweet Lime (Mosambi) Or Oranges	0.5 As per availa	bility	0.5 As per ava	ilability	1 As per av	ailability
9	Pomegranate	1		1		2	
10	Guava (Jam)/ Pear/ plum	1		1		2	
11	Sweet Potato	0.5		0.5		1	
12	Boiled Pumkin	0.5		0.5		1	
13	Honey	0.3		0.3		0.6	
14	Egg	0.15 (3 eggs)		0.15 (3 eg	gs)	0.3 (6 eg	gs)
15	Brown Rice	0.5		0.5		1	
16	Jaggery	0.1		0.1		0.2	
17	Whole Wheat Bread	0.15		0.15		0.3	
18	Milk / curd	0.5		0.5		1	
19	Tender Coconut	1 Unit		1 Unit		2 Units	
20	Insects	0.05 (50 g)		0.05 (50 g)		0.1 (100 g)	
21	Total feed intake	12.25		12.25		25 kg	
22	Supplements	As per recom	nmendations o	f veterinary	officers.	1	
23	Suggestions	 Distribute food in multiple session. Small portion to be hide in the enclosure every day for Provide food all days in a week 				y day for er	nrichment
		Feeding	Schedule- All [Days			
Mornir	ng - 9:00 AM to 10:00 AM	Afternoon 12:00 PM to 2:00				Evening 5:00 PM to 6:00 PM	
Fruits -	– 5 kg	Fruits – 5 kg Jaggery – 200 gm				Rest of the fruits, food, worms etc.	

		No of Anima	ls in Enclosure	9		
Soι	ıth American Coati	Average adu	It body weight	t 4-5 kg		
SN	Particular / Ingredients	Req. for 1 animal	Male (03)	Female (03)	Sub-adult (03)	Total (in kg)
1.	Chicken – Boiled Or Rabbit / Rodent	100 gm	300 gm	300 gm	300 gm	900 gm
2.	Poultry Chick / (Once a Week)	1 (50 gm)	3 (150gm)	3 (150gm)	3 (150gm)	9 (450 gm)
3.	Boiled Eggs	1 (50 gm)	3 eggs (150gm)	3 eggs (150 gm)	3 eggs (150 gm)	9 (450 gm)
4.	Dry Dog Food (Occasional)	50 gm	150 gm	150 gm	150 gm	450 gm
5.	Carrot / Beetroot	50 gm	150 gm	150 gm	150 gm	450 gm
6.	Cucumber	50 gm	150 gm	150 gm	150 gm	450 gm
7.	Banana / Sapota /Mango	50 gm	150 gm	150 gm	150 gm	450 gm
8.	Sweet Potato / Pumpkin	50 gm	150 gm	150 gm	150 gm	450 gm
9.	Sweet Corn / Green Peas	50 gm	150 gm	150 gm	150 gm	450 gm
10.	Watermelon / Papaya/pear/ Muskmelon	50 gm	150 gm	150 gm	150 gm	450 gm
11.	Apple / Pineapple/Guava/ Mulberry	50 gm	150 gm	150 gm	150 gm	450 gm
12.	Pomegranate / Orange (50 gm/animal) (Occasional)	-	-	E.	-	-
13.	Insects / Cat Gravy	10 gm	30 gm	30 gm	30 gm	90 gm
14.	Total feed intake	610 gm	1830 gm	1830 gm	1830 gm	5490 gm (5 kg)
15.	Supplements		As per	recommendati	ons.	
	Suggestions		 Distribute food in multiple session. Small portion to be hide in the enclosure every day for enrichment. Provide food all days in a week. 			
		Feedin	g Schedule- All	Davs		
Morn	ing - 9:00 AM to 10:00 AM		00 PM to 2:00 PM Evening 5:00 PM to 6:00 PM		o 6:00 PM	
Veget					_	

Herbivores

	Spotted Deer	No of Animals in Enclosure 45			
	Spotted Deel	Average adult body weight 60 kg			
SN	Particular / Ingredients	Avg. Req. for 01 Animal Kg/Day	Total Req. for Enclosure Kg/Day		
1.	Green Fodder (Hybrid Napier / Maize/ Alfalfa)	5 kg	225 kg		
2.	Tree Fodder or Green Meadow Grass or	2	90		
3.	Dry fodder / Hay (Peanut /Alfalfa / Dongari Grass)	1 kg	45 kg		
4.	Wild Herbivore Feed	0.5 kg	22.5 kg		
5.	Black Bengal Gram (Chana)	0.1 kg	4.5 kg		
6.	Mineral Mixture or Salt 2 - 3 times a week	5 gm per day	225 gm		
7.	Suggestions	Local tree fodder or meadow grass keeper every day.	to be collected and given by		
		Feeding Schedule			
Morr	ning - 8:00 AM to 10:00 AM	Afternoon 12:00 PM to 2:00 PM	Evening 5:00 PM to 6:00 PM		
Wild	Herbivore Feed	Dry fodder / Hay			
Soak	ed Black Bengal Gram	(Peanut / Alfalfa / Dongari Grass).	Green Fodder – Half portion		
Mine	ral Mixture				
Gree	n Fodder – Half Portion				

	Sambar Deer	No of Animals in Enclosure 70		
	Sumbar Deer	Average adult body weight 180 kg		
SN	Particular / Ingredients	Avg. Req. for 01 Animal Kg/Day	Total Req. for Enclosure Kg/Day	
1.	Green Fodder (Hybrid Napier / Maize/ Alfalfa)	13	910 kg	
2.	Tree Fodder / Green Meadow Grass	3	210	
3.	Dry fodder / Hay (Peanut /Alfalfa / Dongari Grass)	1	70	
4.	Wild Herbivore Feed	1	70	
5.	Black Bengal Gram (Chana)	0.25	17.5	
6.	Mineral Mixture or Salt 2 - 3 times a week	10-20 gm	700-1400 gm	
7.	Suggestions	Local tree fodder or meadow grass to be collected and given by keeper every day.		
		Feeding Schedule		
Morning - 8:00 AM to 10:00 AM		Afternoon 12:00 PM to 2:00 PM	Evening 5:00 PM to 6:00 PM	
Wild H	Ierbivore Feed	Dry fodder / Hay	Green Fodder – Half Portion	
Soake	d Black Bengal Gram	(Peanut / Alfalfa / Dongari Grass)		
Miner	al Mixture			
Green	Fodder – Half Portion			

(Thom	Mixed Species-1	No of Animals in Enclosure 4	0		
(Thamin, Himalayan Goral, barking deer, Four Horned Antelope, Spotted Deer)		Average adult body weight 30 kg			
SN	Particular / Ingredients	Avg. Req. for 01 Animal Kg/Day	Total Req. for Enclosure Kg/Day		
1	Green Fodder (Hybrid Napier / Maize/ Alfalfa)	2.5	100		
2	Tree Fodder / Green Meadow Grass	1	40		
3	Dry fodder / Hay (Peanut /Alfalfa / Dongari Grass)	0.3	12		
4	Wild Herbivore Feed	0.2	8		
5	Black Bengal Gram (Chana) (Soaked)	0.05 (50 Gm)	2		
6	Mineral Mixture or Salt 2 - 3 times a week	5 gm /day	200 gm /day		
7	Suggestions	Local tree fodder or meadow gr keeper every day.	rass to be collected and given by		
		Feeding Schedule			
Morni	ng - 8:00 AM to 10:00 AM	Afternoon 12:00 to 2:00 PM	Evening 5:00 PM to 6:00 PM		
Wild H	lerbivore Feed	Dry fodder / Hay	Green Fodder – Half Portion		
	d Bengal Gram or Chickpea	(Peanut / Alfalfa / Dongari			
Miner	al Mixture	Grass)			
Green	Fodder – Half Portion				

	Blackbuck	No of Animals in Enclosure 140			
	Blackback	Average adult body weight 30 kg			
SN	Particular / Ingredients	Average Req. for 01 Animal Kg/Day	Total Req. for Enclosure Kg/Day		
1.	Green Fodder (Hybrid Napier / Maize/ Alfalfa)	2.5	250		
2.	Tree Fodder / Green Meadow Grass	1	100		
3.	Dry fodder / Hay (Peanut /Alfalfa / Dongari Grass)	0.3	30		
4.	Wild Herbivore Feed	0.25	25		
5.	Black Bengal Gram (Chana) (Soaked)	0.05 (50 Gm)	5		
6.	Mineral Mixture / Salt 2 - 3 times a week	5 gm /day	500 gm		
7.	Suggestions	Local tree fodder or meadow grass to be collected and given by keeper every day.			
Morning - 8:00 AM to 10:00 AM		Feeding Schedule Afternoon 12:00 to 2:00 PM Evening 5:00 PM to 6:0			
Wild Herbivore Feed Soaked Bengal Gram or Chickpea Mineral Mixture		Dry fodder / Hay (Peanut / Alfalfa / Dongari Grass) Grass			
Green F	odder – Half Portion				

	Indian Gazelle	No of Animals in Enclosure 16 Average adult body weight 20 kg		
SN	Particular / Ingredients	Avg. Req. for 01 Animal Kg/Day	Total Req. for Enclosure Kg/Day	
1.	Green Fodder (Hybrid Napier / Maize/ Alfalfa)	2	32	
2.	Tree Fodder / Green Meadow Grass	1	16	
3.	Dry fodder / Hay (Peanut /Alfalfa / Dongari Grass)	0.25	4	
4.	Wild Herbivore Feed	0.125	2	
5.	Black Bengal Gram (Soaked)	25 gm	400 gm (0.4 kg)	
6.	Mineral Mixture / Salt 2 or 3 times a week	2.5 gm	40 gm	
7.	Suggestions	Local tree fodder or meadow grass to be collected and given by keeper every day.		
		Feeding Schedule		
Mornin	g - 8:00 AM to 9:00 AM	Afternoon 12:00 PM to 2:00 PM	Evening 5:00 PM to 6:00 PM	
Soaked Minera	erbivore Feed Bengal Gram or Chickpea Mixture	Dry fodder / Hay (Peanut / Alfalfa / Dongari Grass)	Green Fodder – Half Portion	
Green F	odder – Half Portion			

	ndian Wild Ass	No of Animals in Enclosure 2			
	illulari vvilu ASS	Average adult body weight 250 kg (2 - 2.5 % on DM basis)			
SN	Particular / Ingredients	Avg. Req. for 01 Animal	Total Req. for Enclosure		
		Kg/Day	Kg/Day		
1	Green Fodder	20	40		
	(Hybrid Napier / Maize/ Alfalfa)				
2	Tree Fodder / Green Meadow Grass	5	10		
3	Dry fodder / Hay	3	6		
	(Peanut /Alfalfa / Dongari Grass)				
4	HP stud Farm feed	1	2		
	or				
	Wild Herbivore Feed				
5	Alfalfa Pellet	0.5	1		
6	Black Bengal Gram (Soaked)	0.5	1		
7	Wheat Bran	0.5	1		
8	Carrot	1	2		
9	Cucumber	1	2		
10	Mineral Mixture / Salt	25 gm	50 gm		
	2 - 3 times a week				
11	Suggestions	Salt Lick / Salt Block to be provided	alt Block to be provided.		
		Local tree fodder or meadow grass			
		keeper every day.			
		Feeding Schedule			
Morning	s - 8:00 AM to 10:00 AM	Afternoon 2:00 to 3:00 PM	Evening 5:00 to 6:00 PM		
Alfalfa P	ellet –	Vegetables as an enrichment.	Antelope pellet feed or		
Black Be	ngal Gram		HP Stud Farm pellet feed		
Wheat B	Bran	Dry fodder / Hay Green Fodder – Half P			
Mineral	Mixture	(Peanut / Alfalfa / Dongari Grass)			
Green F	odder – Half Portion				

	l' DI I	No of Animals in Enclosure 3		
In	dian Rhinoceros	Avg. body weight 2000 kg (up to	o 1-2 % on DM basis)	
SN	Particular / Ingredients	Avg. Req. for 01 Animal Kg/Day	Total Req. for Enclosure Kg/Day	
1.	Green Fodder (Hybrid Napier / Maize/ Alfalfa)	100	200	
2.	Tree Fodder / Green Meadow Grass	20	40	
3.	Dry fodder / Hay (Peanut /Alfalfa / Dongari Grass)	5	10	
4.	Wild Herbivore Pellet Feed	2	4	
5.	Alfalfa Pellet Feed	2	4	
6.	Black Bengal Gram (Chana) (Soaked)	1	2	
7.	Wheat Bran	0.5	1	
8.	Sugarcane	15	30	
9.	Carrot	2	4	
10.	Cucumber	2	4	
11.	Banana – Raw	4	8	
12.	Pumpkin	5	10	
13.	Watermelon /Muskmelon	5	10	
14.	Bottle Guard	3	6	
15.	Cabbage	1.5	3	
16.	Coriander	0.5	1	
17.	Mineral Mixture / Salt 2 or 3 times a week	0.1	0.2	
18. Suggestions		Local tree fodder or meadow grass keeper every day.	to be collected and given by	
		Feeding Schedule		
	- 8:00 AM to 10:00 AM	Afternoon 2:00 to 3:00 PM	Evening 5:00 to 6:00 PM	
Alfalfa Pellet Feed		Dry fodder / Hay	Wild Herbivore Feed: 4 kg	
	ngal Gram (Soaked)	(Peanut /Alfalfa / Dongari Grass)	Vegetables and fruits	
Wheat B Mineral I		Vegetables and fruits	Vegetables and fruits	
vinerall	WINTER	Sugarcane - Portion		
Green Fo	dder – Half Portion		Sugarcane - Portion	
			Green Fodder – Half Portion	

	Indian Gaur		No of Animals in Enclosur	e 4		
	Inulan Gaul		Average adult body weigh	nt 800 kg (1.5 - 2 % on DM basis)	
SN	Particular / Ingredients		Avg. Req. for 01 Animal Kg/Day		tal Req. for Enclosure /Day	
1	Green Fodder (Hybrid Napier / Maize/ Alfalfa)		50	15	0	
2	Tree Fodder / Green Meadow	/ Grass	20	60)	
3	Dry fodder / Hay (Peanut /Alfalfa / Dongari Gra	ass)	5	15	i i	
4	Wild Herbivore Feed		2	6		
5	Alfalfa Pellet		1	3		
6	Black Bengal Gram (Chana) (Soaked)		1	3		
7	Wheat Bran		0.5		1.5	
8	Carrot		1			
9	Cucumber		1			
10	Tomato		1			
11	Mineral Mixture / Salt 2 or 3 times a week		0.05		15	
12	Suggestions		Local tree fodder or meado keeper every day. Leafy Vegetables as enrichn			
	·		Feeding Schedule			
Мо	rning - 8:00 AM to 10:00 AM	Afte	ernoon 12:00 to 2:00 PM		Evening 5:00 PM to 6:00 PM	
Black	Bengal Gram Soaked	Drv foo	dder - Peanut Hay and	Antelope	Pellet Feed:	
	t Bran	Alfalfa	-			
Alfalfa Pellet Feed		Ve		Vegetables and fruits: Treats or		
Miner	al Mixture	Tree Fo	odder whil		while handling animals.	
Green	Fodder – Half Portion			Green Fo	dder – Half Portion	
	ables and fruits: To be provided					

