



GOVT. OF BIHAR  
DEPARTMENT OF ENVIRONMENT,  
FOREST AND CLIMATE CHANGE

# RAJGIR ZOO SAFARI

N A L A N D A

ANNUAL REPORT  
2 0 2 2 - 2 3





L1 Asiatic Lion and L5 Asiatic Lioness



Raja, Leopard



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## TRANSFORMING VISION INTO REALITY: THE STORY OF RAJGIR ZOO SAFARI



### Dr. Gopal Singh, IFS

OSD to Chief Minister, Bihar  
Regional Chief Conservator of Forest, Patna,  
Cum-Chairman, Project Monitoring Committee,  
Rajgir Zoo Safari, Nalanda

### Brief Introduction:

It is a matter of great pleasure that Rajgir Zoo Safari, Bihar's first and only Zoo Safari, has been receiving an enormous response from visitors. Since its inauguration in February 2022, more than 5 Lakh visitors have visited this zoo safari, making it the main place of attraction for visitors across Pan India. The continued high visitor flow attests to the ongoing success of Rajgir Zoo Safari. Additionally, this eco-tourism facility is running in revenue surplus mode wherein the annual revenue collected is much more than the annual maintenance and operational costs. The animals are healthy and in good vigor due to the facilities developed for them in natural habitat. We are able to provide livelihood to more than 500 families directly and many more indirectly. The quality of the forest has also improved in recent years. All these signify that the design strategy with which Rajgir Zoo Safari has been developed has been successful in letter and spirit.

It gives great satisfaction to see that the project has come up very nicely as per the vision and design strategy against all odds and difficulties. Obviously, the execution of such a big project was the first of its kind and a new experience for the department. The primary vision behind the project was to create an internationally recognized wildlife ex-situ conservation facility. The beauty of this project is its location which is a near-natural habitat of native wild animals.



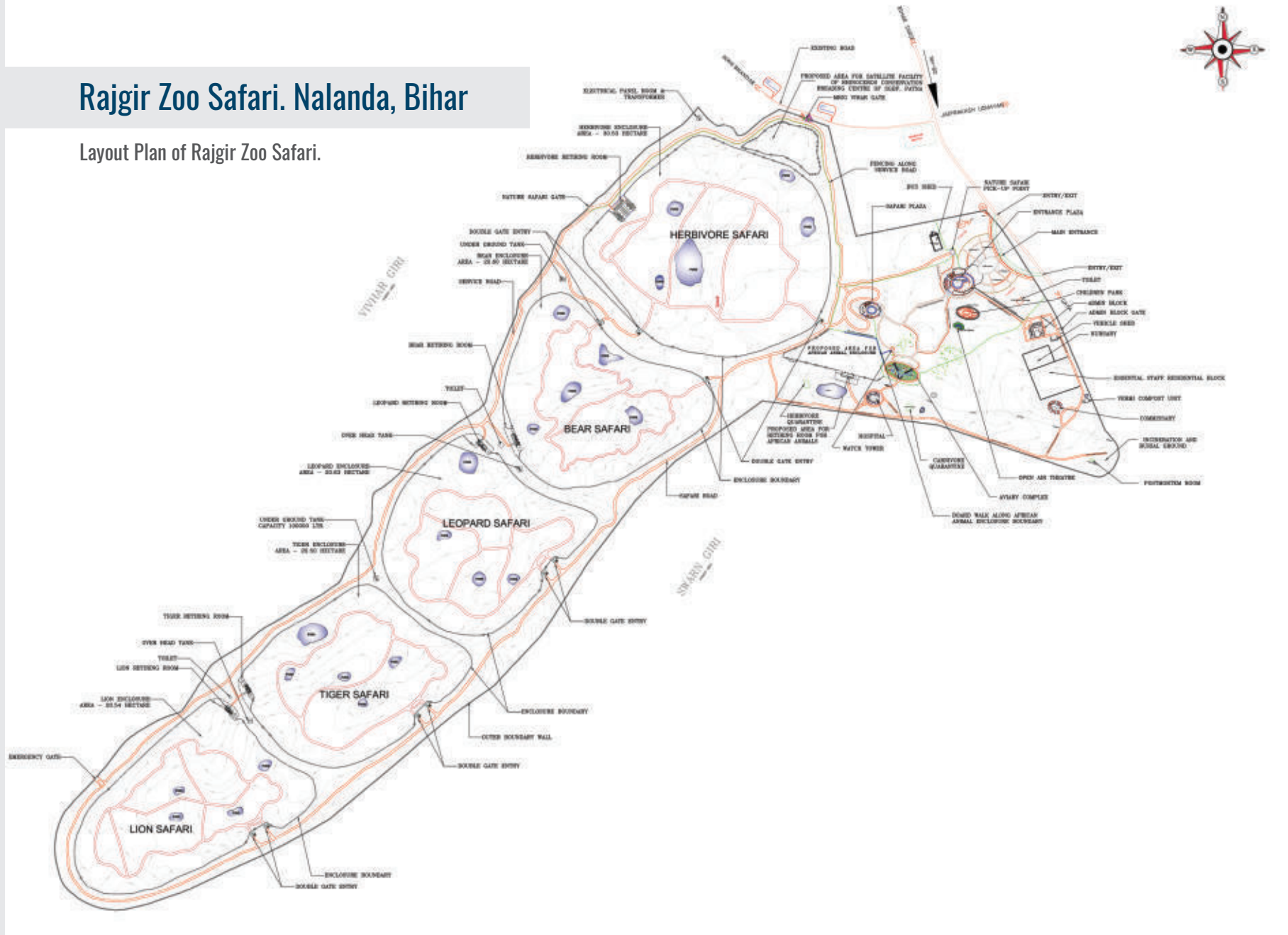
The main design strategy which we adopted is to use the best quality material which will make it a maintenance-free facility.

Rajgir Zoo Safari, which spreads over 191.12 hectares of scenic natural forest, surrounded by picturesque hills from two sides, is located near the historically and religiously important city of Rajgir in Bihar's Nalanda district. It is based on a unique idea where wild animals roam freely in a restricted forest area, and visitors can see them from a closed, secure vehicle.

The idea of developing a world-class eco-tourism facility in Rajgir started in 2008 when Shri Nitish Kumar, Hon'ble Chief Minister of Bihar, visited the erstwhile Mrig Vihar located in Rajgir during one of his frequent visits to Rajgir. Being an ardent supporter of the concept of forest and wildlife conservation, the Hon'ble Chief Minister had a vision of developing a state-of-the-art wildlife-based eco-tourism facility to spread awareness among the people of Bihar about nature and wildlife conservation. Being posted in the Chief Minister office for

# Rajgir Zoo Safari. Nalanda, Bihar

Layout Plan of Rajgir Zoo Safari.



considerably long time and also being in State Forest Department at different positions, as Conservator of Forest, Patna Circle and Regional Chief Conservator of Forest, Patna, I could connect with the vision that Hon'ble Chief Minister was having for this safari. Thus, I was fortunate to be involved in all stages of the development of Rajgir Zoo Safari, starting from its concept to its reality and currently in its successful operation.

Initially, it was planned to develop a zoo in Rajgir which would supplement Sanjay Gandhi Biological Park, Patna, in Southern Bihar and would also work as a rescue center for rescued wild animals, especially Sloth Bear and Leopard, etc. But, since a new concept of Safari was emerging at that time, it was decided to develop Bihar's first Wildlife Safari with international level facilities for wildlife and for visitors.

The initial designs provided by the consultant were very ordinary and were not tourist and management-friendly. Nor were the designs as per the expectations of the state Govt, which desired a safari of international standards. During my first field visit as in-charge, after the

responsibility of project execution was given to Patna region, it was noted that the area provided was not sufficient to cater number of tourists visiting Rajgir. The visitor zone was proposed to be constructed in low-lying water inundated area. There was no separate visitor reception area. Crowd management and tourist circulation was not considered in thoroughly. Contour were not considered while preparation of designs. Proposed area for parking facilities was not sufficient. Even for animal enclosures, the concept given by the consultant was to build this zoo safari in a rudimentary normal way, by constructing enclosures using normal MS chain link. There were practical issues related to the implementation of some of the ideas suggested by the consultant

Thus, it was decided that since this is a prestigious and dream project of the Bihar Government, the best resources need to be utilized in this project. We took a number of policy decisions at this point like,

1. The location and complete design of visitor zone was changed and it was decided to shift the visitor zone to area near main road. Now, the new design was prepared to cater to a minimum of 5,000 visitors a day and 1,000 tourists at a time by giving sufficient space at the entrance and by spreading the facilities at a sufficient distance, for effective crowd management. The design and facilities provided in the visitor zone were finalized to give the best visitor experience with modern facilities. The infrastructures at the reception zone were designed in an oval shape so that it will use minimum space to fit in maximum facilities. This will also ensure hassle-free movement of visitors, which visitors expect during such visits. It was decided to develop a stone wall with the use of local stones to give the entrance a historical look of Rajgir's Cyclopean Wall. Also, around 2 hectares of the area is provided for the parking of visitor's vehicles and local transportation vehicles.
2. It was decided to use the best quality material to make this facility maintenance-free. Hence, use of Stainless Steel solid bars for animal cells and GI chain link and poles for the enclosure boundary instead of rudimentary use of MS was proposed. This guaranteed a minimum of 20 years of maintenance-free enclosures.



Selfie point, which is very famous among tourists.

3. A comprehensive project plan was prepared including all components of zoo management and got fresh approval for the project from competent authority. Thus, now the project budget was increased to around 176 Cr. instead of earlier approved 59.64 Cr.

4. Citing visitor safety, it was decided to develop all-weather roads instead of the impractical solution given by the consultant to make roads with lime stabilization technique.

5. It was decided to use specially modified safari vehicles with enhanced window space to give maximum possible visibility to tourists.

6. During this period, some decisions were taken like the posting of the best human resource of State Forest Department for implementation of the project on-site. Thus, an energetic officer like Dr. K Nesamani, IFS was appointed as Divisional Forest Officer, Nalanda Forest Division. Dr. D. N. Singh, Retd IFS, and former Member Secretary, CZA were appointed as a wildlife expert for the project for necessary expert guidance in zoo designing. Later, finding that there is a need for a separate Director for Rajgir Zoo Safari to carry out its project implementation as per design, a young and dedicated IFS officer Hemant Patil was posted as Director, Rajgir Zoo Safari and as site incharge. He was fully dedicated to the work, focused on outcomes, and was always oriented towards effective solutions. His brilliant analytical and newly acquired technical knowledge enabled him to carry out assigned tasks with high efficiency.

The development of Rajgir Zoo Safari had to face a number of critical issues during its implementation phase. The issues were mitigated with the number of field visits and series of discussions. Some of the main issues that were faced during the implementation of the project were:

1. **Undulating Topography of the area:** The area proposed for Development of Rajgir Zoo Safari is highly undulating in nature with close contours. This undulating terrain created gaps in proposed drawings and actual work site conditions. Thus, on-site decision in making was necessary at each difficult site, after inspection of the site every time. This stretched the project implementation timeline.

2. **Diversity of Work:** Development of Zoo Safari was highly specialized

work which varied from the Wildlife health and nutrition management to the provision of international level facilities to the tourist for better operation and management of the safari. Thus, at one time, all these works were going on, which required manpower of that extent.

3. **Lack of experience for Construction agency** to carry out wildlife-related work led to constant orientation and sensitization of the construction agency and field workers, to make them understand that life of tourists, animal keepers and animal depends upon the strength and standard of work. Thus, carrying out constant field visits was necessary to ensure that the work is of high standards as per required specifications.

4. **Covid-19** hampered the speed of the development work with the upsurge of Covid-19 since March 2020. It was difficult to get sufficient manpower and ensure a smooth supply of necessary construction material for the work during the first and second waves of Covid.

## **Rajgir Zoo Safari: Design Strategy & An Overview**

Rajgir Zoo Safari, which spreads over around 191 Ha of forest land, is divided into three zones namely, Safari Zone, Reception & Orientation Zone, and Management Zone.

