SPZP

ANNUAL REPORT

2024-2025

SPZP
SARDAR PATEL ZOOLOGICAL PARK

STATUE OF UNITY
एक भारत, श्रेष्ठ भारत

Contents

1. Report of the Officer-in-Charge

It is with great pride and immense gratitude that I present the Annual Report of Sardar Patel Zoological Park (SPZP) for the financial year 2024–2025. This year has been one of transformation with teamwork. Our mission—rooted in conservation education and the welfare of animals—guided by the National Zoo Policy, every challenge overcome, and every milestone celebrated. At the heart of it all was our dedicated Animal care team of Keepers and Veterinarians, who stood as pillars of compassion. Available round the clock, they responded to emergencies, performed life-saving surgeries, and conducted over a thousand treatments and procedures across a wide variety of species. Whether it was treating a leopard rescued from the wild by the forest department, rehabilitating an Amazon parrot with respiratory illness, or performing delicate surgeries on reptiles and primates, their quiet courage and skill made a world of difference. Their work extended far beyond the Zoo gates—collaborating with the Animal Husbandry & Forest Department to treat wild animals in need, caring for temple elephants, birds of prey, and stray rescues. Just as importantly, they mentored the next generation: over a hundred veterinary interns and students trained with us this year, gaining real-world experience and insight.

Our Education and Outreach team worked with equal passion and creativity, bringing learning to life for visitors and interns alike. The zoo came alive with vibrant celebrations of World Environment Day, International Tiger Day, and Wildlife Week celebrations-each one thoughtfully curated to raise awareness and spark engagement. We welcomed school children, families, wildlife enthusiasts, and global experts to events that included hands-on activities, keeper talks, art competitions, and guided walks. Our interns played an invaluable role in these programs—designing educational content, engaging directly with guests, and even guiding visitors through exhibits to share the stories of the animals we care for. International speakers such as Mr. Andrew Beer and Mr. Lubos Tomiska shared their global perspectives with our team, enriching our knowledge and reinforcing our belief in learning as a lifelong process. We also continued our documentation efforts—photographing free-ranging wildlife in our park, observing behavioral patterns, and improving educational signage to make every visit more meaningful. On the digital front, our team actively managed and amplified the zoo's voice through over 60 high-performing posts, reels, and campaigns across platforms. With a growing online following and a 4.4-star average Google rating, our virtual presence is helping us reach people far beyond our physical boundaries.

Operationally, the park has grown stronger and more resilient. We implemented essential infrastructure upgrades—from deploying foggers and misting systems during the peak summer months to enhancing signage, revamping hospital facilities, and streamlining emergency transportation of animals. Our administrative and field teams ensured smooth coordination during VVIP visits, oversaw day-to-day logistics, and facilitated communication with nodal officers and government bodies. In February 2025, we had the honour of hosting the Hon'ble President of India, Smt. Droupadi Murmu, at Sardar Patel Zoological Park. Her visit was a moment of immense pride for our entire team. The President took a keen interest in our animal care initiatives and lauded the dedication and tireless efforts of our veterinary staff, animal keepers, and support teams.

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She commended the zoo for its high standards of animal welfare, the well-maintained enclosures, and the compassionate approach of our personnel. Her words of appreciation served as a powerful encouragement, reaffirming our commitment to excellence in wildlife care and conservation. Their work, often behind the scenes, ensured the zoo remained not just operational—but welcoming, safe, and efficient.

While we mourned the passing of our beloved male Asian Lion, whose majestic presence had long been a symbol of strength and pride for the zoo, the year also brought moments of joy and renewal. We celebrated successful births of several key species, including ostriches, Lady Amherst's pheasants, painted storks, chinkaras, and four-horned antelopes. These additions to our animal family not only reflect the effectiveness of our enrichment and breeding programs but also reinforce our commitment to species conservation. Each new life born under our care is a step forward in preserving biodiversity and nurturing the delicate balance of wildlife within the zoo. These new additions to our animal family are a testament to the dedication of our keepers and the strength of our enrichment and breeding programs. Every such birth is a reminder of the delicate yet powerful thread that connects our efforts to the larger cause of species survival.

As part of the Ek Ped Maa Ke Naam initiative, we successfully planted nearly 250 tree saplings, across various zones of the zoo premises, with enthusiastic participation from both staff and visitors. In addition, a comprehensive topographical survey was carried out, revealing that approximately 32.57 hectares—around 60% of the total zoo campus —is currently under green cover. Further contributing to our biodiversity monitoring efforts, the zoo participated in the Great Backyard Bird Count and the Campus Bird Count. During a focused two-hour survey, we recorded 50 bird species, raising the total number of avian species documented within the zoo premises to 112, including flyover species.

As I reflect on the year gone by, what stands out most is the spirit of togetherness—every team, every individual, united by a shared love for animals and a commitment to something greater than themselves. To our partners and guiding authorities—Kevadia Jungle Safari Society; Greens Zoological Rescue & Rehabilitation Centre Society and the Chief Wildlife Warden of Gujarat—your support has been instrumental in our progress. To the SPZP team of Veterinarians & Para Veterinarians; Animal Keepers; Educators & guides; Administration & human Resource; Security personnel —you are the heartbeat of this park. Your resilience, empathy, and dedication have shaped not just this year, but the legacy we continue to build. As we step into a new chapter, we do so with confidence in our vision and gratitude for the journey so far. Together, we will continue to learn, protect, and inspire—fostering a world where wildlife and humanity coexist in harmony.

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

2. Report of the Additional Director

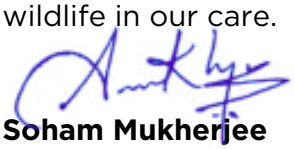
A living zoo is never still. Standards that felt visionary twenty years ago are now the starting line, and the race has only quickened. Our task this year was to keep SPZP moving at that pace—modernising with purpose while staying anchored to the welfare of every animal in our care. New shaded micro-climates, upgraded drainage and smarter power back-ups are visible signs of progress, yet the deeper shift is strategic. Each enclosure refurbishment is tied to a forward-looking collection plan that weighs genetics, space and national priorities before a single bag of concrete is mixed. A parallel future-development map now links exhibit design, visitor flow and sustainability targets so that every new metre built serves tomorrow's zoo, not yesterday's.

None of this matters if our staff stand still. Over the past twelve months keepers, vets and educators have rotated through short, intensive sessions with international specialists brought in by our knowledge partner, Life Science Education Trust. Workshops on advanced diagnostics, advanced nutrition and husbandry strategies, exhibit horticulture, positive-reinforcement training and public engagement ensure skills keep pace with infrastructure. The result is not just competence but confidence—teams that push for better because they know how to deliver it.

Visitor interpretation at SPZP now centres on live, hands-on encounters rather than static signs. During scheduled keeper stations and docent-led stops, visitors watch feed preparation, examine safe enrichment items, quiz themselves with prompts from the guides, and join short bird-watching or habitat-spotting challenges. On the formal side, SPZP now hosts structured internships for veterinary science, zoology and zoo-management students, and is expanding MoUs to bring in wildlife biology, botany, mass-communication and arts cohorts. The goal is simple: make the park a national training ground where every discipline that touches conservation can find a place to learn.

Enrichment calendars are now written exhibit by exhibit, season by season, blending natural substrates, problem-solving feeders and voluntary medical training. Veterinary protocols mirror that creativity, from routine dental sessions with hippos and rhinos to arm-sleeve injections for our orang-utan. The common thread is choice and control for the animal, safety and insight for the staff. Behind the scenes the entire husbandry and health record set has moved onto a real-time platform that links keeper tablets, vet workstations and control dashboards. Data that once lay in paper ledgers now drive instant alerts, trend graphs and auto-generated compliance reports.

Looking ahead: The coming year is about depth rather than breadth: extending sensor coverage to enclosures and incubation rooms; finishing the move to paper-free workflows; refining positive-reinforcement training plans so routine health checks remain truly cooperative; and continuing to close skill gaps wherever they appear. Progress will be measured not in grand openings but in quieter, everyday markers: steadier micro-climates, quicker clinical responses, keepers who spend more time observing animals than filling forms, and visitors who leave thinking like budding naturalists. Those are the signs that tell us modernisation is doing what it should—making life better, first and foremost, for the wildlife in our care.



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

3. History of the Zoo

Establishment and Governance of Sardar Patel Zoological Park (SPZP)

The Government of Gujarat, through Resolution No. VPS-102019-S.F-4-W dated 1 June 2019, constituted the Kevadia Jungle Safari Society—now operating Sardar Patel Zoological Park (SPZP)—with a clear mandate: to promote, support and facilitate both ex-situ and in-situ wildlife conservation while deepening public appreciation of biodiversity through education, research and immersive visitor experiences.

To realise this vision, a world-class zoological park was planned adjacent to the Statue of Unity, the world's tallest monument honouring Sardar Vallabhbhai Patel. A disused industrial site formerly held by M/s Jaiprakash Associates, straddling 56 hectares (138.32 acres) on the Narmada River's bank within the Vindhyachal range, was selected after rigorous evaluation. The land was transferred by the Sardar Sarovar Narmada Nigam Limited (SSNNL) to the Kevadia Jungle Safari Society, and the Central Zoo Authority (CZA) approved the master layout on 28 October 2019.

Construction began immediately on animal habitats, visitor amenities, a veterinary hospital and education facilities. Barely a year later—on 30 October 2020, the 145th birth anniversary of Sardar Patel—SPZP was inaugurated by the Hon'ble Prime Minister of India, Shri Narendra Modi. Popularly known as the "Jungle Safari", the park offers a scientifically designed, seven-tiered landscape (elevation 29–180 m) that recreates global biogeographic regions—African, Australian, Asian and more—housing both native and exotic fauna amid rich indigenous and ornamental flora. Guided, vehicle-based safaris allow controlled, close-range viewing while ensuring animal welfare and bio-security.

Key milestones in governance followed:

- **19 December 2020** – The Statue of Unity Area Development and Tourism Governance Authority (SoUADTGA), under the State Urban Development & Housing Department, assumed administrative oversight of the Society (Resolution No. CRR/10/2020/543531/G-2).
- **28 July 2023** – A Public-Private Partnership (PPP) framework was adopted (Resolution No. UDUHD/MSM/e-file/18/2023/7325/L), bringing Greens Zoological Rescue and Rehabilitation Centre Society (GZRRCS), Jamnagar—a registered NGO with recognised zoological expertise—on board as operational partner. The arrangement adheres to the Recognition of Zoo Rules, 2009 and CZA guidelines.
- **1 October 2023** – Following a structured hand-over period, GZRRCS formally assumed day-to-day management of SPZP, ensuring professional stewardship and sustained alignment with national conservation standards.

Today, SPZP stands as a flagship attraction within the Statue of Unity complex, harmonising tourism with rigorous conservation practice and setting a benchmark for modern zoological parks in India.

4. 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.

Barrier-free views of wildlife in near-natural habitats kindle wonder in young minds, turning a single zoo visit into lasting inspiration to value and protect nature.

5. 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.

6. 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.

7. 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	18/07/2027
11	Category of the Zoo	Mini
12	Area (in Hectares)	56
13	Number of Visitors (2023-24)	Adults: 8,00,128 Children: 2,23,783 Total Indian: 10,23,981 Total Foreigners: Nil Total Visitors: 10,23,981

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

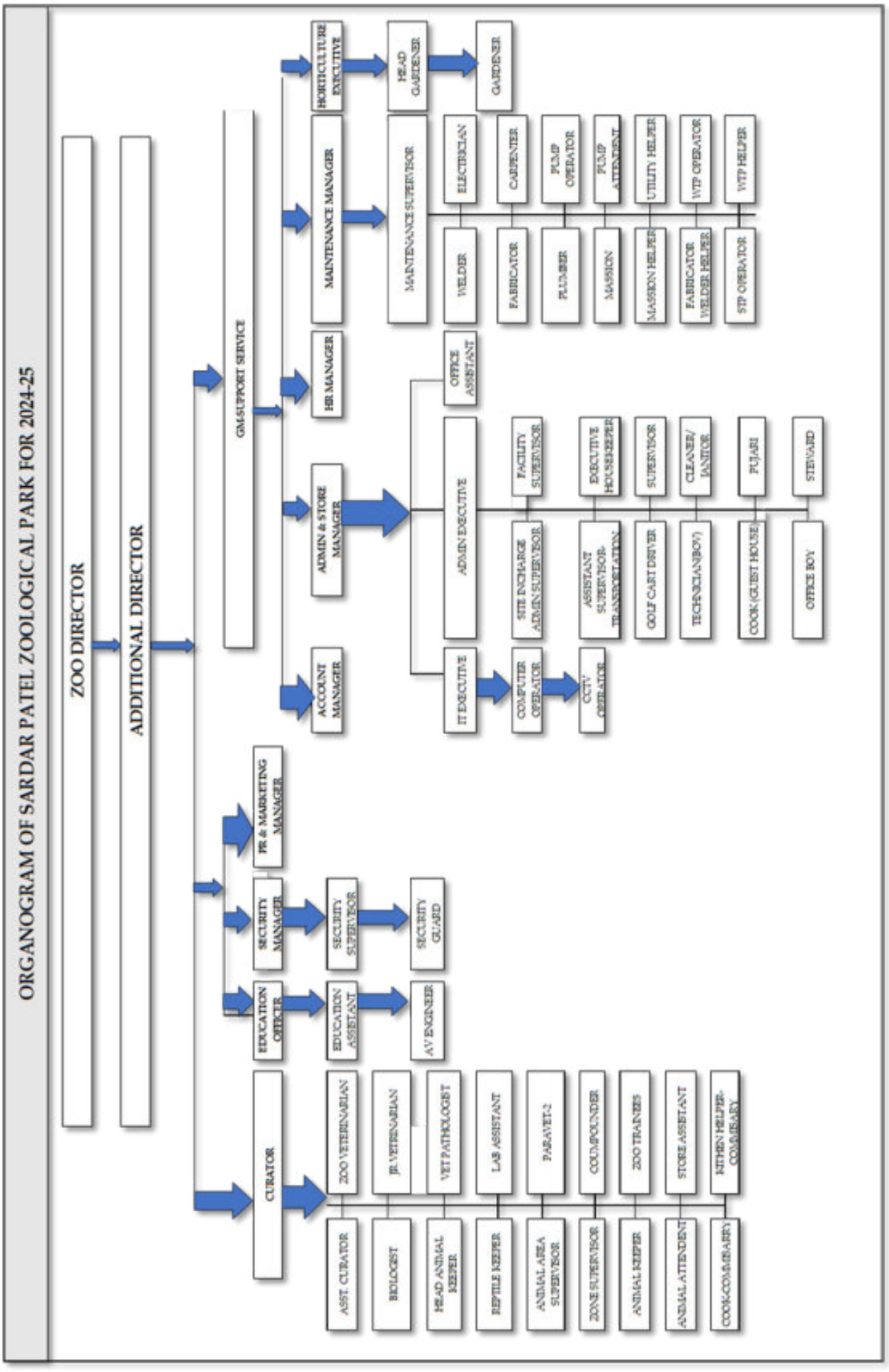
S. No.	Particulars	Information
16	Name with Designation of the Officer-in-Charge	Mr. Bipul Chakrabarty
	Name of the Additional Director	Mr. Soham Mukherjee
	Name of the Curator	Dr. Chetan Patond
	Name of the Veterinary Officer	Dr. Ushma Patel
	Name of the Biologist	Mr. Krunal Trivedi
	Name of the Education Officer	Dr. Shashikant Sharma
	Name of the Compounder/ Lab Assistant	1. Mr. Shubham Lakhara 2. Mr. Jay Sharma 3. Mr. Yagnik V.

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

Hon'ble President of India, Smt. Droupadi Murmu, during her visit of SPZP.

8. **Organisational Chart**



9. **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	62	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., Nilang K. T., Vilash A. T., Dharmendra R. B., Hetal S. T., Anil K. T., Anil S. T., Anil 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., 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.
2	Animal Attendant	9	Mukesh C.T., Mayanki. T., Ashwin A. T., Parikshit S.T., Mayank A.T., Jayesh C. T., Kishan G. T., Vijay A. T., Chetan A. T.
3	Computer Operator	3	Devyani S. T, Narmada R. T, Roshni D. T.
4	Receptionist	1	Shital A. Tadvi
5	Office Assistant	1	Vihar J. C.
6	Driver	27	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 A. R., Fakirmahammad K. M., Amit S.T., Sachin A. T., Guarav P. D., Haresh S. T., Sachin V. T., Dilip M. T., Piyesh R. T., Satish B. T., Mehul B. T., Rahul B. T.

Operations Team Members

Sr. No.	Designation	Number of Post	Name of Incumbent
7	Head Gardener	2	Ananda S. V, Ranjit B. T.
8	Gardener	13	Navin R. T., Hitesh S. T., Dinesh R. T., Suresh S. T., Haridas R. T., Jaynti M. T., Mahesh G. T., Manjula R. T., Kaushik M. T., Vishal C. V., Padma M. T., Yogesh R. T., Tulsidas V.T.
9	Cleaner	5	Ramesh R. H., Mohan G. H., Punam M. H, Sudha S. H.
10	Electrician	4	Sukhram A. T., Nilesh G. T., Bhanu B. T., Mehul T.
11	Carpenter/welder	3	Atul T., Kamlesh K. T., Chandresh C. T.
12	Pump operator/ attendant	2	Kalpesh A. B., Nilesh T.
13	Utility helper	3	Ishwar B. T., Babu T., Jayanti V.
14	Plumber	1	Yogesh T.
15	Maintenance supervisor	1	Gayasuddin
16	Fabricator	1	Haresh T.
17	Mason	1	Alpit T.
18	Office boy	2	Ajay R. T., Rakesh I. T.

Operations Team Members

Sr. No.	Designation	Number of Post	Name of Incumbent
19	Site in-charge	1	Md. Zuber Sheikh
20	Technician	2	Ankit T., Dipak T.
21	Admin & liason supervisor	1	Jatin A. T.
22	Animal area supervisor	1	Raju T.
23	IT executive	1	Chirag T.
24	Laboratory assistant	1	Yagnik V.
25	Para vet	3	Shubham L., Ketan B., Jay S.
26	AV technician	1	Shahrukh S.
27	Housekeeping executive	1	Ramprasad S.
28	Housekeeping supervisor	0	*Vacant*
29	Steward	1	Ruptan N.
30	Janitor	5	Sunil M., Mithun K., Ajay S., Kamlesh K., Deepak K.

Operations Team Members

Sr. No.	Designation	Number of Post	Name of Incumbent
31	Cook & kitchen helper	5	Divyesh R. V., Shailesh P. T., Rahul C. T., Vijay S.T., Kamal U. S.
32	Zone supervisor	4	Mitesh P., Darshit S., Jenish P., Kapil B., Vaibhav S.
33	Security supervisor	2	Yogendra S., Mukesh T.
34	Security guard	60	Paresh I.T., Sanjay P.T., Premdas D.T., Sahabdas D.T., Vishnu G. T., Mithun S.T., Pravin M. T., Ajay K. T., Gopal A. B., Sanjay G.T., Ankit V.T., Dilip K.D., Sunil U. T., Amit M. T., Balu K. T., Balu N. T., Vijay A. T., Sanjay T. T., Rasik J. T., Vijay M. T., Nirav R. T., Dilip R. T., Harnesh R. T., Sadhsaran N. T., Arvind I.T., Vijay A. T., Pravin A. T., Bhalu M.T., Mukesh S. T., Vinod G. T., Gaurang K. T., Rajesh R. P., Rajnikant V. T., Naresh S. T., Dinesh S. B., Manoj S. T., Anil N. T., Upendra K. T., Kalpesh K. T., Chanda P., Khushbu S., Nimisha T., Praful R. T., Ronak D. T., Pummy M., Abhesing M. T., Nitin A. T., Alkesh D. T., Harisinh C., Bhavsingh J. T., Gajendra A. T., Ganpat R. T., Manoj B. T., Nagin J. T., Mayur K. T., Kishan A. B., Satguru R. T., Vithal K. T., Nilesh G. T., Vikram N.
	Total	**231**	

10. **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	Dr. Chetan Patond; Curator Dr. Ushma Patel; Vet Officer Krunal Trivedi; Biologist Dr. Shashikant Sharma; Education Officer Vaibhav Kansara, Darshit Shah, Kapil Bariya, Jenish Panchal, Mitesh Patel, Snehashish Mondal, Swarali Buchke, Dhruv Patel; Zoo Trainees	Feeding and Breeding in Parrots, Nutrition and Husbandry of Lories and Lorikeets, Animal Habitats and Geography and Hands-on session on bird handling, by Mr. Lubosh Tomiska (Czech Republic)	2 Days	Sardar Patel Zoological Park in collaboration with knowledge partner - Life Science Education Trust
2	Dr. Chetan Patond; Curator Dr. Ushma Patel; Vet Officer Krunal Trivedi; Biologist Dr. Shashikant Sharma; Education Officer Vaibhav Kansara, Darshit Shah, Kapil Bariya, Jenish Panchal, Mitesh Patel, Snehashish Mondal, Swarali Buchke, Dhruv Patel; Zoo Trainees	Captive Husbandry of Reptiles and Amphibians. Introduction to Insect Keeping by Mr. Frantisek Juna (Czech Republic)	2 Days	Sardar Patel Zoological Park in collaboration with knowledge partner - Life Science Education Trust

Sr. No.	Name and Designation of the Zoo Personnel	Subject Matter of Training	Period of Training	Name of the Institution
3	Dr. Chetan Patond; Curator Dr. Ushma Patel; Vet Officer Krunal Trivedi; Biologist Dr. Shashikant Sharma; Education Officer Vaibhav Kansara, Darshit Shah, Kapil Bariya, Jenish Panchal, Mitesh Patel, Snehashish Mondal, Swarali Buchke, Dhruv Patel; Zoo Trainees	Nutrition and importance of plantation in exhibit by Mr. Andrew Beer (United Kingdom)	2 Days	Sardar Patel Zoological Park in collaboration with knowledge partner - Life Science Education Trust

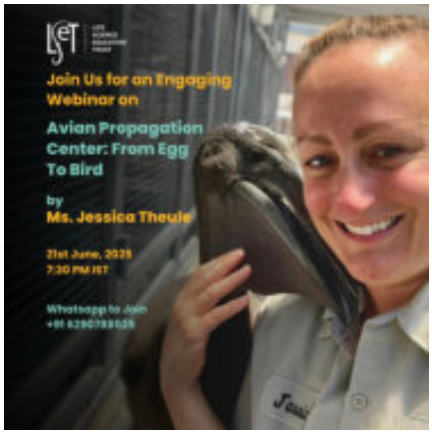
Bird handling training by Lubos Tomishka.

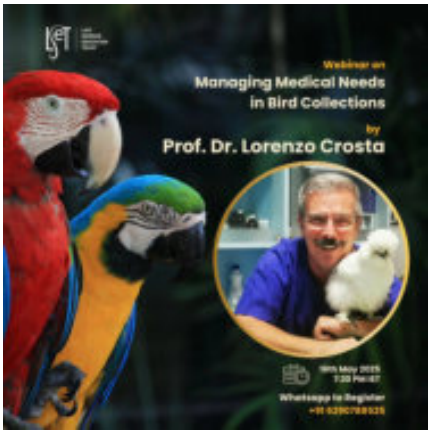
Importance of foraging within exhibits by Andy Beer.