	Hippopotamus	No of Animals in Enclosu	ire 1			
	mppopotamao	Average adult body weig basis)				
SN	Particular / Ingredients	Avg. Req. for 01 Animal Kg/Day	Total Req. for Enclosure Kg/Day			
1.	Green Fodder (Hybrid Napier / Maize/ Alfalfa)	100	100			
2.	Tree Fodder / Green Meadow Gra	ss 10	10			
3.	Dry fodder / Hay (Peanut /Alfalfa / Dongari Grass)	5	5			
4.	Wild Herbivore Feed	4	4			
5.	Black Bengal Gram (Chana) (Soake	ed) 2	2			
6.	Wheat Bran	0.5	0.5			
7.	Carrot	1	1			
8.	Cucumber	1	1			
9.	Tomato	1	1			
10	Watermelon /Muskmelon	2	2			
11	Ripe Banana	2	2			
12	Pumpkin	3	3			
13	Mineral Mixture / Salt 2 or 3 times a week	0.1	0.1			
14	Suggestions		To offer 50% feed portion in the evening hours Vegetables and fruits: for enrichment or while handling animals.			
		Feeding Schedule				
Aornir	ng - 8:00 AM to 9:00 AM	Afternoon 1:00 to 2:00 PM	Evening 5:00 PM to 6:00 PM			
· · · · · · · · · · · · · · · · · · ·		/egetables and fruits: Treats or while handling animals	Wild Herbivore Feed Soaked Bengal Gram Green Fodder - Half Portion Dry fodder / Hay (Peanut /Alfalfa / Dongari Grass			

	Giraffe	No of <i>i</i>	Animals in Enclosure 1 (Fema	ile)		
	Girane	Avg. a	Avg. adult body weight 900 kg (up to 1-2% on DM basis)			
SN	Particular / Ingredients		Avg. Req. for 01 Animal Kg/Day		Total Req. for Enclosure Kg/Day	
1.	Green Fodder (Hybrid Napier / Maize/ Alfalfa	a)	40		40	
2.	Tree Leaves / Green meadow	grass	40		40	
3.	Dry fodder / Hay (Peanut /Alfalfa / Dongari Gra	ss)	4		4	
4.	Wild Herbivore Pellet Feed		2		2	
5.	Alfalfa Pellet		1		1	
6.	Black Bengal Gram (Soaked)		0.5		0.5	
7.	Wheat Bran		0.5		0.5	
8.	Carrot		2		2	
9.	Cucumber		2		2	
10.	Apple without Seeds		1		1	
11.	Ripe Banana / Papaya		2		2	
12.	Pumpkin / Watermelon/ Musk	kmelon	2		2	
13.	Cabbage / Bottlegourd		1		1	
14.	Amaranthus Green		1		1	
15.	Mineral Mixture / Salt 2 or 3 times a week.		0.1		0.1	
16.	16. Suggestions		Local tree fodder or meadow grass to be collected and given by keeper every day.		be collected and given	
		F	eeding Schedule			
Morning	g - 8:00 AM to 10:00 AM	Afterno	oon 12:00 PM to 2:00 PM	Eveni	ng 5:00 to 6:00 PM	
Black Be	ngal Gram (Soaked)	Fruits a	and Vegetables		a Pellet	
Wheat Bran Dry fod		0		Herbivore Feed		
Mineral	Mixture	Tree Fo				
Green F	odder – 1/3 portion	Green	Fodder – 1/3 portion	Green	n Fodder– 1/3 portion	

Gemsbok			No of Animals in Enclosure 4		
			Average adult body weight 200 kg		
SN	Particular / Ingredients		Avg. Req. for 01 Animal Kg/Day	Total Req. for Enclosure Kg/Day	
1	Green Fodder		20	80s	
	(Hybrid Napier / Maize/ Alfalfa)				
2	Tree Fodder or Green Meadow Grass		2.5	10	
3	Dry fodder / Hay (Peanut /Alfalfa / Dongari Grass)		2.5	10	
4	Wild Herbivore Feed		1	4	
5	Black Bengal Gram (Chana) (Soaked)		0.125	0.5	
6	Carrot		0.5	2	
7	Cucumber		0.5	2	
8	Mineral Mixture / Salt		30 gm	120 gm	
	2 or 3 times a week				
9	Suggestions	Suggestions			
			Feeding Schedule		
Morning - 8:00 to 10:00 AM Afternoon 12		2:00 to 2:00 PM	Evening 5:00 PM to 6:00 PM		
Wild Herbivore Feed Dry fodder		Dry fodder /	Hay	Alfalfa Pellet Food 4 kg	
Soaked Bengal Gram (Pean		(Peanut /Alf	alfa/Dongari Grass)		
Mineral Mixture Choppe		Chopped Ca	rrot and Cucumber		
Sweet		Sweet Potat	o (Seasonal)		
Green Fodder – Half Portion				Green Fodder Half Portion	

Zebra			No of Animals in Enclosure 1 Average adult body weight 300 kg	
1	Green Fodder (Hybrid Napier / Maize/ Alfalfa)		25	25
2	Tree Fodder / Green Meadow Grass		5	5
3	Dry fodder / Hay (Peanut /Alfalfa / Dongari Grass)		5	5
4	HP Stud Farm Feed		2	2
5	Alfalfa Pellet Feed		2	2
6	Black Bengal Gram (Chana) (Soaked)		0.5	0.5
7	Wheat Bran		0.5	0.5
8	Carrot		1	1
9	Cucumber		1	1
10	Watermelon / Pumpkin / Muskmelon		1	1
11	Mineral Mixture / Salt 2 or 3 times a week		50 gm	50 gm
12	Suggestions		uantity in multiple times in a day or meadow grass to be collected an	d given by keeper every day.
			Feeding Schedule	
Morning - 8:00 AM to 10:00 AM			Afternoon 12:00 PM to 2:00 PM	Evening 5:00 PM to 6:00 PM
HP Stud Farm Feed			Dry fodder / Hay	Alfalfa Pellet food
Soaked Bengal Gram			(Peanut /Alfalfa / Dongari	Wheat Bran
Mineral Mixture			Grass)	
Green Fodder – Half Portion			Green Fodder Chopped Vegetables and fruits	Green Fodder- Half Portion

Wildebeest		No of Animals in Enclosure 5	
	Wildebeest	Average adult body weight 200 kg	
SN	Particular / Ingredients	Avg. Req. for 01 Animal	Total Req. for Enclosure
		Kg/Day	Kg/Day
1	Green Fodder	20	100
	(Hybrid Napier / Maize/ Alfalfa)		
2	Tree Fodder or Green Meadow Grass	5	25
3	Dry fodder / Hay	3	15
	(Peanut /Alfalfa / Dongari Grass)		
4	Wild Herbivore Pellet Feed	1	5
5	Black Bengal Gram (Chana) (Soaked)	0.25	1.25
6	Carrot	0.5	2.5
7	Cucumber	0.5	2.5
8	Sweet Potato	0.5	2.5
	(as per Seasonal availability)		
9	Mineral Mixture / Salt	30 gm	150 gm
	2 or 3 times a week		
10	Suggestions		
		Feeding Schedule	
Morning - 8:00 AM to 10:00 AM		Afternoon 12:00 PM to 2:00	Evening 5:00 PM to 6:00 PM
		PM	
Wild Herbivore Feed		Chopped Carrot and	Alfalfa Pellet Food
Soaked Bengal Gram		Cucumber	
Mineral Mixture		Sweet Potato- as per seasonal	
Green Fodder – Half		availability	Green Fodder Half Portion
		Peanut Hay - 10 kg	

Ape & Primates

		Во	rnean Ora	angutan		
Time	Daily Feed Requirement (per animal)				Quantity	Remarks
8:00 to 18:00	Browse: Banana leaves or sorghum or mulberry or moringa or mango or maize or similar(Assorted)			2 kg or 10 Pieces	Daily / Fresh	
8:00 to 09:00	50 % B	ixture (Cooked / Boiled Frown rice, 10 % Chick gg (white + yolk, grind		700 g	To offer slightl [,] warm food.	
10:00 to 10:30	10 % egg (white + yolk, grinded), 10 % Peas, 10 carrots Vegetables (changes on seasonal/daily basis)- (Assorted) in total: all available lettuces and herbs, spinach, broccoli, sweet potato (boiled), regular potato with skin (boiled), ladyfinger, bottle guard, pumpkin, beet root, carrot, capsicum, tomato, beans, cucumber, drumstick, mushrooms etc. in big pieces: pumpkin, cauliflower			1200 g		
12:00 to 13:00	Concer	ntrates: Pellets (OWM)) + Supplement (change on daily basis)	150 g	
	Day	Food Item	Morning	Evening		To be prepared
	Mon	Eggs (boiled, in total, with shell)	Pomegranate	Bottle gourd & Cucumber	2 pcs	fresh daily
	Tue	Roti (add 1 teaspoon of olive- or sesame oil on it)	Carrot & Beetroot	Muskmelon & Papaya	1 pc	
	Wed	Insect mix (meal/super worms, roaches, crickets)	Watermelon	Carrot, Beetroot, Tomato	100 g	
	Thu	Paneer	Papaya	Pineapple	200 g	1
	Fri	Bean mix (boiled black beans, peas, chickpeas)	Lemon + Honey + Normal Water	Pineapple	250 g]
	Sat	Khichri	Guava	Muskmelon	300 g	1
	Sun	Chicken (boiled)	Orange & Pineapple	Seasonal Fruit	250 g]
14:00 to 15:00		egetables (seasonal ch lettuce / spinach / ice			1500 g	
16:00 – 18:00	Fruit mix (changes on seasonal/daily basis) in total: (Assorted) Banana, apples, pears, grapes, guava, mango, sweet lime, orange, fig, jamun, pomegranate, fresh dates, plum, grapes etc. in big pieces: watermelon, musk melon, pineapple, papaya etc.			1000 gm		
18:00 pm	nuts (m	nix out of several nuts))		30 g	

Browse: Bamboo leaves (bambusa vulgaris), Cordia leaves (Bocote cordia), Ficus leaves (Ficus spp.), Brazilian spinach (Alternanthera sessilsi), tamarind leaves (Leucaena leucocephala), moringa leaves (Moringa oleifera), kachnar leaves (Bauhinia purpurea), guava leaves (Psidium guava), sweet corn leaves (Zea mays), mango leaves (Mangifera indica), gulmohar leaves (Delonix regia), hibiskus leaves (Hibiscus spp.), curry leaves (Murraya koenigii), almond leaves (Prunus dulcis)

Ingredients s	Morning Feed 06:00 to 07:00 AM	Mid-Day Feed 11:00 to 12:00 PM	Evening Feed 04:00 to 05:00 PM
aked Whole)	0.1	-	-
ngal Gram (Channa)	0.1	-	-
	0.1	-	-
	0.1	-	-
	0.1	-	-
s	0.3	-	-
/ Amaranthus	0.25		
/ Spinach / Lettuce	0.1		
<u>t :-</u> Walnut (Whole)	-	-	0.01
	-	-	0.01
	-	-	0.01
on	-	1	-
on	-	1	-
	-	0.25	-
ate	-	0.25	-
	-	0.25	-
	-	0.25	-
Orange	-	0.2	-
	-	0.2	-
ikoo)	-	0.5	-
1ango / Jujube (Chinese r) (Seasonal)/ plum/pear	0.2		
ato	0.1		
	0.1		
onal)	0.2		
	0.2		
	-	7	-
d) (Occasional)	-	6	-
	0.5	-	-
	0.2	-	0.2
n (Accacia/Neem)	0.1	-	-
nption			
nption -3 Time	es a week or as per	es a week or as per recommendations	

Small Primates Mixed Species (Ring-tailed Lemur, Common Marmoset, Squirrel Monkey, Red-handed Tamarin, Cotton-top Tamarin)

Total Number of Animals – Cotton Top Tamarin – 1 – 400 grams | Red Hand Tamarin – 3 – 400 grams | Squirrel Monkey - 6 – 900 grams | Marmoset – 1 – 300 grams | Ring Tailed Lemur – 1 -2.5 Kg | Tufted Capuchin –5– 4kg.