### **Design Strategy**

The Rajgir Zoo Safari has been designed with the vision of the Hon'ble Chief Minister, Bihar, to provide better facilities to the wildlife and for better wildlife management. In this light, efforts have been made to create maintenance-free facilities with a major emphasis on the health and hygiene of animals housed in Rajgir Zoo Safari. Also, safety and security of the animals as well as animal keepers have been given paramount importance with consideration of very minute details in addition to the norms and guidelines established by the Central Zoo Authority. The effort has been made to retain the natural forest

landscape and to give maximum possible space to the wild animals, which makes this safari unique. It also provides near-natural habitat to the wild animals housed here.

### Reception and Orientation Zone:

Different factors like possible visitor count at one point, crowd management techniques, cultural and religious importance of the area, natural landscape available, orientation of visitors, single-directional visitor circulation, and future scope of expansion were considered during the development of this zone. Each and every facility is constructed after giving detailed thought about present and future requirements. The facilities were decided to be constructed merging the natural landscape. With the thought of interpreting the visitors especially children at the entry point itself, life-size bronze statues of the animals to be shown inside are depicted in the reception area. Sufficient landscaping area is provided for crowd distribution. Sufficient parking facility has been created to cater the parking demand in the next 20 to 25 years.

The decision of keeping two different plazas was taken for effective distribution of visitors and to avoid overcrowding at any one particular area. Sufficient signages are placed at different locations to help and guide visitors. A sufficient number of washrooms are available for the visitors. Government guidelines for making facilities differently-abled friendly have been followed with letter and spirit while developing these facilities. Other facilities like children's park, open theatre and aviary have been widely spaced. The finishing material like ceiling, flooring, etc. used in creating these facilities are used as per surrounding forest landscape. Each and every aspect of tourist management is being considered while the construction of this visitor zone.

Entrance plaza is kept bigger with maximum facilities. Facilities like Ticket Counter, Interpretation Centre, 180

Degree theatre and washrooms are available in Entrance Plaza. Sufficient use of technology is ensured keeping in view the children and their liking towards audio-visual means of learning. Facilities like Animal information videos, Digital butterfly zone, Shapatha Stambha, Rotoscope, 180-degree theatre and online ticket booking were included as a part of IT facilities that are made available to the visitors.

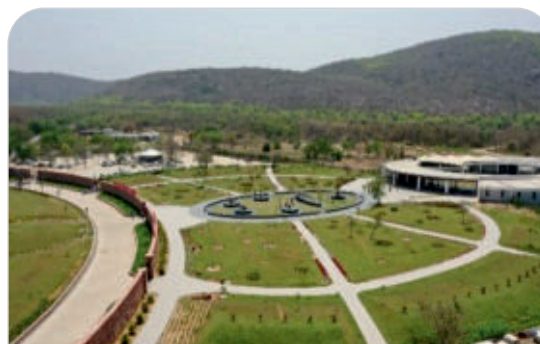
For effective tourist management, the state-of-the-art control room has been developed for better control and coordination among staff as well as for better tourist and wildlife management. The complete area is under CCTV surveillance to ensure effective crowd management. Multiple communication methods in the form of intercom, Wireless base stations are created to coordinate with this control room. Facility of Zonal Public announcement for different Zones is provided for dedicated announcements and public address.



Aerial view of Reception and Orientation Zone



Ticket Counter with corridor covered with tensile structure



Reception Area



Digital Butterfly Zone

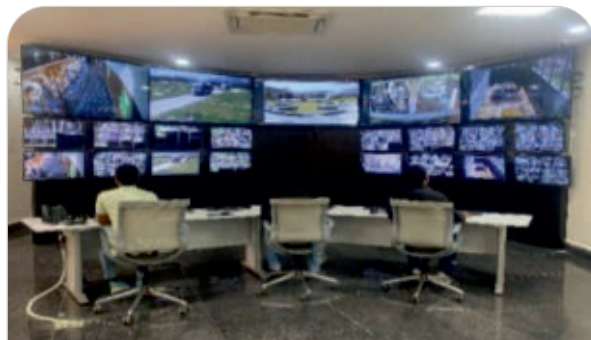
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The entertainment of the tourists has also been taken care of by developing a 180 Degree theatre, which is itself a unique feature of Rajgir Zoo Safari. Facilities like Children park and open theatre are also provided in the reception area for kids.

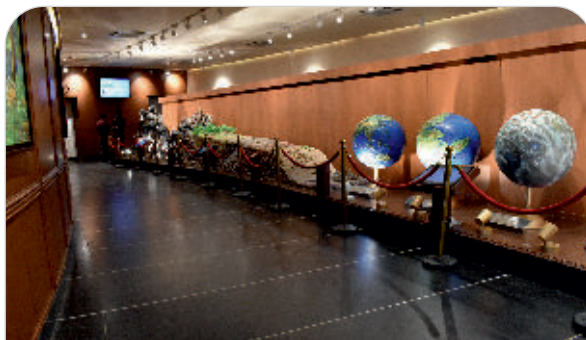
The interpretation center not only gives information about the animals housed in the safari, but it also gives information about other concepts related to the evolution of the earth, the evolution of human beings, as well as the theory of ecological succession in addition to the animal information. The poster series on the wall gives information about the Forest, Wildlife, Forest and Human co-existence, Hazards like habitat fragmentation, forest fires, oil spills and its effect on wildlife, Effect of climate change and Role of Forest department in mitigation and conservation role.

Safari plaza is planned in such a way that all the tourists are oriented before boarding the safari buses. Thus, an orientation room is developed, where basic information about the animals housed in the safari and facilities being provided as communicated along with dos and don'ts to be followed during the safari. There is one-way circulation of safari bus with different pickup and drop points.

The safari vehicles used in Rajgir Zoo Safari are specially modified vehicles. These are AC vehicles with enlarged viewing glass in sides, which help tourists sitting on aisle seats sufficient visibility. Tourist safety has been kept at the highest preference while modifying the vehicles. CCTVs have been installed in each vehicle for constant vigil on tourists. TV screens along with PA systems have been provided to give information to tourists. Specially trained guides are available in each bus to give information about the animals and to answer queries of visitors.



Control Room



Interpretation Center



Orientation Hall



3D 180 Degree Theatre



Interpretation Center



The Safari Vehicles

## Safari Zone:

Rajgir Zoo Safari has five different safaris namely Herbivore, Bear, Leopard, Tiger, and Lion Safari. Enclosures of all the animals including their retiring rooms have been constructed as per CZA norms and guidelines and have been widely appreciated by CZA officials as well as other wildlife experts working in in-situ and ex-situ conservation of wild animals.



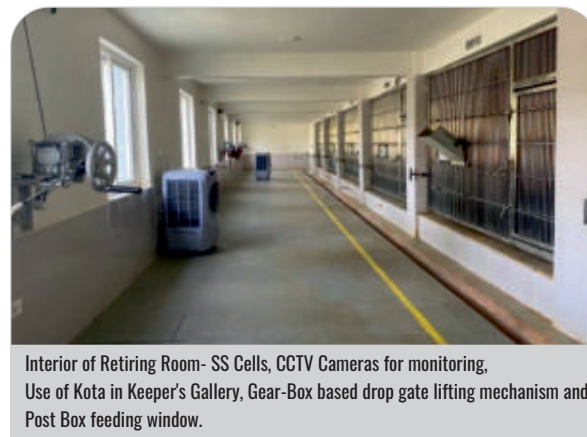
This safari has a natural forest which has the advantage of providing near-natural habitat to wild animals and hence can be seen in good health and vigor. Thus, to capitalize on this resource, strict efforts have been made to make minimum intervention in alteration of the natural vegetation and terrain while carrying out the construction work.

The animal displayed in Herbivore Safari includes Sambhar, Chital, Hog Deer, Barking Deer and Blackbucks. There are sufficient numbers of Sloth Bear, Leopards as well as Tigers and Lions for better sighting of these wild animals.

Considering the extreme climatic conditions of Rajgir and for better wildlife management, a sufficient number of windows and ventilators have been ensured for proper ventilation and sunlight in the retiring rooms. UPVC Glass windows have been used for proper sunlight. It has been made eco-friendly with the use of Solar rooftops and solar water pumps to negate the dependency on the regular power supply.



Sufficient number of windows for ventilation in Retiring room.



Interior of Retiring Room- SS Cells, CCTV Cameras for monitoring, Use of Kota in Keeper's Gallery, Gear-Box based drop gate lifting mechanism and Post Box feeding window.

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Use of 304-grade mat-finished stainless steel to fabricate cells, use of rough-surfaced Kota stone on flooring for easy cleaning, U-shaped open drainage for water-free drain, specialized post-box style feed windows with sliders, specialized gear box-based drop gate lifting mechanism with the facility of break system, Stainless steel transportation cages, portable squeeze cages, preinstalled weighing bridges in each retiring room, separate Keeper room with CCTV monitoring facility, store room etc are some of the best practices adopted while developing the retiring rooms for animal well-being as well as to ensure the safety of animal keepers.

Sufficient numbers of Kraal have been provided as per CZA guidelines with evergreen trees for shade, bigger ponds and Wooden Machans. The area of the Kraals has been kept sufficiently larger for animals to stroll and to adjust the big trees that were already present in the area. Wastewater treatment facility is installed in each retiring room to reuse the water for plantation.

The specially developed Tata GI chain link and GI poles have been used in enclosure boundary to make it maintenance-free and to avoid the problem of breach of enclosure due to rusting etc. The roads are kept sufficiently wide so that any emergency situation like rescue or fire emergency can be easily handled. Most of the roads are murram roads to maintain the feel of natural wildlifesafari.

The double gates are designed with sufficient length, width and height. The gates are motor operated. The operator room has glass window on three sides for better visibility. CCTV monitoring is carried out to keep constant watch on animal movement near double gates. Additional emergency gate is provided in each enclosure.

Habitat enrichment work of enclosures as per the special need of the particular wild animal has been carried out. Works like plantation of mixed species and fruit-bearing species, removal of weeds, creation of new grasslands and maintenance of old grasslands are being carried out in the herbivore enclosure. The widening and enrichment of water bodies has been ensured along with soil and moisture conservation work to reduce the speed of water and to retain maximum rainwater in natural ponds.



Outer Boundary along with Enclosure Boundary and Roads.



Larger Kraals for animals.



Herbivore Double Gate with theme of "Nalanda Ruins".



Kraal with shade, Machan and pond.



Natural Pond in Herbivore Safari with check dam



## Wildlife Healthcare and Nutrition Facilities

Generally, in zoos, the management zone of the zoo is a neglected part being out of visitor's reach. While construction of Management Zone of Rajgir Zoo Safari, equal importance is given in deliberation and thought process as is given for Safari and visitor zone. The healthcare facilities developed here namely Wildlife Hospital, Commissary, Quarantine facility and Post Mortem Hall, were designed based on its effective utilization and keeping in mind its impact on the health of wildlife. The locations of these facilities are such that they are neither too far nor too close to each other. Factors like sunlight, ventilation, ease of operation, and maintenance are considered while developing management zone facilities.



Aerial view of Hospital Building

### Hospital:

Rajgir Zoo Safari has a state-of-the-art hospital spread in around 785 sq. mtrs. with modern machineries for diagnostic, treatment and necessary facilities to carry out any major operation.

The hospital building is divided into two parts with both parts facing each other. One part is of the animal treatment section comprising the Operation theatre, X Room, Observation room, Ultra sound room, Nursery for Hand rearing, Cells and Kraals to be used to house inpatient animals. These rooms are interconnected to each other for easy movement of wild animals for diagnostic and treatment. The other part of the hospital is concerned with the administrative part of the hospital with facilities like Lab, Pharmacy, Staff Rooms, and Store Rooms. These facing wings of the hospital will help in easy monitoring of the animals under treatment in the hospital as well as hand-rearing in the Nursery. CCTVs have been installed in all rooms especially in-patient ward cells and Kraals to keep 24x7 watch on animals being treated thus avoiding unnecessary human interaction with them while monitoring of animal under treatment.

Sufficient greenery is ensured in and around the hospital. The orientation of the Hospital building is kept in such a way that sufficient natural sunlight is provided to the animals kept in the kraal. Also, better aeration in the building has been ensured.

The medical equipment and facilities available in Wildlife Hospitals are of international standards and have been seen very helpful in the treatment of animals especially old aged and rescued injured animals.