Sharing insights on insect breeding by Frantisek Juna.

Training on management of lorikeets in captivity.

Sr. No.	Name and Designation of the Zoo Personnel	Subject Matter of Training	Period of Training	Name of the Institution
4	Curatorial, veterinary, and animal management staff	Conservation breeding and reintroduction of Spix's macaw in Caatinga, Brazil by Mr. Simon Degenhard (Australia)	2 Hours	Online webinar by Life Science Education Trust
5	Curatorial, veterinary, and animal management staff	Breeding of toucans and other softbills by Mr. Mark de Klein (Netherlands)	2 Hours	Online webinar by Life Science Education Trust
6	Curatorial, veterinary, and animal management staff	Husbandry and breeding of day geckos by Mr. Frantisek Juna (Czech Republic)	2 Hours	Online webinar by Life Science Education Trust





Sr. No.	Name and Designation of the Zoo Personnel	Subject Matter of Training	Period of Training	Name of the Institution
7	Dr. Chetan Patond; Curator Dr. Ushma Patel; Vet Officer	Managing medical needs in bird collections by Prof. Dr. Lorenzo Crosta (Australia)	2 Hours	Online webinar by Life Science Education Trust
8	Mitesh Patel; Zoo Trainee	Management of grass parakeets by Mr. Martin Papac (Czech Republic)	2 Hours	Online webinar by Life Science Education Trust
9	Curatorial, veterinary, and animal management staff	Avian propagation: From egg to bird by Ms. Jessica Theule (USA)	2 Hours	Online webinar by Life Science Education Trust
10	Whole zoo staff	Fire & safety training	1 Day	Sardar Patel Zoological Park
11	Animal keepers & e-cart drivers	Soft skills: Public interaction training	1 Day	Sardar Patel Zoological Park
12	Dr. Chetan Patond; Curator	Capacity Building Workshop for Zoo Veterinarians. Workshop On Advanced Diagnostics, Critical Care And Clinical Procedures In Wildlife Medicine	3 Days	Arignar Anna Zoological Park, Vandalur, Chennai, Tamil Nadu
13	Krunal Trivedi; Biologist	Capacity Building Workshop for Zoo Biologists	3 Days	Indira Gandhi Zoological Park, Visakhapatnam, Andhra Pradesh

Fire and safety training of all staff members.

11. 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, 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

Following are the permanent invites to the meetings of the Committee

Sr. No.	Name	Designation
1	Mr. Raj Garg	Accountant, SoUADTGA
2	Dr. Chetan Patond	Curator, SPZP
3	Dr. Ushma Patel	Veterinary Officer, SPZP
4	Dr. Shashikant Sharma	Education Officer, SPZP

Advisory Committee Proceedings

The SPZP Advisory Committee met twice during the year—on **29 May 2024** and **22 December 2024**—to advance key strategic and operational priorities.

- **Infrastructure & Operations** – The Committee approved a suite of upgrades to internal roadways, visitor amenities, decentralised kitchens, hospital facilities and park-wide signage. It further sanctioned enhancements to surveillance, security and overall visitor circulation, laying the foundation for a more seamless and safe guest experience

.

- **Collection Planning** – A revised Animal Collection Plan, prepared in alignment with Central Zoo Authority (CZA) guidelines, was reviewed and endorsed for submission to CZA. Proposals for acquiring priority taxa were scrutinised alongside welfare considerations and exhibit capacity.

- **Veterinary Strengthening** – Members endorsed formal collaboration with Kamdhenu University, authorising an MoU that will both elevate clinical care for resident fauna and position SPZP as a training nursery for veterinary undergraduates.

- **Education & Outreach** – The Committee approved a restructuring of zoo education programmes: expanding internships, formalising docent engagement and introducing species-specific interpretation modules. A new institutional logo was likewise adopted to refresh SPZP's visual identity.

- **Governance & Human Resources** – Draft service rules and cadre strength for park staff received in-principle approval, ensuring a transparent framework for recruitment, appraisal and career progression.

- **Digital Transformation** – Development of real-time animal-management software was green-lit, aligning record-keeping with modern zoological best practice. **(Annexure 1)**

- **Finance** – Periodic financial reviews revealed a revenue–expenditure deficit; the Committee therefore recommended increasing the park's retained revenue share and pursuing cost-rationalisation measures.

12. Zoo Veterinary Health Advisory Committee

The Zoo Veterinary Health Advisory Committee of the Sardar Patel Zoological Park was reconstituted on 2nd 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	Dr. V.S. Dabas (HOD) Dept. of Veterinary Surgery and Radiology, COVAS Navsari, Kamdhenu University.	Member
3	Dr. I. H. Kalyani (HOD) Dept. of Vet. Microbiology COVAS Navsari, Kamdhenu University.	Member
4	Deputy Director of Aimal Husbandry, District-Narmada, Gandhi Chowk, Vadia Road, Rajpipla.	Member
5	Dr. Chetan Patond, Curator, SPZP, Ekta Nagar.	Member
6	Dr. Ushma Patel, Veterinary Officer, SPZP, Ekta Nagar.	Member & Convener
7	Veterinary Pathologist, SPZP, Ekta Nagar	Member
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

Zoo Veterinary Health Advisory Committee (ZVHAC)

Proceedings and Outcomes

The ZVHAC met on three occasions—adopting both physical and hybrid formats—to guide evidence-based veterinary practice at Sardar Patel Zoological Park, Ekta Nagar. Each sitting advanced diagnostic capability, clinical governance and seasonal husbandry protocols for the park's captive collection and rescued wildlife.

24 June 2024

- Reviewed the first phase of parasitological and zoonotic-disease mapping and endorsed targeted surveillance priorities.
- Approved summer feed-regimen adjustments, including electrolyte supplementation and altered browse ratios.
- Scrutinised significant clinical cases and laboratory workflows, recommending capacity-building seminars and incremental expansion of diagnostic infrastructure.

25 November 2024

- Ratified winter dietary modifications to address thermogenic requirements of sensitive taxa.
- Authorised procurement of a digital urine analyser, colony counter and basic histopathology suite—collectively raising in-house diagnostic resolution.
- Noted exemplary interventions (e.g. endorsed MoU drafts with regional veterinary colleges to formalise academic collaboration.)

10 March 2025

- Assessed heat-stress mitigation plans for the forthcoming summer, emphasising micro-climatic cooling, altered work routines and electrolyte-rich diets.
- Reviewed complex cases—including suspected tetanus in a blackbuck and corneal trauma in a llama—leading to protocol refinements for neurotoxin management and ophthalmic triage.
- Sanctioned outsourcing of fungal cultures and advanced PCR panels pending completion of the in-house molecular lab.

Cumulative Impact

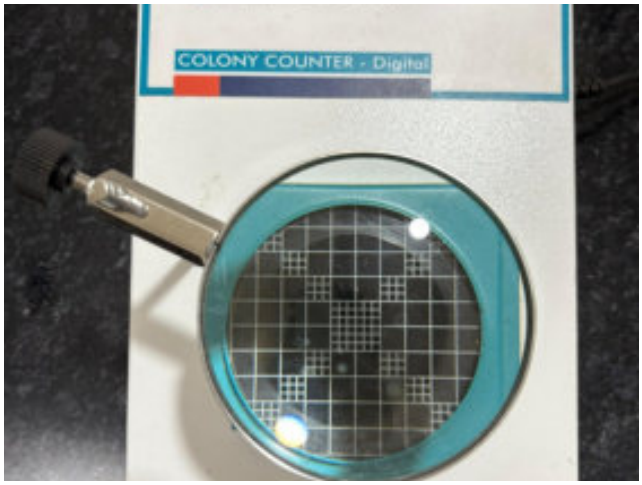
During the year, deployment of advanced laboratory equipment and strategic external partnerships significantly shortened turnaround times for PCR, allergy and fungal diagnostics; concurrent refinement of seasonal feeding regimes and habitat micro-climate management reduced heat-stress morbidity, while systematic case audits sharpened clinical SOPs and stimulated cross-institutional learning. Upgrades to the post-mortem suite, strict adherence to species-specific necropsy protocols and the introduction of a application-based pharmacy inventory management further streamlined operations, and sustained professional development—evidenced by staff attendance at four national workshops and one international fellowship—doubled the unit's scholarly output compared with the previous year.

Quarterly meet of Zoo Veterinary Health Advisory Committee at SPZP.

Members of the ZVHAC appreciating the species specific husbandry designed for the animals at SPZP.

Dr. Dabas sharing insights on upgrading SOPs of routine laboratory activities.

Newly installed automated urine analyzer.



Newly acquired cell colony counter.

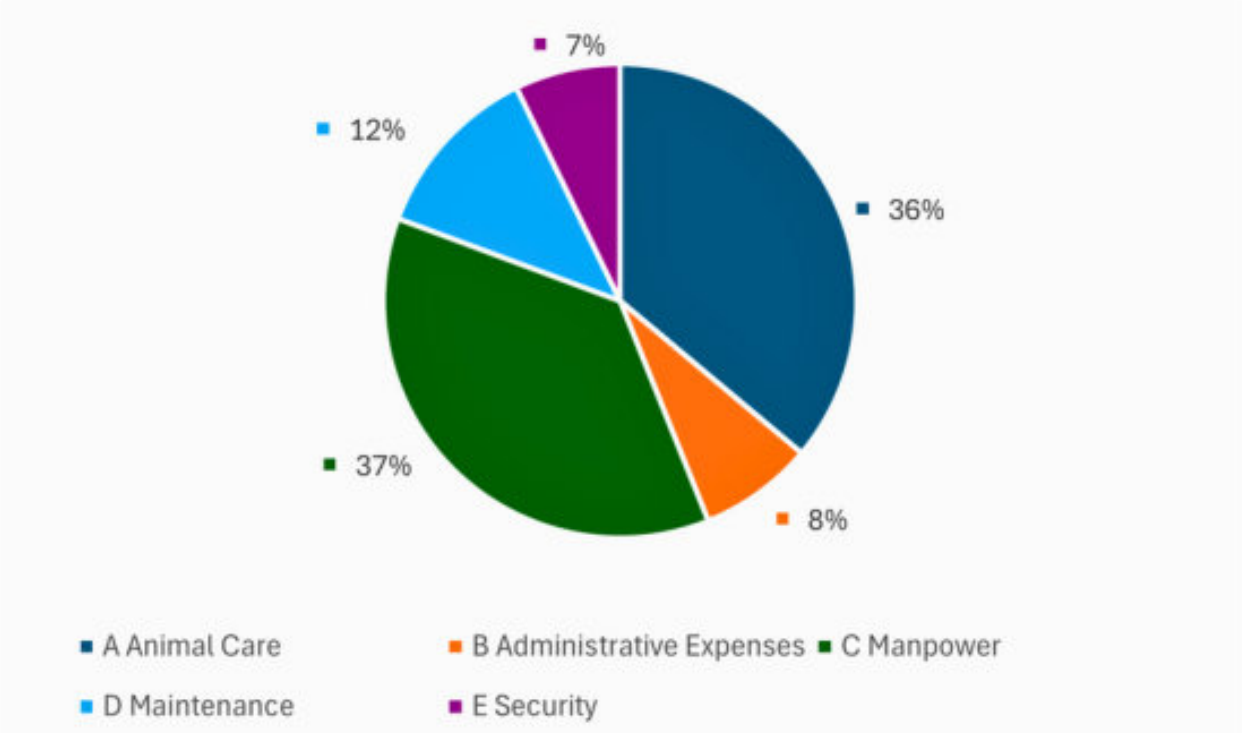
Ultrasonography under isoflurane gas anaesthesia of a green iguana.

13. Statement of Income and Expenditure of the Zoo

The financial overview for the period 24-25 is detailed below.

Revenue Generated: **₹17.98 crores**
Total Expenditure: **₹17.97 crores**

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



Head	Amount
Animal care	6,48,43,992.00
Admin expenses	1,40,71,478.00
Manpower	6,59,78,761.00
Maintenance	2,18,21,124.00
Security	1,29,57,914.00
TOTAL	**17,96,73,269.00**

14.1 Daily Feed Schedules: Carnivores

Species	Group (♂/♀/young)	Daily Ration (kg)[1]	Core Meat Source(s)	Weekly Enrichment[2]
Bengal tiger	1 ♂ / 1 ♀	15 (9 ♂ + 6 ♀)	Bone-in carabeef (or chicken / other red meat)	Cutlet / chevon / mutton (once)
Asiatic lion	1 ♂ / 2 ♀ / 4 cubs	29 (7 ♂ + 10 ♀ + 12 cubs)	Bone-in carabeef (or chicken / other meat); boneless cuts for ♂ when advised	Cutlet / chevon / mutton (once)
African lion	1 ♂ / 2 ♀	20 (8 ♂ + 12 ♀)	Bone-in carabeef (or chicken / other meat)	Cutlet / chevon / mutton (once)
Indian leopard	1 ♂ / 2 ♀ / 1 cub	8 (2.5 ♂ + 4 ♀ + 1.5 cub)	Bone-in carabeef (or chicken / other meat)	Cutlet / chevon / mutton (once)
Jaguar	1 ♂ / 1 ♀	4 (2 kg each)	Bone-in carabeef (or chicken / other meat)	0.5 kg cutlet each + 1 day-old chick + 1 rodent (once); rabbit as advised
Indian wild dog	2 ad. (1 ♂ 1 ♀) / 3 sub-ad.	6.5 (1.3 kg each ad. + 3.9 kg sub-ad.)	Bone-in carabeef (or chicken / other meat)	1 day-old chick + 1 rodent per animal; rabbit as advised (once)
Indian wolf	1 ♂ / 1 ♀	2.5 (1.25 kg each)	Bone-in carabeef (or chicken / other meat)	1 day-old chick + 1 rodent per wolf; rabbit as advised (once)

Species	Group (♂/♀/young)	Daily Ration (kg)[1]	Core Meat Source(s)	Weekly Enrichment[2]
Striped hyena	1 ♀	2	Bone-in carabeef (or chicken / other meat)	1 kg cutlet / chevon / mutton (once)
Silver fox	1 ♂	0.3 kg boiled chicken (+ 1 egg, 1 rabbit/chick/rodent, 50 g dry & 40 g wet dog food offered)	Boiled chicken with stock	Occasional egg; prey item
Serval cat	2 ♂ / 1 ♀	c. 1.35 kg meat mix (+ 3 eggs)	Carabeef / rabbit / chicks + boiled chicken	Cutlet / chevon / mutton + day-old chicks/rodents (once)

Notes

1. Daily Ration totals reflect edible weight offered; bones included where specified.
2. Weekly Enrichment items are substituted for or added to the standard ration once per week to stimulate natural foraging and behavioural diversity.
3. Supplements are given to all as prescribed by veterinarians.

Whole carcass feed stimulates natural and species typical behaviours. African lion (in pic).

Communal feeding reinforces social bonds within the Asiatic lion group.

Scattered feed presentation for Indian wild dogs.

Provision of large chunks of meat promotes tearing and chewing activity in Indian wolf.

Stainless steel feed chutes used for dispensing feed which are easily disinfected and ensures keeper's safety.

A zoo-bred rodent provided as a part of natural diet of the African serval.

Species	Group (♂/♀/young)	Daily Ration (kg)[1]	Core Foods (offered each day)	Weekly Enrichment[2]
Sloth bear	1 ♂ / 1 ♀ (c. 90 kg each)	25 kg (≈ 12.5 kg animal-[1])	Mixed fruits (water- & muskmelon, papaya, apple, sapota, banana, pineapple, seasonal citrus, pomegranate, guava) · Root/veg (sweet potato, boiled pumpkin) · Honey · Boiled eggs · Brown rice · Jaggery · Brown bread · Milk · Tender coconut (whole) · Meal-worms	Hide small fruit/veg caches around enclosure daily for foraging enrichment · Feed divided over three sessions (c. 09:00, 12:00–14:00, 17:00–18:00)
South American coati	3 ♂ / 3 ♀ / 3 sub-adult (c. 4–5 kg)	5.5 kg total (≈ 610 g animal-[1])	Boiled chicken (or rabbit/rodent) · Mixed vegetables (carrot/beetroot, cucumber, sweet potato or pumpkin, sweet-corn/peas) · Fruits (banana or sapota, apple/pineapple/guava, watermelon or papaya) · Boiled eggs	Day-old poultry chick once a week · Dry dog food & cat gravy offered occasionally · Insects offered daily/alternate days · Scatter-feed small portions each day for enrichment · Multiple feed sessions (same time blocks as bears)

Notes

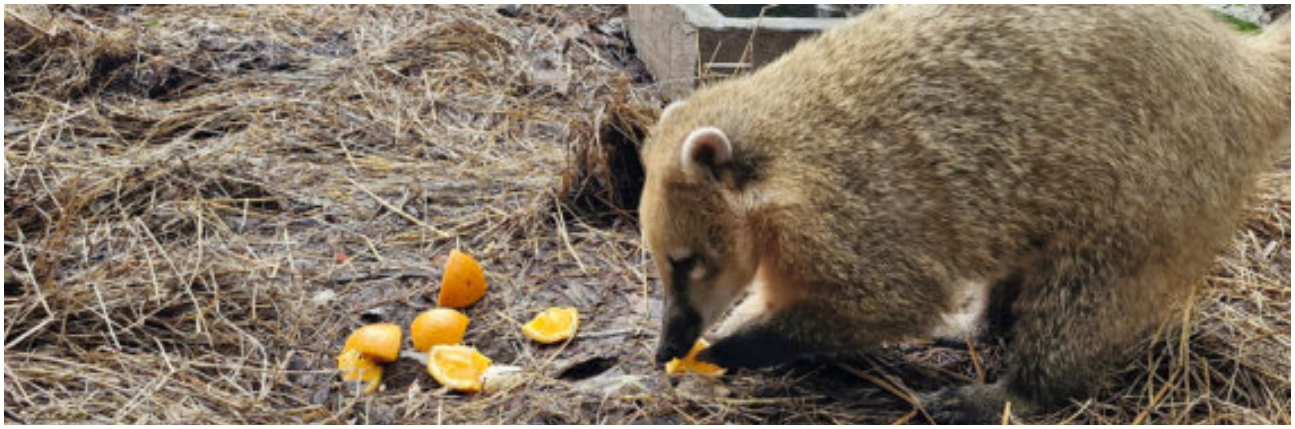
1. Daily Ration values represent total fresh weight offered (including shells/rinds where applicable).
2. Both diets are adjusted seasonally and monitored via body-condition scoring; records of intake, refusals and behavioural responses are kept to inform ongoing nutritional refinement.
3. Supplements are given to all as prescribed by veterinarians.
4. Food provided every day; no fasting day.

Scattered large feed pieces in enclosure gives the sloth bear an opportunity to engage is natural feed consumption behaviour.

Sensory enrichment induces curiosity and play for the sloth bears.

Sloth bear using keen sense of smell and claws to extract insects from tree enrichment.

Cat food pellets help in providing balanced nutrition with essential micro nutrients to South American coati.



Scattered feed presentation in enclosure promotes the natural scavenging and snout-probing behaviour of South American coati.

14.3 Daily Feed Schedules: Indian herbivores

Species	Group (head)	Daily Ration (Σ kg)	Core Forage & Concentrates (offered each day)	Supplements & Weekly / Occasional Items & Enrichment	Feeding Pattern & Notes
Spotted deer	60	≈ 517 kg	Green fodder 300 kg · Tree/grass browse 120 kg · Dry hay 60 kg · Antelope pellet feed 30 kg	Soaked black-gram 7.5 kg (scatter-fed at morning feed) Mineral mixture 300 g (3 × wk)	Three feeds (08:00-10:00, 12:00-14:00, 17:00-18:00); one variety of dry hay rotated daily; fresh local browse cut each morning
Sambar deer	72	≈ 1242 kg	Green fodder 936 kg · Tree browse 144 kg · Dry hay 72 kg · Wild-herbivore pellet 72 kg	Soaked Bengal gram 18 kg (daily) Mineral mixture 720 g (3 × wk)	Same three-session schedule; fresh browse added by keeper
Blackbuck	140	620 kg	Green fodder 350 kg · Tree/grass fodder 140 kg · Dry hay 84 kg · Wild-herbivore pellet 35 kg	Soaked Bengal gram 14 kg (daily) Mineral mixture 700 g (3 × wk)	Three feeds; morning and evening green fodder split equally
Chinkara	16	54 kg	Green fodder 32 kg · Tree/grass fodder 16 kg · Dry hay 4 kg · Wild-herbivore pellet 1.6 kg	Soaked Bengal gram 0.8 kg (daily) Mineral mixture 32 g (3 × wk)	First feed compressed to 08:00–09:00 to minimise heat stress

Species	Group (head)	Daily Ration (Σ kg)	Core Forage & Concentrates (offered each day)	Supplements & Weekly / Occasional Items & Enrichment	Feeding Pattern & Notes
Mixed-species ungulate paddock (Thamin, Himalayan goral, Barking deer, Four-horned antelope, Spotted deer)	40	≈ 245 kg	Green fodder 160 kg · Tree/grass browse 40 kg · Dry hay 32 kg · Wild-herbivore pellet 10 kg	Soaked Bengal gram 3 kg (daily) Mineral mixture 200 g (3 × wk)	Scatter-feed pellets/gram at first feed for enrichment; browse collected daily
Indian wild ass	2	88 kg	Green fodder 60 kg · Tree/grass fodder 10 kg · Dry hay 10 kg · HP stud/wild-herbivore pellet 2 kg · Alfalfa pellet 2 kg	Soaked Bengal gram 1 kg · Wheat bran 1 kg · Carrot 2 kg · Cucumber 2 kg (daily) Mineral mix 60 g (3 × wk); salt lick permanently available	Three feeds; vegetables offered at mid-day as behavioural enrichment
Indian rhinoceros	3	≈ 465 kg	Green fodder 300 kg · Tree browse 60 kg · Dry hay 15 kg · Antelope pellet 6 kg · Alfalfa pellet 6 kg	Soaked black-gram 3 kg · Wheat bran 1.5 kg · Mixed veg/fruit (sugar-cane 30 kg, carrot 6 kg, cucumber 6 kg, banana 6 kg, pumpkin 6 kg, watermelon 6 kg, bottle-gourd 6 kg, cabbage 6 kg, coriander 1.5 kg) Mineral mix 300 g (3 × wk)	Roughage split a.m./p.m.; fruit/veg and pellets used for operant conditioning and medication

Species	Group (head)	Daily Ration (Σ kg)	Core Forage & Concentrates (offered each day)	Supplements & Weekly / Occasional Items & Enrichment	Feeding Pattern & Notes
Indian gaur	5	≈ 400 kg	Green fodder 250 kg · Tree browse 100 kg · Dry hay 20 kg · Antelope pellet 10 kg · Alfalfa pellet 5 kg	Soaked black-gram 5 kg · Wheat bran 1.5 kg · Carrot 3 kg · Cucumber 3 kg · Tomato 3 kg (treats/handling) Mineral mix 150 g (3 × wk)	Vegetables offered as treats or during husbandry sessions; browse replenished daily

Notes

1. Sum of items offered per enclosure per 24 h; may vary slightly with season or body-condition score.
2. General husbandry: all herbivore paddocks receive fresh local browse daily, mineral blocks are fixed in shade, and fodder quality (dry matter, crude protein) is monitored fortnightly to meet species-specific nutrient targets.