Birds

	Emu	No of Animals in Enclosure 13		
	Linu	Average adult body weight 30-35kg		
SN	Particular / Ingredients	Avg. Req. for 01 Animal Kg/Day	Total Req. for Enclosure Kg/Day	
1	Green Fodder (Hybrid Napier / Maize/ Alfalfa / Meadow Grass)	1	13	
2	Dry fodder / Hay (Peanut /Alfalfa / Dongari Grass)	1	13	
3	Ostrich feed	0.3 kg	3.9 kg	
4	Poultry Feed	100 gm	1.3 kg	
5	Sprout or Black Bengal Gram (Chana) (Soaked)	50 gm	0.65 kg	
6	Coriander / Amaranthus/ Spinach/ Mustard Green,	50 gm	0.65 kg	
7	Cabbage / Beetroot	100 gm	1.3 kg	
8	Carrot	50 gm	0.65 kg	
9	Cucumber / Corn	50 gm	0.65 kg	
10	Pumpkin / Bottle gourd	100 gm	1.3 kg	
11	Boiled eggs with shell (Occasional)	1/2	6 eggs	
12	Mineral Mixture / Salt 2 or 3 times a week	Calcium Supplement / Shell Grit		
13 Suggestions		Grass collection from surrounding	by keeper- Daily 10 kg	
Cucu	ander, Spinach, Cabbage, Carrot, ımber, Beet Root, pumpkin, bottle rd, Sprout, Boiled Egg with shell.	Ostrich Feed - 3.9 kg Dry fodder / Hay (Peanut /Alfalfa / Dongari Grass)	Green Fodder (Hybrid Napier / Maize/ Alfalfa / Meadow Grass)	



Sprouts for protein

Seasonal fruits

Shallow feeding pool



Elevated feeding station

Ostrich		No of Animals in Enclosure	e 3	
	Ostrien	Average adult body weight 100 kg		
SN	Particular / Ingredients	Avg. Req. for 01 Animal	Total Req. for Enclosure	
		Kg/Day	Kg/Day	
1.	Green Fodder	3	9	
	(Hybrid Napier / Maize/ Alfalfa /			
	Meadow Grass)			
2.	Tree Fodder / Green Meadow Grass		6	
3.	Dry fodder / Hay	2	6	
	(Peanut /Alfalfa / Dongari Grass)			
4.	Ostrich feed	1 kg	3 kg	
5.	Poultry Feed	0.5 kg	1.5 kg	
6.	Sprout	200 gm	600 gm	
7.	Coriander	50 gm	150 gm	
8.	Spinach	50 gm	150 gm	
9.	Cabbage	100 gm	300 gm	
10.	Carrot	100 gm	300 gm	
11.	Cucumber	100 gm	300 gm	
12.	Beet Root	100 gm	300 gm	
13.	Sweet Corn	100 gm	300 gm	
14.	Amaranthus Red / Green	100 gm	300 gm	
15.	Green Peas	100 gm	100 gm	
16.	Pumpkin	100 gm	100 gm	
17.	Boiled eggs with shell	1 Egg	3 Eggs	
18.	Mineral Mixture / Salt	Calcium Supplement / Shell	Grit	
	2 or 3 times a week			
19.	Suggestions	Fruits and Vegetables – Oran	nge, Mosambi etc. as a treat.	
		Feeding Schedule		
Morning - 8:00 AM to 10:00 AM After		ternoon 2:00 to 3:00 PM	Evening 4:00 PM to 6:00 PM	
		trich Feed - 3 kg	Poultry Feed	
	per, Beet Root, Sprout, Boiled			
Egg wit				
Green F	odder- Half Portion Dr	y Fodder / Hay 1.5 kg	Green Fodder- Half Portion	



Whole fruit presentation

Diet supplementation with feeder insects

N	Particular / Ingredients s	Morning Feed 06:00 to 07:00 AM	Mid-Day Feed 11:00 to 12:00 PM	Evening Feed 04:00 to 05:00 PM
1	Jowar	0.25	-	-
2	Bajara (Pearl Millet)	0.25	-	-
3	Moong	1	-	-
4	Wheat	1	-	-
5	Horse Gram (Channa)	0.25	-	-
6	Sunflower Seeds	0.5	-	-
7	Carrot	2	-	-
8	Beet Root	2	-	-
9	Cucumber	1.5	-	-
10	Corn Cobbs	3	-	-
11	Pumpkin (Partially Boiled)	0.5		
12	Amaranthus	0.5		
13	Mustard Green	0.5		
14	Coriander	1	-	-
15	Spinach	1	-	-
16	Lucerne	1		
17	Fenugreek	0.5		
18	Walnut	0.05 (50 gm)	-	-
19	Cashew	0.1 (100 gm)	-	-
20	Almond	0.1 (100 gm)	-	-
21	Musk Melon	-	1	-
22	Watermelon	-	3	-
23	Рарауа	-	2	-
24	Pomegranate	-	2	-
25	Guava/ Java Plum without seed	-	2	-
26	Apple	-	1.5	-
27	Orange/pear	-	0.5	-
28	Mosambi /plum	-	0.5	-
29	Banana	-	1	-
30	Sapota (chikoo)	-	1	-
31	Grapes / Mango / Jujube (Chinese dates / Ber) (Seasonal)		1	
32	Eggs (Boiled)	-	20	-
33	Fish (Fresh/ River/Various Species)		35	-
34	Finch Seed mix	-	-	1
35	Aviary Seeds Mix	-	-	1
36	Poultry Feed	2	-	
37	Duck Pellet /Waterfowl Pellet	1		
Tota	I Feed Consumption			
	upplements: 2-3 Times a week or as per re	ecommendations	1	

SN .	Particular / Ingredients s	Morning Feed 06:00 to 07:00 AM	Mid-Day Feed 11:00 to 12:00 PM	Evening Feed 04:00 to 05:00 PM
1	Jowar	0.25	-	-
2	Pearl Millet (Bajara)	0.25	-	-
3	Moong	1	-	-
4	Wheat	1	-	-
5	Soaked Bengal Gram (Channa)	0.25	-	-
6	Sunflower Seeds	0.5	-	-
7	Carrot	1.5	-	-
8	Beet Root	1	-	-
9	Cucumber	1.5	-	-
10	Coccinea	0.5		
11	Corn Cobbs	1.5	-	-
12	Coriander / Mustard Green	2.5	-	-
13	Amaranthus/ Fenugreek /Spinach	0.25		
14	Lucerne / Meadow Grass	1		
15	Beans	0.5		
	(French /Cow Pea / Flat Beans/ Peas)			
16	Gourds	0.5		
	(Bitter/ Bottle/ Sponge/Snake/ Apple)			
17	Pumpkin- Partially boiled	0.5		
18	Kiwi / Dragon Fruit		0.25	
19	Grapes / Mango / Jujube		0.5	
	(Chinese dates / Ber) (Seasonal)			
20	Walnut	0.05	-	-
21	Cashew	0.1	-	-
22	Almond	0.1	-	-
23	Musk Melon	-	1	-
24	Watermelon	-	2	-
25	Рарауа	-	1	-
26	Pomegranate	-	1	-
27	Guava /Mango without seed	-	1.5	-
28	Apple	-	2	-
29	Orange/pear/ plum/ ber	-	0.5	-
30	Sweet Lime (Mosambi)	-	0.5	-
31	Banana	-	1	-
32	Bread	0.2		-
33	Eggs (Boiled) (Occasional)	0.2	8	-
34	Insects	0.2	-	-
35	Exotic Aviary Seed Mix	-	-	1
36	Budgerigar Mix			0.5
37	Macaw Mix	-		0.2
38	Medium Parrot Mix			1
39	Poultry Feed			1
40	Duck Pellet /Waterfowl Pellet	- 1		1
40	Palm Nut (1 / bird)	1	-	0
	Macaw/ African Grey Parrot/ Amazon)			
42	Coconut – Dry (Enrichment)	2		
Tota	al Feed Consumption			

Multimineral and Multivitamins: 2-3 Times a week or as per recommendations

Reptiles

Marsh Crocodile		No. of animals in the enclosure: 15 (Adult & Sub adult mix)			
Iviar	sh Crocodile	Average body weight: 90 kg			
Sr. No.	Particular / Ingredients	Avg. Req. for 01 Animal Kg/week	Total Req. for Enclosure Kg/ week		
1	Carabeef / Fish	2 kg	30 kg		
Note:	Note: Beef & Fish should be given alternately every week.				
Feedi	ng Schedule	Every Sunday Evening or Monday M	lorning		

Gharial Crocodile		No. of animas in the enclosure: 5 (Sub adults)			
Gnaria	al Crocodile	Average body weight: 20 kg			
Sr. No.	r. No. Particular / Ingredients		Total Req. for Enclosure kg/ week		
1	Fish	1.6 kg	8 kg		
Note: Fis	Note: Fish should be given twice a week.				
Feeding Schedule		4 kg freshwater fish to be given on every Monday morning.4 kg freshwater fish to be given on every Friday morning			

Rat Snake		No. of animals in the enclosure: 2 Average body weight: 800g			
					Sr. No.
1	Poultry chicks / Rats/ Mice (35-45 g)	2	4		
2 Supplements		Supplements provided as per requirement.			
	Note: Feeding should be done under supervision and should be documented on regular basis. Snake should not be				
fed when it's in shedding stage. Feeding Schedule		Every Monday			
0					

Spectacled Cobra		No. of animals in the enclosure: 2		
		Average body weight: 600g		
Sr. No.	Particular	Avg. req. for 1 animal per week	Total Req. for enclosure per week	
1	Poultry chicks / Rats/ Mice (35-45 g)	2	4	
2	Supplements	Supplements provided as per requirement.		
Note: Feed	ing should be done under supe	ervision and should be documented o	on regular basis. Snake should not be	
fed when it's in shedding stage.				
Feeding Sc	hedule	Every Monday		

Indian Rock Python		No. of animals in the enclosure: 4		
		Average body weight: 3Kg		
Sr. No.	Particular	Avg. req. for 1 animal per week	Total Req. for enclosure per week	
1	Poultry chicks / Rats/ Mice (35-45 g)	4	16	
2	Supplements	Supplements provided as per requirement.		
Note: Feeding should be done under supervision and should be documented on regular basis. Snake should not be fed when it's in shedding stage.				
Feeding S	chedule	Every Monday		

Dell Duthen		No. of animals in the enclosure: 1		
Ball Python		Average body weight: 550 gm		
Sr. No.	Particular / Ingredients	Avg. Req. for 01 Animal Unit/ week	Total Req. for Enclosure Unit /week	
1	Mice/Rat	15-20g	15-20g	
2	Poultry Chicks	15-20g	15-20g	
Note: Feeding should be done under supervision and should be documented on regular basis				
Feeding Schedule		Every Wednesday		

Mo	nitor Lizard	No. of animals in the enclosure: 2		
		Average body weight: 1500g		
SN	Particular	Avg. req. for 1 animal per week Total Req. for enclosure per week		
1	Poultry chicks /Rats/Mice (35- 45 g)	3	6	
2 Supplements Supplements provided as per requirement.			rement.	
Note:	Feeding should be done under su	pervision and should be documented on regular basis.		
Feedi	ng Schedule	Every Monday, Thursday & Saturda	У	

Yellow bellied Slider		No. of animals in the enclosure: 2 Average body weight: 02 kg			
Sr. No.	Particular / Ingredients	Avg. Req. for 1 animal (gm/ day) Total Req. for Enclosure (gm/ da			
1	Turtle Pellet	20 gm	40 gm		
2	Spinach, Mustard Green, Amaranthus,	20 gm	40 gm		
3	Carrot, Beetroot, peas, Pumpkin, French beans,	20 gm	40 gm		
4	Insects	10 gm	20 gm		
5 Dry Shrimps and Prawns		5 gm	10 gm		
Note:	Note: All ingredients to be chopped and mixed properly.				
Feedir	ng Schedule	Morning (11-12 am) : All ingredients			

Iguana		No. of animals in the enclosure: 7		
igua	and	Average body weight: 1.5 kg		
SN	Particular / Ingredients	Avg. Req. for 01 Animal gm /Day	Total Req. for Enclosure gm /Day	
1	Leafy Vegetables (Any 2) (Amaranthus, Fenugreek, Mustard Green, Lucerne, (Spinach Sparingly)	200	1400	
2	Vegetable: (Any 2) (Pumpkin, Beetroot, Carrot) (Coccinea, Okra, peas, French beans, Green Capsicum, Cucumber)	100	700	
3	Fruits: (Any 1) (Banana, Papaya, watermelon/ mulberry/ Muskmelon)	50	350	
4	Hibiscus flower, leaves, Moringa leaves, Mulberry Leaves (Any 1)	50	350	
5	Supplements/ Mineral Mixture / Multivitamins/ Salt (2-3 times a week)	As per recommendations (Reptical / Reptivit)		
6	Suggestions	All ingredients to be chopp properly.	bed and mixed	
	F P C -b1			
	Feeding Sched			
	ing: 9-10 am	Afternoon: 2-3 pm		
Hibise	cus flower and Moringa leaves	Feed mix of all vegetables		

Red Tegu		No. of animals in the enclosure: 2		
net	1.680	Average body weight: 2.5 Kg		
SN	Particular Avg. req. for 1 animal per week Total Req. for enclosure per		Total Req. for enclosure per week	
1	Poultry chicks / Rats/ Mice (35-45 g)	2-3	4-6	
2	Amaranthus, Carrot, Pumkin, Beetroot, Peas, Broccoli, and Banana	150g (Mix)	1400g (Mix)	
3	Supplements	Supplements provided as per requirement.		
Note	Note: Feeding should be done under supervision and should be documented on regular basis.			
Feed	ing Schedule	Poultry Chicks/ Rats/ Mice every alternate day. Veggies and fruit every day.		

Α	rgentina Black and	No. of animals in the enclosure: 2		
White Tegu		Average body weight: 3Kg		
SN Particular		Avg. req. for 1 animal per week	Total Req. for enclosure per week	
1	Poultry chicks / Rats/ Mice (35-45 g)	2	6	
2	Amaranthus, Carrot, Pumkin, Beetroot, Peas, Broccoli, and Banana	150g (Mix)	1400g (Mix)	
3 Supplements		Supplements provided as per requirement.		
Note	: Feeding should be done under su	pervision and should be documented	on regular basis.	
Feedi	ing Schedule	Poultry Chicks/ Rats/ Mice every alternate day. Veggies and fruit every day		

Star Tortoise		No. of animals in the enclosure: 2		
Sta	TUITUISE	Average body weight: 1 kg		
Sr. No.	Particular / Ingredients	Avg. Req. for 1 animal (gm/ day)	Total Req. for Enclosure (gm/ day)	
1	Leafy Vegetables: Any 2 Amaranthus, Mustard Green, Spinach, fenugreek, Lucerne, Napier grass	50 gm	150 gm	
2	Vegetable: Any 2 Coccinea, Okra, Carrot, Beetroot, peas, Pumpkin, French beans, Green Capsicum, cucumber (Any 2)	30 g	90 g	
3	Fruits: Any 1 Banana, Papaya, watermelon	10 gm	30g	
4	Browse (Any 2) Hibiscus leaves, Moringa leaves, Mulberry Leaves, Lawn Grass, Medow Grass	50 gm	150 g	
5	Hay- Timothy,	20 gm	60g	
Note	: All ingredients to be chopped and mixed prope	erly.		
Feed	ing Schedule	Morning: Hibiscus leaves Afternoon: Feed mix of p		

Sulcata Tortoise		No. of animals in the enclosure: 2		
Suit		Average body weight: 15 kg		
SN	Particular / Ingredients	Avg. Req. for 01 Animal Kg/Day	Total Req. for Enclosure grams/per day	
1	Leafy Vegetables: (Any 2) Amaranthus, fenugreek, Spinach, Mustard Green, Lucerne,	300 gm	600 gm	
2	Napier grass, Bermuda Grass	100 gm	200 gm	
3	Vegetables: (Any 2) Coccinea, Okra, Carrot, Beetroot, peas, Pumpkin, French beans, Green Capsicum, cucumber	100 gm	200 gm	
4	Fruits: (Any 1) Banana, Papaya, watermelon.	50 gm	100 gm	
5	Hibiscus leaves, Moringa leaves, Mulberry Leaves, Lawn Grass, Medow Grass (Any 1)	200 gm	400 gm	
6	Hay- Timothy,	50 gm	100 gm	
7	Cactus Pad	50 gm	100 gm	
8	Supplements/ Mineral Mixture/ Multivitamins / Salt (2-3 times a week)	As per recommendations (Reptical / Reptivit)		
9	Suggestions	All ingredients to be chopped and mixed properly.		
	Feeding Sch	pedule		
Morr	ning: 9-10 am	Afternoon: 2-3 pm		
	cus flower and Moringa leaves	Feed mix of all vegetables		

14. Vaccination Schedule of Animals

Sr. No.	Таха	Vaccination against	Vaccine	Frequency
1	All Feline (Lion, Tiger, Leopard, Serval, etc.)	Feline Panleukopenia, Feline Calicivirus, Feline Rhinotracheitis Rabies	Feligen / Biofel PCHR (1ml/ Animal S/C) Nobivac R / Raksharab	Annual
2	All Canines (Wild Dog, Wolf, Hyena etc.) + South American Coati	Canine Distemper Virus, Canine Adeno Virus, Canine Parvo Virus, Parainfluenza Rabies Leptospirosis	Nobivac DHHPPI, Nobivac Lepto, Nobivac R / Raksharab	Annual
3	Rhinoceros and Wild Ass	Tetanus	Tetanus Toxoid	Annual
4	Birds	Newcastle Disease (ND)	LaSota	Annual
5	Sloth Bear	Leptospirosis and Rabies	Canigen L – 1 ml/sc Nobivac R – 1 ml/sc	Annual

15. De-worming Schedule of Animals

Sr. No.	Таха	Medicine Recommended*	Frequency
1	Carnivores	Pyrantel pamoate and Fenbendazole Praziquantel Doramectin Selamectin	Quarterly
2	Herbivores	Albendazole Fenbendazole Ivermectin Oxyclozanide Levamisole Trichlebendazole	Quarterly
3	Birds	Praziquantel, Oxfendazole Fenbendazole, Amprolium, etc.	Quarterly
4	Primates	Fenbendazole Praziquantel, Pyrantel pamoate, Metronidazole	Quarterly
5	Omnivores	Praziquantel, pyrantel pamoate and Fenbendazole Albendazole Ivermectin	Quarterly
6	Reptiles	Only if the EPG is pathognomonic in nature, the animals are treated symptomatically	As advised

*Appropriate medicine or a combination of medicines is administered post faecal sample examination.