Kraal facility (East facing) in Hospital Building

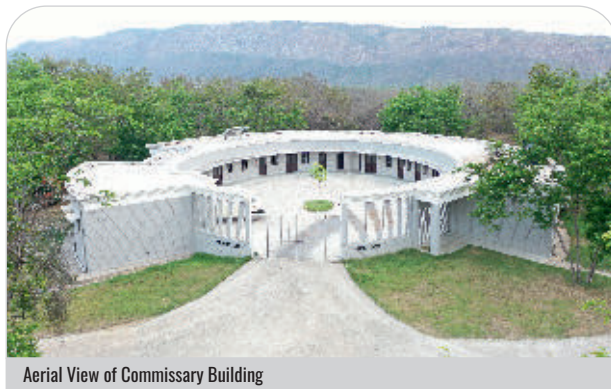


## Commissary:

Commissary building of the Rajgir Zoo Safari has separate Veg and Non-veg sections and they have been separated from each other within the same building with sufficient distance between the two.

The Non-veg section has a facility of cold storage of feed, along with beef preparation room and fish and chicken preparation room. Also, veg section store has sufficient space to store minimum 15 days of ration in case of any emergency situation. The veg section of the commissary has separate mash store, fruit, vegetable and dry ration store, Kitchen along with staff room and office.

There is a separate weighing bridge for weighing of the feed brought by heavy vehicles. Also, grass storage shade has also been constructed at a distance from commissary to avoid rat menace. The facility of entry of heavy vehicles is also provided in the central courtyard of the commissary. Also, a closed delivery vehicle is used for supply of non-vegetarian food material.



Aerial View of Commissary Building



## Quarantines and Postmortem:

The separate quarantine facilities for Herbivores and Carnivores have been created inside management zone to cater transferred as well post-treatment recovery of the animals during their prescribed quarantine period.

A separate postmortem facility with sufficiently large postmortem room as well as sample collection room has been constructed along with a glass wall facing the sunlight. A sufficient number of windows have been provided to ensure proper aeration of the room to keep the postmortem room dry.



Aerial view of Carnivore Quarantine



## Administrative Block and Emergency response measures:

The administrative block with conference hall and a separate building for research and monitoring work has been strategically located so that officials can reach reception zone and other facilities of management zones like hospital, commissary as well as safari zone in minimum time for their routine management work as well as in case of any emergency. Dedicate fire tenders, high rise emergency vehicle and ambulance along with rescue vehicle are procured by safari management to reduce response time in case of emergency and to reduce the impact of any sort of emergency.

Other facilities like emergency response equipment, electrical and solar systems are in place according to need. Waste disposal systems in form of Vermi compost units, waste water treatment plants are operational and bio-medical waste is being disposed of through the authorized agency for incineration of these waste.



## Present and Future:

It is satisfying to see that we are able to operate and maintain this safari not only as per our expectations but it is also being appreciated by local as well as international tourists visiting Rajgir Zoo Safari.

Rajgir Zoo Safari is providing employment to more than 500 families directly and much more indirectly. New hotels and restaurants are coming up after the start of Zoo Safari. The greenery of the area is increasing and positive changes have been seen in the ecology of the area, which is evident from the fact that Sal regeneration can be seen on the foothills and is increasing uphill eventually.

The main challenge for any high standard facility, once created, is its effective maintenance and operation. The response of the visitors to Rajgir Zoo Safari has been tremendous and the responsibility now shifts to keeping these facilities neat, clean and operational. More than two thousand visitors along with school children visit Zoo Safari premises every day. Thus, the team of Rajgir Zoo Safari is working constantly to live up to the expectations of visitors. The development of facilities like Souvenir shop etc. is under process. Such facilities need constant up-gradation to come true to the expectations of visitors.

Apart from visitor management, Rajgir Zoo Safari is in nascent stage considering wildlife management part. Future plan involves active Lion and Tiger breeding efforts to supplement in-situ conservation initiatives of Bihar Government. Creating satellite facility of One Horned Rhinoceros and Ghariyal Breeding Conservation Centre of Sanjay Gandhi Biological Park, Patna is in pipeline. Efforts are needed for carrying out research and outreach activities to convert itself into center of excellence in Wildlife Research.

The Government of Bihar is committed and working for the conservation and protection of the natural resources of the State with active participation of the people. The Rajgir Zoo Safari is yet another step of the Government of Bihar for awareness and education of the masses to conserve, protect, preserve and live in harmony with nature.

### Dr. Gopal Singh, IFS

Regional Chief Conservator of Forest, Patna

-cum-Chairman, Project Monitoring Committee, Rajgir Zoo Safari.



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Raja, Leopard



## 1 REPORT OF THE OFFICER-IN-CHARGE:



**Hemant Patil, IFS**  
Director,  
Rajgir Zoo Safari, Nalanda

It has been a matter of immense pleasure to state that year 2022-23 has been a great year for Rajgir Zoo Safari. After its dedication to the public by Hon'ble Chief Minister, Bihar on 16th February, 2022, the year 2022-23 has been Rajgir Zoo Safari's first complete financial year when Rajgir Zoo Safari has been operated and was open for tourists. Being a new concept in Bihar and being first such Zoo Safari in the state of Bihar, it was a matter of challenge for the Zoo Safari administration to successfully operate the tourist facilities and to carry out wildlife management throughout the year in different seasons, without any hurdle and difficulty. It was also felt needful to see whether this concept of Zoo Safari is liked and well taken by the tourists or not. It was very satisfying that there has been massive response from the tourists from its first day, not only from Bihar, but from different states of the country. Around 5 lakh tourists visited Rajgir Zoo Safari during this year. Rajgir Zoo Safari is blessed with vast floral, faunal, avifaunal and butterfly biodiversity with picturesque hills from all sides. Thus, the concept of seeing the wild animals in their near natural habitat has got tremendously good response from the nature and wildlife appreciators.

The facilities provided in the reception zone of the safari area, the concept of use of audio-visual mode in the interpretation center, orientation center, 180-degree theatre and shapath stambha were appreciated by the tourist specially by the students. The specially modified vehicles with larger view were also appreciated by the tourist especially by those tourists who has visited other safaris in the country. In this year, we also started facility of online ticket booking for the tourists, so that they can book their safari as per their convenience.

The year was also very good from wildlife and wildlife health management point of view. Births in herbivores species were reported during this year. One rescued Sloth Bear with difficulty in standing and movement of its hind legs was successfully treated during this year to the extent that it has started walking normally. One old male tiger of 17 years of age suffering from epileptic seizures was also treated and saved during this period. It has been a matter of satisfaction for the Rajgir Zoo Safari that because of the facilities available in its wildlife Hospital, the wild animals rescued from different parts of Bihar and in need of urgent treatment, are now sent to the Rajgir Zoo Safari for their better treatment and health. It also was a matter of pride for the State Forest Department that representatives from different Zoos and protected areas of the country, trainees of different Forestry Training Academies are visiting to this Zoo Safari to know about the practices being adopted and facilities provided.

We would like to express our heartfelt gratitude to Sh. Nitish Kumar, Hon'ble Chief Minister, Bihar whose vision and constant guidance has been driving force in conceptualization and development the Rajgir Zoo Safari with facilities of international standards. We express our deepest regards to Hon'ble Minister, Department of Environment, Forest and Climate Change, Bihar for his constant support and guidance.

We would also express our sincerest regards to Sh. Dipak Kumar Singh IAS, Additional Chief Secretary and Sh. Arvind Kumar Choudhary IAS, Principal Secretary, Department of Environment, Forest and Climate Change, Bihar; Shri Ashutosh IFS, Principal Chief Conservator of Forest (HoFF), Bihar; Shri P K Gupta IFS, Additional

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Principal Chief Conservator of Forest (Wildlife)-cum-Chief Wildlife Warden, Bihar, all officials of Bihar Forest Department and Sanjay Gandhi Biological Park, Patna for their constant and continuous support and guidance. We would also like to express our deepest regards to Dr. Rameshwar Singh, Vice Chancellor, Bihar Animal Sciences University, Patna; Dr. J K Prasad, Dean, Bihar Veterinary College, Patna, and all the staff and faculty of Bihar Veterinary College, Patna for their continuous technical assistance and cooperation.

Our heartfelt thanks to Dr. D. N. Singh, retd IFS who has been a constant source of inspiration. His undisputed knowledge and experience in the field of Designing and Management of Zoo and his words of wisdom has played key role in development and scientific management of this Safari.

The continuous and unconditional support, guidance and motivation of Dr Gopal Singh, IFS, Regional Chief Conservator of Forests, Patna has been a major driving force behind all the work done in Rajgir Zoo Safari and in creating this safari of international standards. We express our heartfelt gratitude to Sir.

We sincerely express our gratitude to Central Zoo Authority, the MoEF&CC for their kind support and cooperation.

We thank all our esteemed zoo visitors for their continued love to Rajgir Zoo Safari. Their feedback helps us make ourselves better.

Rajgir Zoo Safari is all about teamwork. We would like to extend our sincerest gratitude to Dy Director, Veterinary Officers, Range Officers and all the staff of Rajgir Zoo Safari for their discipline, dedication and hard work.

### **Hemant Patil**

Director, Rajgir Zoo Safari, Nalanda



## 2 HISTORY OF THE ZOO

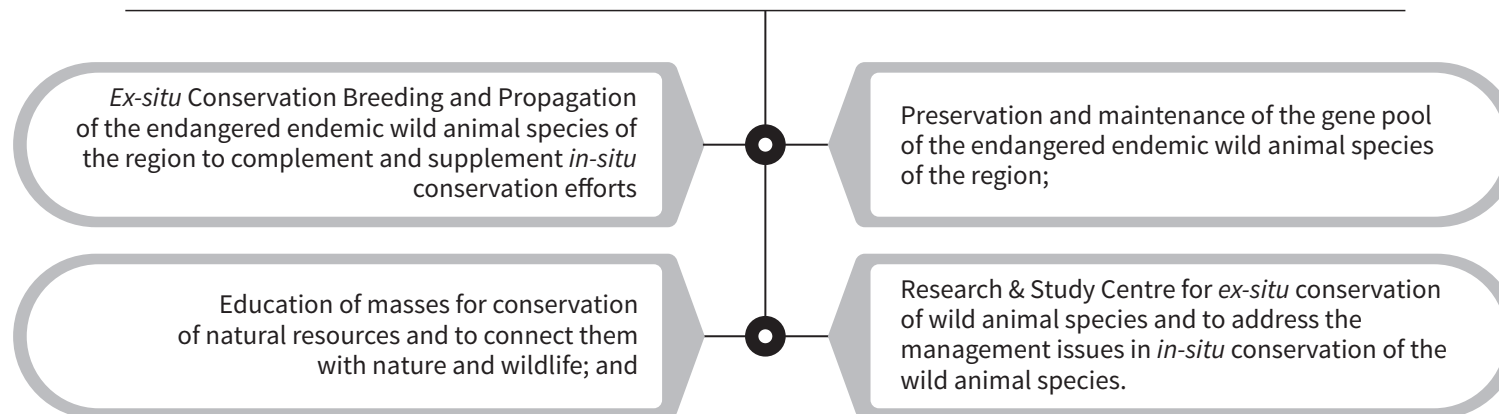
The Rajgir Zoo Safari is first Zoo Safari in the state of Bihar. It has been established in Rajgir Wildlife Sanctuary area by extending the earlier Mrig Vihar. After getting necessary approvals for its establishment from National Board of Wildlife in March 2015, it got its in-principal approval from Central Zoo Authority in May 2017. On 16th December 2020, Rajgir Zoo Safari got recognized as a Zoo by Central Zoo Authority and has been opened for public since 20th February 2022 after its inauguration by Hon'ble Chief Minister, Bihar on 16th February, 2022.

Spread in 191.12 hectare of area and blessed with vast floral and faunal biodiversity, currently there are five different safaris in Rajgir Zoo Safari namely, Herbivores Safari, Bear Safari, Leopard Safari, Tiger Safari and Lion Safari. Rajgir Zoo Safari houses 10 species of wild animals namely Asiatic Lion, Royal Bengal Tiger, Leopard, Sloth Bear, Sambar, Spotted Deer, Hog Deer, Barking deer, Blackbuck and Nilgai.