Concentrate mixture provided as per nutritional requirement to Indian rhinoceros.

Veterinary intern assisting in feed dispensing to spotted deer as a part of learning feed preparations.

Elevated feed presentation to mimic natural browsing activity in various Indian deer species.

Chaffed presentation of green fodder dispensed to Indian gaur reducing feed wastage.

Browsing behavior displayed by four-horned antelope, reflecting its herbivorous feeding habits.

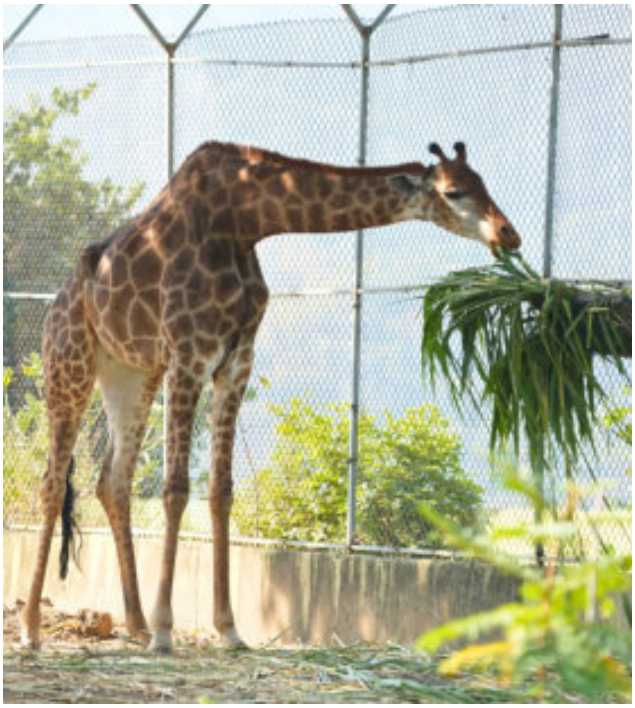
Enrichment basket encourages curiosity and mental engagement in the rhinoceros.

Species	Group (head)	Daily Ration (Σ kg)	Core Forage & Concentrates (offered each day)	Supplements & Weekly / Occasional Items & Enrichment	Feeding Pattern & Notes
Common hippopotamus	1	132 kg	Green fodder 100 kg · Tree/grass browse 10 kg · Dry hay 5 kg · Wild-herbivore pellet 4 kg	Soaked Bengal gram 2 kg · Wheat bran 0.5 kg · Mixed veg & fruit (carrot, cucumber, tomato, watermelon 2 kg, banana 2 kg, pumpkin 3 kg) used as treats/for handling Mineral mix 100 g (3 × wk)	Three feeds; 50 % of total ration offered at evening session (17:00–18:00) to match crepuscular feeding; pool-side scatter of fruits for enrichment
Giraffe	1	99 kg	Green fodder 40 kg · Tree leaves 40 kg · Dry hay 4 kg · Herbivore pellet 2 kg · Alfalfa pellet 1 kg	Soaked Bengal gram 0.5 kg · Wheat bran 0.5 kg · Variety veg/fruit (carrot 2 kg, cucumber 2 kg, apple 1 kg, banana 2 kg, pumpkin or watermelon 2 kg, cabbage 1 kg, Amaranthus greens 1 kg) Mineral mix 100 g (3 × wk)	Ration split into three equal thirds of green fodder; top-browsing rack stocked with fresh tree leaves daily; pellets/fruits used for training

Species	Group (head)	Daily Ration (Σ kg)	Core Forage & Concentrates (offered each day)	Supplements & Weekly / Occasional Items & Enrichment	Feeding Pattern & Notes
Gemsbok	4	30.6 kg	Green fodder 80 kg · Browse 10 kg · Dry hay 10 kg · Herbivore pellet 4 kg	Soaked Bengal gram 0.5 kg · Chopped carrot 2 kg & cucumber 2 kg; seasonal sweet-potato enrichment Mineral mix 120 g (3 × wk)	Morning/Evening green fodder halves; pellets and vegetables scatter-fed for competitive enrichment; keeper adds local browse daily
Plains zebra	1	43 kg	Green fodder 25 kg · Browse 5 kg · Dry hay 5 kg · HP-stud / antelope pellet 2 kg · Alfalfa pellet 2 kg	Soaked Bengal gram 0.5 kg · Wheat bran 0.5 kg · Carrot 1 kg · Cucumber 1 kg · Watermelon or pumpkin 1 kg Mineral mix 50 g (3 × wk)	Small portions fed multiple times to mimic natural grazing; browse replenished mid-day; pellets offered during target-training
Blue wildebeest	6	≈ 184 kg	Green fodder 120 kg · Tree/grass browse 30 kg · Dry hay 18 kg · Antelope pellet feed 6 kg	Soaked black-gram 1.2 kg · Chopped carrot 3 kg, cucumber 3 kg, and seasonal sweet-potato 3 kg (offered at mid-day) Mineral mix 180 g (3 × wk)	Three feeds daily: 08:00–10:00 (pellets, soaked gram, mineral mix, ½ green fodder) · 12:00–14:00 (chopped veg, 10 kg peanut hay, alfalfa-pellet topper) · 17:00–18:00 (remaining green fodder, mixed veg-fruit scatter); local browse cut fresh each morning

Blue wildebeest group consuming fibrous diet in accordance with their grazing nature.

Feed station design facilitates uniform access to dry fodder for plains zebra herd.



Provision of green fodder at height supports ergonomic feeding and species-specific posture in giraffe.

Green fodder chopped into smaller portions to support efficient feeding in captive hippopotamus.

Species	Group (head)	Daily Ration (Σ kg)	Core Forage & Concentrates (offered each day)	Supplements & Occasional Items/ Enrichment	Feeding Pattern & Notes
Emu	13	≈ 37 kg	Green fodder 13 kg · Dry hay 13 kg · Commercial ostrich ration 3.9 kg · Poultry grower/finisher 1.3 kg	Sprouted/soaked Bengal gram 0.65 kg · Mixed greens (coriander/amaranthus/spinach/mustard) 0.65 kg · Vegetables & fruit: cabbage/beetroot 1.3 kg, carrot 0.65 kg, cucumber or corn 0.65 kg, pumpkin or bottle-gourd 1.3 kg · Half boiled egg bird-[1] provided 2–3 times wk Shell grit / calcium + mineral mix 2–3 times wk	08:00–09:00: greens, veg, sprout, egg • 12:00–14:00: 3.9 kg ostrich feed + hay • 17:00–18:00: green fodder. Keepers collect 10 kg fresh grass daily for scatter-forage enrichment
Common ostrich	7	≈ 69 kg	Green fodder 21 kg · Tree fodder/ browse 14 kg · Dry hay 14 kg · Commercial ostrich ration 7 kg · Poultry grower/finisher 3.5 kg	Sprout 1.4 kg · Leafy veg: coriander 0.35 kg, spinach 0.35 kg · Seasonal veg & fruit: cabbage 0.7 kg, carrot 0.7 kg, cucumber 0.7 kg, beetroot 0.7 kg, sweet-corn 0.7 kg, amaranthus 0.7 kg, green peas 0.7 kg, pumpkin 0.7 kg · Whole boiled egg bird-[1] once weekly; citrus fruits (orange, mosambi) as treats Shell grit / calcium + mineral mix 2–3 times wk	08:00–10:00: leafy veg, sprouts, eggs, ½ green fodder • 14:00–15:00: 3 kg ostrich feed + 1.5 kg hay • 16:00–18:00: remaining green fodder, 4 kg ostrich feed, poultry feed. Browse racks replenished daily for high-browsing behaviour

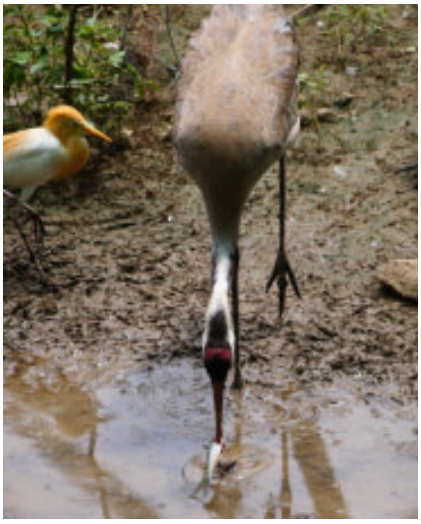
Indian Aviary Species	Feeding window	Menu & Quantities (total for the entire aviary)	Key Notes / Purpose
Waterfowl, fowls, parakeets, storks & softbills	08:00 – 09:00	• Dry grains & pulses: jowar 0.25 kg, bajra 0.25 kg, moong 1 kg, wheat 1 kg, horse-gram 0.25 kg, sunflower seed 0.5 kg • Greens & veg: carrot 2 kg, beetroot 2 kg, cucumber 1.5 kg, pumpkin 0.5 kg (part-boiled), amaranthus 0.5 kg, mustard 0.5 kg, coriander 1 kg, spinach 1 kg, lucerne 1 kg, fenugreek 0.5 kg • Corn cobs 3 kg (hung on wire for enrichment) • Nuts: walnut 50 g, cashew 100 g, almond 100 g • Protein: 20 boiled eggs (with shell), fresh river fish ≈ 35–40 kg, fresh shrimp 2 kg • Formulated: poultry crumble 1 kg, duck/waterfowl pellet 1 kg	Early variety stimulates foraging & preening; fish/egg boost animal protein for piscivores; nuts supply essential fatty acids for parrots & hornbills
	12:00 – 14:00	• Fruits: musk-melon 1 kg, watermelon 3 kg, papaya 2 kg, pomegranate 2 kg, guava 2 kg, apple 1.5 kg, orange 0.5 kg, mosambi 0.5 kg, banana 1 kg, sapota 1 kg, seasonal fruit (grapes/mango/ber) 1 kg • Finch seed mix 0.5 kg, aviary seed mix 0.5 kg • Poultry crumble 1 kg, duck pellet 1 kg	High-water fruit offered in heat of day; scatter feeding prolongs occupancy of mid-canopy
	17:00 – 18:00	• Finch seed mix 0.5 kg, aviary seed mix 0.5 kg • Poultry crumble 1 kg • Fresh cut green fodder (Napier/maize/alfalfa/meadow) ad-lib top-up	Evening seed helps small passerines pre-roost; fodder replenishes grazers (peafowl, geese)

Notes

1. Routine Supplements: Liver tonic & multi-vitamin/mineral syrup 2-3× week.
2. Shell grit available free-choice for Galliformes & Psittacines.

Feed presentations mimicking natural foraging behaviours in multi species exhibits. Peafowl picking on seed mix.

Parakeets chose from an assortment of fruits offered as a part of their diet schedule.



Common crane engaging in fish capture and feeding, reflecting instinctive foraging patterns.

Variety of seed mix being offered to birds as part of their varied captive diet.

Parakeets relishing the dates grown in Zoo premises.

Pelican feeding on fish, reflecting natural predatory behaviour in the aviary.

Exotic Aviary Species	Feeding window	Menu & Quantities (total for the entire aviary)	Key Notes / Purpose
Macaws, amazons, cockatoos, parrots, cranes, waterfowl	08:00 – 10:00	• Dry grains & pulses: jowar 0.25 kg, bajra 0.25 kg, moong 1 kg, wheat 1 kg, soaked Bengal-gram 0.25 kg, sunflower seed 0.5 kg • Vegetables/greens: carrot 1.5 kg, beetroot 1 kg, cucumber 1.5 kg, coccinea 0.5 kg, corn cobs 1.5 kg, coriander/mustard 2.5 kg, mixed leafy (amaranthus/fenugreek/spinach) 0.25 kg, lucerne 1 kg, beans 0.5 kg, assorted gourds 0.5 kg, pumpkin 0.5 kg • Nuts: walnut 50 g, cashew 100 g, almond 100 g • Extras: bread 200 g (treat), 10 boiled eggs, mixed insects 200 g • Formulated: ostrich/ratite feed 1 kg, poultry crumble 1 kg, duck pellet 1 kg	Large veg pieces hung or skewered to promote manipulation; nuts & insects supply high energy for large parrots
	14:00 – 15:00	• Fruits: kiwi/dragon-fruit 250 g, grapes/mango/ber 500 g, musk-melon 1 kg, watermelon 2 kg, papaya 1 kg, pomegranate 1 kg, guava 1.5 kg, apple 2 kg, orange 0.5 kg, mosambi 0.5 kg, banana 1 kg • Seed mixes: exotic aviary 0.5 kg, budgerigar 0.5 kg, macaw 0.25 kg, medium-parrot 0.5 kg • Medium-parrot pellet mix 1 kg • Formulated: poultry crumble 1 kg, duck pellet 1 kg • Palm-nut (1 per macaw/African grey/Amazon) · 5 dried coconuts hung for enrichment	High-sugar, high-water fruit mitigates heat stress; palm-nut & coconut fulfil natural “nut-cracking” behaviours
	16:00 – 18:00	• Repeat seed mixes: exotic aviary 0.5 kg, budgerigar 0.5 kg, macaw 0.25 kg, medium-parrot 0.5 kg • Medium-parrot pellet mix 1 kg • Poultry crumble 1 kg	Evening seed/pellet blend maintains gut fill overnight

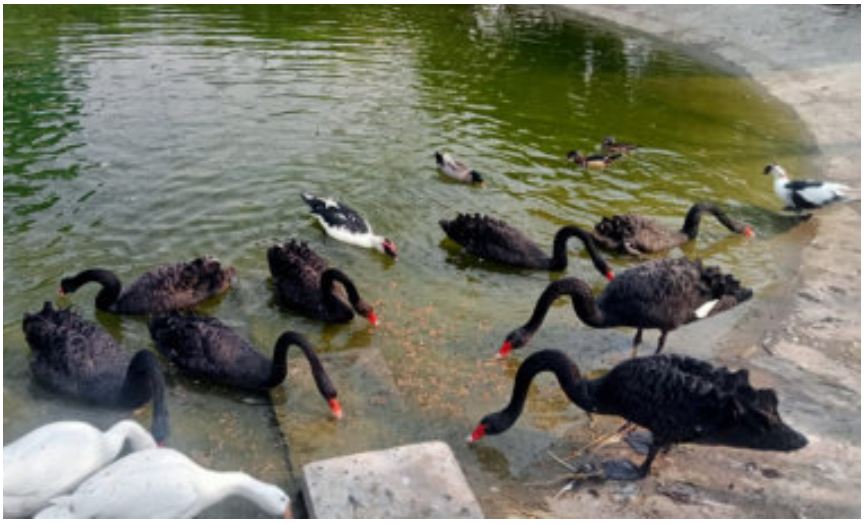
Notes

1. Routine Supplements: Shell-grit & calcium/mineral premix 2-3× week; liver-tonic & multivitamins 2-3× week.
2. Citrus slices rotated as vitamin-C booster.
3. Moringa and Spirula powder are added daily to the morning feed

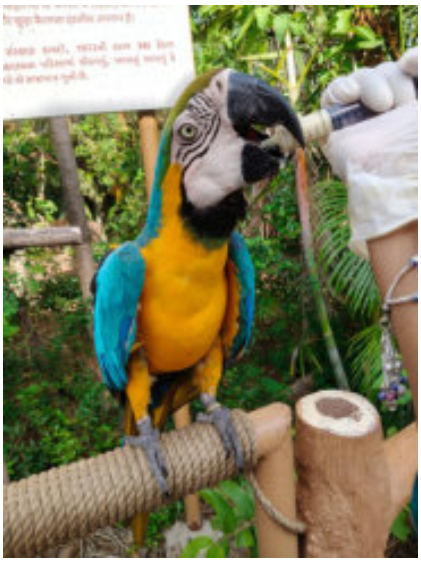
Lorikeets feeding on a nutrient-rich morning mix of sprouts, leafy greens, vegetables, and supplements.

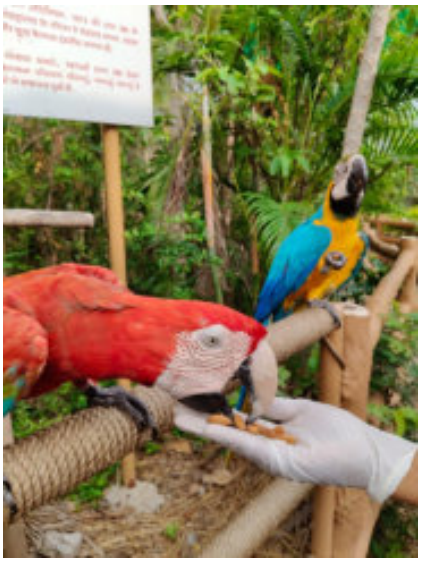
Suspended fruits support natural feeding instincts and enrichment for the conures.

Conure feeding on balanced seed mix for optimal nutrition.



Black swan forages on floating dry insects and shrimps promoting natural eating habits while fulfilling nutritional requirements.





Daily dietary routine for macaws includes high-quality feeding formula and natural nuts to maintain overall well-being.

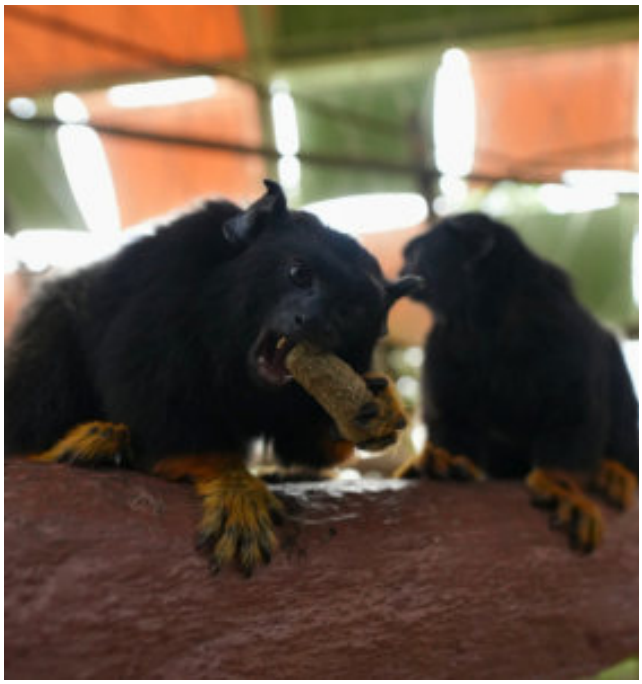
Exotic Primate Species	Feeding window	Menu & Quantities (total for the entire exhibit) Daily Ration ≈ 8 kg fresh produce + 6 eggs + 0.5 kg cooked chicken	Feeding pattern & Notes
Cotton-top tamarin, red-handed tamarin, common marmoset, squirrel monkey, ring-tailed lemur, tufted capuchin	08:00 – 09:00	• Pulses & legumes: moong 0.10 kg, soaked Bengal gram 0.10 kg • Roots & veg: carrot 0.10 kg, beetroot 0.10 kg, cucumber 0.10 kg, sweet-potato 0.10 kg, pumpkin 0.10 kg, peas 0.20 kg • Greens: coriander/amaranthus 0.25 kg, fenugreek/spinach/lettuce 0.10 kg • Corn: whole cobs 0.30 kg (hung), extra pieces 0.20 kg (scatter) • Seasonal fruit: grapes/mango/jujube 0.20 kg • Protein: 6 boiled eggs (with shell), skinned chicken 0.50 kg • Cereal: Nestum 0.20 kg • Exudate: food-grade gum 0.10 kg (smeared on branches)	Early feed encourages natural dawn foraging; corn cobs, gum and browse clippings stimulate manipulation and gouging behaviour
	12:00 – 14:00	• High-water fruit: musk-melon 1 kg, watermelon 1 kg • Mixed fruit: papaya 0.25 kg, pomegranate 0.25 kg, guava 0.25 kg, apple 0.25 kg, orange/mosambi 0.20 kg, banana 0.20 kg, sapota 0.50 kg • Primate maintenance pellets 0.50 kg (offered in puzzle-feeders) • Live insects provided as scattered feed for tactile and visual stimulation while also instigating predatory instincts	Mid-day fruit mitigates heat stress; pellets provide guaranteed nutrient density
	16:30 – 17:30	• Nuts (hand-fed during training): walnut 0.01 kg, cashew 0.01 kg, almond 0.01 kg • Cereal: Nestum 0.20 kg (warm porridge) • Bread slices 7 (~0.35 kg) offered as variable reward and medication vehicle	Evening ration supports satiety before roosting; nut hand-feeding reinforces cooperative behaviours

Notes

1. Foraging substrates – leaf-litter trays refreshed daily; browse branches rotated every 48 h.
2. Liver tonic & multi-vitamin/mineral syrup 2–3 × week.
3. Shell-grit/calcium available ad libitum.
4. Fresh vegetable and fruit juices used for positive reinforcement training.

Tufted capuchin enjoying fresh variety of browse.

Squirrel monkey savouring fruits as a part of seasonal dietary variation.



Red-handed tamarin chewing on nutritionally balanced primate pellets tailor made to complete the dietary needs of exotic primates.

Squirrel monkey indulging in high reward feed like nestum which is used as a vehicle for supplementation and medication.

Primates revelling in an assortment of seasonal fruits.