Amitraz 12.5% and Deltamethrin 1.25% etc. are used for ectoparasite control when ectoparasites found on animal or birds.

Selamectine, Ivermectin, Doramectin, Moxidectin are also used in the form of injection or local application to control tick, fleas, and mites.

16. Disinfection Schedule

General Guidelines

- 1. Daily spot cleaning of left over feed, faecal matter, visible organic material etc.
- 2. Daily cleaning of feeding cubes or housing area or kraal using pressurised water.
- 3. Daily scrubbing of floor using detergent or chemical disinfectant.
- 4. Daily cleaning of feeding trough, watering trough, utensils etc. using detergent.
- 5. Daily air or sun drying of all utensils used for feeding and watering.
- 6. Complete cleaning of ponds using detergent or disinfectant- once a week.
- 7. Whitewash of ponds with lime- once a month or as advised.
- 8. Weekly (or fortnightly or monthly or as advise) burning feeding cubicles or kraal using flame gun.
- 9. Annual or biannual or as advise turning of soil or earth of the enclosure (Portion wise).
- 10.Leftover or fallen food material to be removed immediately after consumption by animal.
- 11.Dead animal(s) to be removed from enclosure immediately and carcass to be sent to postmortem or incinerator in the presence of authorised person.
- 12. Area from carcass collected must be cleaned and disinfected.
- 13. Contaminated bedding materials to be packed and sent for incineration.
- 14. Non disposable items to be soaked in disinfectant.
- 15. Regular growth of algae etc. to be checked.
- 16.Fumigation or fogging to be used for the closed areas without animals and human presence.
- 17. Fumigation or fogging to be used in veterinary hospital every 6 months: Fumigation to be carried out using formalin and potassium permanganate etc. Fogging to be carried out using hydrogen peroxide, sodium hypochlorite etc.
- 18.Non-toxic and non-corrosive compounds or salt or chemicals to be used to clean or disinfect.
- 19. Personal Protection Equipment (PPE) to be used during all cleaning and disinfection procedures.

Standard Operating Procedures for Cleaning and Disinfection

		nd Exit Points		
Method	Compound /Salt	Dilution	Frequency	Remarks
Chemical	KMnO4 or Kohrsolin-	As per	Daily	Dilution to be
	TH or Sodium	guidelines		carried out daily
Foot bath Tyre bath	Hypochlorite or			
	Soda Lime or			
	Virkon S or F			
	10 or Virolin etc.			
	Chemical Foot bath	Chemical KMnO4 or Kohrsolin- TH or Sodium Hypochlorite or Soda Lime or Foot bath Virkon S or F Tyre bath 10 or Virolin	ChemicalKMnO4 or Kohrsolin- TH or Sodium Hypochlorite or Soda Lime orAs per guidelinesFoot bathVirkon S or F 10 or Virolin	Chemical KMnO4 or Kohrsolin- TH or Sodium As per guidelines Daily Hypochlorite or Soda Lime or Soda Lime or Hypochlorite or Foot bath Virkon S or F Hypochlorite Tyre bath 10 or Virolin Hypochlorite



Foot baths

Disinfection of management area

C	Cleaning and Disinfection Protocols for all Animal Enclosures:				
Area	Method	Compound /Salt	Dilution	Frequency	Remarks
All Animal Enclosure-	Physical	Spot Cleaning		Daily	
Entry Point		Pressurized Water]	Daily	
Feeding Cubicle Kraal		Scrubbing - Detergent	1	Daily	
Night shelters		Burning		Weekly	Feeding area/ Night Shelters
	Chemical (Foot bath, Tyre bath, Spray)	KMnO4 or Kohrsolin- TH or Sod. Hypochlorite or Soda Lime or Virkon S or F 10 or Virolin etc.	As per guidelines	Daily	
		Soda Lime	As per guidelines	Monthly	For ponds

Disinfectants for Managing Disease Outbreaks

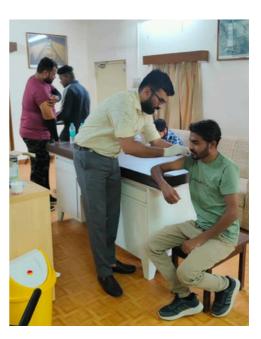
S. No.	Name of disease	Disinfectant recommended
1.	Anthrax	10% Formaldehyde,
		4% Glutaraldehyde,
		3% Hydrogen Peroxide
		1% Peracetic Acid
2.	Avian Influenza/	5-6% Sodium Hypochlorite
	New Castle	5% Calcium Hypochlorite,
	Disease	2-4% Glutaraldehyde Solution,
	5145	250-500 Ppm Dioctyl Dimethyl Ammonium Chloride, 4% Formalin
3.	FMD	Virkon 2%,
		2-4% Glutaraldehyde, Citric Acid, Sodium Carbonate, 0.5 % Sodium Hypochlorite Solution
4.	Lumpy Skin	20% Ether, 20% Chloroform,
4.	Disease	1% Formalin,
		Phenol 2% In 15 Min.
		Sodium Hypochlorite 2-3%,
		Iodine Compounds (1:33
		Dilution), Virkon 2%
		Quaternary Ammonium Compounds (0.5%)
5.	Rabies	0.5-1% Sodium Hypochlorite Solution,
		Phenolic Compounds And
		70% Ethanol,
		2% Virkon
6.	Hemorrhagic	3% Hydrogen Peroxide,
	Septicaemia	5% Acetic Acid,
		1% Virkon
7.	PPR	5% Sodium Hydroxide Solution,
		Phenol,
		2% Virkon And
		70% Ethanol
8.	Other Common	Quaternary Ammonia
	Bacterial & Viral	Compounds, 5% Sodium
	Diseases	Hypochlorite,
		5% Calcium Hypochlorite,
		5% Acetic Acid,
		5% Sodium Hydroxide, Sodium
		Carbonate, 2-4 % Glutaraldehyde,
		Formalin,
		Formaldehyde
		Gas,
		Potassium Permanganate (1-2 gm/ 📙 of Water) &
		Lysol 500 ml in 9500 ml of Water.

17. Health Check-up of Employees for Zoonotic Diseases

Health and Safety Measures for Zoo Staff

To ensure the health and safety of our staff, the following measures have been implemented:

- **Preventive Vaccination:** Staff are vaccinated against diseases such as Tetanus (TT), Anti-Rabies Virus (ARV), and Diphtheria.
- Routine Health Check-ups: Regular health screenings, including tuberculosis (TB) screening, are conducted for all staff members.
- **Deworming:** Deworming tablets are provided to all staff to maintain their health.
- Foot Baths: Disinfectant foot baths have been installed at every entry and exit point of the keepers' alleys to prevent the spread of pathogens.
- **Safety Gear:** Keepers are equipped with safety gear, including gloves, masks, and gumboots, to maintain hygiene and prevent cross-contamination of diseases.



Health and Safety Measures for Visitors

To ensure the health and safety of our visitors, the following measures have been implemented:

- Vehicle Tyre Bath: All entry and exit gates are equipped with tyre baths filled with disinfectant solution to prevent the spread of contaminants.
- Foot Baths: Foot baths are provided at the entrances to walk-through enclosures to maintain cleanliness and reduce the risk of disease transmission.
- **Hygiene Facilities:** Urinals and toilets are available throughout the park to ensure basic hygiene standards are maintained for all visitors.

18. Development Works Carried out in the Zoo during the Year

As part of the ongoing improvement efforts at the Sardar Patel Zoological Park, several significant development projects were undertaken this year:

Infrastructure & Facilities

- Administration Block Renovation: The administration block, including offices and a conference room, has been renovated to enhance functionality and aesthetics.
- Separation Wall Construction: To meet the statutory conditions of the Recognition of Zoo Rules, a separation wall between the residential colony and the main zoo premises is under construction.
- **Road Network Improvement:** The entire 7-kilometre stretch of internal roads has been completed, along with new footpaths for ease of walking. The new road network links all areas of the zoo, ensuring seamless access.
- **Plantation and Landscaping:** New plantations and landscaping, along with advanced irrigation systems, have been installed alongside the entire road network, enhancing the zoo's greenery and aesthetic appeal.
- Water Infrastructure Upgrades: Complete upgradation of water and irrigation lines now ensures 100% coverage and access to clean water throughout the zoo.
- Waste Management: The zoo's incinerator has been converted to diesel-electric, increasing its capacity from 25 kg to 50-80 kg per hour. A maintenance team is dedicated to its daily operation and monitoring. A functional sewage treatment plant (STP) with a capacity of 400 k has been connected to drainage lines and made operational. Large dustbins have been set up throughout the zoo to maintain cleanliness.



Visitor & Public Welfare

- **Drinking Water Facilities:** Existing drinking water coolers have been equipped with RO and UV filters. Additionally, 20 new coolers have been installed to ensure visitors have access to safe drinking water.
- **Battery Operated Vehicles (BOVs):** 20 new BOVs have been procured to facilitate visitor movement within the zoo.
- **Signage and Guidance:** New signages and directional maps have been placed throughout the zoo to assist visitors. Seven large digital screens have been strategically installed to showcase messages, images, and videos related to zoo and wildlife conservation.
- **BOV Pick-Up and Drop Points:** Renovation of BOV pick-up and drop points, which also serve as thematic/zone hubs, equipped with environmental and conservation messages and zoo maps.
- **Visitor Engagement:** Special educational and engaging programs, including guided tours, educational talks, and film screenings, are now offered to visitors, including school groups, to enhance their understanding of wildlife and conservation.



Animal Welfare

- Nutrition: We have developed species-specific diet charts with seasonal variations, incorporating legume hays and browse feeds into regular diets. Animals are regularly monitored for body condition, and their feed is adjusted accordingly. Various pellet feeds are introduced to cover the nutritional spectrum specific to each species, and supplements are provided to ensure optimal nutrition for all species, including birds and reptiles. Feeder insects such as crickets, mealworms, superworms, red runner roaches, and lobster roaches are now given to primates, fowls, pheasants, starlings, cranes, coatis, bears, toucans, and turacos.
- Animal Feed Storage: We have procured 12 convertible deep freezers for the proper storage of meats and fish, some of which are converted into refrigerators for storing fruits and vegetables, ensuring fresh feed availability in the early morning. New, safe, rodent-proof storage spaces have been created for dry feeds such as fodder, hay bales, and pellets. Additionally, four new EV mini loaders have been acquired for timely food distribution across all enclosures.
- Animal Management Modalities: Our newly designed animal restraining and management areas, including squeeze cages with tunnels, a travis for hippos, and a boma for African hoofstock, support veterinary care and animal welfare. Animals are trained to voluntarily participate in veterinary interventions using positive reinforcement.



Customised travis for hippopotamus

Positive reinforcement based training



Ad-lib dry fodder

• Environmental and Behavioural Enrichment: Naturalistic enclosures with diverse vegetation and soil types encourage natural behaviours such as exploring, digging, and climbing, preventing boredom and promoting mental stimulation. Species-specific enrichment activities are implemented to ensure the physical and psychological well-being of our animals. Carnivores like tigers and lions engage in scent trails and wooden logs with hidden treats, while herbivores such as deer and sambar enjoy scattered feed and browse. Birds participate in foraging activities and use interactive toys and perches. African animals interact with logs and feeding platforms, reptiles benefit from varied substrates and hiding structures, rhinoceroses enjoy wooden ball enrichment and mud wallows, sloth bears engage in honey log enrichment and climbing structures, and primates use puzzle feeders and climbing equipment to stimulate their intellect and social interactions.



Wallowing pool for Sambar Deer



Feed puzzle

Rope ball for play behaviour

• Veterinary Hospital Upgrades: The veterinary hospital has seen significant upgrades, including the procurement of a 5-part hematology analyzer, dry biochemistry analyzer, and sero analyzer. In-house histopathological analysis is now possible with a dedicated pathologist, and a complete microbiology setup for culturing samples and conducting antibiotic sensitivity tests has been established.



Operation theatre

Radiography



Double barrel Dan Inject Pneumatic tranquilising gun

Ultrasonic dental scaler



Slit lamp opthalmoscope

Continuous rate infusion syringe pump

Oxygen concentrator

- Disease Investigation Laboratory: Daily health management at SPZP includes observation, prophylactic sampling, follow-ups on treatments, and continuing education. Treatments and diagnostics are conducted at our veterinary hospital, equipped with advanced tools for case diagnosis and targeted treatments. The hospital features an operation theatre with gas anaesthesia and ventilator, a pharmacy, and dedicated pathology and microbiology departments.
- A dedicated veterinary pathologist and a lab assistant work diligently to provide fast and accurate results from the examination of various samples. This facilitates targeted treatment planning for the animals. Services include antibiotic sensitivity tests, parasitological mapping, disease diagnosis, and haematobiochemical analysis to assess treatment viability, along with histopathological analysis.
- Our in-house diagnostic facility enables near point-of-care testing, allowing swift and accurate diagnosis.