### 3 VISION

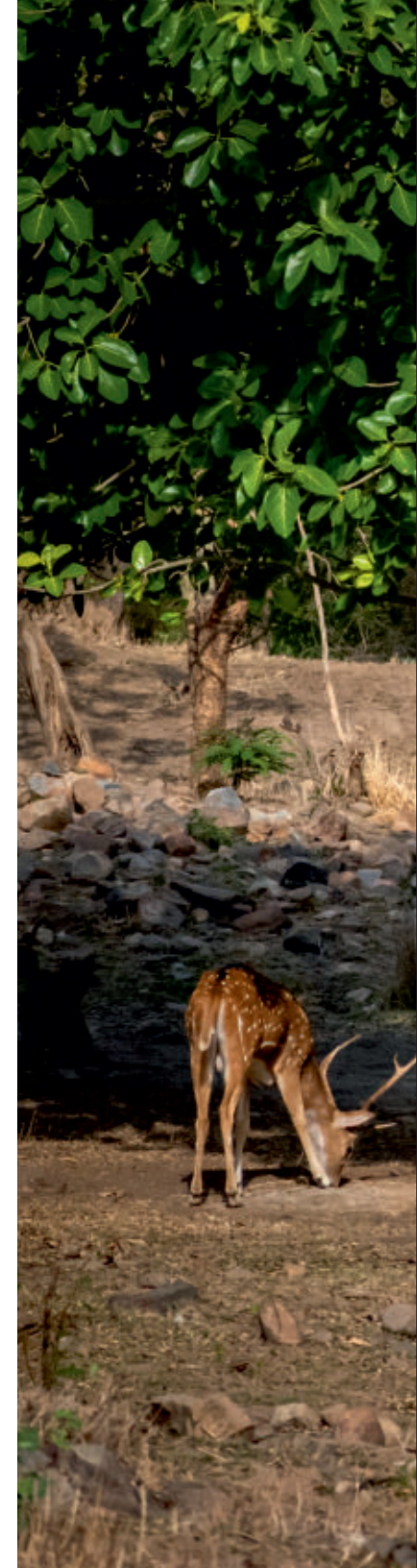
The Rajgir Zoo Safari has been set up by the Government of Bihar as a scientific institution for



### 4 MISSION

**THE MISSION OF THE RAJGIR ZOO SAFARI IS**

- To complement, supplement and strengthen the national and international efforts for *in situ* conservation of endangered wild animal species with the knowledge, practices, resources and support from *ex-situ*;
- To develop a scientific institution for research and study on captive wild animal species (*ex situ*) in the field of wild animal ecology, biology, physiology, behavior, housing, feed & nutrition, enrichment, veterinary health care etc. to aid in *in situ* scientific management of wild animal;
- To display visitors the captive wild animal species in their natural habitat, while maintaining their genetic diversity and biological diversity of the locality; and
- To develop amongst the masses compassion, empathy and caring attitude towards the wild animal species and encourage and motivate them to work for and support the cause of conservation.



## 5 OBJECTIVES

The main objective of the Rajgir Zoo Safari is to complement, supplement and strengthen the national efforts in conservation of the rich biological diversity of the country, by conservation and preservation of the national and regional endangered species of the wild animals with active support, participation and involvement of the masses in the conservation actions, activities and programmes.

The aforesaid objective of the Rajgir Zoo Safari would be achieved through implementation of the following measures:

### WILD ANIMAL HOUSING & DISPLAY:

- To display and house captive wild animals in a safe, secure, proper and appropriate species-specific natural habitat or near natural environment.
- for housing and upkeep of the captive wild animals.
- To provide the captive wild animal species appropriate and proper species-specific housing, with special care and emphasis on their adequate and sufficient feed and nutrition, proper health care, hygienic & clean environment, adequate space to display their various natural behaviors, appropriate enrichment to fill up the gaps in their natural activities and behavior compared to their natural habitat, their natural social groupings & opportunities for reproduction etc.
- To give utmost importance to the animal welfare measures.



### CONSERVATION BREEDING OF ENDANGERED SPECIES:

- *Ex-situ* captive breeding of endangered wild animal species under a planned conservation breeding programme with special focus and emphasis on the endemic species of the region and their future requirements in the wild.
- Captive breeding programme for endangered species to be carried out in accordance with the protocol for rehabilitation of this species in the wild, if required, to supplement the wild population.
- Captive breeding, housing and upkeep of the endangered wild animal species to be carried out in a manner with least human imprints on them to ensure their adaptation and safety in the wild habitat, as and when released in the wild.
- Ensure and maintain scientifically laid down genetic diversity in the captive population of the wild animal species housed.

### RESEARCH & SCIENTIFIC STUDY:

- Establish and maintain a modern, sophisticated, and well-equipped facility for scientific research and studies on the wild animal species in ex situ conditions to enhance the scientific knowledge about ecology, biology, physiology, behavior, housing, feed & nutrition, enrichment, veterinary health care of wild animal species to aid in scientific management and conservation of wildlife.
- Carry out applied research and studies in collaboration with the in-situ managers to address their field problems and issues to assist them in the scientific management of the wild animal species.

### CONSERVATION EDUCATION AND AWARENESS:

- Conservation education, awareness and interpretation programme should aim to target the general public from different strata and sections of the society, covering all age groups and belonging to diverse backgrounds and groups.
- Conservation education, awareness and interpretation programme should aim to enhance the knowledge of visitors and make them aware about necessity and importance of conservation, preservation and sustainable use of natural resources, including floral and faunal diversity and importance of maintaining the ecological balance.
- Conservation education, awareness and interpretation programme should aim to develop compassion and empathy for wild animals among the visitors to inspire them to actively participate and join the programmes and efforts for conservation of the natural resources.
- Provide visitors all necessary and basic facilities to ensure comfortable, hassle-free and satisfying visit.

### RESCUE AND REHABILITATION:

- For rescue of the wild animal species, provide species-specific appropriate and proper equipment & accessories for their capture, restrain and transportation with minimum stress and injury to them and they should be safe and secure for the human beings.
- Provide appropriate, adequate and proper species-specific housing, upkeep and veterinary care facility for their care in captivity and rehabilitation in the wild.
- Arrange enough resources, space and facility to cover all rescued wild animal species that may be old, infirm, sick, injured, orphaned, seized, stray out of their natural habitat or problematic that cause human-wild animal conflict.

## 6 ABOUT US

### BASIC INFORMATION ABOUT THE ZOO

Name of the Zoo	Rajgir Zoo Safari, Nalanda
Year of Establishment	2017
Address of the Zoo	Rajgir Zoo Safari, Rajgir, Dist: Nalanda, Bihar. Pin code – 803 116
State	Bihar
Telephone Number	8087211645
Fax Number	-
E-mail address	rajgirzoosafari@gmail.com
Website	<a href="https://rajgirzoosafari.bihar.gov.in">https://rajgirzoosafari.bihar.gov.in</a>
Distance from nearest	Airport: Patna-102 Km, Gaya-67 Km Railway Station: 4.4 Kms. Bus Stand: 3.4 Kms.
Recognition Valid upto (Date)	06.12.2022
Category of Zoo	-
Area (in Hectares)	191.12 hectares
Number of Visitors 2022-23 (Financial Year)	Total Visitors: 4,98,330
Visitors' Facilities Available in Zoo	<ul style="list-style-type: none"> <li>■ Online Ticket Booking</li> <li>■ Interpretation Centre with audio visuals</li> <li>■ Orientation Hall</li> <li>■ Specially modified Safari Vehicles with larger view and Guide in every bus.</li> <li>■ 180 degree theatre with 180 seating capacity</li> <li>■ Selfie point</li> <li>■ Parking</li> <li>■ Purified Drinking Water Facility</li> <li>■ Wheel chairs and ramps at entry/exit</li> <li>■ Washroom Facility</li> <li>■ Battery Operated Vehicles</li> <li>■ Signages</li> <li>■ Visitor sheds</li> <li>■ Benches</li> <li>■ Ambulance</li> <li>■ First Aid Kit</li> <li>■ Children's Park</li> <li>■ Shapath Stambh for adopting eco friendly lifestyle- Touch Screen based</li> </ul>
Weekly Closure Day of the Zoo	Monday

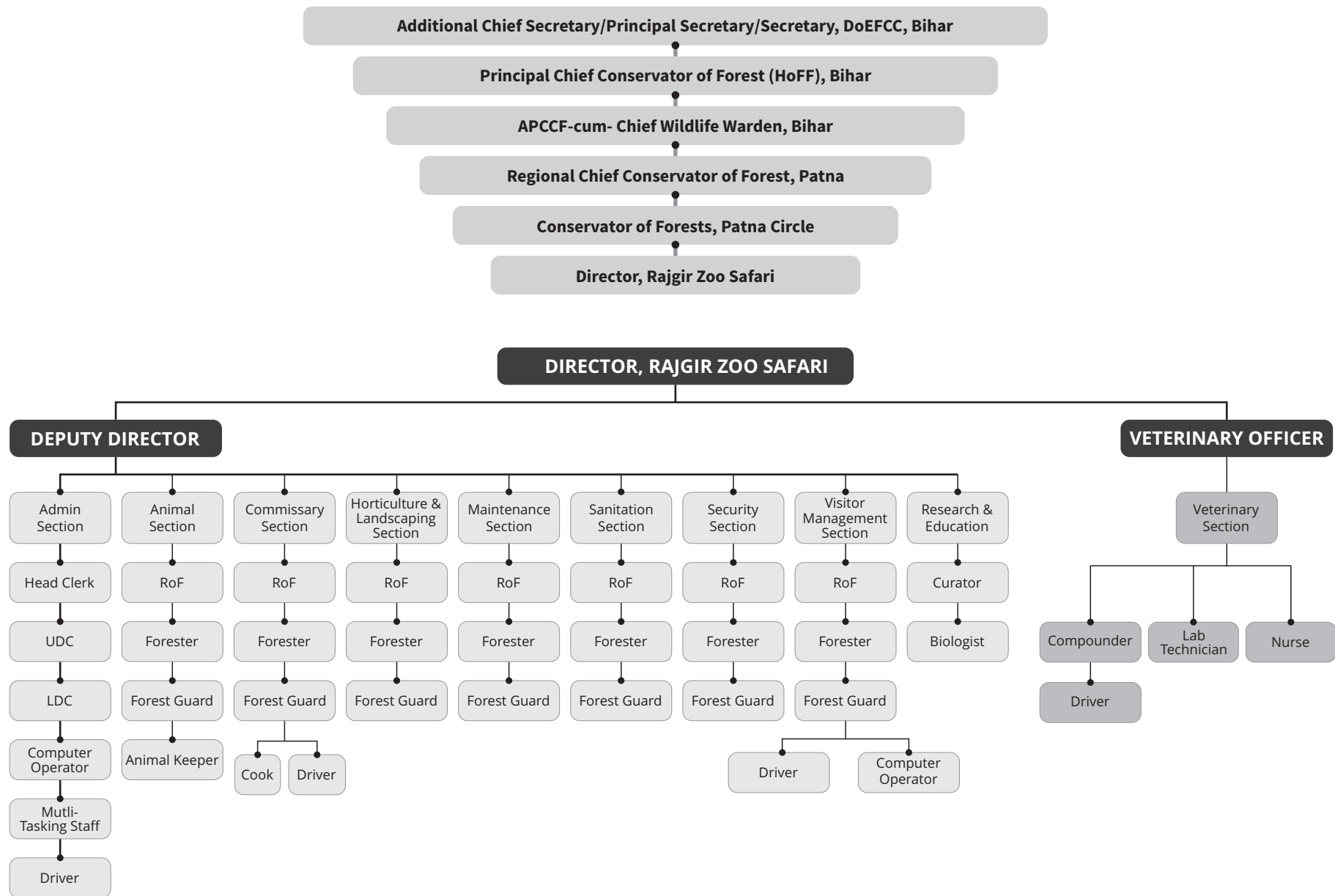
### MANAGEMENT PERSONNEL OF THE ZOO

Name with designation of the Officer in-charge	Shri Hemant Patil, IFS Director, Rajgir Zoo Safari, Nalanda.
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### OWNER / OPERATOR OF THE ZOO