14.8 Daily Feed Schedules: Bornean orang-utan

Daily feed	Time	Core items	Quantity	Notes / Presentation
Browse (ad-lib within habitat)	08:00 – 18:00	Banana, maize or sorghum leaves or mixed seasonal browse (see list)	≈ 2 kg (≈ 10 large fronds)	Offered fresh morning & replenished as required; hung at ⩾2 m to encourage arboreal foraging
Breakfast	08:00 –09:00	Warm rice–protein mix (50 % brown rice, 10 % chick-peas, 10 % chicken, 10 % egg, 10 % peas, 10 % diced carrot)	700 gm	Prepared at 40 °C
Mid-morning	10:00 – 10:30	Seasonal vegetable platter (large chunks + scatter): lettuces, herbs, spinach, broccoli, boiled sweet & regular potato (skin-on), okra, bottle-gourd, pumpkin, beetroot, carrot, capsicum, tomato, beans, cucumber, drumstick, mushrooms; whole corn cobs	1.2 kg	Half of pumpkin/cauliflower left whole for manipulation
Concentrate & Weekly Special	12:00 – 13:00	Old-World-monkey (OWM) primate pellets *Daily "special" (rotates Mon–Sun, see table)*	150 gm ---	Prepared fresh; counts toward dietary variety & behavioural enrichment
Leafy "grazing" feed	14:00 – 15:00	Mixed leafy greens (romaine, iceberg, lollo rosso, spinach, endive, etc.)	1.5 kg	Served in hanging nets & on forage boards
Afternoon fruit	16:00 – 18:00	Seasonal fruit mix in large pieces (banana, apple, pear, grape, guava, mango, sweet-lime, orange, fig, jamun, pomegranate, fresh dates, cherry, plum; whole wedges of watermelon, musk-melon, pineapple, papaya)	1 kg	Portion split between scatter feed and whole fruit for tearing
Evening treat	18:00	Mixed nuts (walnut, cashew, almond)	30 g	Hand-fed during voluntary husbandry session

Weekly “Special” Rotation (served with pellets at 12 00–13 00)

Day	Special item	Quantity	Additional notes
Monday	Whole boiled eggs (incl. shell)	2 pcs	Evening: pomegranate, bottle-gourd & cucumber slices
Tuesday	Roti brushed with 1 tsp olive/sesame oil	1 pc	Evening: carrot & beetroot, musk-melon & papaya
Wednesday	Insect mix (meal/super-worms, roaches, crickets)	100 gm	Evening: watermelon; carrot, beetroot, tomato
Thursday	Fresh paneer	200 gm	Evening: papaya & pineapple
Friday	Boiled bean mix (black beans, peas, chick-peas)	250 gm	Morning drink: lemon-honey water; evening pineapple
Saturday	Khichri (rice & lentil porridge)	300 gm	Evening: guava & musk-melon
Sunday	Boiled chicken (skinless)	250 gm	Evening: assorted seasonal fruit

Approved Browse Species (rotated daily)

Bambusa vulgaris, Cordia spp., Ficus spp., Brazilian spinach (Alternanthera sessilis), tamarind (Leucaena leucocephala), moringa (Moringa oleifera), kachnar (Bauhinia purpurea), guava (Psidium guajava), sweet-corn leaves (Zea mays), mango (Mangifera indica), gulmohar (Delonix regia), hibiscus (Hibiscus spp.), curry leaf (Murraya koenigii), almond (Prunus dulcis).

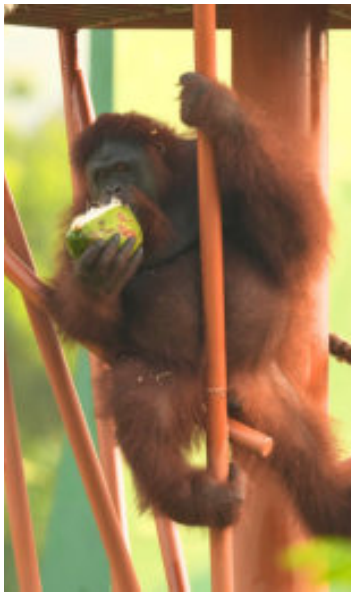
Supplement Protocol – liver tonic and multi-vitamin/mineral solution offered in diluted juice 2–3 × weekly; fresh water available at all times.

All weights are net edible portions per individual; adjust ±10 % according to seasonal body-condition scoring and veterinary guidance.

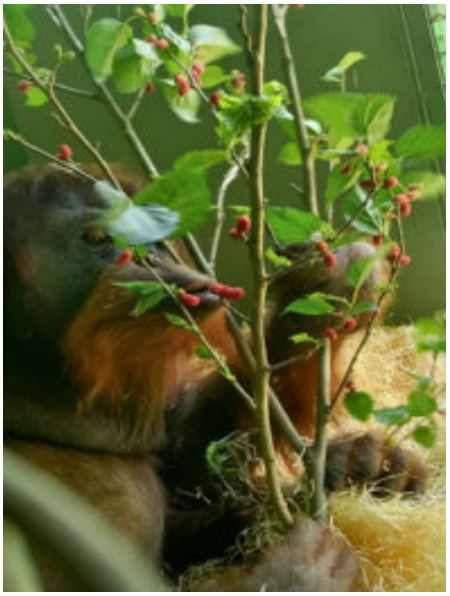
Controlled feeding through the shift-den mesh—seen here with our orangutan—follows the global best-practice standard: it keeps keepers safe, lets vets monitor every bite and sip, and ensures the ape's diet, hydration and training cues stay precisely on track.

Hydration: fresh water or juice is offered through the mesh so keepers can measure every sip, hide vitamins or medicines when needed, and keep both staff and our orangutan safe.

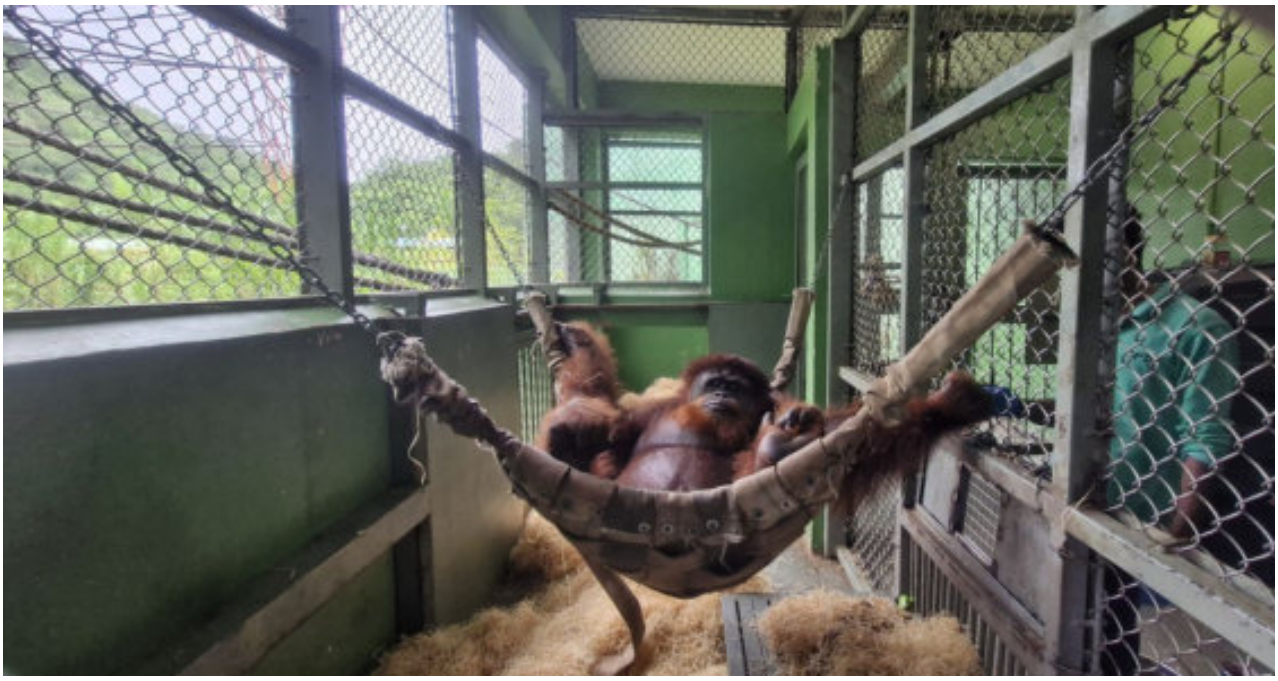
Orangutan engaging in natural foraging behaviour with fresh browse placed throughout the enclosure



An orangutan with a green coconut, using strength and dexterity to access the nutritious water and flesh inside.



Fresh mulberry branches loaded with fruit and leaves offer our orangutan both browse and berries in one irresistible enrichment.



The orangutan's purpose-built "management room" pairs a cosy hammock and wood wool substrate with direct access to the outdoor run, giving him comfort and choice while allowing keepers to work safely just a step away.

Reptiles Species	Group size	Feeding Allowance & Interval	Core Items	Supplements	Feeding Pattern & Notes
Marsh crocodile	15 ad. (≈ 90 kg)	30 kg wk^{-1} (2 kg · animal^{-1}) • Beef one week / fish the next	Whole carabeef • Fresh-water carp/catfish	Ca/P vit-min dust on fish (alt. wk)	Entire ration given Sun p.m. or Mon a.m.; feed on land to avoid fouling
Gharial	5 sub ad. (≈ 20 kg)	8 kg wk^{-1} fish (1.6 kg · animal^{-1}) split Mon & Fri	Whole, low-fat river fish (⩽500 g)	Vit-min dust twice wk	Target feed from tongs at pool-edge to reduce competition
Green iguana, rhino iguana	20 (≈ 1.5 kg)	Daily (per enclosure): leafy veg 4 kg • mixed veg 2 kg • fruit 1 kg • browse 1 kg	Any 2 leafy + 2 veg + 1 fruit; hibiscus, moringa or mulberry leaves	Reptical/Reptivite 3 × wk	09:00 leaves/browse; 14:00 chopped veg mix; all items finely diced
Sulcata tortoise	2 (≈ 15 kg)	Daily: leafy veg 0.6 kg • grasses 0.2 kg • veg 0.2 kg • fruit 0.1 kg • browse 0.4 kg • hay 0.1 kg • cactus pad 0.1 kg	High-fibre greens; limited fruit	Reptical/Reptivite 3 × wk	AM: browse/greens; PM: mixed veg/fruit; graze paddock grass ad lib
Star tortoise	2 (≈ 1 kg)	Daily: leafy veg 100 g • veg 60 g • fruit 20 g • browse 100 g • hay 40 g	Chop finely; no high-oxalate veg in excess	Ca/D_3 light dust 3 × wk	AM browse; PM papaya–carrot–banana mix; strict low-protein, high-fibre
Reg tegu	2 (≈ 2.5 kg)	Alt-day: 4–6 prey(day old chick/mice) wk (35–45 g each); Daily veg/fruit 1.4 kg mix	Amaranthus, carrot, pumpkin, beet, peas, broccoli, banana	Ca/D_3 2–3 × wk	Rotate animal/plant days; scatter veg for rummaging
Argentine black & white tegu	2 (≈ 3 kg)	Same as red tegu (4–6 prey wk + 1.4 kg veg/fruit daily)	As above	As above	Monitor body-condition; reduce fruit in cool months

Reptiles Species	Group size	Feeding Allowance & Interval	Core Items	Supplements	Feeding Pattern & Notes
Rat snake	2 (≈ 0.8 kg)	4 × 35–45 g prey wk^{-1} (Mon)	Day-old chicks, mice, or small rats	Ca/Vit dust alt. feed	Do not feed during ecdysis; record intake
Spectacled cobra	3 (≈ 0.6 kg)	6 × 35–45 g prey wk^{-1} (1–2 feeds)	Chicks, mice, small rats	Ca/Vit dust alt. feed	Handle with hooks; skip feed in shed
Russell's viper	3 (≈ 1 kg)	6 × 50 g prey wk^{-1} (2 feeds)	Chicks, mice, small rats	Ca/Vit dust alt. feed	Strict hook protocol; no feeding in shed
Indian rock python	4 (≈ 5 kg)	4 kg prey wk^{-1} (1 kg · $snake^{-1}$) once wk/fortnight	Rabbit, large rat, poultry	Ca/Vit dust alt. feed	Large prey offered with tongs; monitor bulge ≈ 1.3 × mid-body dia.
Corn snake	10 (≈ 0.35 kg)	150–200 g mice twice wk	Mice	Ca/Vit dust alt. feed	Observe individual uptake; record
Boa constrictor	2 (≈ 3.5 kg)	600–800 g adult rats or 800–1 000 g rabbit twice wk	Adult rat / medium rabbit	Ca/Vit dust alt. feed	Alternate prey types; ensure full swallow before handling
Ball python	5 (≈ 0.55 kg)	75–100 g prey twice wk	Mice, medium rats, chicks.	Ca/Vit dust alt. feed	Feed in evening
Indian monitor lizard	2 (≈ 5 kg)	6 × 50–75 g prey wk (Mon / Thu / Sat)	Chicks, mice, rats	Vit-min dust weekly	Tongs feed; observe aggression

Salad mix prepared as a part of balanced diet for sulcata tortoise.

Pair of green iguanas consuming leafy greens and fresh fruits and vegetables ensuring good nutrition.

Omnivorous diet including animal proteins and plant matter offered to both red tegu, and Argentine black and white tegu lizards to meet species-specific requirements at different times of the day.

Ball python engulfing an appropriately sized mouse which are propagated in-house.

Routine feeding of fresh fish ensures species-specific nutrition for the critically endangered gharial.

15. Vaccination Schedule of Animals

Species	Vaccination against	Vaccine	Frequency
Big cats	Feline Panleukopenia, Feline Calicivirus, Feline Rhinotracheitis, Rabies, Canine Parvovirus, Canine Distemper	Feligen / Biofel PCHR Nobivac R / Raksharab- Nobivac Puppy DP	Annual or as per titre results
Canids, hyena, coati	Canine Distemper Virus, Canine Adeno Virus, Canine Parvo Virus, Parainfluenza, Leptospirosis, Rabies, Canine Coronavirus	Zoetis 5L4, CV	Annual or as per titre results
Rhinoceros, wild ass, zebra	Tetanus	Tetanus toxoide	Annual
Indian birds	Newcastle Disease (ND), Infectious bursal disease	LaSota, Gumboro vaccine	Annual
Sloth bear	Leptospirosis, rabies	Canigen L	Annual or as per titre results
Indian gaur	Foot and Mouth disease, Hemorrhagic septicemia, Black Quarter	Raksha-Biovac, Raksha Triovac	Annual
Small primates	Rabies	Nobivac ARV	Annual or as per titre results
Emu, ostrich	Newcastle Disease	Lasota	Annual

16. De-worming Schedule of Animals

Species	Medicine	Frequency
Carnivores	Praziquantel, Pyrantel pamoate Fenbendazole, Albendazole, Ivermectin, Doramectin, Selamectin, Milbemycin etc.	Quarterly or as per faecal sample screening
Herbivores	Albendazole, Fenbendazole, Ivermectin, Doramectin, Praziquantel, Triclabendazole, Levamisole hydrochloride, Oxyclozanide.	Quarterly or as per faecal sample screening
Omnivores	Praziquantel, Pyrantel pamoate, Fenbendazole, Albendazole, Praziquantel, Ivermectin.	Quarterly or as per faecal sample screening
Birds	Praziquantel, Oxfendazole, Fenbendazole, Ivermectin, Amprolium etc.	Quarterly or as per faecal sample screening
Primates	Albendazole, Fenbendazole, Praziquantel, Metronidazole.	Quarterly or as per faecal sample screening
Reptiles	Fenbendazole, Praziquantel.	Quarterly or as per faecal sample screening

Note: These drugs are used alone or in combination, following screening.

Ectoparasite control

Fluralaner (Bravecto), Fipronil, (S) methoprene, Selamectin, Amitraz12.5%, Deltamethrin 1.25%, Ivermectin, Doramectin.
(These drugs are used alone or together, following screening for control of parasites)

Ectoparasite control is carried out as required and as per laboratory investigations.

Medicine mixed with fruit treats for quarterly deworming in mixed species aviary.

Administration of deworming through formula feed in rainbow lorikeet.

Efficient deworming in piscivores achieved via medicated fish feeding.

Vaccination of an Indian wild ass using blow pipe.

17. 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

Disinfection Protocols for all Entry and Exit Points of SPZP					
Area	**Method**	**Compound /Salt**	**Dilution**	**Frequency**	**Remarks**
Administration Gate Visitor Gate Hospital Entry Incineration Site Animal Kitchen All walk-through enclosures	Chemical Foot bath Tyre bath	KMnO4 or Kohrsolin-TH or Sodium Hypochlorite or Soda Lime or Virkon S or F 10 or Virolin etc.	As per guidelines	Daily	Dilution to be carried out daily

Chemical disinfection of animal exhibit.

Disinfection of management area using flame gun.

Cleaning and Disinfection Protocols for all Animal Enclosures:					
Area	**Method**	**Compound /Salt**	**Dilution**	**Frequency**	**Remarks**
All Animal Enclosure- Entry Point Feeding Cubicle Kraal Night shelters	Physical	Spot Cleaning		Daily	
		Pressurized Water		Daily	
		Scrubbing - Detergent		Daily	
		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

18. 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.

19. Infrastructure & Operational Upgrades

To bring Sardar Patel Zoological Park fully in line with contemporary zoological and safety standards—and to improve day-to-day efficiency—the following capital works were delivered during the reporting year:

- **Perimeter compliance** – A reinforced-concrete separation wall now isolates the staff residential colony from visitor areas, meeting Recognition of Zoo Rules requirements.
- **Service-road modernisation** – A 450 m RCC carriageway through the labour colony provides all-weather access for maintenance teams and emergency vehicles.
- **Fire protection network** – 154 multi-class (ABC/CO_2) extinguishers have been installed at all high-risk points, with quarterly drills scheduled for staff.
- **Electrical-storm safety** – Lightning arresters and dedicated earthing grids were fitted to aviary domes, the reptile house and the veterinary hospital.
- **Sustainable transport hub** – A covered fast-charging bay now services the expanding fleet of battery-operated visitor vehicles.
- **24 × 7 emergency readiness** – A fully equipped Quick-Response-Team (QRT) vehicle stands by round-the-clock for animal, visitor or fire incidents.
- **Integrated surveillance & comms** – 463 HD CCTV cameras feed into a new control room, while digital walkie-talkies enable real-time keeper–security coordination.
- **Universal visitor access** – Fifteen lightweight wheelchairs and improved ramp gradients enhance mobility for senior citizens and guests with disabilities.
- **Way-finding & muster points** – A comprehensive suite of directional signs, Wildlife (Protection) Act notices and five clearly marked assembly points has been installed.
- **Low-noise internal fleet** – Ten additional four-seat battery-operated vehicles reduce fossil-fuel use and streamline keeper rounds.
- **Public sanitation** – Five prefabricated washroom blocks with grey-water recycling have been commissioned at high-footfall nodes.

Collectively, these upgrades strengthen animal welfare, visitor experience, staff safety and statutory compliance

Newly constructed perimeter wall.

Newly constructed service road.

Lightening arrestor.

Fire extinguishers placed in all enclosures and other locations.

Safety signages at strategic locations.

New directional signages.

Newly constructed post mortem room

New wheelchair accessible toilets for visitors

20. Education, Interpretation & Outreach

SPZP treats its entire 56 hectares as a "living classroom". In the twelve-month period under review the education division delivered a spectrum of activities that touched casual day-visitors, school groups, university researchers and in-service professionals.

1. Daily interpretation on the public loop

Thirty-seven international conservation days—from Earth Day on 22 April through World Bear Day on 23 March—were observed with pop-up pledge corners, craft stations and keeper-led enrichment demonstrations. These one-day events sat on top of the zoo's standing interpretation schedule, which comprised **74 Keeper's Talks, 25 dawn bird-watching walks** and a stream of regular guided walks.

Visitor-movement tracking showed a mean exhibit **dwell time** of 12 minutes 30 seconds in normal conditions; when a Keeper's Talk was in progress the **figure rose to 21 minutes 18 seconds**, and post-visit surveys indicated that 78% of those attendees intended to return within the year, compared with a baseline of 62% for the wider public.

Directional and interpretive infrastructure kept pace: ten new bilingual panels—including five clearly marked assembly-point boards and Wildlife (Protection) Act notices—were installed, bringing 100% of the primary visitor loop into compliance with the current signage standard.

A big-cat keeper engages young visitors in spotting the subtle differences between the coats of cheetah, leopards, and jaguars.

2. Structured learning for students, interns, and staff

Docent programme: During Wildlife Week (1–9 October 2024) ten life-science undergraduates from Gujarat University completed an eighty-one-hour docent course and provided on-floor interpretation every day of the festival.

Internships: Three tracks ran this year:

- A **summer zoology internship** (1–31 May 2024) placed seven first-year students from the Maharaja Sayajirao University inside daily husbandry routines, behavioural-enrichment builds and early-morning bird counts that logged thirty-five species.
- A **zoo-management internship** (8–22 March 2025) exposed six Life Science Education Trust trainees to enclosure design charrettes, nutrition labs, reptile-handling practicums and species-centric enrichment workshops across thirteen intensive days.
- **Veterinary internships** remained the flagship pipeline: twenty-two one-week batches ran in partnership with Kamdhenu University, giving 286 Bachelor-of-Veterinary-Science students direct contact with clinical rounds, necropsy, endoscopy, imaging, bio-security drills and field immobilisation protocols.

Staff training: Five in-house courses lifted frontline competence: three animal-management workshops led by Czech specialists Luboš Tomiska and František Juna, and Australian specialist Simon Degenhard; a nutrition-and-exhibit-planting seminar by Andrew Beer from the United Kingdom; plus sessions in fire safety, human–wildlife conflict mitigation and public-interaction technique. All modules were logged with participant lists for Central Zoo Authority (CZA) audit.

Academic output: Eight master's dissertations were supervised to completion; six peer-reviewed papers appeared in journals.

Veterinary internship students observing a surgery.

Zoology interns learning candling of a ostrich eggs.

3. Outreach to schools, colleges and remote communities

SPZP welcomed **372 educational institutions**—180 from Gujarat, 120 from Maharashtra, 30 from Rajasthan, 25 from Madhya Pradesh, nine from West Bengal and eight from Karnataka—bringing **65,368 students** through on-site modules that mix keeper briefings, touch-table artefacts and post-visit worksheets. Two "Grass-roots Nature Lab" deployments carried the zoo's portable museum to schools that could not travel.

Short multiple-choice tests set before and after every formal visit showed an average **knowledge jump of 22–23 percentage points**. Telephone follow-ups three weeks later revealed that **68% of respondents had eliminated single-use plastic in lunches, 42% had switched to refillable bottles** and **70% said they would actively discourage illegal pet trade**—behaviour-change figures the education team will track again next year.

College students being given an educational talk as a part of wildlife week celebration.

School children being given an introduction to animals and their husbandry.