Microscopy

Pathology lab



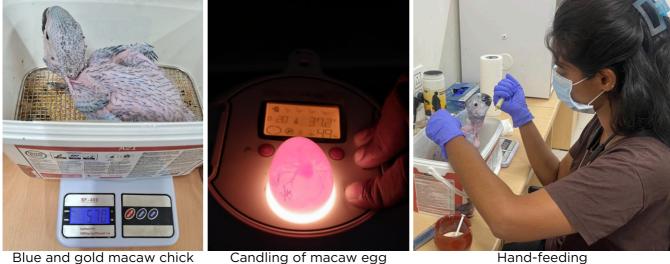
Laminar flow

- Rodent and Insect Culture: An insect culture room has been established for breeding mealworms, superworms, waxworms, dubia roaches, red runner roaches, lobster roaches, house crickets, and two-spotted crickets, providing appropriate nutrition to omnivorous species that feed on insects.
- Irrigation System: Water pumping houses, tanks, and drip irrigation lines covering approximately 20-30 kilometers have been constructed, ensuring safe water is available for drinking, wallowing, gardening, maintaining exhibit plantations, misting, and proper cleaning and hygiene maintenance of enclosures and keeper areas.
- Incubation and Neonatal/Hatchling Care: A temperature-controlled room with new incubators is dedicated to successfully hatching chicks when nests are compromised. New brooders ensure neonates/hatchlings receive species-specific formula feeding and round-the-clock care.



Feeder insect culture

Rodent culture



Candling of macaw egg

Hand-feeding

19. Education and Awareness Programmes during the Year

Public Education Programmes

- **Guided Tours:** Regular guided tours are conducted to educate visitors about the animals, their habitats, and conservation efforts.
- Workshops and Seminars: Workshops and seminars are organised for various groups, including schools, colleges, and special interest groups, focusing on wildlife conservation, animal behaviour, and zoo management.
- Exhibitions and Displays: Interactive exhibitions and displays are set up to provide information on wildlife conservation, the zoo's efforts, and global conservation initiatives.

School Outreach Programmes

- **Zoo Visits for Schools:** Special programs are arranged for school visits, including educational talks, interactive sessions, and guided tours to help students understand wildlife conservation.
- **Grassroots Program:** A grassroots level initiative is undertaken to reach schools and communities that are unable to visit the zoo, bringing educational materials and audio visual equipment to educate and inspire.

Community Engagement

- **Volunteer Programs:** Volunteer programs are in place to engage the local community in various zoo activities, including animal care, education programs, and conservation efforts.
- **Special Events:** Events such as Zoo Week, World Wildlife Day, and Earth Day are celebrated with activities, exhibitions, and interactive sessions to raise awareness and engage the public in conservation efforts.



Conservation conversations

Docent Programme at SPZP

The inaugural Docent Program at Sardar Patel Zoological Park, Ekta Nagar, was launched from 05/11/2023 to 11/11/2023, marking a significant step towards expanding our commitment to education, conservation, and community engagement. This pioneering initiative invited university students and wildlife enthusiasts to actively contribute to wildlife conservation and enhance the visitor experience at our zoo.

- Zoo Docents are dedicated volunteers who play a vital role in enriching the visitor experience, fostering conservation education, and supporting the zoo's mission. These individuals, passionate about wildlife and biodiversity, act as educational ambassadors, engaging visitors and providing in-depth knowledge about animals, their habitats, and conservation efforts. Their responsibilities include conducting guided tours, giving interpretive talks, facilitating animal encounters, assisting with special events, engaging with the community, and continuing their education on wildlife and conservation practices.
- During the first program, a diverse group of 20 enthusiastic students, comprising 10 boys and 10 girls with backgrounds in Zoology, participated actively. They engaged visitors through various activities, including bird watching, feed preparation, camera trapping, and field-related tasks, promoting a deeper understanding of wildlife and the zoo's role in conservation.
- Following the success of the first program, the second and third Docent Programs were held from 09/12/2023 to 17/12/2023, where docents continued to engage school students, provided insights about different animals, and participated in various conservation activities, furthering the mission of SPZP in wildlife education and advocacy.



Docents in action

Internships

Veterinary Internships

To provide invaluable experience in treating wild animals and impart knowledge on husbandry, nutrition, and health management, SPZP launched a veterinary internship program in collaboration with Kamdhenu University in February 2024. Undergraduate students participate in a week-long immersive program as part of their B.V.Sc. & A.H. degree requirements.

The SPZP team, skilled in surgery, medicine, pathology, entomology, herpetology, and more, offers interns comprehensive insights into various aspects of animal care. The program includes:

- Nutrition: Implementing species-specific dietary plans.
- Medicine and Surgery: Assisting in veterinary care and surgical procedures.
- **Post-Mortem Analysis:** Conducting necropsies to determine causes of death.
- Sample Analysis: Learning laboratory diagnostic techniques.
- Wildlife Rescue and Rehabilitation: Understanding the rescue and care of injured or orphaned animals.
- Egg Incubation and Neonatal Hand-Rearing: Caring for eggs and raising newborn animals.
- Advanced Diagnostics: Using technologies like radiography and ultrasonography.

Students actively participate in daily zoo routines, working alongside experienced staff to gain practical knowledge. This hands-on experience enhances their understanding of animal care and prepares them for future roles in veterinary sciences.

Since April 2023, SPZP has hosted 24 internship batches, training 315 students. These interns have applied their field experiences and independently treated challenging cases under the guidance of SPZP faculty.



Ultrasonography demonstration



Portable radiography demonstration

20. Important Events and Happenings

Inauguration

• New Reptile House inaugurated by Shri Mukesh Puri IAS on 31st August 2023. This modern reptile house showcases advanced herpetological husbandry. The reptile house takes a holistic approach to enclosure design, addressing not only the physiological and behavioural needs of its reptilians but also prioritising visitor engagement and education.



Tree Plantation Drives

- On the occasion of the "World Soil Day-" (5 Dec 2023), the tree plantation drive was carried out in the zoo premises, in which the rare and endemic plant species which were provided by the Rajpipla Forest Department.
- On "World Forest Day" (21 Mar 2024), we celebrated by inviting visitors to participate in planting activities. With the guidance of our horticulture team, we prepared pits at the Crocodile section, Gaur section, behind the serpentarium, and near the toucan enclosure. Encouraging visitors to plant with us, they eagerly joined in and played a vital role in the program's success. Guests with children were highly motivated as we shared information about the plants they were planting. Engaging parents enthusiastically participated with their children, and we also highlighted the option of planting fruit-bearing plants to attract birds to their backyard.



Planting native and endangered tree species

Cleanliness Drive

- On the occasion of the "World Soil Day-" (5 Dec 2023), the tree plantation drive was carried out in the zoo premises, in which the rare and endemic plant species which were provided by the Rajpipla Forest Department.
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Celebrations of National Wildlife Week & Zoo Week

- A series of impactful events were organised during the National Wildlife Week (2-8 Oct 2023) and the Zoo Week (1-7 Dec 2023). These week-long programs not only enlightened visitors but also actively engaged students from various educational institutions and our dedicated zoo staff.
- To further enhance visitor awareness, Keeper's Talks were organized at different exhibits. These talks provided valuable insights into the diverse animal species housed at the zoo and emphasized their ecological importance. This interactive approach fostered a deeper understanding and appreciation of wildlife conservation among our visitors.



Sensitising youth towards nature preservation

Great Backyard Bird Count

 The SPZP celebrated a successful conclusion to the Great Backyard Bird Count from 16-19th Feb 2024, recording an impressive array of avian species within its premises. From vibrant songbirds to majestic raptors, the count showcased the park's rich biodiversity with sighting of 54 species and reinforced its commitment to wildlife conservation. The collaborative efforts of the team yielded invaluable data for ornithological research, highlighting the importance of preserving natural habitats for avian diversity. This endeavour not only underscored the park's role in fostering a harmonious ecosystem but also inspired ongoing efforts to protect and nurture bird populations for future generations.



Bird census



Route map of the bird count.

Women Empowerment

 On "International Women's Day" (8 Mar 2024), we commemorated the dedication and positive contributions of our female staff with heartfelt appreciation. Each woman was honoured with a bouquet of flowers. During the celebration, officers from the SHE Team addressed important issues related to women's safety and security, both at home and in the workplace. Their talks emphasized the importance of empowering women to carry themselves with confidence, dignity, and selfrespect. Additionally, they provided valuable insights on recognizing and avoiding cyber crimes, further enhancing the safety and well-being of our female staff.



Days Celebrated at SPZP

- World Sloth Bear Day (12/10/2023)
- World Soil Day (05/12/2023)
- World Wetland Day (02/02/2024)
- Great Backyard Bird Count (16/02/2024 19/02/2024)
- World Wildlife Day (03/03/2024)
- World Forest Day (21/03/2024)
- World Water Day (22/03/2024)
- World Environment Day (05/06/2024)



Trainings for Forest Rangers at SPZP

During the visits of forest ranger trainees to SPZP, several crucial topics were covered to enhance their understanding and skills for future roles. The trainings focused on:

- **Protected Wildlife:** Detailed insights on conservation status, unique characteristics, and the importance of protecting these animals.
- **Human-Wildlife Conflicts:** Causes of conflicts, such as habitat encroachment and resource competition, and strategies to mitigate them.
- **Animal Behaviour:** Importance of understanding species interactions with each other and their environment for better wildlife management and conflict prevention.
- **Wildlife Crime:** Awareness of illegal activities, including exploitation of reptiles and the pet trade, emphasizing the need for strong laws and enforcement.
- Faunal Diversity: Exploration of park's bird species, discussing their behaviors, habitats, and conservation statuses.
- Wildlife Protection Act: Key provisions and their importance in safeguarding natural heritage.
- **Snake Bite Awareness:** Identification, prevention, and first-aid of snake bites for trainee safety and public education.

Training Dates, Participants, and Number of Rangers

- 12 Dec 2023: 96 rangers from Kakrapar Training Centre
- 19 Dec 2023: 67 rangers from Kakrapar Training Centre
- 22 Dec 2023: 43 rangers from Haryana Forest Department
- 03 Jan 2024: 28 rangers from GEER Foundation
- 29 Mar 2024: 39 rangers from Chandrapur (Tadoba) Division, Maharashtra
- 08 Jan 2024: 28 rangers from Wildlife Institute of India



21. Seasonal special arrangements for upkeep of animals

Summer Management

Shade and Cooling	Installation of shades, canopies, and natural vegetation to provide ample shade and protection from direct sunlight.		
	Implementation of misting systems and provision of water features like ponds and shallow pools for animals to cool off.		
Hydration & Diet	Increased access to fresh water sources ensuring that water containers are regularly checked and cleaned.		
	Adjusting diets to accommodate increased water intake and prevent dehydration.		
Health Monitoring	Regularly monitoring animals for signs of heat stress, dehydration, or other summer- related health issues.		
	Provide access to cooling areas or water baths, particularly for species that benefit from water immersion.		
Enrichment	Plan engaging activities that keep animals active and mentally stimulated during the warmer months.		
	Rotation of exhibit features and provision a variety of enrichment items such as ice treats.		



Ice treats

Shade & water pool

Monsoon Management

Shelter & Drainage	Implementation of effective drainage systems to prevent waterlogging in enclosures, ensuring proper flow away from animal living areas.	
	Designing enclosures with elevated platforms to offer refuge during heavy rainfall and reduce the risk of flooding.	
	Enhancing shelter structures to provide adequate cover during heavy rainfall or storms.	
	Regular inspection of enclosures for leaks and areas prone to water accumulation, promptly addressing any issues.	
Health Monitoring	Implementation of a preventive healthcare program to counteract potential monsoon-related diseases, including vaccinations and regular health check-ups.	
	Monitoring animals closely for signs of stress or illness exacerbated by the wet conditions.	
Enrichment	Provision of indoor activities that accommodate the rainy weather, ensuring animals remain engaged during inclement conditions.	
	Adjusting outdoor enrichment strategies, such as hiding food in safe, dry areas, to maintain mental stimulation.	
Emergencies	Mock drills of emergency evacuation plan to ensure the safety of both animals and staff during extreme weather events.	
	Mapping designated holding areas for temporary relocation if needed	



Large rain protection shades reinforced before every monsoon.

Winter Management

Chalter 0	
Shelter &	Ensuring enclosures are equipped with well-insulated shelters to protect
Heating	animals from cold winds, rain, and potential snowfall.
	Installing additional heating sources such as infrared heat lamps, mercury
	vapour UV lamps (for reptiles) for animals that require extra warmth.
	Providing appropriate bedding materials, such as straw or hay, to provide
	insulation and keep animals comfortable.
	Insulating enclosures, especially those with open-air sections, to prevent
	drafts and maintain a consistent temperature.
Diet &	Adjusting diets to account for increased energy requirements during colder
Nutrition	months.
	Providing warm and nutritionally dense food and monitor water sources to
	prevent cold shocks.
Health	Conducting regular health checks, paying attention to signs of cold-related
Monitoring	stress, respiratory issues, or other winter-related health concerns.
	Ensuring veterinary staff is adequately prepared and available to address
	potential health issues promptly.
Enrichment	Introducing indoor enrichment activities to keep animals mentally stimulated
	during colder weather.
	Offer items like puzzle feeders, novel scents, or tactile objects to engage
	animals during the winter months.



Insulated hide boxes

Mercury vapour lamp for optimum UV and heat

22. Research Work and Publications

Post Graduate Dissertation (M.Sc. Zoology)

Sr. No.	Name of Student	Department/University	Торіс
1	Ms. Shalini	Department of Zoology, M. S.	Microhabitat Utilization and Thermal
	Prajapati	University, Vadodara.	Preferences of Captive Indian Rock
			Python: Implications for Captive
			Husbandry.
2	Mr. Rohan	Department of Zoology, M. S.	Exploring Social Behaviour and
	Gadhvi	University, Vadodara.	Dynamics of Four-horned Antelope in
			Captivity.
3	Ms. Parita	Department of Environmental	Modernizing Zoos: Green Practices,
	Rathore	Studies, M. S. University,	Education, and Engagement at SPZP.
		Vadodara.	
4	Mr. Kapil <u>Bariya</u>	Department of Zoology,	Investigating the effectiveness of
		college of science, Dr. Subhash	enrichment strategies on captive
		University, Junagadh	Tufted Capuchins (Cebus apella).



Facilitating research

Publications & Presentations

Published

• Trivedi, K., & Mukherjee, S. (2024). Understanding Reproductive Strategies: Courtship and Copulation Behaviours of the Asiatic Wild Dog *(Cuon alpinus)* in Captivity. Journal of Science, Humanities and Arts, 11(3).