*Name of the Operator	Principal Secretary to Govt of Bihar, Dept. of Environment, Forest & Climate change, Govt. of Bihar
Address of the Operator	Dept. of Environment, Forest & Climate change, Sinchai Bhawan, Patna.
Contact details/ Phone number of Operator	0612-2217713
E-mail address of Operator	efd-bih@nic.in

# 7 ORGANIZATIONAL CHART



## 8 HUMAN RESOURCES

### 8.1 OFFICERS/OFFICIALS WORKING IN RAJGIR ZOO SAFARI, NALANDA DURING THE YEAR 2022-23

Sl. No.	Designation	No. of Sanctioned Post	Names of the incumbent
1.	Director	1	Mr Hemant Patil, IFS
2.	Deputy Director	1	Mr Ambika Sharan Sinha
3.	Veterinary Officer	2	Dr Dalip Kumar Baitha, Dr. Bikram Kumar
4.	Range Officer of Forest	3	Mr Arvind Kumar, Mr Rakesh Kumar

### 8.2 PERMANENT STAFF OF RAJGIR ZOO SAFARI DURING THE YEAR 2023-24

Sl. No.	Designation	No. of Sanctioned Post	Names of the incumbent
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#### Administrative Staff

1.	Head Clerk	1	—
2.	Upper Division Clerk	1	—
3.	Lower Division Clerk	2	Mr Amit Kumar Sinha, Mr Uday Kumar

#### Safari Zone

1.	Range Officer of Forests	1	Mr Rakesh Kumar
2.	Forester	4	Mr Dharmendra Kumar
3.	Forest Guard	18	Mr Ajay Kumar Varma, Mr Amarnath Rai, Mr Anus Mansuri, Mr Bipin Kumar, Mr Dipak Kumar, Mr Mithilesh Kumar, Ms Ragini Kumari, Mr Rajkumar Mandal, Mr Rohit Kumar, Mr Sajid Ansari, Mr Sunil Kumar Suman, Mr Suryadev Kumar, Mr Vedvyas Kumar, Mr Vivek Kumar.
4.	Animal Keepers	30	Being Managed by Daily Wage Labours

#### Management Zone

1.	Range Officer of Forests	1	Mr Arvind Kumar
2.	Curator	1	—
3.	Biologist	1	—
4.	Forester	2	Mr Dipak Kumar
5.	Forest Guard	4	Mr Pappu Manjhi, Ms Pooja Kumari, Mr Prashant Kumar, Mr Surya Prakash
6.	Compounder	4	Being Managed by Daily Wage Labours
7.	Nurse	1	—
8.	Lab Technician	1	Being Managed by Daily Wage Labours

### Tourist Zone

1.	Range Officer of Forests	1	Mr Arvind Kumar (In-charge)
2.	Forester	4	Mr Niranjan Kumar, Mr Ravi Prakash
3.	Forest Guard	13	Mr Amit Kumar, Mr Bawan Kumar, Ms Priyanka Kumari, Mr Durga Kumar, Mr Anil Kumar, Mr Saurabh Kumar, Mr Amit Kumar-02, Ms Ritika Rani, Mr Munnu Kumar, Mr Manoj Kumar, Mr Niranjan Kumar, Mr Rajesh Kumar.

\*Please give above mentioned information in respect of all zoo personnel, from the Officer in-charge upto the Animal Keeper.

## 9 CAPACITY BUILDING OF ZOO PERSONNEL

Sl. No.	Name and designation of the zoo personnel	Designation	Subject matter of Training	Period of Training	Name of the Institution where the Training attended
1.	Hemant Patil, IFS	Director	2nd National Conference for Zoo Directors	18th January 2023 to 19th January, 2023	Mysore Zoo, Karnataka.
2.	Hemant Patil, IFS	Director	Compulsory Mid-Career Training Phase III for IFS Officers.	23rd January 2023 to 17th February, 2023	Indira Gandhi National Forest Academy, Dehradun.
3.	Dr. Dalip Kumar Baitha	Veterinary Officer	Webinar on Wildlife Disease Investigation	15th February 2023 to 17th February, 2023	Asia Wildlife Vets, Kathmandu
4.	Rakesh Kumar	Range officer of Forests	Online Workshop for in-service state forest officers on Wildlife Management	4th July 2022 – 9th July 2022	Central Academy for State Forest Service, Coimbatore
5.	Rakesh Kumar	Range officer of Forests	Online Training Course for in-service state Forest Officers on Training of Trainers	31st October 2022 to 05th November 2022	Central Academy for State Forest Service, Dehradun.
6.	Permanent Frontline Staff	Foresters & Forest Guards	6 Month Foundation training for newly recruited Forest Guards.	1st April 2022 to 30th September 2022	Forestry Training Institute, Kanpur
		Forest Guards	6 Month Foundation training for newly recruited Forest Guards.	1st November 2022 to 30th April 2023	Forestry School, Lakhnadaun (MP) and Forestry School, Amarkantak (MP)





Sitting Row (L to R): Shri M. Kulkarni K., Sh. Prashant P., Mr. Eshwar Lakshmin Srinivas, Anil Kumar Bhatnagar (Jr. Translation Officer), Anil Kumar (Course Coordinator), Dr. S.P. Anand Kumar (JRF Professor), Raj Kumar Bajor (JRF Professor), S.K. Anand (JRF Director), Shashi Jyoti (Director), Mukul Tripathi (Professor), Mr. Hari Srivastava (Professor), Mr. Anil Choudhary (JRF Professor), Mr. Suresh Tripathi, Mr. Divya Gaitan, Mr. Prabhakar Katar, Mr. Piyush Prasad Jaiswal, Anish Kumar Sharma  
 Standing Row 1 (L to R): Shri L. Ramesh Nayak, Ashwini Patil, Nitin P., Jijo Jaeger J., Nabash Sharma Shrivastava, Harpreet Pali, Ramesh Sharma, Rajesh Kumar, H. Takshi Krim, Chandrabekhu Singh, Pankaj Rajput, Agneshona Vyoo, Mittal Kumar, Anshika K. Singh, Sarvadev Sushil Shankar, Dr. Gaur Kumar Bhatnagar, Shrangar S., Murari Lal Meena, Anil Kumar  
 Standing Row 2 (L to R): Shri Anand Anandkumar, Sharan Babu M., Sachin Tukaram Bhosale, Niran D., Ashish Tanna, K. Rajagopal, Navneet K. Srivastava, Pradyep Kumar Saha S.V., Rishi Srivastava, Rajeev Talwar, Kishore Singh, Sangeet Kumar Singh, Sachin Khanna, Anshu Kumar, Rakesh Dutt, Tarachand, Yashu Deep Singh, Kunal Agrawal  
 Standing Top Row (L to R): Shri Hemant Prakash Shrivastava, Anil Kumar Maurya, Bharat Maheshwari, Navin Prakash Shrivastava, Nagesh Satish Gaitan, Jadhav Shreshtha A.H.S., Anthony S. Aneyappa, Debanshi Ghanta, Vikash Kumar Ghosh, Anil Kumar Bhatnagar Mittal, Vaidyan Kumar Singh Parshu Vijay Tripathi, Kamal Deep Singh, Sandeep Kumar Bhatnagar, Sanjay Kumar, Anshu Kumar Mittal



**प्रथम पंक्ति में बैठे हुए बायें से दायें**  
 सचिव श्री आशुतोष चौधरी, पी०टी०आई०, सु०सी० भट्ट, डी०ए०/सत्र निदेशक, जे०के० गुप्ता, आई०पी० यादव, आर०वी० सिंह, ए०के० वर्मा, प्रभारी उप निदेशक, आर०के० दीक्षित, श्री सुनील कुमार दूबे, निदेशक, ए०टी०आई०, श्रीमती अम्मा यादव, उप वन संरक्षक, ए०टी०आई०, श्रीमती प्रभा द्विवेदी, डी०ए०/सत्र, ए०पी० गुप्ता, आर०एल० सी०पी०, डी०ए०/सत्र, श्री०के० मिश्र, डी०ए०/सत्र, अरविन्द कुमार, उप डी०ए०/सत्र, राजेन्द्र विश्वकर्मा, वनविद्

**द्वितीय पंक्ति में बायें से दायें खड़े हुए**— ममता कुमारी, मिनी कुमारी, कुमारी प्रतिभा भारती, सु० अर्चना कुमारी, श्वेता कुमारी, रिया कुमारी, सुराजी कुमारी, सीदनी कुमारी, वैष्णवी, कुमारी ज्योति, सारिका कुमारी, पुनीता कुमारी, पुनम कुमारी, वर्षा कुमारी, शिखा कुमारी, सुष्मा कुमारी

**तृतीय पंक्ति में खड़े हुए बायें से दायें खड़े हुए**— जय प्रकाश, काजल कुमारी, सोनाली कुमारी, सलोनी कुमारी, काजल कुमारी, मेहा भारती, श्वेता मिश्रा, विनिता कुमारी, स्वाति भारती, मालवी कुमारी, सुरेखा कुमारी, सोनी कुमारी, पल्लवी कुमारी, शिवानी कुमारी, मनीष कुमार, संतोष कुमार

**चतुर्थ पंक्ति बायें से दायें खड़े हुए**— सोनू कुमार, श्रीकांत कुमार, उदित शर्मा, विकास कुमार, गीतम कुमार, सुभांशु रंजन, निरंजन कुमार, राजीव कुमार, अविनाश कुमार, पंकज राज, सुमित कुमार, जितेन्द्र, दिलीप कुमार, सोनू कुमार, संविन्द कुमार, बृजलाल कुमार बैठा।



**प्रथम पंक्ति में बैठे हुए बायें से दायें** — शिवा खर०, रवि प्रकाश ख०द०, सु०सी० चट्ट० डी०ए०/सत्र, विश्वतोष चतुर्वेदी सी०के०, आर०वी० सिंह उप डी०ए०/सत्र, जे०के० गुप्ता प्र०प्र०, सुनील कुमार दूबे निदेशक, आ०पी०/सत्र, जयेश खन्ड सी०के० प्र०प्र०/सत्र, ए०के० वर्मा प्र०प्र०/सत्र, राजेन्द्र जायसवाल उप डी०ए०/सत्र, दीपेन्द्र श्रीवास्तव उप डी०ए०/सत्र, राजेन्द्र विश्वकर्मा ख०द०, सु० भावना ख०द०,

**द्वितीय पंक्ति में खड़े हुए बायें से दायें** — विकास कुमार, आशीष कुमार, अजीत कुमार सिंह, आशीष कुमार कर्ण, रुवेश कुमार, आशीष कुमार, सविन्यास कुमार, दुर्गा कुमार, मिथलेश कुमार, मुकेश कुमार, विवेक कुमार, सरोज कुमार सिंह, लखू कुमारी, पन्पू मांडवी, रीतेश राज रंजक, अमृत मंसुरी, मुकेश कुमार, रूपल कुमार, रंजीत कुमार, सुजीत कुमार, प्रवीण कुमार, रणधीर कुमार, सनी कुमार, ब्रजेश कुमार, रघुज कुमार

**तृतीय पंक्ति में खड़े हुए बायें से दायें** — प्रकाश कुमार, राकेश कुमार, अविदेव, विनोद कुमार, राहुल कुमार, अमरेश कुमार, प्रिंस कुमार, राजू कुमार, ओम प्रकाश कुमार, विकास कुमार, प्रभोद साह, अरुण पासवान, कर्ण कुमार शेट्टा, प्रकाश कुमार, नीतिश कुमार, राम कुमार, संजीत कुमार, आदित्य कुमार, नीरज कुमार, मीरव कुमार, रविन्द्र कुमार, गोविन्द प्रजापति, संकर कुमार पासवान, मो० एहसानुल हक, अनील कुमार, विक्रम कुमार शर्मा, पंकज कुमार गुप्ता, नीतिश कुमार

**चतुर्थ पंक्ति में खड़े हुए बायें से दायें** — गुन्ना कुमार, राज कुमार पासवान, रंजीत कुमार, गुड्डू कुमार सिंह, विकास कुमार, राहुल कुमार, विविन कुमार, विवेक कुमार, बन्धु कुमार, पंकज कुमार, अमित चौधरी, नितेश कुमार निराला, राजीव रंजन सिंह, धीरज कुमार, रविंजन कुमार, ओमप्रकाश पटेल, योगेश कुमार, चन्वन कुमार, रोशन कुमार, शशि रंजन कुमार, दीपक कुमार, सोनू कुमार पासवान, कृता सिंह, प्रेमरत्न कुमार, चन्दन कुमार, मरजिय कुमार, रजनीकांत कुमार

## FOREST GUARD TRAINING FOR NURSERY MAINTENANCE



### NIGHT VISION CAMERA INSTALLATION TRAINING OF FOREST GUARD



### FIRE SAFETY TRAINING AND MOCK DRILL OF ZOO SAFARI STAFF



## 10 ZOO ADVISORY COMMITTEE

It is yet to be constituted.