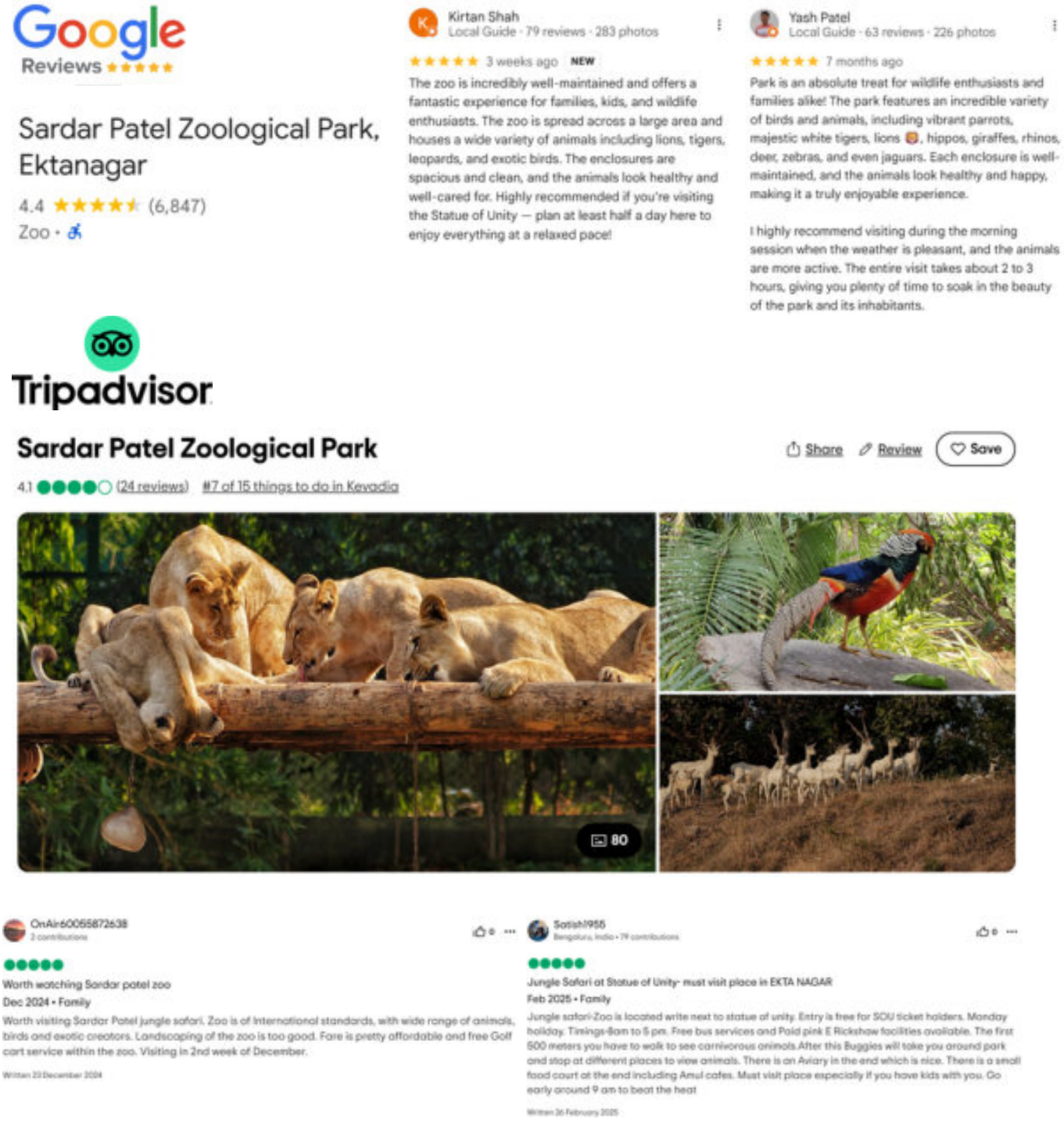
An immersive guided walk of the reptile house.

4. Digital reach and public profile

17 short-form Instagram reels and 29 regular posts documented enrichment builds, neonate milestones and conservation-day activities, generating over **1.2 million cumulative impressions**.

User feedback stabilised at **4.4 out of 5 on Google Reviews** and **4.0 on TripAdvisor**.

Posts advertising forthcoming Keeper's Talks drove a **23% rise** in on-site attendance during the following week.



5. Green action and special events

Three public plantation drives—World Environment Day (5 June 2024), World Soil Day (5 December 2024) and the International Day of Forests (21 March 2025)—saw staff and visitors plant 120 saplings across unused corners of the grounds. Throughout National Wildlife Week and Zoo Week the education team staged roaming **"Ask the Keeper" carts**, while the popular fur-pattern comparison of cheetah, leopard and jaguar pelts drew repeat crowds.

Birthdays of the Asiatic-lion and leopard cubs and of a greater one-horned rhinoceros calf were turned into on-ground storytelling sessions about coordinated ex-situ breeding and genomic-diversity management; each celebration video netted more than **30,000 organic views** within forty-eight hours.

Tree plantation on World Forest Day-21st March 2025.

Ek ped maa ke naam- 10th June 2025.

Engaging visitors in a keeper talk at Leopard enclosure and Jaguar enclosure respectively.

6. Evaluation, recognition, and compliance

Knowledge-gain figures quoted above are drawn from 312 pre- and post-tests; veterinary Batch 3, for example, **rose from 62% to 84%**.

Visitor-satisfaction sampling gave an overall score of **4.1 out of 5**, climbing to **4.6 during event days** when additional educators were on site.

The Department of Zoology at Maharaj Sayajirao University, Baroda, honoured the education team on World Biodiversity Day and later invited SPZP staff to judge the "Samnvay: Symphony of Life" open house. Required celebration reports for Lion Day, Tiger Day and Environment Day were filed punctually to the CZA, maintaining the zoo's record of full statutory compliance.

Veterinary interns observing an orthopaedic surgery in a blackbuck.

Lecture on captive health management of animals to zoo interns.

Zoology intern engaging the visitors in a guided walk.

SPZP education officer at MSU on World Biodiversity Day.

Impact statement

With **37 observance days, 74 keeper talks, 25 bird walks, 03 distinct internship tracks,** the training of more than **300 veterinary and zoology students** and documented shifts in both knowledge and behaviour among **65,000 young visitors**, SPZP has consolidated its position as western India's most active hub for conservation literacy, professional up-skilling and public engagement.

Introduction to chemical immobilisation given to zoo interns.

School students understanding the ecological importance of reptiles and learning about different species housed at SPZP.

Veterinary internship students from Kamdhenu university intern at SPZP for one week per batch.

21. Important Events and Happenings

First-birthday milestones.
Three high-profile neonates reached their first birthdays: Asiatic lion cubs (27 April 2024), a female Indian leopard cub (20 April 2024) and an Indian rhinoceros calf (29 August 2024). The public celebrations doubled as keeper-talk platforms on genetic management and IUCN status, emphasising the zoo's role in ex-situ conservation.

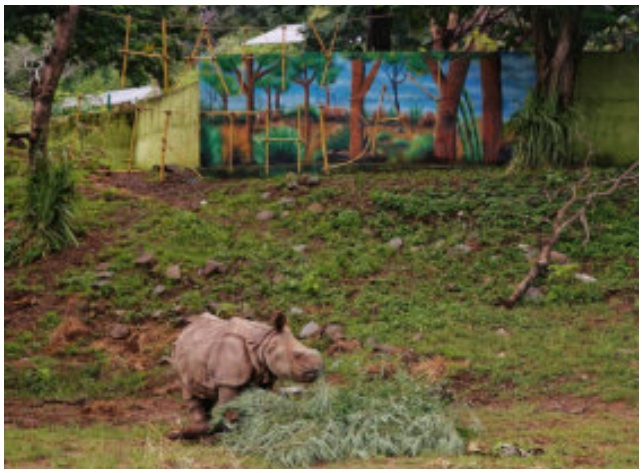
Plantation drives.

- World Environment Day (5 June 2024): visitors and staff planted 50 saplings across three visitor loops.
- World Soil Day (5 December 2024): the Gharial keepers' alley was re-vegetated with nitrogen-fixing saplings, linking soil health to ecosystem health.
- International Day of Forests (21 March 2025): an internal "mini-forest" enrichment zone was created with mixed native species.

Wildlife Week (2–8 October 2024) and Zoo Week (1–7 December 2024).
Keeper-led interpretive talks ran at multiple exhibits each day; fur-pattern comparisons of cheetah, leopard and jaguar drew the largest crowds. A ten-member docent corps from Gujarat University guided visitors, translating complex husbandry facts into Gujarati, Hindi and English. Student and staff participation turned the park into a week-long open classroom, lifting average visitor satisfaction to 4.6 / 5 for the period.
Campus Bird Count (14–17 February 2025).
Eight student ornithologists logged 73 bird species—songbirds to raptors—within four dawn surveys, submitting all checklists to eBird. The exercise underscored the park's habitat value and added rigorously vetted data to national bird-atlas work.

Calendar of conservation observances (37 dates).
Earth Day • World Leopard Day • World Migratory Bird Day • World Endangered Species Day • World Biodiversity Day • World Turtle Day • World Environment Day • World Crocodile Day • World Giraffe Day • "Ek Ped Maa Ke Naam" sapling campaign • Van Mahotsav (1–7 July) • World Snake Day • World Nature Conservation Day • International Tiger Day • World Lion Day • International Wolf Day • International Orangutan Day • International Primate Day • International Vulture Awareness Day • International Rhino Day • International Rabies Awareness Day • World Dhole Day • National Wildlife Week (2–8 Oct) • International Migratory Bird Day (Nov) • International Jaguar Day • Zoo Week (1–7 Dec) • International Zoo & Wildlife Conservation Day • World Soil Day • International Monkey Day • International Zebra Day • World Wetland Day • World Ostrich Day • World Hippopotamus Day • World Wildlife Day • International Day of Forests • World Water Day • World Bear Day.

Across these programmed occasions SPZP blended celebration with education—using birthdays to discuss studbooks, tree-planting to model citizen conservation, and week-long festivals to turn casual guests into informed advocates for wildlife.



Celebrating 1st birthday of Indian rhinoceros calf and Asiatic lion cubs respectively.

Tree plantation by zoo visitors on World Environment day - 5th June 2024.

Keepers explaining the morphological difference between cheetah, jaguar, and leopard.

Zoology interns participated in fun filled and educative bird race within the zoo premises.

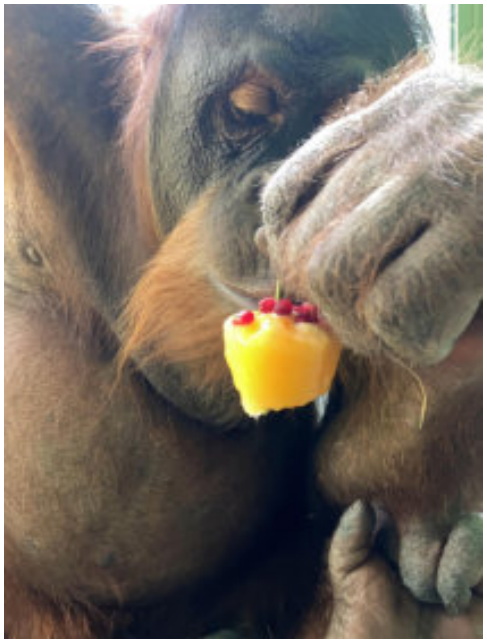
22. Seasonal animal-care protocols

Summer (March – June)

To blunt Gujarat's extreme heat, each enclosure now combines natural tree canopy with additional sail-cloth roofs or bamboo chhatris so that animals can retreat from direct sun and hot winds at any hour of the day. Sprinkler lines, high-level misters and shallow splash-pools have been installed in all hoof-stock paddocks and carnivore yards; reptiles receive roof-top foggers or under-floor soaker pipes, depending on species. Diets are re-balanced with water-rich fruit, lightly chilled browse and electrolyte blocks, while keepers circulate iced treats—frozen banana for primates, blood-blocks for big cats—to encourage foraging and thermoregulation. Three-tier observation (keeper → section supervisor → curator) flags any hint of heat-stress, lethargy or dehydration so that veterinary staff can intervene early.

Sprinkler enrichment supports heat stress management for giraffes in summer months.

Provision of shed and sprinklers offers effective heat relief for co-habiting emus and zebras.



Orang-utan relishing frozen treat on a hot summer afternoon.

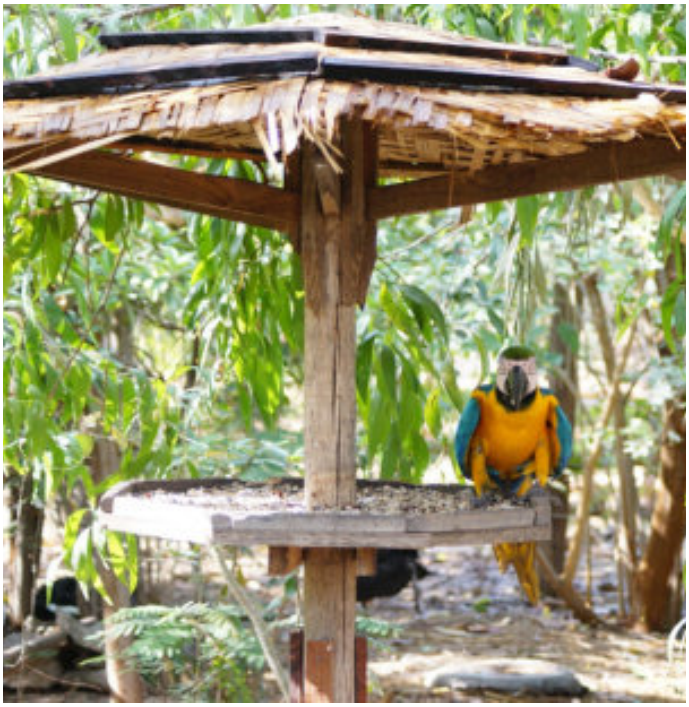
Misters bring relief to the monkeys at primate dome from soaring temperatures during peak summer.

Monsoon (July – September)

Waterproof night-rooms, fresh leaf-litter bedding and raised wooden platforms keep stock dry when rainfall is heavy. Each enclosure's French drains and surface channels were cleaned at the start of July to eliminate standing water and mosquito larval sites; fogging is carried out at dusk on a fortnightly cycle. Preventive healthcare—vaccination boosters, faecal exams and ecto-parasite dips—is scheduled for late June so that immune cover peaks during the damp months. Where outdoor enrichment is impossible, keepers switch to protected log-piles, suspended browse nets or scatter-feeds placed under roofed porches, ensuring animals remain mentally occupied without getting soaked. An all-staff drill in mid-August rehearsed the cyclone-evacuation plan and confirmed that every dangerous animal can be locked into a secure shift-race within four minutes.

Sheltered from the rain, animals stay dry under thoughtfully designed shade areas.

Vulnerable animals are kept warm and dry in specialised indoor enclosures during rains.



Covered feeding stations ensure birds have access to dry food during the monsoon season.

Winter (November – February)

Cold months here are short but sharp at night, so sleeping dens have been retro-fitted with wind-break panels, straw or paddy hay bedding and, for neonates or geriatric stock, low-watt radiant heat lamps or thermostatic pads. Diets are correspondingly energy-dense: extra hay for grazers, warm cereal-and-vegetable mash for primates, and slightly higher adipose content in carnivore rations. Water troughs are checked twice daily to prevent surface icing, and a broad-spectrum vitamin-mineral premix is top-dressed on feed three times a week to support immune function. Keepers provide puzzle-feeders, scent trails and tactile substrates indoors so that reduced outdoor time does not translate into behavioural stagnation. Respiratory soundness is monitored on the morning round; any wheeze, nasal discharge or slow rise triggers immediate veterinary inspection.

Together these season-specific protocols keep body temperature, hydration and behaviour within normal parameters and ensure that every animal—whether desert reptile or high-altitude ungulate—experiences its enclosure as both safe and seasonally responsive.

Supplemental heating ensures the well-being of ectothermic species like this iguana during seasonal drops in temperature

Offering assorted nuts to macaws helps maintain body condition in winter.

Small bird utilise nest box for warmth and comfort during low winter temperatures.

Insulated shelters with hay help fawns cope with cold weather conditions

23. Research Work and Publications

Student-led research projects

Vedanti Parmar – B.Sc. Environmental Science, MS University Baroda
Carbon Footprint Assessment of SPZP and Mitigation Strategies – quantified principal emission sources across energy, waste and transport, then outlined practical reduction measures for each stream.

Khushi Dave – B.Sc. Environmental Science, MS University Baroda
Soil Texture, Organic Matter and Microbial Health as Indicators of Sustainability in Captive Ecosystems – profiled exhibit soils to show how physical and biological parameters reflect long-term enclosure health.

Hima Paradava – M.Sc. Zoology, MS University Baroda
Influence of Experiential Viewing Space on Visitor Interaction and Animal Welfare – compared conventional railings with immersive glass fronts to gauge effects on guest engagement and stress-related behaviour in study animals.

Puja Hathaliya – M.Sc. Zoology, MS University Baroda
Visitor-Viewing Design and Welfare – ran a parallel assessment of exhibit sight-lines, focusing on how varying eye-level windows alter pacing, resting and exploratory activity.

Mahima Gamit – M.Sc. Zoology, MS University Baroda
Cognitive Abilities of Captive Sambar Deer – used puzzle feeders and detour tasks to test problem-solving and memory in Sambar deer.

Dixit Joshi – M.Sc. Zoology, Gujarat University
Enrichment Strategies for African Lions and Jaguars – evaluated how different rotation schedules (sensory, feeding, structural) affected play, stalking and resting patterns in both species.

Ekta Chhaiya – M.Sc. Zoology, Gujarat University
Contrafreeloading in Captive Blackbuck – measured willingness of Antilope cervicapra to work for food when identical food was freely available, as a potential indicator of behavioural needs.

Rudrik Dave – M.Sc. Zoology, Gujarat University
Spatial Partitioning and Resource Use in a Mixed-Species Aviary – mapped perch, ground and feeding-site use to understand how different bird taxa share space and minimise conflict.

The in-house research team also advanced peer-reviewed output:

1. Trivedi, Krunal & Mukherjee, Soham (2024). Understanding Reproductive Strategies: Courtship and Copulation Behaviours of the Asiatic Wild Dog *(Cuon alpinus)* in Captivity. *Journal of Science Humanity and Arts – JOSHA*. 11(3).
2. Trivedi, Krunal & Mukherjee, Soham & Kansara, Vaibhav & Prajapati, Shalini. (2024). Insights into the use of pelvic spur in mating behavior of Indian Rock Python. *Zoos' Print Journal*. 39. 11-13.
3. Trivedi, Krunal & Patel, Mitesh & Mukherjee, Soham. (2024). Novel nesting behavior in Rose-ringed Parakeet *(Psittacula krameri)* at Sardar Patel Zoological Park. *Cheetal*. 61. 47-52.
4. Patel, Ushma & Patond, Chetan. (2024). Surgical Management of an Extensive Reducible Hernia in a Blue Wildebeest *(Connochaetes taurinus)*: A Case Report. Cheetal. 61. 19-26.
5. Patond, Chetan & Patel, Ushma & Mukherjee, Soham. (2024). Zoo Nutrition for Wild Herbivores: An Examination of Dietary Requirements. *Journal of Science, Humanities and Arts – JOSHA*. 11(6)

In addition, the International Zoo Educators (IZE) journal has accepted a full paper titled "Conservation-education initiatives at Sardar Patel Zoological Park: practices and learning," which distils five years of programme data and will appear in the forthcoming issue. Together these studies and publications underline the zoo's dual role as a centre for evidence-led animal management and a contributor to the wider body of zoological science.

A researcher studying experiential viewing spaces.

24. **Conservation Breeding Programme**

Programme scope – Ex-situ breeding has been integral to SPZP since opening in 2019; all pairings follow stud-book recommendations, behavioural compatibility checks and neonatal-care protocols that link the hospital and nutrition units via CCTV.

Species in which viable offspring have been produced (2019 – 25)

- Asiatic lion *(Panthera leo persica)*
- Indian peafowl *(Pavo cristatus)*
- Four-horned antelope *(Tetracerus quadricornis)*
- Himalayan goral *(Naemorhedus goral)*
- Blackbuck *(Antilope cervicapra)*
- Indian leopard *(Panthera pardus fusca)*
- Gaur *(Bos gaurus)*
- Indian rhinoceros *(Rhinoceros unicornis)*
- Indian wild dog / dhole *(Cuon alpinus)*
- Marsh crocodile *(Crocodylus palustris)*

"Khushi" - the female rhino calf born in SPZP, resting with her mother.

- **Priority species for which SPZP has sought "Participating-Zoo" status from the Central Zoo Authority (letter dated 25 January 2024)**

1. Greater one-horned rhinoceros *(Rhinoceros unicornis)*
2. Four-horned antelope *(Tetracerus quadricornis)*
3. Indian wild dog / dhole *(Cuon alpinus)*
4. Indian bison / gaur *(Bos gaurus)*

- **Next steps** – CZA endorsement will open structured animal exchanges and full access to national stud-books, ensuring the widest possible genetic base for each target taxon while amplifying SPZP's contribution to India's conservation-breeding network.

Birth of Indian gaur at SPZP contributes to the conservation action efforts towards the species.

25. **Animal acquisition / transfer / exchange during the year**

A	Animal acquisition			
Sr. no.	**Species**	**Number T (M:F:U)**	**From which zoo**	**Date of arrival in the zoo**
1	Corn Snake *(Pantherophis guttatus)*	10 (5:5:0)	Radhe Krishna Temple Elephant Welfare Trust (RKTEWT)	09-06-2024
2	Ball Python *(Python regius)*	2 (0:2:0)	Radhe Krishna Temple Elephant Welfare Trust (RKTEWT)	09-06-2024
3	Rhino iguana *(Cyclura cornuta)*	4 (2:2:0)	Radhe Krishna Temple Elephant Welfare Trust (RKTEWT)	09-06-2024
4	Green iguana *(Iguana iguana)*	12 (6:6:0)	Radhe Krishna Temple Elephant Welfare Trust (RKTEWT)	09-06-2024
5	Boa constrictor *(Boa constrictor)*	2 (0:2:0)	Radhe Krishna Temple Elephant Welfare Trust (RKTEWT)	09-06-2024

Boa constrictor

Rhino iguana

A	Animal acquisition			
Sr. no.	**Species**	**Number T (M:F:U)**	**From which zoo**	**Date of arrival in the zoo**
6	Red jungle fowl *(Gallus gallus)*	2 (0:2:0)	Shri Sayajibaug Zoo	04-10-2024
7	White Indian peafowl *(Pavo cristatus)*	1 (0:1:0)	Shri Sayajibaug Zoo	04-10-2024
8	Golden pheasant *(Chrysolophus pictus)*	2 (1:1:0)	Shri Sayajibaug Zoo	04-10-2024
9	Four-horned antelope *(Tetracerus quadricornis)*	1 (0:1:0)	Shri Sayajibaug Zoo	20-01-2025

Golden pheasant and red jungle fowl acquired from Shri Sayajibaug Zoo under animal exchange program.

B	Animal sent from the zoo			
Sr. no.	**Species**	**Number T (M:F:U)**	**To which zoo**	**Date of deposition from the zoo**
1	Pained stork *(Mycteria leucocephala)*	14 (0:0:14)	Shri Sayajibaug Zoo	04-10-2024
2	Albino blackbuck *(Antilope cervicapra)*	4 (2:2:0)	Shri Sayajibaug Zoo	13-02-2025
3	Sambar deer *(Rusa unicolor)*	6 (3:3:0)	Shri Sayajibaug Zoo	10.02.2025
4	Indian gazelle *(Gazella bennettii)*	1 (1:0:0)	Shri Sayajibaug Zoo	20-01-2025

Sambar deer transferred from SPZP to Shri Sayajibaug Zoo, Vadodara under animal exchange program.

26. Rescue, Treatment, and Rehabilitation of Wild Animals

- **Authority & coordination** – Every rescue is undertaken only on the written request of, and with the necessary approvals from, the Kevadia Forest Division; SPZP does not retain these animals in its collection.
- **Triage & treatment** – First-aid, stabilisation and minor procedures are carried out at the rescue site; more complex surgery and post-operative care are provided at the SPZP veterinary hospital.
- **Release criteria** – Once an animal is clinically sound and behaviourally normal it is released at the exact location of rescue, ensuring it re-enters its familiar home range.
- **Non-releasable or conflict cases** – Individuals that fail release fitness tests, or that pose an ongoing human–wildlife conflict risk, are transferred—again with formal permission from the competent authorities—to designated state rescue centres for long-term care and management.