Submitted for publication

- Novel Nesting Behaviour in Rose-Ringed Parakeet (*Psittacula krameri*) at Sardar Patel Zoological Park. (Submitted to Cheetal Journal) Authors: Krunal Trivedi, Mitesh Patel & Soham Mukherjee
- Successful Surgical Correction of an Extensive Reducible Hernia in a Blue Wildebeest (Connochaetes taurinus): A Case Report on Anaesthetic Management and Recovery. (Submitted to Cheetal Journal) Authors: Chetan Patond & Ushma Patel
- Insights into the use of pelvic spur in mating behavior of Indian Rock Python (*Python molurus*). (Submitted to Zoo's Print) Authors: Krunal Trivedi, Shalini Prajapati, Vaibhav Kansara & Soham Mukherjee

Poster presentation

 A Study on the Captive Breeding of the Painted Stork (*Mycteria leucocephala*) at the Sardar Patel Zoological Park, Ekta Nagar. Poster Presentation in National Zoo Biologist Workshop by CZA in Sanjay Gandhi Biological Park, Patna (2023). Authors: Krunal Trivedi, Mitesh Patel & Soham Mukherjee



Contributing to zoo science

23. Conservation Breeding Programme of the Zoo

Since its inception in 2019, SPZP has successfully bred the following species of birds, mammals, and reptiles, including several endangered species:

- Indian Peafowl (Pavo cristatus)
- Asiatic Lion (Panthera leo persica)
- Four-Horned Antelope (Tetracerus quadricornis)
- Himalayan Goral (Naemorhedus goral)
- Blackbuck (Antilope cervicapra)
- Common Leopard (Panthera pardus)
- Indian Bison (Bos gaurus)
- One-Horned Rhino (Rhinoceros unicornis)
- Wild Dog (Cuon alpinus)
- Marsh Crocodile (Crocodylus palustris)



Contributing to healthy zoo populations

24. Animal acquisition / transfer / exchange during the year

A	Animals arriving in the Zoo			
	Species	Number	From which Zoo	Date of arriva
	species	T(M:F:U)	From which 200	in the Zoo
1.	Squirrel monkey	6 (3:3:0)	Paradise Aviaries	08/05/2023
2.	African Grey Parrot	4 (2:2:0)		
3.	Golden Pheasant	2 (1:1:0)		
4.	Silver Pheasant	4 (2:2:0)		
5.	Indian Rock Python	4 (0:0:4)	Kamla Nehru	19/08/2023
6.	Spectacled Cobra	2 (0:0:2)	Zoological Garden	
7.	Rat Snake	2 (0:0:2)		
8.	Bengal Monitor Lizard	2 (0:0:2)		
9.	Red Tegu	2 (1:1:0)	Paradise Aviaries	20/08/2023
10.	Argentine Black and White Tegu	2 (1:1:0)		
11.	African Ball Python	2 (1:1:0)		
12.	African Lion	3 (1:2:0)		25/11/2023
13.	Jaguar	2 (1:1:0)		
14.	Bornean Orangutan	1 (1:0:0)	Capital Zoo, UAE	
15.	Golden Pheasant	1 (1:0:0)	Paradise Aviaries	25/11/2023
В	Animals going from the Zoo			
		Number		Date of
	Species	T(M:F:U)	Going to which Zoo	Deposition
		T(IVI.F.O)		from the Zoo
1.	Llama	4 (2:2:0)	Pets Zone, Ekta	22/01/2023
2.	Alpaca	1 (0:3:0)	Nagar	



Acquisition of popular species boosts visitor numbers and conservation education.

25. Rescue and Rehabilitation of Wild Animals

Sr. No.	Date of Rescue	Species with Number of Animals Rescued with their Sex (M:F:U:T)	Received From	Date of Submission of Report to CWLW/CZA	Action Ta	iken
					Date of Place of Release in their Habitat	Reasons for Housing in the Zoo, if not Released in their Habitat
1	11/4/23	Indian Porcupine (0:2:0:0)	Sayajibaug Zoo, Vadodara	Provided temporary care	9/8/23	Transferred back to Sayajibaug Zoo post hand- raising.
2	5/10/23	Russel's Viper (0:0:1:1)	Ekta Nagar	6/1/24	-	Not fit for release.
3	6/10/23	Spectacled Cobra (0:0:1:1)	Ekta Nagar	6/1/24	-	Not fit for release.
4	6/10/23	Russel's Viper (0:0:2:2)	Ekta Nagar	6/1/24	-	Not fit for release.



Orphaned Indian Porcupine

Laceration wound in Spectacled Cobra

26. Annual Inventory of Animals

Form II Part A

S.No.	Animal Name	Scientific Name	00	Opening Stock (01-Apr-2023)	g Sto r-202	3 ck	^m	Births		Acquisitions	sitior		Disp	Disposals		Deaths	s		Closing Stock (31-Mar-2024)	ig Sto ar-20	24) CK
			Σ	u.	>	⊢	Σ	L.	- >	Σ	- L	2 2	Σ	⊃ ⊾	Σ	L	-	Σ	L	∍	⊢
Aves									_			_	-		_						
1.	Indian Peafowl	Pavo cristatus	4	6	80	21	0	0	0	0	0	0	0	0	-	•	0	e	ი	80	20
3	Eurasian Spoonbill	Platalea leucorodia	Ļ	1	0	2	0	0	0	0	0	0	0	0	0	0	0	-	-	0	2
Total Aves	2		5	10	8	23	0	0	0	0	0	0	0	0	-	•	•	4	10	∞	22
Mammalia											\vdash										
1.	Blackbuck	Antilope cervicapra	11	14	ю	28	0	0	5	27 1	16	32 0	0	0	7	4	0	31	26	40	67
2.	# Blackbuck Antilope (leucistic/white) cervicapra	Antilope cervicapra	10	16	e	29	0	0	13	0	0	0	0	0	0	-	0	1	17	13	41
З.	Indian Bison,Gaur	Bos gaurus	2	1	0	3	-	0	0	0	0	0	0	0	0	0	0	e	-	0	4
4.	Indian Wolf	Canis lupus pallipes	-	+	0	2	0	0	0	0	0	0	0	0	0	0	0	-	-	0	2
5.	Asiatic Wild Dog, Dhole, Indian Wild Dog, Red Dog	Cuon alpinus	4	-	0	5	0	0	0	0	0	0	0	0	0	0	0	4	-	0	5
6.	Indian Wild Ass	Equus hemionus khur	2	0	0	2	0	0	0	0	0	0	0	0	0	0	•	2	•	0	2
7.	# Chinkara	Gazella bennettii	2	9	e	11	0	0	2	0	0	0	0	0	0	0	0	9	Q	2	16
8.	Sloth Bear	Melursus ursinus	-	-	0	2	0	0	0	0	0	0	0	0	0	•	0	-	-	0	2
9.	Asiatic Lion	Panthera leo persica		2	0	3	1	e	0	0	0	0	0	0	0	0	0	3	Q	0	7
10.	Leopard	Panthera pardus	-	-	0	2	0	-	0	0	0	0	0	0	0	0	0	-	2	0	8
11.	Leopard (melanistic)	Panthera pardus	0	-	0	٢	0	0	0	0	0	0	0	0	0	0	0	0	-	0	۲
12.	Bengal Tiger	Panthera tigris tigris	-	-	0	2	0	0	0	0	0	0	0	0	0	0	0	-	-	0	2

Endangered Species*

- Modified Closing Balance

cont..

13.Rhinoceros13.Rhinoceros13.Rhinoceros(Greater One- horned Rhino)unicornis14.Eld's Deer15.Rev-antlered Deer)15.#Four-horned Antelope15.Antelope quadricornis16.15Mammalia Reptilia151.Marsh palustris2.Gavialis							_													
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Deer) # Four-horned Antelope 15 Marsh Crocodile Gharial		0	4	0	4	0	0	0	0	0	0	0	0	0	-	0	0	e	0	e
# Four-horned Antelope 15 Marsh Crocodile Gharial																				
Antelope 15 Marsh Crocodile Gharial				· ·	•	c	c	0				6		C		C	-	u	u	4
15 Marsh Crocodile Gharial	-			,	0		_	_		_					1	>	r	>	>	2
Marsh Crocodile Gharial	4	40 5	54 1	1	105	2	5	33 2	28 1	16 3	32	0	0 0	7	10	0	68	72	64	204
Marsh Crocodile Gharial																				
Crocodile Gharial				14	15	c	c	6		6		6		C	c	•	c	•	14	15
Gharial	_	-	-1		2	-1	-	-	-	-	-	-	-	-	2	2	2	-	<u>.</u>	2
gangericus		5	3	0	5	0	0	0	0	0	0	0	0	0	0	0	2	3	0	5
3. Spectacled Naja naja Cobra		0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	2	2
4. Common Rat Ptyas mucosa		0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	2
5. Indian Rock <i>Python</i> Python <i>molurus</i>		0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4	4
6. Bengal Monitor bengalensis		0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	2
Total Reptilia 6		2	4	14	20	0	0	0	0	•	10	0	0	•	•	•	2	4	24	30
Total	4	47 (68	33	148	2	5	33	28	16	42	0	0	∞	9	•	74	86	96	256

*Animals under Sch-I and Sch-II of Wild Life (Protection) Act. 1972

S.No.	Animal Name	Scientific Name	00	penii 01-A	Opening Stock (01-Apr-2023)	ck		Births		Acquisitions Disposals	lisiti	suo	Disp	osa	S	Deaths	ths		Closir (31-M	Closing Stock (31-Mar-2024)	¥ Ŧ
			Σ	L	D	L	Σ	u.	∍	Σ	u.	∍	Σ	ц	N	_	Р	Σ	u.	D	۲
Aves																					
÷	Peach-faced Lovebird, Rosy-faced Lovebird	Agapornis roseicollis	0	0	214	214	0	0	37	0	0	0	0	0	-		0 0	•	0	250	250
5	Wood Duck	Aix sponsa	e	2	0	5	0	0	0	0	0	0	0	0	0		0	m	2	0	S
ю	Blue-fronted Amazon, Blue- fronted Parrot, Turquoise- fronted amazon, Turquoise- fronted Parrot	Amazona aestiva	N	N	o	4	0	0	•	0	0	0	0	0	0			N	-	0	m
4	Orange- winged Amazon, Orange- winged Parrot	Amazona amazonica	0	0	e	°	0	0	0	0	0	0	0	0	0	0	0	0	0	ю	e
ம்	Yellow- crowned Amazon, Yellow- crowned Parrot, Yellow- fronted Amazon	Amazona ochrocephala	4	4	0	œ	0	0	o	0	0	0	0	0	0	0	-	4	m	o	7
6.	Northern Pintail	Anas acuta	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	-	0	-
7.	Common Teal	Anas crecca	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	1	0	0	-
8.	Greylag Goose Anser anser	Anser anser	0	0	6	6	0	0	0	0	0	0	0	0	0	0	1	0	0	80	80
ந்	Bar-headed Goose	Anser indicus	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	•	0	-	-

Other than Endangered Species*

- Modified Closing Balance

cont..

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0	0	0	0	4	0	0	0	0	0	0	0	2
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Antigone antigone	Ara ararauna	Ara chloropterus	Ara macao	Aratinga solstitialis	Ardeola grayii	Balearica regulorum	Bubulcus ibis	Chrysolophus amherstiae	Chrysolophus pictus	Cygnus atratus	Dendrocygna javanica	Dromaius novaehollandiae
Sarus Crane	Blue-and-gold Macaw, Blue- and-yellow Macaw	Green-winged Macaw, Red- and-green Macaw	Scarlet Macaw Ara macao	Sun Conure, Sun Parakeet	Indian Pond Heron	Grey crowned crane, Grey Crowned- crane, Grey Crowned- Crane, South African Crowned Crane, Southern crowned crane	Cattle Egret		# Golden Pheasant	Black Swan	Lesser Dendroc Whistling Duck javanica	Emu
10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.

3	4	-	-	30	3	3	273	S	2	364	8	61	12	79	3	9	16	22	24	104
0	0	0	0	30	3	ß	273	0	0	355	0	45	12	79	e	3	16	22	S	12
-	2	-	0	0	0	0	0	e	-	4	-	6	0	0	0	2	0	0	11	39
2	2	0	-	0	0	0	0	2	-	5	-	7	0	0	0	1	0	0	10	53
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
2	0	0	0	0	0	0	0	0	0	-	0	-	0	0	0	0	-	0	0	-
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0	0	0	0	30	3	3	200	0	0	329	0	45	12	68	0	3	17	22	0	7
e	5	•	0	0	0	0	0	e	0	•	-	10	0	0	0	2	0	0	11	40
2	3	0	2	0	0	0	0	-	0	0	-	10	0	0	0	2	0	0	12	54
Eclectus roratus	Eolophus roseicapilla	Eudynamys scolopaceus	Gallus gallus	Geopelia cuneata	Grus grus	Grus virgo	Lonchura sp.	Lophura nycthemera	Mareca strepera	Melopsittacus undulatus	Musophaga violacea	Mycteria Ieucocephala	Nycticorax nycticorax	Nymphicus hollandicus	Pastor roseus	Pelecanus onocrotalus	Pseudibis papillosa	Psittacula cyanocephala	Psittacula eupatria	Psittacula krameri
Eclectus Parrot	Galah, Roseate Cockatoo	Asian Koel	Red Junglefowl	Diamond Dove Geopelia cunea	Common Crane	Demoiselle Crane	Finch sp.		Gadwall	Budgerigar	Violet Turaco	Painted Stork	Black-crowned <i>Nycticorax</i> Night Heron <i>nycticorax</i>	Cockatiel	Rosy Starling	Great White Pelican	ed	Plum-headed Parakeet	Alexandrine Parakeet	Rose-ringed Parakeet
23.	24.	25.	26.	27.	28.	29.	30.	31.	32.	33.	34.	35.	36.	37.	38.	39.	40.	41.	42.	43.

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0	-	0	0	0	0	0	0	0	3		0	0	0	0
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2	0	0	0	0	0	0	0	0	8		16	-	0	0
2	0	0	0	0	0	0	0	0	8		10	0	0	0
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0	65	4	1	20	3	2	5	10	1343		17	0	-	5
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Psittacus erithacus	Pyrrhura molinae	Ramphastos tucanus	Ramphastos vitellinus	Sarkidiornis sylvicola	Common ostrich, Ostrich	Syrmaticus reevesii	Threskiornis melanocephalus	Trichoglossus moluccanus			Axis axis	Boselaphus tragocamelus	Callithrix jacchus	Cebus apella
Grey Parrot, Jacquot	Green- cheeked Conure, Green- cheeked Parakeet	Red-billed Toucan, Rampha White-throated tucanus toucan	Channel-billed Ramphastos Toucan vitellinus	nck	Common ostrich, Ostrich	Reeves's Pheasant	Black-headed Ibis	Rainbow Lorikeet	52		Chital/ Spotted Deer		Common Marmoset	bed
44.	45.	46.	47.	48.	49.	50.	51.	52.	Total Aves	Mammalia	1.	2.	3.	4.