## 11 HEALTH ADVISORY COMMITTEE

### a. Date of constitution: - 31.07.2020

### b. Member:-

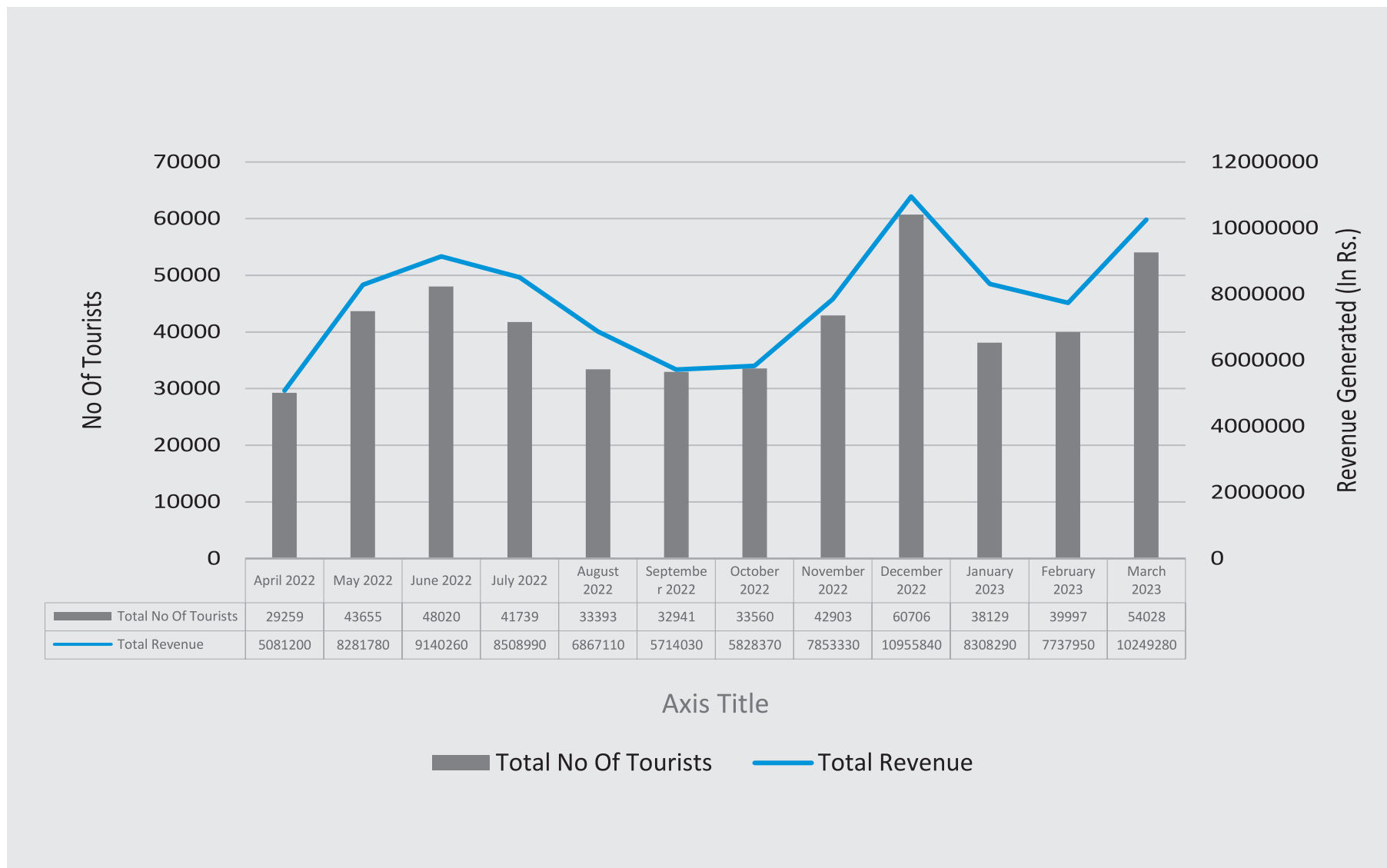
- (i) Dr. A. A. Khan, Former Dean cum Principal, Ranchi Veterinary College, Patna, President, Animal Health Advisory Committee, Rajgir Zoo Safari, Nalanda Bihar. — **(President)**
- (ii) Dean, Bihar Veterinary College, Patna.
- (iii) Director, Institute of Animal Health & Production, Bihar, Patna.
- (iv) Dr. Anup Rai, Retd. Animal Husbandry Officer, Patna.
- (v) Dr. K.P. Mallik, Retd. Sr. Scientist, I.V.R.I., Izzatnagar, Raebareilly.
- (vi) Dr. Alka Sharan, Retd. Director, Institute of Animal Health & Production, Bihar, Patna.
- (vii) Dr. Ajeet Kumar, Retd. Veterinary Officer, Sanjay Gandhi Biological Park, Patna.
- (viii) Dr. Ramesh Tiwary, Assistant Professor, Surgery & Radiology Department, Bihar Veterinary College, Patna.
- (ix) Dr. Gyandeo Singh, Assistant Professor, Surgery & Radiology Department Bihar Veterinary College, Patna.
- (x) Dr. Pallav Shekhar, Assistant Professor, Medicine Department, Bihar Veterinary College, Patna.
- (xi) Dr. Kaushal Kumar, Assistant Professor, Pathology Department, Bihar Veterinary College, Patna.
- (xii) Dr. Manoj Kumar, Assistant Professor, Microbiology Department, Bihar Veterinary College, Patna.
- (xiii) Dr. Farid Ahmad Khan, Homeopathic Doctor, Patna.
- (xiv) Veterinary Officer, Rajgir Zoo Safari, Nalanda. — **(Member Secretary)**

### c. Dates on which Meetings held during the year : 29-08-2022



## 12 STATEMENT OF INCOME AND EXPENDITURE OF THE ZOO

Year	Total Revenue	Total Expenditure
2022-23	9,48,98,048	24,49,01,177



## 13 DAILY FEED SCHEDULE OF ANIMALS

Sl. No.	Species	Feed Item	Quantity (Unit - Kg)		Day of Fasting
			Winter	Summer	
1.	Asiatic Lion	Beef with bone (Male)	10-11	9-10	Monday
		Beef with bone (Female)	8-9	7-8	
2.	Royal Bengal Tiger	Beef with bone (Male)	10-12	9-10	Monday
		Beef with bone (Female)	10-11	8-9	
3.	Leopard	Boneless Beef (Male)	2.5-3.5	2-3	Monday
		Boneless Beef (Female)	2-3	2-2.5	
4.	Sloth Bear	Roti (Wheat flour)	0.4-0.5	0.4-0.5	Monday
		Pulses (Pigeon pea, Moong, Masur Dal in form of cooked Dal)	0.2	0.2	
		Seasonal Fruits & Green Vegetables (Spinach, Beans, Cabbage)	1.250	1.250	
		Groundnut (Including enrichment in enclosure)	0.600	0.600	
		Kheer (Made of Rice, Milk and Jaggery/Sugar)	Rice- 0.300 Kg Milk-1.5- 2 Litre Jaggery- 0.100 kg	Rice- 0.300 Kg Milk-1.5- 2 Litre Jaggery- 0.100kg	
		Honey	0.015-0.020	0.015-0.020	
		Mineral mixture	0.030	0.030	
5.	Sambar	Deer Mash	1.125	1.125	No Fasting
		Green Fodder	10	10	
		Wheat Bhusa	2	2	
6.	Spotted Deer	Deer Mash	0.5	0.5	No Fasting
		Green Fodder	2	2	
		Wheat Bhusa	0.5	0.5	
7.	Hog Deer	Deer Mash	0.250	0.250	No Fasting
		Green fodder	3	3	
		Wheat Bhusa	0.250	0.250	
8.	Barking Deer	Deer Mash	0.250	0.250	No Fasting
		Green Tree Leaves/ Green fodder	2-2.5	2-2.5	
		Wheat Bhusa	0.150	0.150	

Sl. No.	Species	Feed Item	Quantity (Unit - Kg)		Day of Fasting
			Winter	Summer	
9.	Black Buck	Deer Mash	0.250	0.250	No Fasting
		Green fodder	2.5-3	2.5-3	
		Wheat bhusa	0.3	0.3	
10.	Blue Bull (Nilgai/ Ghodparas)	Deer Mash	1.25	1.25	No Fasting
		Green fodder	10	10	
		Wheat bhusa	2	2	

\* The feed per animal varies as per age, sex, physical and medical condition of the animal. Special diet is provided for ageing animals, sub-adults and young ones. During Summer, special feed is provided for bear and herbivores like provision of Watermelon etc. If green fodder is not available, it is replaced with increase quantity of Wheat Bhusa, choker and Deer mash.

### COMMISSARY BUILDING AND FACILITIES FOR FOOD PREPARATION AND DELIVERY





## 14 VACCINATION SCHEDULE OF ANIMALS:

Vaccination Schedule of Animals										
S. No.	Species	Disease Vaccinated for	Name of the Vaccine	Dosage	Quantity	Periodicity	Remarks	Month		
1.	Lion	Feline Pan-Leukopenia & Rhinotracheitis	Felocell	1 ml	1	Annually	Month of vaccination is different for different animals.			
		Trypanosomiasis	Triquin	As per body weight of animal	1	Biannually				
		Cannine Distemper	Purevax	1 ml	1	Annually				
2.	Tiger	Feline Pan-Leukopenia & Rhinotracheitis	Felocell	1 ml	1	Annually			Month of vaccination is different for different animals.	
		Trypanosomiasis	Triquin	As per body weight of animal	1	Biannually				
3.	Leopard	Feline Pan-Leukopenia & Rhinotracheitis	Felocell	1 ml	1	Annually				
		Trypanosomiasis	Triquin	As per body weight of animal	1	Biannually				



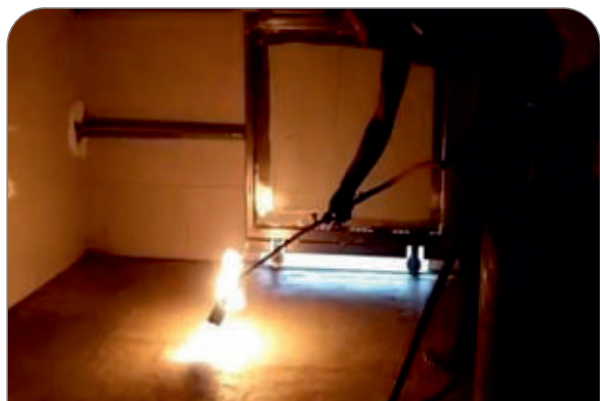
## 15 DE-WORMING SCHEDULE OF ANIMALS:

De-worming Schedule of Animals				
S. No.	Species	Drug Used	Periodicity	Month
1.	Herbivores	1. Albendazole 2. Fenbendazole 3. Ivermectin	3 Month	Month of deworming is different for different animals and as per need.
2.	Bear	1. Albendazole 2. Fenbendazole 3. Ivermectin	3 Month	
3.	Carnivores (Lion, Tiger and Leopard)	1. Albendazole 2. Fenbendazole 3. Ivermectin 4. Combination of Praziquantel, Pyrantel Pamoate, Febantel	3 Month	

## 16 DISINFECTION SCHEDULE:

Disinfection Schedule					
Sl. No.	Species	Type of Enclosure	Disinfectant used	Method/Area	Frequency of Disinfection
1.	Felines/ Bears	Lion/Tiger/ Leopard /Sloth Bear	KMnO4	At each entry and exit point including tyre wash at enclosure gates	Daily
			Detergents	Floor of animal cells & retiring room	Daily
			Sodium Hypochlorite	Around retiring room & enclosure	Once in 3 months
			Khorsolin-TH/ Vircon S	Retiring room cells and surrounding area	Once in 3 months
			Fire Blow Sterilization	Retiring room cells, floor, walls, cell grill, Kraal	Once a Week
			Turmeric Powder	Retiring room cells	Twice a Week
			Bleaching Powder	Kraal & enclosure ponds, Water tank, Drainage	Daily
2.	Herbivores	Herbivores	KMnO4	At each entry and exit point including tyrewash at enclosure gates	Daily
			Detergents	Floor of animal cells & retiring room	Daily
			Sodium Hypochlorite	Around retiring room & enclosure	Once in 3 months
			Khorsolin-TH/ Vircon S	Retiring room cells and surrounding area	Once in 3 months
			Fire Blow Sterilization	Retiring room cells, floor, walls, cell grill, Kraal	Once a Week

\* This disinfection schedule is maintained in Hospital, Post Mortem Hall, Quarantine facilities as well as commissary. In case of special and emergency requirements, the frequency and method of disinfection can be changed. Also, zoo personnel use PPE Kits, Hand-gloves and disinfectants etc post Covid-19 as precautionary measure.