Sr. no.	Date	Species	Number T (M:F:U)	Location
1	21-07-2024	Indian leopard	1 (1:0:0)	Fatehpura Village, Tilakwada, Kevadia range
2	28-08-2024	Indian elephant	1 (0:1:0)	Swaminarayan Temple / Nilkanthdham Poicha
3	10-10-2024	Rhesus macaque	1 (0:1:0)	Gora Range, Kevadia Forest Division
4	18-10-2024	Hanuman langur	1 (0:1:0)	SPZP

Rescued leopard cub under treatment for hind-limb paralysis caused by haemoprotozoan infection.

Health check up, microchipping and vaccination prior to rehabilitation of a rescued leopard treated for severe injuries.

Sr. no.	Date	Species	Number T (M:F:U)	Location
5	26-10-2024	Shikra	1 (0:0:1)	Kevadia Range, Kevadia Forest Division
6	06-11-2024	Rhesus macaque	1 (0:1:0)	Gora range, Kevadia Forest Division
7	13-12-2024	Indian leopard	1 (0:1:0)	Kevadia Range Kevadia Forest Division
8	20-12-2024	Indian leopard	1 (1:0:0)	Naswadi Range, Chhota Udepur Forest Division
9	23-12-2024	Indian leopard	1 (1:0:0)	Gora range, Kevadia Forest Division
10	19-01-2025	Spotted owlet	1 (0:0:1)	SPZP
11	22-01-2025	Indian leopard	1 (0:1:0)	Gora range, Kevadia Forest Division
12	04-02-2025	Indian leopard	1 (0:1:0)	Gora range, Kevadia Forest Division
13	12-02-2025	Alexandrine parakeet	1 (0:1:0)	SPZP
14	22-02-2025	Indian elephant	1 (0:1:0)	Swaminarayan Temple / Nilkanthdham Poicha
15	14-03-2025	Indian leopard	1 (1:0:0)	Gora range, Kevadia Forest Division

FORM-II
[See rule 11 (1)]

PART - A
Sardar Patel Zoological Park, Kevadiya, Gujarat

Proforma for Annual Inventory Report
Inventory Report for the Year : 2024-2025

Endangered Species*

 # - Modified Closing Balance

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2024)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2025)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
Aves																						
1.	Indian Peafowl	*Pavo cristatus*	3	9	8	**20**	0	0	1	0	1	0	0	0	0	1	1	0	2	9	9	20
2.	Eurasian Spoonbill	*Platalea leucorodia*	1	1	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Total Aves	**2**		**4**	**10**	**8**	**22**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**3**	**10**	**9**	**22**
Mammalia																						
1.	Blackbuck	*Antilope cervicapra*	31	26	40	**97**	0	0	8	0	0	0	0	0	0	10	9	0	21	17	48	86
2.	Blackbuck (leucistic/white)	*Antilope cervicapra*	11	17	13	**41**	0	0	14	0	0	0	2	2	0	2	2	0	7	13	27	47
3.	Indian Bison,Gaur	*Bos gaurus*	3	1	0	**4**	1	0	0	0	0	0	0	0	0	0	0	0	4	1	0	5
4.	Indian Wolf	*Canis lupus pallipes*	1	1	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2024)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2025)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
5.	Asiatic Wild Dog, Dhole, Indian Wild Dog, Red Dog	*Cuon alpinus*	4	1	0	**5**	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	5
6.	Indian Wild Ass	*Equus hemionus khur*	2	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
7.	Chinkara	*Gazella bennettii*	6	5	5	**16**	0	0	4	0	0	0	1	0	0	1	0	0	4	5	9	18
8.	Sloth Bear	*Melursus ursinus*	1	1	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
9.	Asiatic Lion	*Panthera leo persica*	2	5	0	**7**	0	0	0	0	0	0	0	0	0	1	0	0	1	5	0	6
10.	Leopard	*Panthera pardus*	1	2	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3
11.	Leopard (melanistic)	*Panthera pardus*	0	1	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
12.	Bengal Tiger	*Panthera tigris tigris*	1	1	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
13.	Indian Rhinoceros (Greater One-horned Rhino)	*Rhinoceros unicornis*	1	2	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3
14.	Eld's Deer (Brow-antlered Deer)	*Rucervus eldii*	0	3	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
15.	Four-horned Antelope	*Tetracerus quadricornis*	4	6	6	**16**	0	0	4	0	1	0	0	0	0	1	0	0	3	7	10	20
Total Mammalia	**15**		**68**	**72**	**64**	**204**	**1**	**0**	**30**	**0**	**1**	**0**	**3**	**2**	**0**	**15**	**11**	**0**	**51**	**60**	**94**	**205**
Reptilia																						
1.	Marsh Crocodile	*Crocodylus palustris*	0	1	14	**15**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	14	15

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2024)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2025)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
2.	Russell's Viper	*Daboia russelii*	0	0	0	**0**	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3	3
3.	Gharial	*Gavialis gangeticus*	2	3	0	**5**	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	5
4.	Spectacled Cobra	*Naja naja*	0	0	2	**2**	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3	3
5.	Common Rat Snake	*Ptyas mucosa*	0	0	2	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
6.	Indian Rock Python	*Python molurus*	0	0	4	**4**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
7.	Bengal Monitor	*Varanus bengalensis*	0	0	2	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Total Reptilia	**7**		**2**	**4**	**24**	**30**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**4**	**28**	**34**
Total			**74**	**86**	**96**	**256**	**1**	**0**	**31**	**0**	**2**	**4**	**3**	**2**	**0**	**16**	**12**	**0**	**56**	**74**	**131**	**261**

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

Curator (Animals)

Director

PART - B
Sardar Patel Zoological Park, Kevadiya, Gujarat

Proforma for Annual Inventory Report

Inventory Report for the Year : 2024-2025

Other than Endangered Species*

 # - Modified Closing Balance

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2024)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2025)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
Aves																						
1.	Peach-faced Lovebird, Rosy-faced Lovebird	*Agapornis roseicollis*	0	0	250	**250**	0	0	3	0	0	0	0	0	0	1	2	0	0	0	250	250
2.	Wood Duck	*Aix sponsa*	3	2	0	**5**	0	0	0	0	0	0	0	0	0	0	1	0	3	1	0	4
3.	Blue-fronted Amazon, Blue-fronted Parrot, Turquoise-fronted amazon, Turquoise-fronted Parrot	*Amazona aestiva*	2	1	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2024)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2025)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
4.	Orange-winged Amazon, Orange-winged Parrot	*Amazona amazonica*	0	0	3	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
5.	Yellow-crowned Amazon, Yellow-crowned Parrot, Yellow-fronted Amazon	*Amazona ochrocephala*	4	3	0	**7**	0	0	0	0	0	0	0	0	0	0	0	0	4	3	0	7
6.	Northern Pintail	*Anas acuta*	0	1	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
7.	Common Teal	*Anas crecca*	1	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8.	Greylag Goose	*Anser anser*	0	0	8	**8**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8
9.	Bar-headed Goose	*Anser indicus*	0	0	1	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
10.	Sarus Crane	*Antigone antigone*	0	0	1	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
11.	Blue-and-gold Macaw, Blue-and-yellow Macaw	*Ara ararauna*	5	5	0	**10**	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0	10

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2024)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2025)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
12.	Green-winged Macaw, Red-and-green Macaw	*Ara chloropterus*	3	3	0	**6**	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	6
13.	Scarlet Macaw	*Ara macao*	1	1	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
14.	Sun Conure, Sun Parakeet	*Aratinga solstitialis*	4	4	4	**12**	0	0	0	0	0	0	0	0	0	1	0	0	3	4	4	11
15.	Indian Pond Heron	*Ardeola grayii*	0	0	1	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
16.	Grey crowned crane, Grey Crowned-crane, Grey Crowned-Crane, South African Crowned Crane, Southern crowned crane	*Balearica regulorum*	1	1	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
17.	Cattle Egret	*Bubulcus ibis*	8	8	10	**26**	0	0	0	0	0	0	0	0	0	0	0	0	8	8	10	26
18.	Lady Amherst's Pheasant	*Chrysolophus amherstiae*	1	1	0	**2**	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	3
19.	# Golden Pheasant	*Chrysolophus pictus*	3	0	0	**3**	0	0	0	1	1	0	0	0	0	0	0	0	3	2	0	5
20.	Black Swan	*Cygnus atratus*	1	2	10	**13**	0	0	0	0	0	0	0	0	0	0	0	0	1	2	10	13

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2024)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2025)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
21.	Lesser Whistling Duck	*Dendrocygna javanica*	0	0	4	**4**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
22.	Emu	*Dromaius novaehollandiae*	0	0	13	**13**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	13
23.	Eclectus Parrot	*Eclectus roratus*	2	1	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3
24.	Galah, Roseate Cockatoo	*Eolophus roseicapilla*	2	2	0	**4**	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4
25.	Asian Koel	*Eudynamys scolopaceus*	0	1	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
26.	Red Junglefowl	*Gallus gallus*	1	0	0	**1**	0	0	0	0	2	0	0	0	0	0	0	0	1	2	0	3
27.	Diamond Dove	*Geopelia cuneata*	0	0	30	**30**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	30
28.	Common Crane	*Grus grus*	0	0	3	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
29.	Demoiselle Crane	*Grus virgo*	0	0	3	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
30.	Finch sp.	*Lonchura sp.*	0	0	273	**273**	0	0	4	0	0	0	0	0	0	1	1	0	0	0	275	275
31.	Silver Pheasant	*Lophura nycthemera*	2	3	0	**5**	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	5
32.	Gadwall	*Mareca strepera*	1	1	0	**2**	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1
33.	Budgerigar	*Melopsittacus undulatus*	5	4	355	**364**	0	0	4	0	0	0	0	0	0	2	2	0	3	2	359	364
34.	Violet Turaco	*Musophaga violacea*	1	1	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2024)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2025)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
35.	Painted Stork	*Mycteria leucocephala*	7	9	45	**61**	0	0	11	0	0	0	0	0	14	0	0	0	7	9	42	58
36.	Black-crowned Night Heron	*Nycticorax nycticorax*	0	0	12	**12**	0	0	4	0	0	0	0	0	0	0	0	0	0	0	16	16
37.	Cockatiel	*Nymphicus hollandicus*	0	0	79	**79**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79	79
38.	Rosy Starling	*Pastor roseus*	0	0	3	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
39.	Great White Pelican	*Pelecanus onocrotalus*	1	2	3	**6**	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	6
40.	Red-naped Ibis	*Pseudibis papillosa*	0	0	16	**16**	0	0	0	0	0	0	0	0	0	1	0	0	0	0	15	15
41.	Plum-headed Parakeet	*Psittacula cyanocephala*	0	0	22	**22**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	22
42.	Alexandrine Parakeet	*Psittacula eupatria*	10	11	3	**24**	0	0	0	0	0	0	0	0	0	0	0	0	10	11	3	24
43.	Rose-ringed Parakeet	*Psittacula krameri*	53	39	12	**104**	0	0	0	0	0	0	0	0	0	0	0	0	53	39	12	104
44.	Grey Parrot, Jacquot	*Psittacus erithacus*	2	2	0	**4**	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4
45.	Green-cheeked Conure, Green-cheeked Parakeet	*Pyrrhura molinae*	5	7	48	**60**	0	0	0	0	0	0	0	0	0	0	0	0	5	7	48	60

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2024)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2025)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
46.	Red-billed Toucan, White-throated toucan	*Ramphastos tucanus*	0	1	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
47.	Channel-billed Toucan	*Ramphastos vitellinus*	0	1	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
48.	Comb Duck	*Sarkidiornis sylvicola*	0	0	19	**19**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	19
49.	Common ostrich, Ostrich	*Struthio camelus*	1	2	0	**3**	0	0	4	0	0	0	0	0	0	0	0	0	1	2	4	7
50.	Reeves's Pheasant	*Syrmaticus reevesii*	1	1	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
51.	Black-headed Ibis	*Threskiornis melanocephalus*	0	0	5	**5**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
52.	Rainbow Lorikeet	*Trichoglossus moluccanus*	4	4	0	**8**	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	8
Total Aves	**52**		**135**	**124**	**1236**	**1495**	**0**	**0**	**31**	**1**	**3**	**0**	**0**	**0**	**14**	**7**	**6**	**0**	**131**	**125**	**1247**	**1503**
Mammalia																						
1.	Chital/ Spotted Deer	*Axis axis*	10	23	24	**57**	0	0	5	0	0	0	0	0	0	0	1	0	10	22	29	61
2.	Nilgai	*Boselaphus tragocamelus*	0	1	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
3.	Common Marmoset	*Callithrix jacchus*	1	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4.	Black-capped Capuchin, Tufted Capuchin	*Cebus apella*	3	2	0	**5**	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	5

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2024)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2025)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
5.	Blue Wildebeest	*Connochaetes taurinus*	3	3	0	**6**	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	6
6.	Plains Zebra	*Equus quagga*	1	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7.	Masai Giraffe	*Giraffa tippelskirchi*	0	1	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
8.	Common hippopotamus, Hippopotamus, Large Hippo	*Hippopotamus amphibius*	1	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
9.	Striped Hyena	*Hyaena hyaena*	0	1	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
10.	Ring-tailed Lemur	*Lemur catta*	0	1	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
11.	Serval	*Leptailurus serval*	2	1	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3
12.	Indian Muntjac	*Muntiacus muntjak*	1	3	4	**8**	0	0	1	0	0	0	0	0	0	0	1	0	1	2	5	8
13.	Himalayan Goral	*Naemorhedus goral*	1	3	1	**5**	0	0	0	0	0	0	0	0	0	0	1	0	1	2	1	4
14.	South American Coati, Southern Coati	*Nasua nasua*	3	6	0	**9**	0	0	0	0	0	0	0	0	0	1	0	0	2	6	0	8
15.	South African oryx/Gemsbok	*Oryx gazella*	2	2	0	**4**	0	0	0	0	0	0	0	0	0	0	1	0	2	1	0	3
16.	Bat-eared Fox	*Otocyon megalotis*	1	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
17.	African Lion	*Panthera leo*	1	1	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
18.	Jaguar	*Panthera onca*	1	1	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2024)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2025)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
19.	Bornean Orangutan	*Pongo pygmaeus*	1	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
20.	Sambar Deer	*Rusa unicolor*	25	19	20	**64**	0	0	9	0	0	0	3	3	0	1	0	0	21	16	29	66
21.	Golden-handed Tamarin	*Saguinus midas*	2	1	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3
22.	Cotton-headed Tamarin, Cotton-top Tamarin	*Saguinus oedipus*	1	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
23.	Common Squirrel Monkey, South american squirrel monkey	*Saimiri sciureus*	4	4	0	**8**	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	8
Total Mammalia	**23**		**64**	**73**	**49**	**186**	**0**	**0**	**15**	**0**	**0**	**0**	**3**	**3**	**0**	**2**	**4**	**0**	**59**	**66**	**64**	**189**
Reptilia																						
1.	Ampalagua, Boa Constrictor, Giboya, Masacuate	*Boa constrictor*	0	0	0	**0**	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	2
2.	Galapagos pink land iguana, Pink iguana	*Conolophus marthae*	1	1	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2024)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2025)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
3.	Hispaniolan rhinoceros iguana, Hispaniolan rock iguana, Rhinoceros Iguana, Rhinoceros rock iguana	*Cyclura cornuta*	0	0	0	**0**	0	0	0	2	2	0	0	0	0	0	0	0	2	2	0	4
4.	Indian Star Tortoise	*Geochelone elegans*	0	0	2	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
5.	African spurred tortoise	*Geochelone sulcata*	1	1	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
6.	Green Iguana	*Iguana iguana*	1	1	0	**2**	0	0	0	6	6	0	0	0	0	0	0	0	7	7	0	14
7.	Corn Snake	*Pantherophis guttatus*	0	0	0	**0**	0	0	0	5	5	0	0	0	0	0	0	0	5	5	0	10
8.	Royal Python/ Ball Python	*Python regius*	1	1	1	**3**	0	0	0	0	2	0	0	0	0	0	0	0	1	3	1	5
9.	Argentine Black and White Tegu, Black-and-white tegu	*Salvator merianae*	1	1	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
10.	Argentine Tegu, Red Tegu	*Salvator rufescens*	1	1	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Total Reptilia	**10**		**6**	**6**	**3**	**15**	**0**	**0**	**0**	**13**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**19**	**23**	**3**	**45**
Total			**205**	**203**	**1288**	**1696**	**0**	**0**	**46**	**14**	**20**	**0**	**3**	**3**	**14**	**9**	**10**	**0**	**209**	**214**	**1314**	**1737**
Grand Total			**279**	**289**	**1384**	**1952**	**1**	**0**	**77**	**14**	**22**	**4**	**6**	**5**	**14**	**25**	**22**	**0**	**265**	**288**	**1445**	**1998**

Director

Curator (Animals)

28. Mortality of Animals

Sr. no.	Species Common name	Scientific name	Sex	Age	Date	Cause of death
1	Chinkara	*Gazella bennettii*	M	Ad.	07-04-2024	Traumatic shock
2	Blackbuck	*Antelope cervicapra*	M	Ad.	09-04-2024	Respiratory failure
3	Blackbuck	*Antelope cervicapra*	M	Ad.	07-05-2024	Cardio-respiratory failure
4	Asiatic lion	*Panthera leo persica*	M	13+ yrs.	21-05-2024	Hepato-renal failure
5	Carolina duck	*Aix sponsa*	F	Ad.	22-05-2024	Traumatic shock
6	Blackbuck	*Antelope cervicapra*	F	Ad.	10-06-2024	Pneumonia
7	Blackbuck	*Antelope cervicapra*	F	Ad.	17-06-2024	Shock associated with predator attack
8	Blackbuck	*Antelope cervicapra*	M	Ad.	18-06-2024	Shock associated with predator attack
9	Blackbuck	*Antelope cervicapra*	F	Ad.	01-07-2024	Septicemia
10	Spotted deer	*Axis axis*	F	Ad.	03-07-2024	Traumatic shock
11	Barking deer	*Muntiacus muntjak*	M	Ad.	29-07-2024	Septicemia

Sr. no.	Species Common name	Scientific name	Sex	Age	Date	Cause of death
12	Four-horned antelope	*Tetracerus quadricornis*	F	Ad.	21-08-2024	Respiratory failure
13	South American coati	*Nasua nasua*	M	Ad.	28-08-2024	Multiple organ failure - geriatric
14	Red-naped ibis	*Pseudibis papillosa*	M	Ad.	03-09-2024	Septicemia
15	Blackbuck	*Antelope cervicapra*	M	Ad.	07-09-2024	Respiratory failure
16	Sun conure	*Aratinga solstitialis*	M	Ad.	15-09-2024	Multiple organ failure
17	Blackbuck	*Antelope cervicapra*	M	Ad.	17-09-2024	Respiratory failure
18	Barking deer	*Muntiacus muntjak*	F	Ad.	01-10-2024	Pneumonia
19	Himalayan goral	*Naemorhedus goral*	F	Ad.	06-10-2024	Cardio-respiratory failure
20	Indian peafowl	*Pavo cristatus*	M	Ad.	07-10-2024	Respiratory failure
21	Blackbuck	*Antelope cervicapra*	M	Ad.	14-10-2024	Shock associated with predator attack
22	Blackbuck	*Antelope cervicapra*	F	Ad.	15-10-2024	Shock associated with predator attack
23	Sambar deer	*Rusa unicolor*	M	Ad.	06-11-2024	Pneumonia

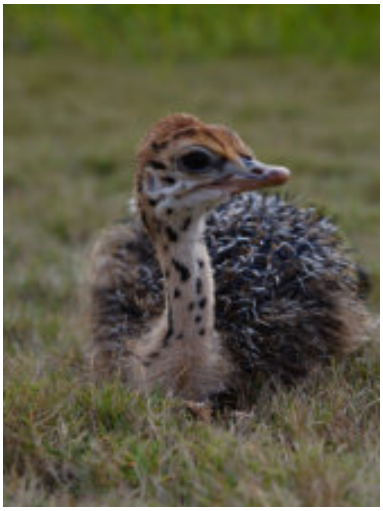
Sr. no.	Species Common name	Scientific name	Sex	Age	Date	Cause of death
24	Blackbuck	*Antelope cervicapra*	M	Sub ad.	13-11-2024	Pneumonia
25	Gadwall duck	*Mareca strepera*	M	Ad.	15-11-2024	Traumatic shock
26	Blackbuck	*Antelope cervicapra*	M	Ad.	19-11-2024	Respiratory failure
27	Blackbuck	*Antelope cervicapra*	M	Ad.	21-11-2024	Respiratory failure
28	Gemsbok	*Oryx gazella*	F	Ad.	01-12-2024	Multiple organ failure
29	Blackbuck	*Antelope cervicapra*	M	Ad.	10-12-2024	Respiratory failure
30	Finch	*Lonchura sp.*	M	Ad.	11-12-2024	Multiple organ failure
31	Peach-faced lovebird	*Agapornis roseicollis*	M	Ad.	16-12-2024	Traumatic shock
32	Blackbuck	*Antelope cervicapra*	F	Ad.	20-12-2024	Multiple organ failure
33	Blackbuck	*Antelope cervicapra*	F	Ad.	02-01-2025	Cardio-respiratory failure
34	Blackbuck	*Antelope cervicapra*	M	Ad.	02-01-2025	Shock associated with predator attack
35	Blackbuck	*Antelope cervicapra*	F	Ad.	02-01-2025	Cardio-respiratory failure
36	Blackbuck	*Antelope cervicapra*	M	Sub Ad.	02-01-2025	Shock associated with predator attack

Sr. no.	Species Common name	Scientific name	Sex	Age	Date	Cause of death
37	Blackbuck	*Antelope cervicapra*	F	Sub ad.	02-01-2025	Hypovolemic shock
38	Blackbuck	*Antelope cervicapra*	F	Ad.	02-01-2025	Hypovolemic shock
39	Blackbuck	*Antelope cervicapra*	F	Juv.	02-01-2025	Traumatic shock
40	Blackbuck	*Antelope cervicapra*	F	Juv.	02-01-2025	Traumatic shock
41	Budgerigar	*Melopsittacus undulates*	M	Ad.	24-01-2025	Traumatic shock from predator attack
42	Budgerigar	*Melopsittacus undulates*	F	Ad.	10-02-2025	Unknown, autolyzed
43	Peach-faced lovebird	*Agapornis roseicollis*	F	Ad.	11-03-2025	Multiple organ failure
44	Budgerigar	*Melopsittacus undulates*	F	Ad.	17-03-2025	Heat stroke
45	Budgerigar	*Melopsittacus undulates*	M	Ad.	19-03-2025	Heat stroke
46	Finch	*Lonchura sp.*	F	Ad.	21-03-2025	Multiple organ failure
47	Indian peafowl	*Pavo cristatus*	F	Ad.	26-03-2025	Traumatic shock
48	Peach-faced lovebird	*Agapornis roseicollis*	F	Ad.	27-03-2025	Heat stroke

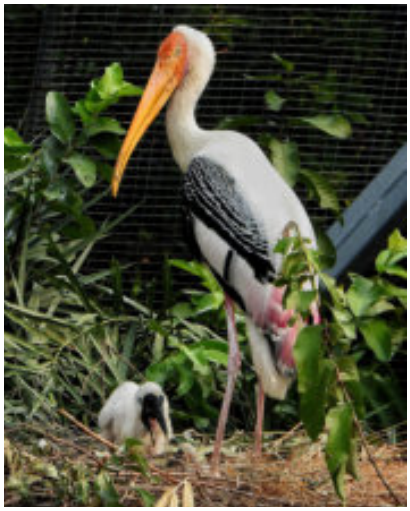
29. **Natality of Animals**

Sr. no.	**Species** Common name	**Scientific name**	**M**	**F**	**U**	**T**
1	Indian peafowl	*Pavo cristatus*	0	0	1	1
2	Blackbuck	*Antelope cervicapra*	0	0	8	8
3	Blackbuck (leucistic)	*Antelope cervicapra*	0	0	14	14
4	Gaur	*Bos gaurus*	1	0	0	1
5	Four-horned antelope	*Tetracerus quadricornis*	0	0	4	4
6	Chinkara	*Gazella bennettii*	0	0	4	4
7	Peach-faced lovebird	*Agapornis roseicollis*	0	0	3	3
8	Lady Amherst's pheasant	*Chrysolophus amherstiae*	0	0	1	1
9	Finch sp.	*Lonchura sp.*	0	0	4	4
10	Budgerigar	*Melopsittacus undulates*	0	0	4	4
11	Painted stork	*Mycteria leucocephala*	0	0	11	11
12	Black-crowned night heron	*Nycticorax nycticorax*	0	0	4	4

Sr. no.	Species Common name	Scientific name	M	F	U	T
13	Common ostrich	*Struthio camelus*	0	0	4	4
14	Spotted deer	*Axis axis*	0	0	5	5
15	Barking deer	*Muntiacus muntjak*	0	0	1	1
16	Sambar deer	*Rusa unicolor*	0	0	9	9



Ostrich chick hatched through artificial incubation at SPZP.