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Connochaetes taurinus	Equus quagga	Giraffa tippelskirchi	Hippopotamus amphibius	Hyaena hyaena	Lama lama	Lemur catta	Leptailurus serval	Macropus rufogriseus	Muntiacus muntjak	Naemorhedus goral	Nasua nasua	Oryx gazella	Otocyon megalotis	Panthera leo	Panthera onca	Pongo pygmaeus	Rusa unicolor
Blue Wildebeest	Plains Zebra	Masai Giraffe	Common hippopotamus, <i>Hippopotamus</i> Hippopotamus, <i>amphibius</i> Large Hippo	Ø	Lama	Ring-tailed Lemur	Serval	tt's y	Indian Muntjac <i>Muntjacus</i>	# Himalayan Goral	# South American Coati, Southern Coati	South African oryx/Gemsbok		African Lion	Jaguar	Bornean Orangutan	er
5.	6.	7.	8	0	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.

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2	-	4	0	64			0	-	-	-	1	-	9	205	279
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-	-	-	e	54		-	0	-	-	0	0	0	3	184	252
5	ю	ę	0	44		-	0	-	-	0	0	0	3	185	232
Saguinus midas	Saguinus oedipus	Common Squirrel Monkey, South american squirrel monkey	Vicugna pacos			Conolophus marthae	Geochelone elegans	Geochelone sulcata	Iguana iguana	Python regius	Salvator merianae	Salvator rufescens			
Golden- handed Tamarin	eaded	Common Squirrel Monkey, South american squirrel monkey	Alpaca	9		Galapagos pink land iguana, Pink iguana	Star e	African spurred tortoise	Green Iguana		Argentine Black and White Tegu, Black-and- white tegu	Argentine Tegu, Red Tegu	7		
23.	24.	25.	26.	Total Mammalia	Reptilia	+	5	ю	4.	5.	ů.	7.	Total Reptilia	Total	Grand Total

27. Mortality of Animals

Sr. No.	Species (with Individual Identification Mark, if any)	Scientific Name	Sex	Date of Death	Reason of Death as per Postmortem Report
1.	Green-Cheeked Conure	Pyrrhura molinae	Unidentifi ed	05-04-2023	Decomposed
2.	Green-Cheeked Conure	Pyrrhura molinae	Male	08-04-2023	Hypovolemic shock
3.	Red-Billed Toucan	Ramphastos tucanus	Male	09-04-2023	Hepatic and renal failure
4.	Painted Stork	Mycteria leucocephala	Male	22-04-2023	Cardio-respiratory failure as a result of trauma due to infight
5.	Alexandrine Parakeet	Psittacula eupatria	Male	03-05-2023	Hepatitis
6.	Blackbuck	Antelope cervicapra	Male	04-05-2023	Cardio-respiratory failure associated with septicaemia
7.	Blackbuck (White)	Antelope cervicapra	Female	04-05-2023	Cardio-respiratory failure associated with septicaemia
8.	Squirrel Monkey	Saimiri sciureus	Female	07-05-2023	Multiple organ failure with malignant hemangiosarcoma
9.	Green-Cheeked Conure	Pyrrhura molinae	Female	11-05-2023	Hypovolemic shock
10.	Red-naped Ibis	Pseudibis papillosa	Female	11-05-2023	Cardio-pulmonary failure
11.	Blackbuck	Antelope cervicapra	Female	12-05-2023	Cardio-respiratory failure associated with septicaemia
12.	Four-Horned Antelope	Tetracerus quadricornis	Female	12-05-2023	Respiratory failure
13.	Four-Horned Antelope	Tetracerus quadricornis	Female	12-05-2023	Cardio-respiratory failure associated with septicaemia
14.	Sambar Deer	Rusa unicolor	Female	15-05-2023	Cardio-respiratory failure associated with septicaemia
15.	Four-Horned Antelope	Tetracerus quadricornis	Female	17-05-2023	Cardio-respiratory failure associated with traumatic and septic shock
16.	Red Jungle Fowl	Gallus gallus	Male	17-05-2023	Pneumonia
17.	Blackbuck	Antelope cervicapra	Female	30-05-2023	Respiratory failure and endometritis
18.	Siver Pheasant	Lophura nycthemera	Female	31-05-2023	Hepatitis
19.	Rainbow Lorikeet	Trichoglossus moluccanus	Female	05-06-2023	Traumatic shock
20.	Rose-Ringed Parakeet	Psittacula krameri	Unidentifi ed	05-06-2023	Decomposed

21.	Rose-Ringed Parakeet	Psittacula krameri	Female	06-06-2023	Respiratory failure caused by Pneumonia
22.	Alexandrine Parakeet	Psittacula eupatria	Male	10-06-2023	Respiratory failure
23.	Budgerigar	Melopsittacus undulates	Female	11-06-2023	Traumatic shock
24.	Blackbuck	Antelope cervicapra	Female	13-06-2023	Cardio-respiratory failure
25.	Sun Conure	Aratinga solstitialis	Male	13-06-2023	Heat stroke
26.	Sun Conure	Aratinga solstitialis	Female	16-06-2023	Traumatic and hypovolemic shock
27.	Siver Pheasant	Lophura nycthemera	Male	21-06-2023	Multiple organ failure associated with malignancy
28.	Sun Conure	Aratinga solstitialis	Male	22-06-2023	Cardio-respiratory failure
29.	Rose-Ringed Parakeet	Psittacula krameri	Male	23-06-2023	Respiratory failure
30.	Blackbuck	Antelope cervicapra	Male	25-06-2023	Cardio-respiratory failure associated with septicaemia
31.	Blackbuck	Antelope cervicapra	Male	28-06-2023	Cardio-respiratory failure associated with septicaemia
32.	Red-Billed Toucan	Ramphastos tucanus	Female	16-07-2023	Cardio-respiratory failure associated with shock
33.	Red-Billed Toucan	Ramphastos tucanus	Male	16-07-2023	Cardio-respiratory failure associated with shock
34.	Eclectus Parrot	Eclectus roratus	Female	18-07-2023	Cardia-respiratory failure due to envenomation
35.	Spotted Deer	Axis axis	Male	21-07-2023	Cardio-pulmonary arrest associated with septic shock and toxemia
36.	Sambar Deer	Rusa unicolor	Male	21-07-2023	Cardia-respiratory failure due to anorexia, enteritis and peritonitis with complete intestinal obstruction.
37.	Eclectus Parrot	Eclectus roratus	Female	21-07-2023	Hemorrahagic enteritis
38.	Comb Duck	Sarkidiornis melanotos	Female	23-07-2023	Hypovolemic shock as a result of infight injuries
39.	Lady Amherst's Pheasant	Chrysolophus amherstiae	Female	28-07-2023	Traumatic and hypovolemic shock as a result of infight injuries
40.	Greylag Goose	Anser anser	Unidentifi ed	31-07-2023	Decomposed
41.	Golden Pheasant	Chrysolophus pictus	Female	31-07-2023	Hemorrahagic enteritis
42.	Thamin Deer	Rucervus eldii eldii	Female	08-08-2023	Cardio-respiratory failure associated with shock
43.	Cotton Top Tamarin	Saguinus Oedipus	Female	13-08-2023	Pancreatitis and enteritis

44.	Indian Peafowl	Pavo cristatus	Male	24-08-2023	Cardio-respiratory failure
45.	Blackbuck	Antelope	Male	30-08-2023	Cardio-respiratory failure
		cervicapra			associated with septicemia
46.	Spotted Deer	Axis axis	Female	15-09-2023	Cardio-respiratory failure
47.	Four-Horned	Tetracerus	Female	18-09-2023	Cardio-respiratory failure
	Antelope	quadricornis			associated with septicemia
48.	Barking Deer	Muntiacus muntjak	Male	19-09-2023	Shock
49.	Cotton Top Tamarin	Saguinus Oedipus	Male	20-09-2023	Multiple organ failure
50.	Cotton Top Tamarin	Saguinus Oedipus	Female	20-09-2023	Multiple organ failure
51.	Blue Fronted Amazon	Amazona aestiva	Female	05-10-2023	Pneumonia
52.	Yellow-Crowned Amazon	Amazona ochrocephala	Female	23-10-2023	Traumatic Shock
53.	Rainbow Lorikeet	Trichoglossus moluccanus	Male	23-10-2023	Heat Stroke
54.	Blackbuck	Antelope cervicapra	Male	23-10-2023	Septicemia
55.	Blackbuck	Antelope cervicapra	Male	04-11-2023	Septic Shock
56.	Spotted Deer	Axis axis	Male	07-11-2023	Septic Shock
57.	Peach-faced Lovebird	Agapornis roseicollis	Male	07-11-2023	Septic Shock
58.	Red-Necked Wallaby	Macropus rufogriseus	Female	13-11-2023	Sepsis
59.	Painted Stork	Mycteria leucocephala	Female	14-11-2023	Septicemia
60.	Himalayan Goral	Naemorhedus goral	Male	15-11-2023	Cardio respiratory failure associated with septicemia
61.	Painted Stork	Mycteria leucocephala	Male	17-11-2023	Septic Shock
62.	Painted Stork	Mycteria leucocephala	Male	19-11-2023	Reparatory Failure following strangulation
63.	Blackbuck	Antelope cervicapra	Male	20-11-2023	Cardio respiratory failure
64.	Spotted Deer	Axis axis	Male	27-11-2023	Visceral Shock
65.	Sambar Deer	Rusa unicolor	Male	03-12-2023	Abomasal obstruction & Impaction
66.	Sambar Deer	Rusa unicolor	Male	14-12-2023	Shock as a result of Infight
67.	Silver Pheasant	Lophura nycthemera	Female	17-12-2023	Pneumonia
68.	Spotted Deer	Axis axis	Male	01-01-2024	Shock because of infight injuries
69.	Spotted Deer	Axis axis	Male	02-01-2024	Respiratory failure resulting from aspiration of blood and saliva
70.	Silver Fox / Bat- eared Fox	Vulpus vulpus / Otocyon megalotis	Female	20-01-2024	Multiorgan failure associated with ehrlichiosis and splenic tumor

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71.	Himalayan Goral	Naemorhedus goral	Male	23-01-2024	Respiratory failure resulted from tracheal obstruction with exudate
72.	Green Cheeked Conure	Pyrrhura molinae	Male	24-01-2024	Respiratory failure resulted from tracheal obstruction with exudate
73.	Blackbuck	Antelope cervicapra	Female	25-01-2024	Respiratory failure resulted from tracheal obstruction with exudate
74.	Pelican	Pelecanus onocrotalus	Male	18-02-2024	Respiratory Failure
75.	African White Lion	Panthera leo	Female	24-02-2024	Cardio-pulmonary arrest due to shock
76.	Spotted Deer	Axis axis	Male	27-02-2024	Respiratory Failure
77.	Sun Conure	Aratinga solstitialis	Female	28-02-2024	Respiratory failure
78.	Spotted Deer	Axis axis	Male	12-03-2024	Respiratory failure
79.	Sambar Deer	Rusa unicolor	Male	13-03-2024	Respiratory failure resulted from tracheal choke
80.	Green Cheeked Conure	Pyrrhura molinae	Male	21-03-2024	Cervical Fracture
81.	Squirrel Monkey	Saimiri sciureus	Female	24-03-2024	Multiple Organ Failure
82.	Spotted Deer	Axis axis	Female	28-03-2024	Shock because of infight injuries

28. Compliance with Conditions Stipulated by the Central Zoo Authority

Sr. No.	Norm No. under RZR, 2009	Condition Stipulated	Time Period to Comply	Pending Since	Status with regard to compliance of the conditions as submitted by the Officer- in-Charge of the Zoo	Status with regard to compliance as noted physically by the evaluator during the visit
1	10.1 (1)	Since, zoo is new establishment, it should scientifically make the effort to establish sustainable population of physically, genetically and behaviourally healthy animals from the beginning by maintaining proper record keeping.	With immediate effect	Oct 2019	Revised Master layout plan submitted to CZA for Approval (2/6/22). Once approved, the master plan shall be used.	Collection plan was submitted to CZA
2	10.1 (4)	The chain link fence has been used as a boundary wall of the zoo. There is thick natural vegetation all around the boundary fence. The provision of fire line of appropriate width should be made available as a precautionary measure from forest fire and also to restrict entry of outside animals	Immediate	Oct 2019	Being regularly carried out in the months of Nov & Dec every year, through the office of DCF Kevadia.	Complied

3	10.1 (7)	The disposal management of solid and liquid waste needs to strengthen and completed before making the zoo operational by following the plan as approved in the Master Layout Plan. The solid waste shall be processed for manure which may be used in fodder farm.	With immediate effect	Compl eted	Arrangeme nt with SoU for disposal of solid twice in a day. Compost machine installed near gate no 2.	Complied
4	10.1 (8)	The animals for the zoo should be acquired after permission under sec 38(i). The zoo should not acquire or display sick, injured, and infirm animals.	Immediate	Noted	Being followed	Permission under 38(i) is followed. No display of sick and injured animals to public.
5	10.2 (3)	The animal keeper, head keeper with adequate experience in zoo work should be appointed immediately.	With immediate effect	Complt ed	All animal keepers are trained through deputations for a period of 3 months in Sakkarbaug and Indroda Zoo.	Complied
6	10.3 (1)	The zoo should submit Master Plan for all the phases to the CZA for approval.	3 months	June 22	Revised Master Layout Plan submitted to CZA for approval on 22/6/22.	Submitted to CZA

7	10.3 (3)	The zoo shall restrict its exotic animal collection plan to limit of 25% in zoo.	With immediate effect	Jun 22	Revised collection plan was submitted to CZA on 22/6/22. CZA vide letter dated 3/1/23 advised zoo to prepare the collection plan as per the prescribed format of the authority.	Currently the zoo is exhibiting exotic:native species in the following ratio: 1. Mammals Exotic 44.7%:Native 55.3% 2. Birds Exotic 53.7%:Native 46.3% 3. Reptiles Exotic 50%:Native 50%. The zoo authority should plan the collection plan of animal species as per the prescribed limits of CZA.
8	10.3 (5)	The night shelters should be camouflaged by suitable plantations and shall not be visible to the visitors.	With immediate effect	Compli ed	Being implemente d in a phased manner	Complied
9	10.4 (3)	 The design of newly constructed enclosures should be as per the prescribed standards of the CZA and fully audited for safety and security of animals, visitors, and keepers, and its structural stability. The overhang steel plate expansion joints of lion, tiger, and leopard enclosures should be properly affixed in such a 	With immediate effect	Complt ed	All animal keepers are trained through deputations for a period of 3 months in Sakkarbaug and Indroda Zoo.	Complied

9	10.4 (3)	way that it does not allow any space for animal escape. 3. The gate openings in keeper gallery in feeding and retiring cells should have locking systems. 4. The strengthening of drop gates in animal enclosures should be checked periodically and maintained properly. 5 The provision of squeeze cage should be made especially in lion, tiger, and leopard enclosures.	With immediate effect	Compli ed	Complied with all conditions	Complied with all conditions
10	10.4 (6)	The zoo shall enrich the enclosures including feeding and retiring cells keeping in view the behavior requirements of the animals species housed therein.	With immediate effect	Compli ed	Complied	Enrichment of the animals enclosures is being carried out as recommende d.
11	10.4 (9)	The live hedge shall be maintained between enclosure wall and stand-off barrier	3 months	Compli ed	Complied	Live hedges to be implemented
12	10.4 (10)	The multilingual signages (Hindi, Gujarati, and English) shall be displayed with adequate biological information at each species enclosure. The signages shall be placed appropriately having information access to visitors of age class.	Immediate	Compli ed	Complied	Multilingual signages are displayed at each animal exhibit.