Heat Sterilization



Heat Sterilization



Fog Sanitization



Chemical Sterilization



Tyre Wash



Daily Cleaning of Retiring Rooms

## 17 HEALTH CHECK-UP OF EMPLOYEES FOR ZONOTIC DISEASES

S. No.	Name	Date of Health Check up	Findings of Health Check up
1.	Zoo personnel's T.B. test was conducted	12th Oct 2022	No Adverse Finding
2.	Health Checkup Staff working in Wildlife management by Medanta Hospital Medical Team.	10th Dec 2022 to 11th Dec 2022	No Adverse Finding



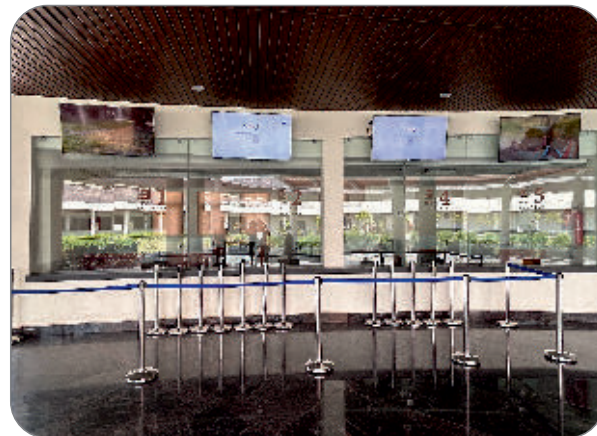
## 18 DEVELOPMENT WORKS CARRIED OUT IN THE ZOO DURING THE YEAR

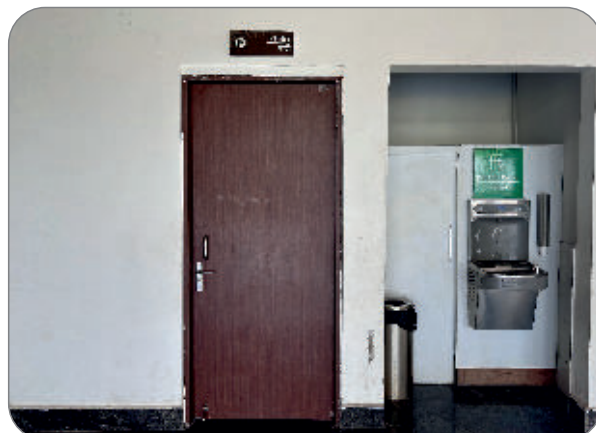
S. No.	Work done
1.	Construction of Bird Aviary is in progress
2.	Upgradation of Children Park

**HARD WORK PAYS OFF IN RAJGIR ZOO SAFARI**

**VISITOR RECEPTION ZONE OF RAJGIR ZOO SAFARI**







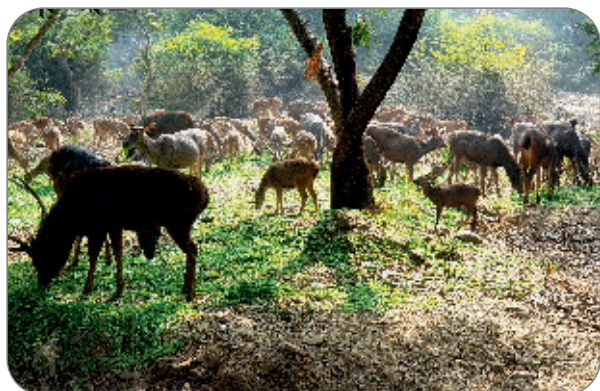




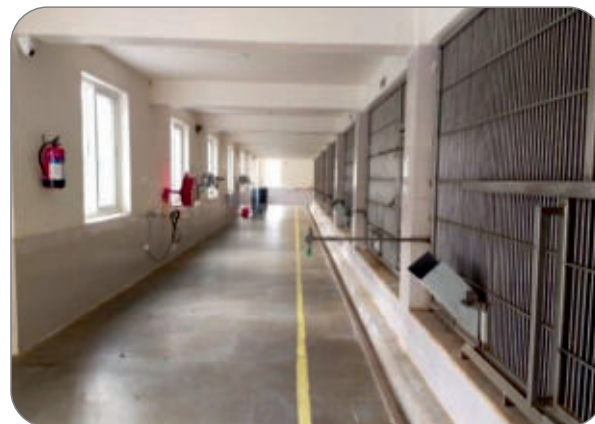


## ENCLOSURES AND OTHER FACILITIES DEVELOPED IN SAFARI ZONE OF RAJGIR ZOO SAFARI

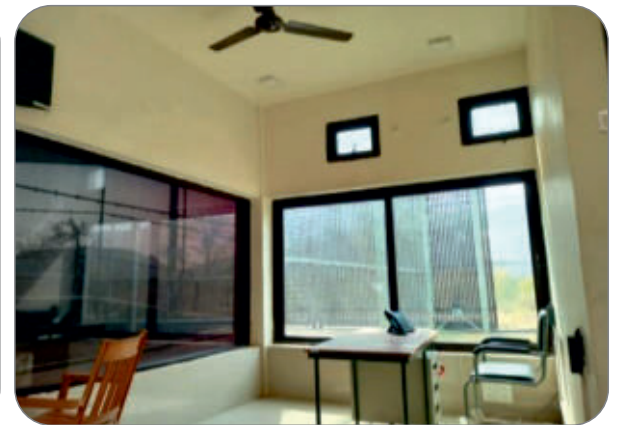
### HERBIVORE ENCLOSURE



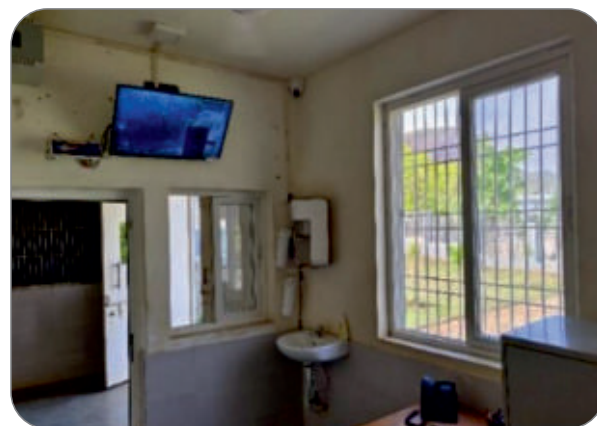
## BEAR ENCLOSURE



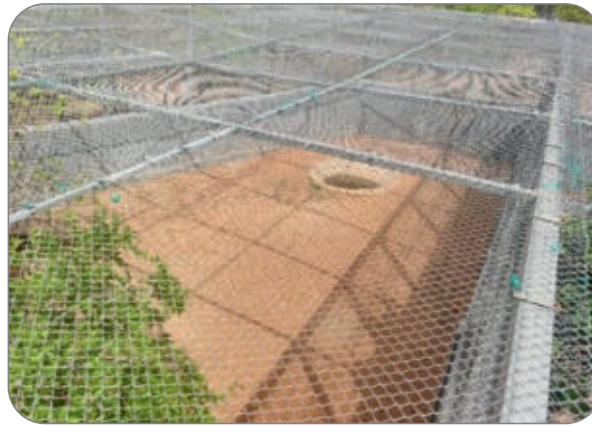
## LEOPARD ENCLOSURE



### TIGER ENCLOSURE



## LION ENCLOSURE



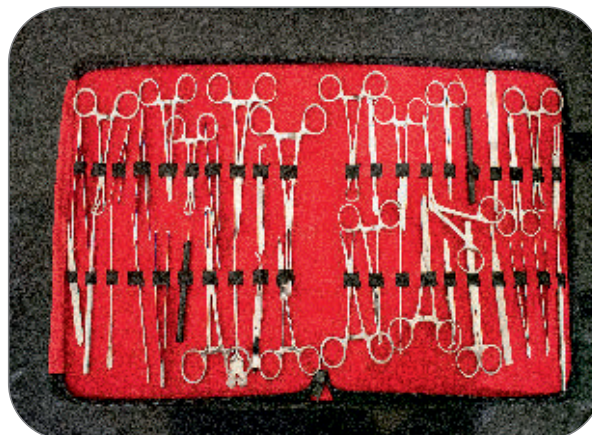
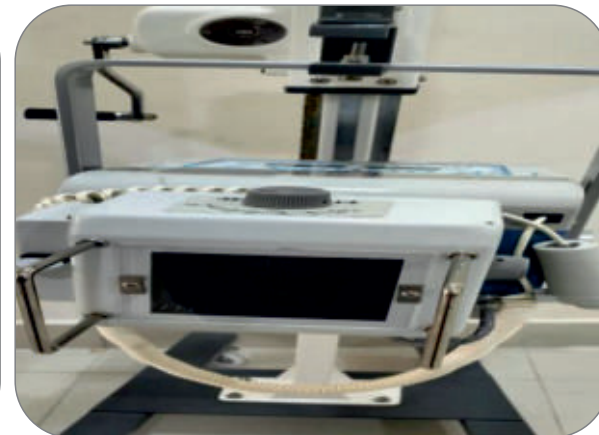
## FACILITIES DEVELOPED IN MANAGEMENT ZONE OF RAJGIR ZOO SAFARI