Painted stork chick with parent in Indian aviary.

Blackbuck fawn born in the zoo.

Four-horned antelope adult female and it's fawn resting in the enclosure.

SPZP is a participating zoo in the conservation breeding and re-introduction program for the sambar deer.

30. 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 condition 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.	Immediate	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	-	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	-	Arrangement 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	Implemented	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	-	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. Once approved, the master plan shall be incorporated in the master plan.	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	-	Being implemented in a phased manner	Complied
9	10.4 (3)	1. 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. 2. The overhang steel plate expansion joints of lion, tiger, and leopard enclosures should be properly affixed in such a	With immediate effect	-	Complied	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	-	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	-	Complied	Enrichment of the animals enclosures is being carried out. **Annexure 2** enclosed.
11	10.4 (9)	The live hedge shall be maintained between enclosure wall and stand-off barrier	3 months	-	Complied	Live hedges to be evaluated.
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	-	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	-	Complied	Single sexed animal list is prepared **(Annexure 5)**. 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	-	Complied	Complied
15	10.5 (4)	Substrates in krall should have soft soil.		-	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	-	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	-	Complied	Complied. A full fledged veterinary hospital is operational with 3 veterinarians, 3 paravets, and other support staff. **(Annexure 3)**
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	-	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	-	Complied	Anti snake venom 20 vials present in the zoo hospital with expiry year of 2026.

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	-	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.		-	Completed	Complied

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

Mammals

1. Five-striped palm squirrel *(Funambulus pennantii) c.*
2. Indian grey mongoose *(Herpestes edwardsii) c.*
3. Indian flying fox *(Pteropus giganteus) c.*
4. Indian porcupine *(Hystrix indica) c.*
5. Spotted deer *(Axis axis) c.*
6. Four-horned antelope *(Tetracerus quadricornis) u.*
7. Hanuman langur *(Semnopithecus entellus) c.*
8. Indian leopard *(Panthera pardus) u.*
9. *S*mall Indian civet *(Viverricula indica) u.*
10. Indian hare *(Lepus nigricollis) c.*

Birds

1. Shikra *(Accipiter badius) c.*
2. Common myna *(Acridotheres tristis) c.*
3. Common iora *(Aegithina tiphia) c.*
4. Common kingfisher (*Alcedo atthis) u.*
5. White-breasted waterhen *(Amaurornis phoenicurus) c.*
6. Rufous-tailed lark *(Ammomanes phoenicura) u.*
7. Asian open-bill stork *(Anastomus oscitans) u.*
8. Oriental darter *(Anhinga melanogaster) u.*
9. Great egret *(Ardea alba) u.*
10. Medium egret *(Ardea intermedia) u.*
11. Indian pond heron *(Ardeola grayii) c.*
12. Jungle babbler *(Argya striata) c.*
13. Eastern cattle egret *(Bubulcus ibis) c.*
14. Indian stone curlew *(Burhinus indicus) u.*
15. White-eyed buzzard *(Butastur teesa) u.*
16. Striated heron *(Butorides striata) r.*
17. Savanna nightjar *(Caprimulgus affinis) u.*
18. Indian nightjar *(Caprimulgus asiaticus) c.*
19. Greater coucal *(Centropus sinensis) c.*
20. Jerdon's leafbird *(Chloropsis jerdoni) u.*
21. Woolly-necked stork *(Ciconia episcopus) u.*
22. Purple sunbird *(Cinnyris asiaticus) c.*
23. Rock pigeon *(Columba livia) c.*
24. Indian robin *(Copsychus fulicatus) c.*
25. Oriental magpie-robin *(Copsychus saularis) c.*
26. Large-billed crow *(Corvus macrorhynchos) c.*
27. House crow *(Corvus splendens) c.*
28. Gray-headed canary-flycatcher *(Culicicapa ceylonensis) u.*
29. Tickell's Blue Flycatcher *(Cyornis tickelliae) u.*

c. = common; u. = uncommon; r. = rare

30. Rufous treepie *(Dendrocitta vagabunda) c.*
31. Thick-billed flowerpecker *(Dicaeum agile) u.*
32. Pale-billed flowerpecker *(Dicaeum erythrorhynchos) u.*
33. Lesser flameback woodpecker *(Dinopium benghalense) u.*
34. Tawny-bellied babbler *(Dumetia hyperythra) u.*
35. Asian koel *(Eudynamys scolopaceus) c.*
36. Indian silverbill *(Euodice malabarica) c.*
37. Peregrine falcon *(Falco peregrinus) r.*
38. Yellow-throated sparrow *(Gymnoris xanthocollis) c.*
39. White-throated kingfisher *(Halcyon smyrnensis) c.*
40. Common hawk-cuckoo *(Hierococcyx varius) c.*
41. Long-tailed shrike *(Lanius schach) c.*
42. Purple-rumped sunbird *(Leptocoma zeylonica) u.*
43. Crested bunting *(Melophus lathami) u.*
44. Asian green bee-eater *(Merops orientalis) c.*
45. Little cormorant *(Microcarbo niger) c.*
46. Grey wagtail *(Motacilla cinerea) c.*
47. White-browed wagtail *(Motacilla maderaspatensis) u.*
48. Indian grey hornbill *(Ocyceros birostris) c.*
49. Indian golden oriole *(Oriolus kundoo) c.*
50. Common tailorbird *(Orthotomus sutorius) c.*
51. Gray francolin *(Ortygornis pondicerianus) c.*
52. Cinereous tit *(Parus cinereus) u.*
53. House sparrow *(Passer domesticus) c.*
54. Indian peafowl *(Pavo cristatus) c.*
55. Oriental honey buzzard *(Pernis ptilorhynchus) u.*
56. Indian cormorant *(Phalacrocorax fuscicollis) c.*
57. Black redstart *(Phoenicurus ochruros) u.*
58. Greenish warbler *(Phylloscopus trochiloides) c.*
59. Indian pitta *(Pitta brachyura) u.*
60. Gray-breasted prinia *(Prinia hodgsonii) c.*
61. Plain prinia *(Prinia inornata) c.*
62. Ashy prinia *(Prinia socialis) c.*
63. Coppersmith barbet *(Psilopogon haemacephalus) c.*
64. Alexandrine parakeet *(Psittacula eupatria) c.*
65. Rose-ringed parakeet *(Psittacula krameri) c.*
66. Red-vented bulbul *(Pycnonotus cafer) c.*
67. White-eared bulbul *(Pycnonotus leucotis) c.*
68. White-browed bulbul *(Pycnonotus luteolus) u.*
69. White-browed fantail *(Rhipidura albicollis) c.*
70. Spot-breasted fantail *(Rhipidura albogularis) u.*
71. Spotted dove *(Spilopelia chinensis) c.*
72. Laughing dove *(Spilopelia senegalensis) c.*
73. Crested serpent eagle *(Spilornis cheela) u.*
74. Mottled wood owl *(Strix ocellata) u.*

c. = common; u. = uncommon; r. = rare

75. Chestnut-tailed starling *(Sturnia malabarica) u.*
76. Brahminy starling *(Sturnia pagodarum) c.*
77. Indian paradise-flycatcher *(Terpsiphone paradisi) c.*
78. Yellow-footed green pigeon *(Treron phoenicoptera) c.*
79. Barred buttonquail *(Turnix suscitator) u.*
80. Red-wattled lapwing *(Vanellus indicus) c.*
81. Indian white-eye *(Zosterops palpebrosus) c.*
82. Jacobin cuckoo *(Clamator jacobinus) u.*
83. Spotted owlet *(Athene brama) c.*
84. Barn owl *(Tyto alba) c.*
85. Indian eagle owl *(Bubo bengalensis) u.*

Reptiles

1. Common bronzeback tree snake *(Dendrelaphis tristis) c.*
2. Checkered keelback *(Fowlea piscator) c.*
3. Common krait *(Bungarus caeruleus) c.*
4. Common sand boa *(Eryx conicus) u.*
5. Fan-throated lizard *(Sitana ponticeriana) c.*
6. Green keelback *(Rhabdophis plumbicolor) u.*
7. Indian rock python (*Python molurus) c.*
8. Indian spectacled cobra *(Naja naja) c.*
9. Indian wolf snake *(Lycodon aulicus) c.*
10. Leith's sand snake *(Psammophis leithii) u.*
11. Bengal monitor lizard *(Varanus bengalensis) c.*
12. Oriental garden lizard *(Calotes versicolor) c.*
13. India rat snake *(Ptyas mucosa) c.*
14. Red sand boa *(Eryx johnii) u.*
15. Russell's viper *(Daboia russelii) c.*
16. Saw-scaled viper *(Echis carinatus) u.*
17. Slender racer *(Platyceps gracilis) u.*
18. Streaked kukri *(Oligodon taeniolatus) u.*
19. Striped keelback *(Amphiesma stolata) c.*
20. Common trinket snake *(Coelognathus helena) u.*
21. Indian chameleon *(Chamaeleo zeylanicus) u.*
22. Indian flapshell turtle *(Lissemys punctata) c.*
23. Mugger crocodile *(Crocodylus palustris) u.*
24. Bark gecko *(Hemidactylus leschenaultii) c.*
25. Yellow-bellied house gecko *(Hemidactylus flaviviridis) c.*
26. House gecko *(Hemidactylus frenatus) c.*
27. Asian house gecko *(Hemidactylus platyurus) c.*
28. Brook's house Gecko *(Hemidactylus brookii) c.*
29. Peninsular rock gecko *(Hemidactylus subtriedrus) c.*

c. = common; u. = uncommon; r. = rare

Indian chameleon

Tickell's blue flycatcher

Indian pitta

Yellow-throated sparrow

Indian white-eye

Indian rat snake

32. Acknowledgments

Photo Credits

We extend our sincere gratitude to the following contributors for their outstanding photography and visual contributions to this report: entire staff of SPZP, specialist consultants, docents, and volunteers.

Acknowledgments

Our conservation and education work is a collective effort, and we gratefully record the assistance of the following partners:

- **Central Zoo Authority** – for regulatory guidance and sustained professional support.
- **Statue of Unity Area Development & Tourism Governance Authority (SoUADTGA)** – for overarching administrative support, budgetary facilitation and progressive visitor-management policies.
- **Staff of Sardar Patel Zoological Park** – whose daily commitment underpins every success described in this report.
- **Volunteers and Docents** – for their infectious enthusiasm and gift of time in the service of wildlife conservation.
- **Kamdhenu University, The Maharaja Sayajirao University of Baroda, Gujarat University and the Life Science Education Trust** – for academic collaboration across research, internships and training.
- **Participating schools, colleges and field organisations** – for engaging with our outreach programmes and strengthening the zoo's role as a living classroom.
- **Visitors and the wider community** – for their continued patronage, feedback and advocacy, without which our mission would lack momentum.

To each of you, we extend our sincere thanks.

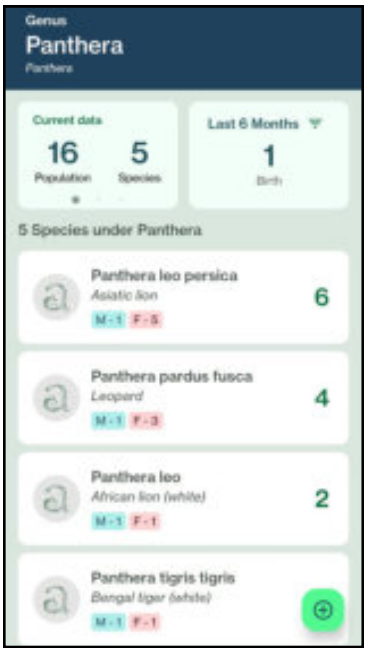
Black swans observed swimming together, reflecting calm social interaction in the Exotic aviary.

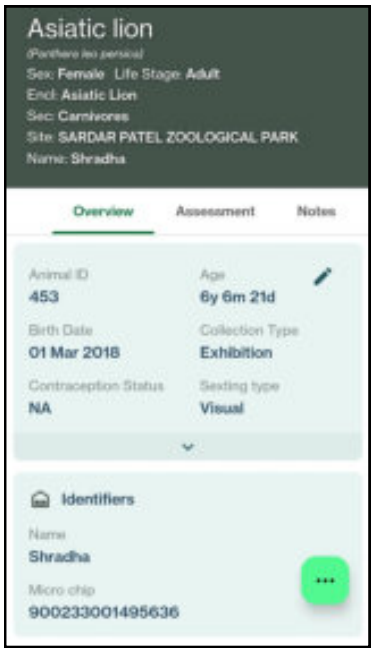
33.1 Annexure 1: Advanced Zoo Management Software - Antz Systems

Since June 2024 every keeper note, diet change, medical record and sensor reading at Sardar Patel Zoological Park has flowed into Antz, a cloud-native zoo-management platform designed expressly for modern animal collections. By replacing paper logs and scattered spreadsheets with a single live database, the system has turned day-to-day animal care into a network of inter-locking, time-stamped transactions that can be searched, graphed or audited in seconds.

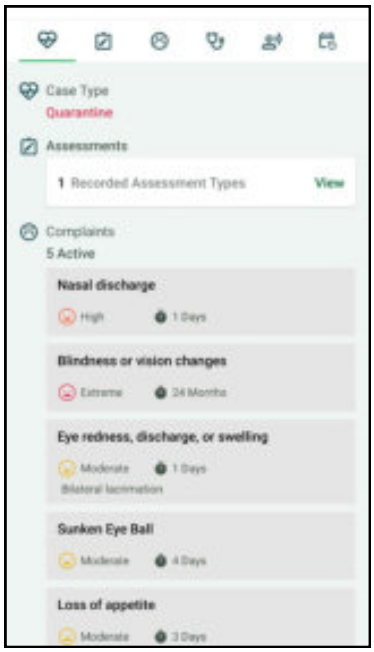
One database, many lenses.
Antz ships with six fully integrated modules: *Animal Husbandry & Inventory*, *Animal Health*, *Diet Planning*, *Enclosure Management*, *Collection Planning* and an *Egg Log* for birds and reptiles.

From clipboard to tablet.
Supervisors carry ruggedised tablets (also available on smartphone devices) that cache data offline along the service route and sync the moment Wi-Fi/internet returns. A 7 a.m. note that a blackbuck left half its concentrate immediately pings the vet dashboard as a watch-item; a mid-round diet tweak is visible in the feed store before noon. The result: paperwork has fallen by roughly forty minutes per keeper shift while missed follow-ups have virtually disappeared.





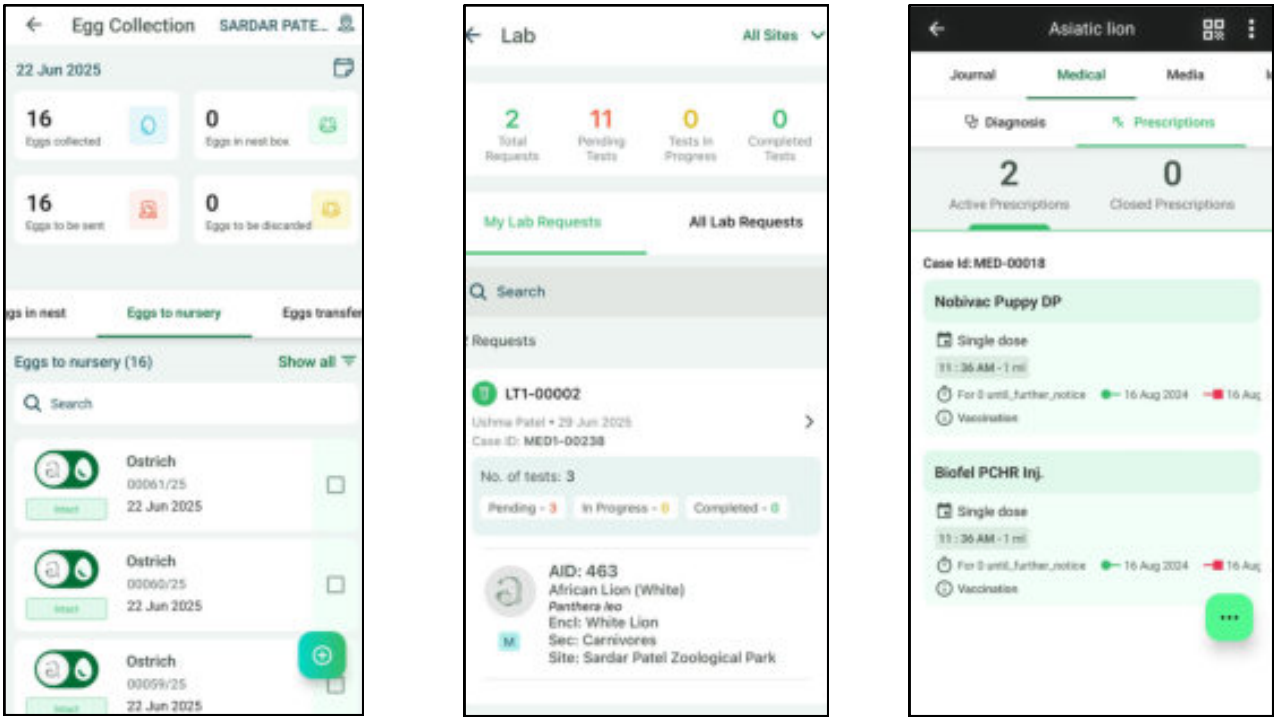
Antz Zoo Management Software for digitalized data maintenance.



Real time data inputs and data retrieval.

Health intelligence, not just records.

Within the Animal Health module every treatment, lab result and imaging file is date-linked to the individual's electronic record. Automated rules flag overdue vaccinations, build weight-trend alerts and send push notifications for repeat blood draws. For complex cases—e.g., pancreatitis in a jaguar—the full chronology is on-screen during morning rounds, letting clinicians spot patterns long before they become crises.



Interactive data points allow intuitive inputs and automated prompts for pending actions.

Looking ahead.

Sensors and CCTV on the same rail.

At SPZP Antz will be wired into the zoo's IoT backbone: enclosure thermometers, paddock humidity probes and CCTV analytics will funnel data into the same datastore as ration sheets and blood counts. Queries that once required manual collation—"Did gaur rumination drop on the three hottest days last July?"—will be answered in minutes and fed directly into enclosure cooling strategy.

Collection foresight.

Curators will be able to run genetic-diversity projections and capacity models inside Collection Planning, then push approved moves straight to the transport calendar. For e.g., the module will highlight ageing founders in the Himalayan goral group and flag sex-ratio drift in tufted capuchins, allowing remedial exchanges to be scheduled a year in advance.

33.1 Annexure 2: Animal-Enrichment & Management

Purpose and process

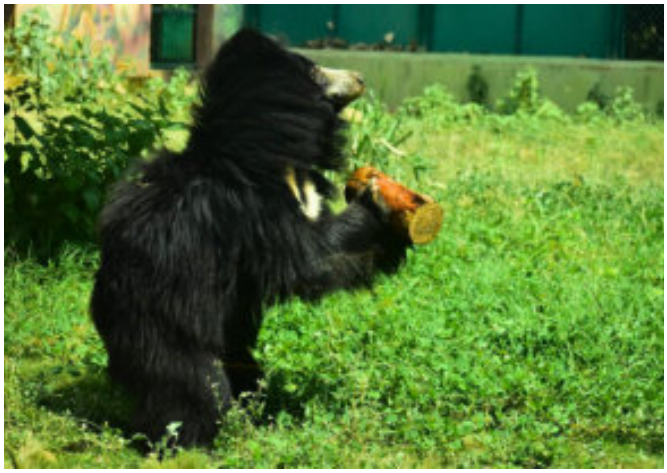
All enrichment at SPZP is planned, logged and reviewed by the Curatorial-Veterinary Enrichment Cell. Items are checked for safety and hygiene, matched to species ecology, and rotated on fixed calendars to prevent habituation. Keepers record each animal's response in both paper diaries and the zoo's digital log.

1 Carnivores

- **Feeding challenge** – hanging meat, bamboo basket hide-outs and buried logs encourage hunting and problem-solving; frozen meat cakes are offered in summer for cooling and prolonged engagement.
- **Olfactory exploration** – scent trails laid with chicken stock, herbs and fish water stimulate tracking and digging.
- **Play objects** – logs filled with honey and fruit for sloth bears; durable ropes, tyres and scratching posts for big cats.
- **Low-stress care support** – squeeze-cage desensitisation introduced to make medical handling easier.

Cognitive enrichment for a tiger using a hose pipe ball.

Sensory enrichment for jaguar.



Feed enrichment for sloth bear through bamboo pipe.

Leopard undergoing ultrasonography as part of regular health assessment.