13	10.5 (1)	The zoo shall acquire animal in such a way that no animal shall be housed single sexed.	With immediate effect	NA	Complied	Single sexed animal list is prepared. Pairing of the unpaired animals in in process and shall be completed in 6 months time.
14	10.5 (2)	The zoo should ensure timely supply of quality food and water to all animals.	With immediate effect	NA	Complied	Complied
15	10.5 (4)	Substrates in krall should have soft soil.		NA	Complied	Complied
16	10.5 (5)	 1 The zoo shall provide tyre bath (as a biosecurity measure) at appropriate entry points. 2 A schedule should be developed for disinfection of the enclosures and should be followed strictly. 	With immediate effect	NA	Complied	Both the points are complied.
17	10.6 (1)	The zoo should have a full fledged veterinary unit with diagnostic facility. However, it is suggested that zoo may have a bare minimum veterinary facility in the zoo premises.	6 months	NA	Complied	Complied. A full fledged veterinary hospital is operational with 3 veterinarians, 3 paravets, and other support staff.
18	10.12 (1)	The zoo operator should provide adequate civic facilities for visitors at appropriate and convenient places in the zoo including for physically disabled as per approved Master Layout Plan.	With immediate effect	NA	Complied	Complied. Facilities for urinals, drinking water points, visitor sheds, and lawns have been provided at various locations in the zoo for public usage.

19	10.12 (2)	The zoo should have a first aid facility and emergency medicines as suitable locations inclusive of anti snake venom.	With immediate effect	NA	Complied	Anti snake venom 20 vials present in the zoo hospital with expiry year of 2026.
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Non-Statuatory Recommendations

20	The zoo shall make arrangements for storage of water and food for animals in such a way that is shall be sufficient for feeding and upkeep of animals for at least 1 week during disaster conditions, if any.	3 months	NA	Zoo has sufficient storage facility for food and water. Two large water tanks of 10 lac and 7 lac litres capacity have been established for water storage facility for overall zoo supply. Other than that 4 water tanks of 2000 liters capacity have been kept between animal enclosures. A godown has been established for food storage of dry fodder, pellet feeds, etc. For perishable items, deep freezer has been provided.	Complied
21	The construction activity should be completed before making the zoo functional and the labours should also be shifted.		NA	Completed	Complied

29. List of Free Living Wild Animals within the Zoo Premises

Mammals

1. Five-striped Palm Squirrel (Funambulus pennantii)

2. Indian Grey Mongoose (Herpestes edwardsii)

3. Indian Flying Fox (*Pteropus giganteus*)

4. Indian Porcupine (Hystrix indica)

5. Spotted Deer (Axis axis)

6. Four-Horned Antelope (Tetracerus quadricornis)

7. Hanuman Langur (Semnopithecus entellus)

Birds

1. Shikra (Accipiter badius)

2.Common Myna (Acridotheres tristis)

3.Common lora (Aegithina tiphia)

4. Common Kingfisher (*Alcedo atthis*)

5. White-breasted Waterhen (Amaurornis phoenicurus)

6. Rufous-tailed Lark (Ammomanes phoenicura)

7. Asian Open-bill Stork (Anastomus oscitans)

8. Oriental Darter (Anhinga melanogaster)

9. Great Egret (Ardea alba)

10.Medium Egret (Ardea intermedia)

11. Indian Pond Heron (Ardeola grayii)

12. Jungle Babbler (Argya striata)

13. Eastern Cattle Egret (Bubulcus ibis)

14. Indian Stone Curlew (Burhinus indicus)

15. White-eyed Buzzard (Butastur teesa)

16. Striated Heron (Butorides striata)

17. Savanna Nightjar (Caprimulgus affinis)

18. Indian Nightjar (Caprimulgus asiaticus)

19. Greater Coucal (Centropus sinensis)

20. Jerdon's Leafbird (Chloropsis jerdoni)

21. Woolly-necked Stork (Ciconia episcopus)

22. Purple Sunbird (Cinnyris asiaticus)

23.Rock Pigeon (Columba livia)

24.Indian Robin (Copsychus fulicatus)

25. Oriental Magpie-robin (Copsychus saularis)

26.Large-billed Crow (Corvus macrorhynchos)

27. House Crow (Corvus splendens)

28. Gray-headed Canary-flycatcher (Culicicapa ceylonensis)

29. Tickell's Blue Flycatcher (Cyornis tickelliae)

30. Rufous Treepie (Dendrocitta vagabunda) 31. Thick-billed Flowerpecker (Dicaeum agile) 32. Pale-billed Flowerpecker (Dicaeum erythrorhynchos) 33. Lesser Flameback Woodpecker (Dinopium benghalense) 34. Tawny-bellied Babbler (Dumetia hyperythra) 35. Asian Koel (Eudynamys scolopaceus) 36. Indian Silverbill (Euodice malabarica) 37. Peregrine Falcon (Falco peregrinus) 38. Yellow-throated Sparrow (Gymnoris xanthocollis) 39. White-throated Kingfisher (Halcyon smyrnensis) 40. Common Hawk-cuckoo (*Hierococcyx varius*) 41. Long-tailed Shrike (Lanius schach) 42. Purple-rumped Sunbird (Leptocoma zeylonica) 43. Crested Bunting (Melophus lathami) 44. Asian Green Bee-eater (Merops orientalis) 45. Little Cormorant (Microcarbo niger) 46. Grey Wagtail (Motacilla cinerea) 47. White-browed Wagtail (Motacilla maderaspatensis) 48. Indian Grey Hornbill (Ocyceros birostris) 49. Indian Golden Oriole (Oriolus kundoo) 50. Common Tailorbird (Orthotomus sutorius) 51. Gray Francolin (Ortygornis pondicerianus) 52. Cinereous Tit (*Parus cinereus*) 53. House Sparrow (Passer domesticus) 54. Indian Peafowl (Pavo cristatus) 55. Oriental Honey Buzzard (Pernis ptilorhynchus) 56. Indian Cormorant (Phalacrocorax fuscicollis) 57. Black Redstart (Phoenicurus ochruros) 58. Greenish Warbler (*Phylloscopus trochiloides*) 59. Indian Pitta (Pitta brachyura) 60. Gray-breasted Prinia (Prinia hodgsonii) 61. Plain Prinia (*Prinia inornata*) 62. Ashy Prinia (*Prinia socialis*) 63. Coppersmith Barbet (*Psilopogon haemacephalus*) 64. Alexandrine Parakeet (Psittacula eupatria) 65. Rose-ringed Parakeet (*Psittacula krameri*) 66. Red-vented Bulbul (Pycnonotus cafer) 67. White-eared Bulbul (Pycnonotus leucotis) 68. White-browed Bulbul (Pycnonotus luteolus) 69. White-browed Fantail (Rhipidura albicollis) 70. Spot-breasted Fantail (Rhipidura albogularis) 71. Spotted Dove (Spilopelia chinensis) 72. Laughing Dove (Spilopelia senegalensis) 73. Crested Serpent Eagle (Spilornis cheela) 74. Mottled Wood Owl (Strix ocellata)

75. Chestnut-tailed Starling (Sturnia malabarica)

- 76. Brahminy Starling (Sturnia pagodarum)
- 77. Indian Paradise-flycatcher (Terpsiphone paradisi)
- 78. Yellow-footed Green Pigeon (Treron phoenicoptera)
- 79. Barred Buttonquail (Turnix suscitator)
- 80. Red-wattled Lapwing (Vanellus indicus)
- 81. Indian White-eye (Zosterops palpebrosus)
- 82. Jacobin Cuckoo (Clamator jacobinus)
- 83. Spotted Owlet (Athene brama)
- 84. Barn Owl (Tyto alba)
- 85. Indian Eagle Owl (Bubo bengalensis)

Reptiles

1. Common Bronzeback Tree Snake (Dendrelaphis tristis) 2. Checkered Keelback (Fowlea piscator) 3. Common Krait (Bungarus caeruleus) 4. Common Sand Boa (Eryx conicus) 5. Fan-Throated Lizard (Sitana ponticeriana) 6. Green Keelback (Rhabdophis plumbicolor) 7. Indian Rock Python (Python molurus) 8. Indian Spectacled Cobra (Naja naja) 9. Indian Wolf Snake (Lycodon aulicus) 10. Leith's Sand Snake (Psammophis leithii) 11. Monitor Lizard (Varanus bengalensis) 12. Oriental Garden Lizard (Calotes versicolor) 13.Rat Snake (Ptyas mucosa) 14.Red Sand Boa (Eryx johnii) 15. Russell's Viper (Daboia russelii) 16.Saw-Scaled Viper (Echis carinatus) 17. Slender Racer (Platyceps gracilis) 18. Streaked Kukri (Oligodon taeniolatus) 19. Common Trinket Snake (Coelognathus helena) 20. Indian Chameleon (Chamaeleo zeylanicus) 21. Indian Flapshell Turtle (Lissemys punctata) 22. Mugger Crocodile (Crocodylus palustris) 23. Bark Gecko (Hemidactylus leschenaultii) 24. Yellow-bellied House Gecko (Hemidactylus flaviviridis) 25. House Gecko (Hemidactylus frenatus) 26. Asian House Gecko (Hemidactylus platyurus) 27.Brook's House Gecko (Hemidactylus brookii) 28. Peninsular Rock Gecko (Hemidactylus subtriedrus)

30. Addenda

30.1 Animal Enrichment at SPZP

At SPZP, animal welfare is our utmost priority. Enrichment activities play a crucial role in maintaining the physical and psychological well-being of our diverse animal population. This year, we implemented a range of innovative, species-specific enrichment activities tailored to the needs of carnivores, herbivores, native and exotic birds, African animals, reptiles, rhinoceroses, sloth bears, and primates. These activities encourage natural behaviors, provide mental stimulation, and enhance the overall quality of life for the animals in our care.

Carnivores

Our carnivorous residents, including tigers, lions, leopards, and jaguars, have benefited from enrichment activities designed to stimulate their hunting instincts and engage their keen senses. Highlights include:

- Scent Trails: Various scents are strategically placed throughout their enclosures to encourage exploration and tracking behaviors, promoting physical exercise and engaging their olfactory senses.
- Wooden Logs: Large logs, sometimes infused with scents or containing hidden treats, provide opportunities for scratching, clawing, and chewing. These logs also serve as climbing structures, adding a physical dimension to their environment.



Scent trail

Play feeding

Puzzle feeding

Herbivores

For herbivorous animals, including spotted deer, blackbuck, and sambar, enrichment activities focus on mimicking natural foraging behaviors:

- **Scattered Feed:** Food is dispersed throughout enclosures, encouraging exploration and physical activity.
- **Browse:** Tree branches and leafy vegetation hung at different heights promote natural browsing behaviors.



Encouraging foraging behaviour



Variations in presentation



Slow pellet dispenser device

Native and Exotic Birds

Our aviaries, home to both native and exotic birds, have been enhanced with activities aimed at stimulating flight, foraging, and social interactions:

- **Hidden Food:** Foraging opportunities have increased by providing hidden food, encouraging birds to use their beaks and claws to search for meals.
- Interactive Toys and Perches: Varying heights and materials encourage physical activity and natural behaviors such as climbing and swinging.
- **Species-Specific Nest Boxes:** Introduced for breeding various birds.
- **Natural foraging:** Providing natural urge to forage on safe plants and chew on branches.



Foraging flower

Chewing on safe branches



Supplemental feeding through positive reinforcement based training

Reptiles

Reptiles such as snakes, lizards, and tortoises benefit from habitat enhancements that promote natural behaviors:

- Varied Substrates and Climbing Structures: Sand, soil, and bark mimic natural environments and encourage digging and burrowing. Use of naturalistic branches, and rocks encourage climbing and complete enclosure utilisation.
- **Complex Hiding Structures:** Logs, rocks, and artificial vegetation provide security and mimic natural cover, rotated regularly to keep environments dynamic.



Elements like rocks, branches, dens/burrows, undergrowth, etc. encourage exploratory behaviour.



Providing choices to retreat reduces stress.

Primates

Primates, including orangutans, squirrel monkeys, tufted capuchins, and tamarins, engage in enrichment activities designed to challenge their intellect and promote social behaviors:

- **Puzzle Feeders:** Require manipulation to release food, stimulating problem-solving skills.
- Ropes, Swings, and Climbing Structures: Encourage physical activity and social interaction.



Puzzle feeder to engage problem solving behaviour

Hanging puzzle feeder



Rolling puzzle feeder

Elevated platforms



Climbing structures

30.2 Acknowledgments and Concluding Message

Photo Credits

We extend our sincere gratitude to the following contributors for their outstanding photography and visual contributions to this report: Kapil Bariya, Swarali Buchke, Vaibhav Kansara, Utsav Navadiya, Jenish Panchal, Mitesh Patel, Dhruv Patel, Dr. Ushma Patel, Darshit Shah, Sunny Shah, Dr. Shashikant Sharma, Soham Mukherjee, Akanksha Mukherjee, Snehashish Mondal, Dr. Chetan Patond, Pushkar Tiwari, Krunal Trivedi, and Dr. Amey Wagh.

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Concluding Message

At Sardar Patel Zoological Park, we remain steadfast in our mission to promote wildlife conservation, education, and community engagement. This annual report reflects the collective efforts of our dedicated staff, enthusiastic volunteers, and supportive partners, who have worked tirelessly to ensure the well-being of our animal residents and enrich our visitors' experiences.

Looking ahead to the coming year, we intend to advance our welfare and conservation initiatives, improve our educational programmes and visitor experiences, and foster a stronger bond between people and wildlife. Together, we can build a sustainable and thriving environment for all species, inspiring future generations to value and protect our natural world.

Thank you for your continued support.

Sincerely,

Soham Mukherjee Addl. Director Sardar Patel Zoological Park, Ekta Nagar, Gujarat