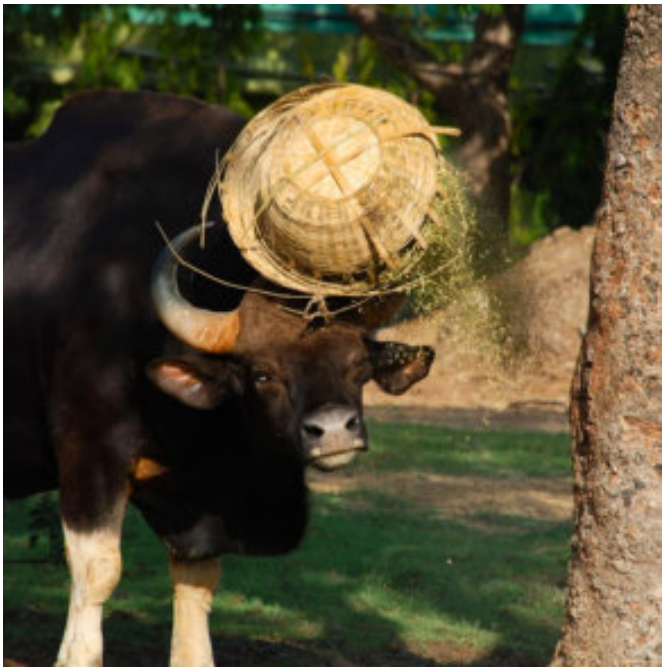
2 Herbivores

- **Vertical browse** – giraffe and other hoofstock fed from adjustable poles; browse refreshed twice daily.
- **Rotational grazing & scatter feed** – patch rotation for blackbuck, sambar and mixed deer paddocks; grain and legume scatter prolongs feeding bouts.
- **Mobile foragers** – rolling hay barrels, hanging lucerne nets and movable mineral-lick blocks stimulate movement in gaur and wildebeest.
- **Puzzle feeders** - novel feeding devices made out of hose pipes and ropes

Elevated feed presentation for Indian gazelle to encourage natural browsing behaviour.

Use of rolling pellet feed dispenser for feed enrichment in sambar deer.

Indian rhinoceros indulging in a fire hose puzzle feed enrichment.



Indian gaur showing enrichment based behavioural engagement.

3 Primates & Small Mammals

- **Cognition builders** – orang-utan and capuchin puzzle tubes requiring tool use; weekly rotation of PVC "spin-feeders" for squirrel monkeys.
- **Foraging layers** – coconut shells packed with meal-worms and diced fruit hung at varying heights for tamarins and lemurs; barrel feeders for coatis.
- **Landscape complexity** – new rope highways, barrel swings and elevated platforms in the enlarged capuchin-coati enclosure encourage arboreal travel.

Orang-utan exploring and playing with tree browse enrichment.

Ring-tailed lemur foraging for insects from a coconut shell.

South American coati exhibiting natural arboreal behaviour on rope and wooden structures.

4 Aviary Species

- **Perch architecture** – height-graduated wooden and bamboo perches; sway-ropes for macaws, hornbills and starlings.
- **Microhabitats** – dense live planting, misting lines and shallow pools create humidity pockets for tropical softbills.
- **Feeding variation** – concealed insect trays, fruit skewers and timed seed hoppers; disinfected nest boxes installed prior to breeding season.

Coconut pulp enrichment to support beak activity and nutritional requirements in macaws.

Alexandrine parakeets displaying natural pecking behaviour while feeding on corn-on-the-cob.

Large nesting colony of painted storks established under managed conditions in the Indian Aviary.

- **Substrate cycling** – sand, soil, leaf litter and cypress bark rotated monthly to encourage burrowing and aid ecdysis.
- **Thermal choice** – moveable basking slates and shaded retreats produce self-selected temperature gradients.
- **Olfactory enrichment** – scent-marking in enclosures motivate active explorations.
- **Novel feed items**

Sulcata tortoise munching on hibiscus flowers as part of dietary enrichment.

Indian rock python exhibiting natural exploratory behaviour in a well-enriched enclosure.

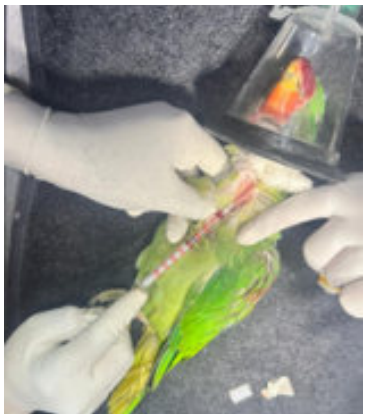
Green iguana resting in pond, displaying natural behaviour in a well-managed species-specific habitat.

33.2 Annexure 3: Veterinary Health Services

Over the past year Sardar Patel Zoological Park's veterinary unit has concentrated on three priorities: sharpening diagnostic capability, broadening preventive cover and deepening the culture of clinical learning. The hospital complex now operates as a fully integrated hub, with an aseptic theatre, gaseous-anaesthesia work-station, digital radiography and ultrasonography, an in-patient kraal block for large and small species, and a two-lane laboratory that handles haematology, biochemistry, cytology, culture-and-sensitivity and post-mortem work under a single roof. A dedicated quarantine wing enforces a 30-day intake protocol that screens every arrival for blood parasites, faecal pathogens and key zoonoses before a phased soft-release into the main collection.

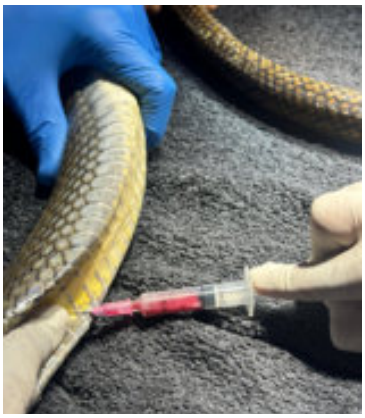
Preventive medicine remained the backbone of welfare. Core antigens—feline PCHR, canine DHPP-Lepto-Corona, ungulate FMD/HS/BQ, avian Newcastle–IBD and universal rabies boosters—were delivered according to titre or annual schedule, giving the park a total of **992 vaccinations** during the period. Endo- and ectoparasite pressure was tackled with **7,701 de-worming doses** and **299 acaricide applications**, each guided by routine faecal or skin scrapings. Biosecurity was tightened further: every keeper and vehicle now crosses a freshly charged disinfectant bath at each gate and the hospital block is fumigated with $KMnO_4$-formalin every six months.

Inside the laboratory **2,307 samples** were processed in-house, while **374 specialised assays**—PCR panels, vaccine-titre checks, endocrine screens and histopathology—were outsourced to reference centres. The extra surveillance paid dividends in speedier case resolution and a clearer parasite map for the collection.



Jugular venipuncture in Alexandrine parakeet for routine examination.

Ophthalmic examination of rescued shikra using slit lamp microscope.

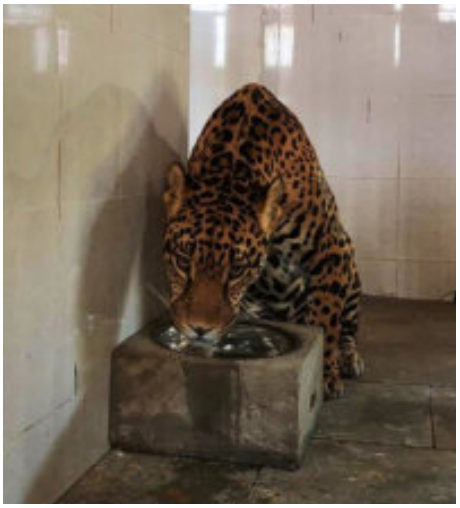


Intra-cardiac blood collection in an Indian rat snake for diagnostic purposes.

Veterinary Case Summaries — 2024-25

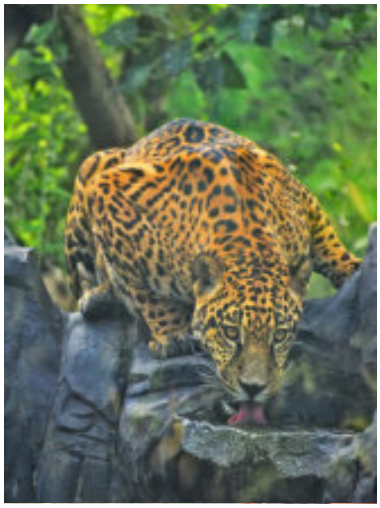
Acute pancreatitis in a jaguar.

- A male Panthera onca presented in midsummer with anorexia, intermittent vomiting and abdominal pain. Blood work showed a sharp rise in pancreatic enzymes and abdominal ultrasound confirmed oedematous change. Intravenous fluids, analgesia, anti-emetics and a cooled, low-fat diet reversed the crisis; normal appetite and weight were restored within three weeks.



Dull, lethargic and inappetent jaguar.

Intra-venous fluid therapy and supportive treatment for resolution of pancreatitis.



Animal back to healthy state.

Chronic hygroma in an Asiatic lion.

- A female Panthera leo persica developed a persistent, fluctuant swelling over the right hip. After conservative padding and anti-inflammatories failed, the hygroma capsule was surgically excised under injectable anaesthesia. Layered closure and padded bedding secured an uncomplicated recovery and the lion is now fully mobile.

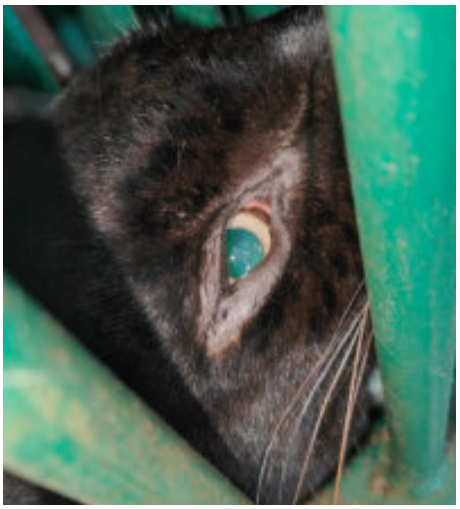
Surgical preparation of Asiatic lion under general anaesthesia.

Scraping off of exudative membrane of hygroma.

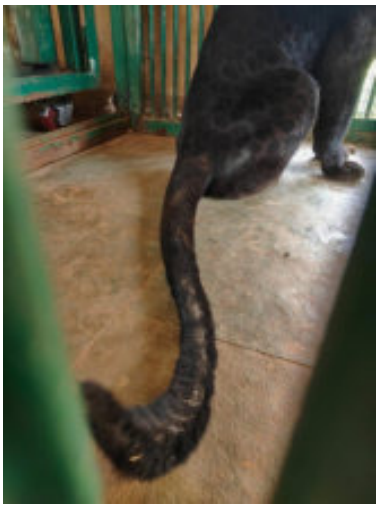
Closing of surgical wound and reversing the anaesthetic.

Trypanosomiasis complicated by dust-mite allergy in a melanistic leopard.

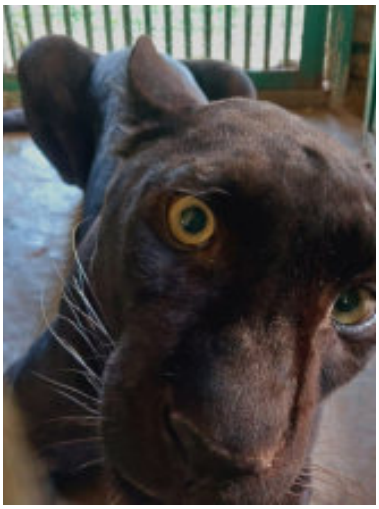
- A female Indian leopard showed lethargy, tail alopecia and pruritus. Blood smears revealed Trypanosoma parasites; intradermal tests pointed to a concurrent house-dust-mite allergy. Anti-trypanosomal therapy, antihistamines and full substrate replacement cleared the infection and the coat has regrown.



Alopecia and inflammatory changes around the eye giving spectacled eye appearance.



Alopecia and pyoderma.



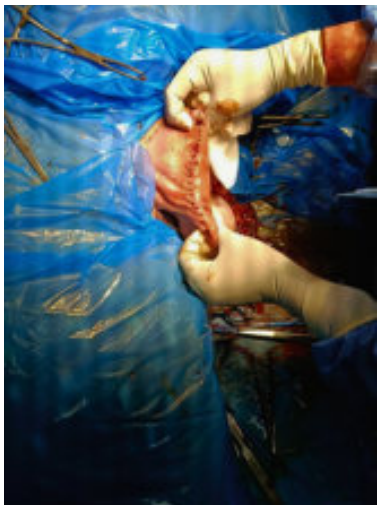
Normal hair growth around the eyes.

Dystocia in a spotted deer.

- An Axis axis female failed to progress after amniotic sac protrusion. Radiography under sedation confirmed a dead foetus lodged in the pelvic canal. Emergency caesarean removed the emphysematous calf; the uterus was lavaged and closed. The doe resumed feeding the next day and joined the herd after ten days' surveillance.

Dystocia in a spotted deer.

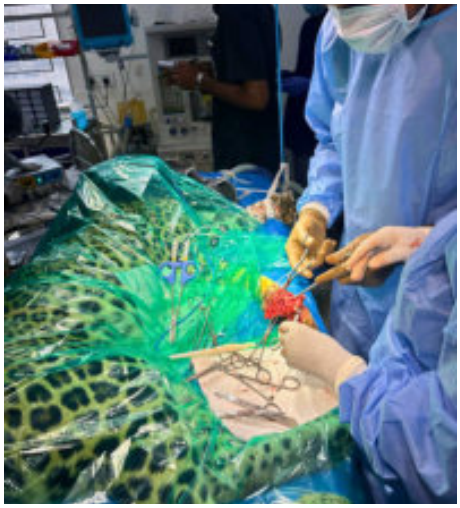
Removal of dead foetus during C-section.



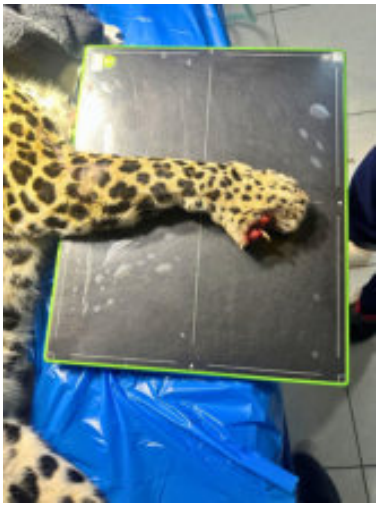
Suturing of uterine surgical incision during C-section.

Rhabdomyosarcoma of a leopard digit.

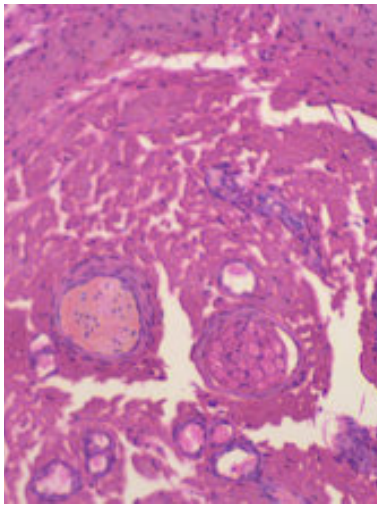
- A rescued adult leopard presented with a solitary swelling on the distal fore-paw. Imaging ruled out bone invasion; the digit and a 2 cm margin were amputated under gaseous anaesthesia. Histology confirmed rhabdomyosarcoma with clean margins and the cat was transferred to a forested rescue enclosure for ongoing monitoring.



Tumour removal under general and gas anaesthesia in a leopard.



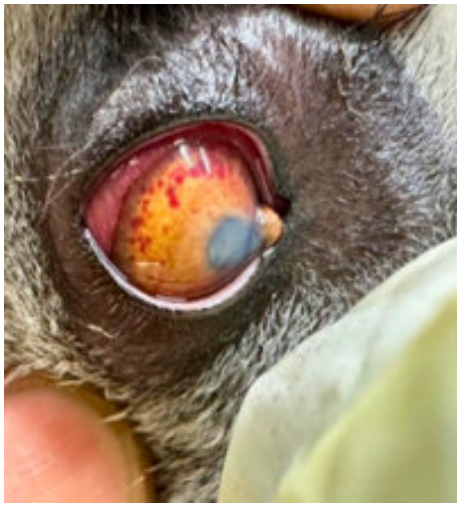
Radiographic examination of tumour-affected leg.



Rhabdomyosarcoma, proliferation of spindle shaped neoplastic cells exhibiting basophila and multinucleate stages, 40X H&E.

Iris prolapse in a ring-tailed lemur.

- Following intra-troop aggression a female Lemur catta suffered corneal perforation and iris extrusion. Under microscope a corneal repair and partial tarsorrhaphy were performed, allowing topical medication. Sutures came out on day eight; cornea healed with only a faint opacity and vision was retained.



Clinical examination of eye showing corneal perforation and iris prolapse.

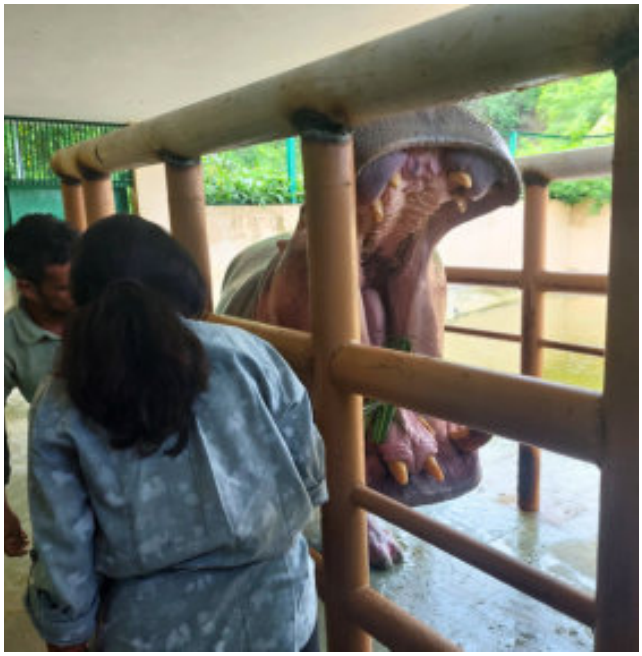
Corneal repair with partial tarsorrhaphy under general anaesthesia.

Cornea healed with restored vision.

33.3 Annexure 4: Positive Reinforcement Training for Management Purposes

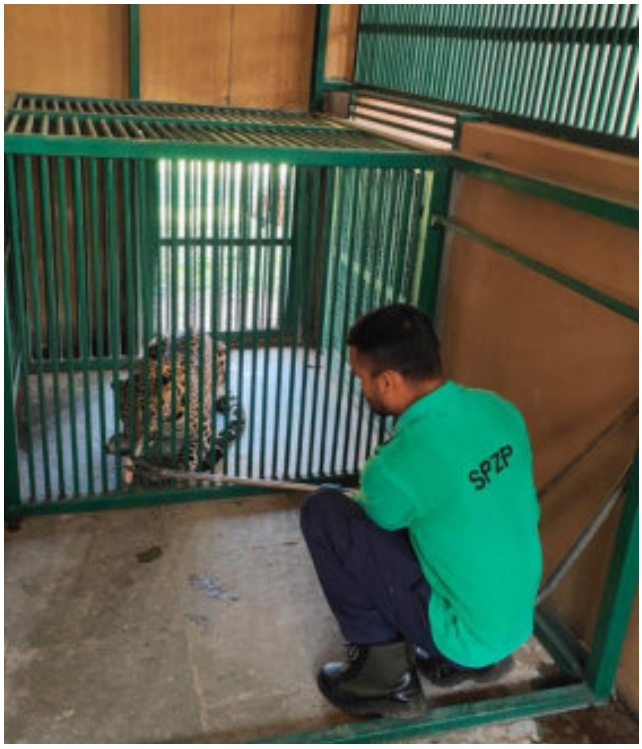
At SPZP, positive-reinforcement training is woven into the daily rhythm of animal care. Hippos and Indian rhinoceroses willingly open their mouths on cue—standing calmly while keepers scale teeth and irrigate gums—turning what was once a high-risk procedure into a routine dental check. Our Bornean orang-utan now slips an arm into a soft protective sleeve for voluntary blood draws, blood-pressure checks and intramuscular injections, eliminating the need for sedation. A leopard has been conditioned to step into a squeeze-cage and hold a steady "station" position, allowing close visual exams and body-scoring through the mesh. Rhinoceros iguanas accept gentle touch-targets for skin inspections and enter travel crates on signal, easing transfers between exhibits.

In the mixed-primate house, ring-tailed lemurs and red-handed tamarins respond to colour targets and perch marks, stationing for head-to-tail checks, diet supplements and weight recording without net capture. Because every behaviour is taught with food rewards, clickers and calm praise, the animals retain choice and control, staff safety is markedly improved, and early health problems are spotted well before they escalate—proof that training is as much a welfare intervention as it is a management tool.



Oral cavity examination of a hippopotamus as part of positive reinforcement training.

Positive reinforcement training of Bornean orangutan for routine veterinary healthcare procedures.



Leopard undergoing training for routine health examination checks.

Rhino iguana being station trained for routine weight measurement.

Reward-based training for close inspection of ring-tailed lemur.

Station training Red-handed tamarin for weight measurement through positive conditioning.

33.4 Annexure 5: Single-sexed Animals at SPZP

Sr. No.	Species Common name	Scientific name	Numbers T (M:F:U)
1	Indian wild ass	*Equus hemionus khur*	2 (2:0:0)
2	Nilgai	*Boselaphus tragocamelus*	1 (0:1:0)
3	Thamin deer	*Rucervus eldii*	3 (0:3:0)
4	Common hippopotamus	*Hippopotamus amphibius*	1 (1:0:0)
5	Giraffe	*Giraffa camelopardalis*	1 (0:1:0)
6	Plains zebra	*Equus quagga*	1 (1:0:0)
7	Bornean orangutan	*Pongo pygmaeus*	1 (1:0:0)
8	Cotton top tamarin	*Saguinus oedipus*	1 (1:0:0)
9	Common marmoset	*Callithrix jacchus*	1 (1:0:0)
10	Ring-tailed lemur	*Lemur catta*	1 (0:1:0)
11	Bat-eared fox	*Otocyon megalotis*	1 (1:0:0)
12	Common teal	*Anas crecca*	1 (1:0:0)
13	Northern pintail	*Anas acuta*	1 (0:1:0)
14	Asian koel	*Eudynamys scolopacerus*	1 (0:1:0)
15	Sarus crane	*Antigone antigone*	1 (0:0:1)
16	Bar-headed goose	*Anser indicus*	1 (0:0:1)

Sr. No.	Species Common name	Scientific name	Numbers T (M:F:U)
17	Gadwall	*Mareca strepera*	1 (0:1:0)
18	Indian pond heron	*Ardeola grayii*	1 (0:0:1)
19	Channel-billed toucan	*Ramphastos vitellinus*	1 (0:1:0)
20	Red-billed toucan	*Ramphastos tucanus*	1 (0:1:0)
21	Boa constrictor	*Boa constrictor*	2 (0:2:0)