### VETERINARY HOSPITAL















## HERBIVORE AND CARNIVORE QUARANTINE FACILITY



Aerial View



Keeper Room



Carnivore Quarantine Keeper's Gallery



Herbivore Quarantine Keeper's Gallery



Cells of Carnivore Quarantines



Cells of Herbivore Quarantines

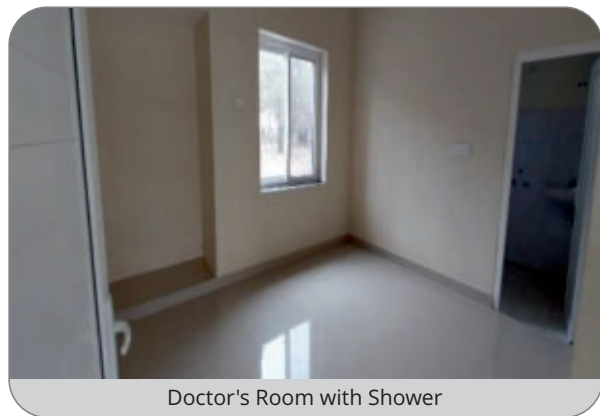
## POST MORTEM ROOM



Postmortem Building



Postmortem Hall



Doctor's Room with Shower



Sample Collection Room



Doctors performing Post Mortem



Waste Water Treatment Unit



Vermi Compost Unit

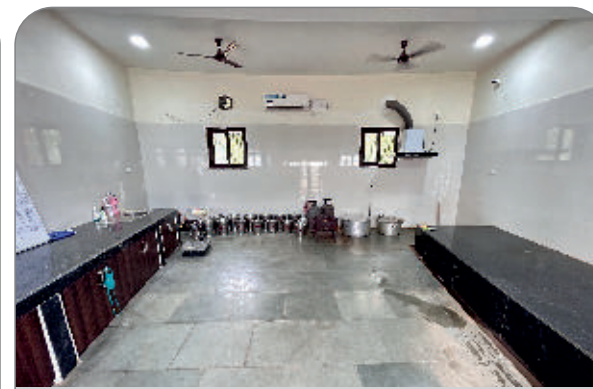
## COMMISSARY



Commissary



Front View



Non-Veg Preparation Room



Utensils and Furnishing of Kitchen



Food Distribution Utensils



Non-Veg Preparation Room



Non-Veg Section Distribution Counter



Cold Storage Room



Fish & Chicken Preparation Room



Non-Veg Delivery Vehicle



Feed Storage Room



Flour mill



Weighing Bridge



Tractor for Grass delivery



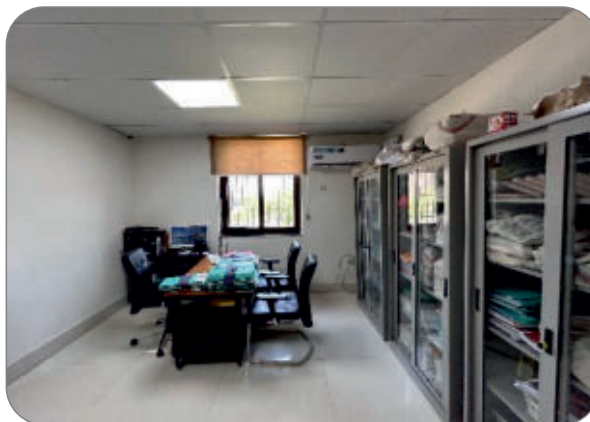
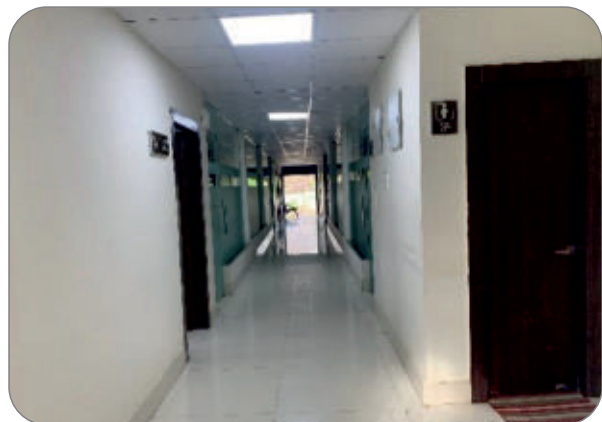
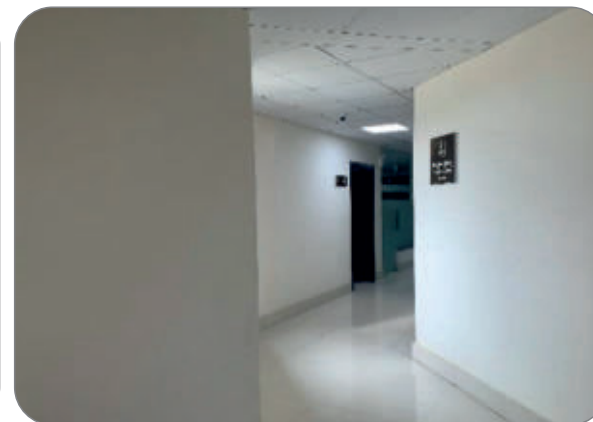
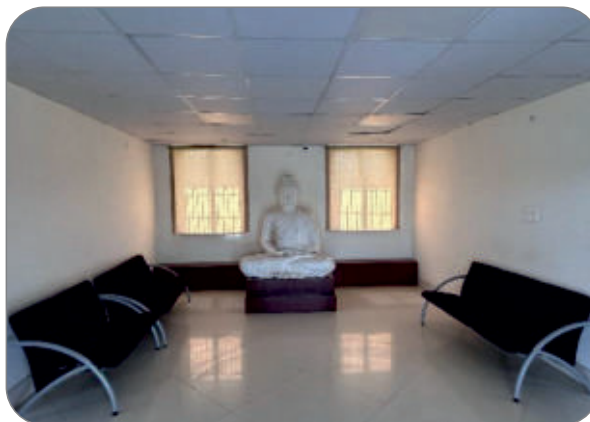
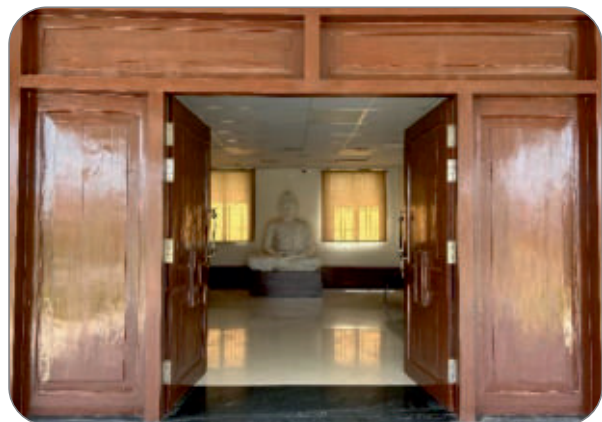
Grass cutting machine

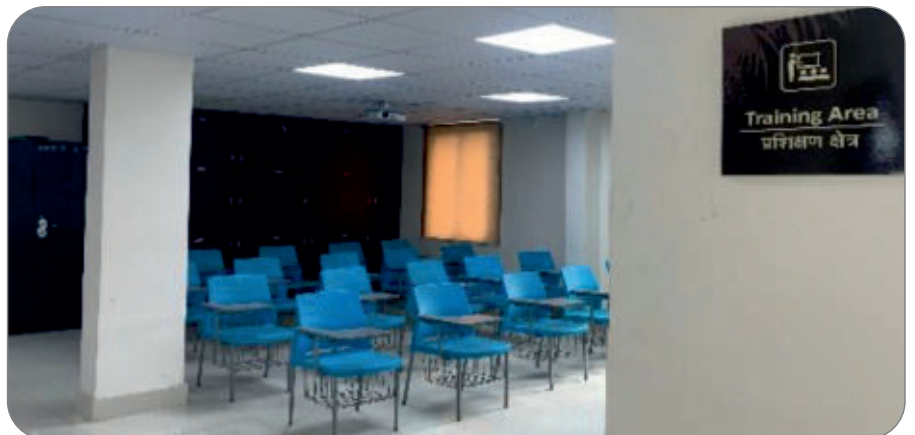
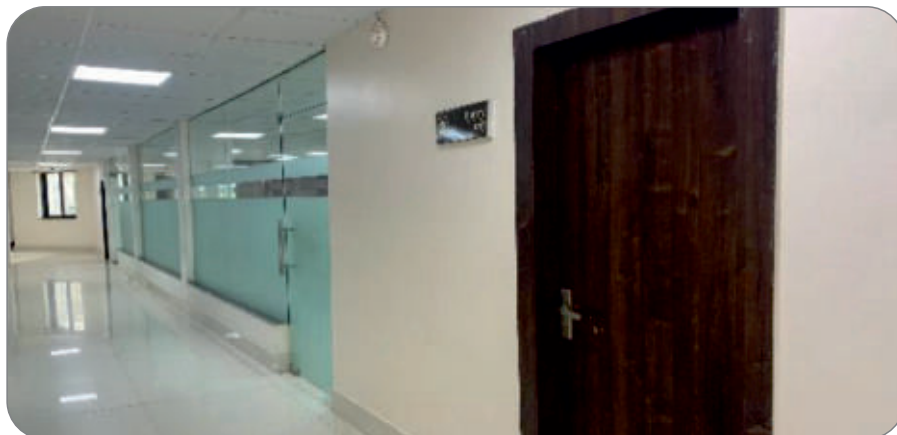
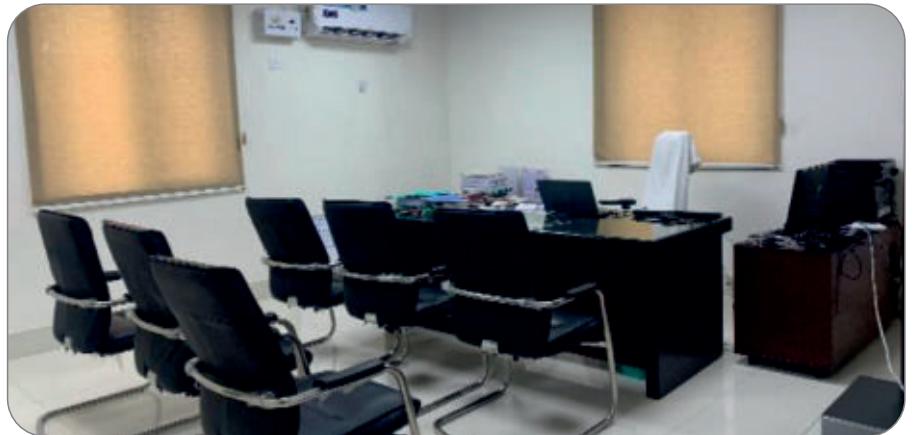


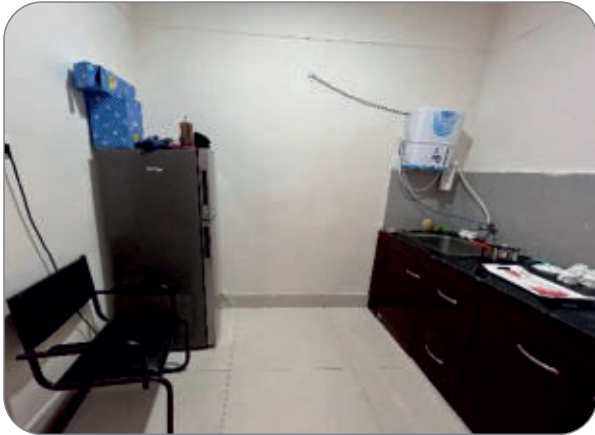
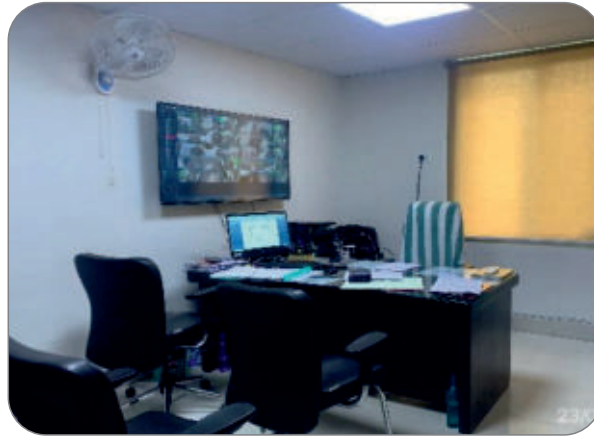
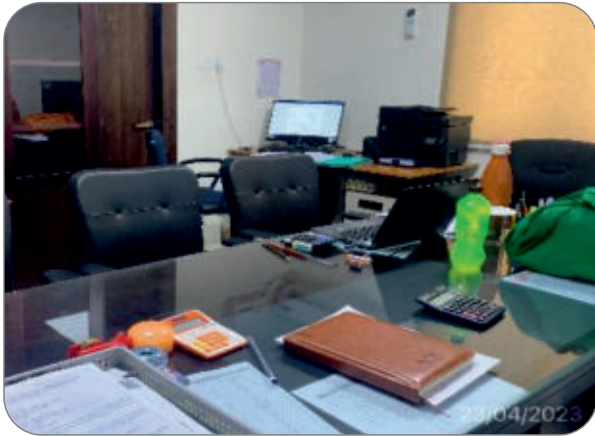
Grass storage shed



## ADMINISTRATIVE BLOCK







OTHER FACILITIES AND MACHINERIES AVAILABLE IN MANAGEMENT ZONE



Zoo Safari Bus shed



Zoo Safari Buses



Ambulance



Ambulance facilities



Fire Vehicle



Fire Vehicle Interior



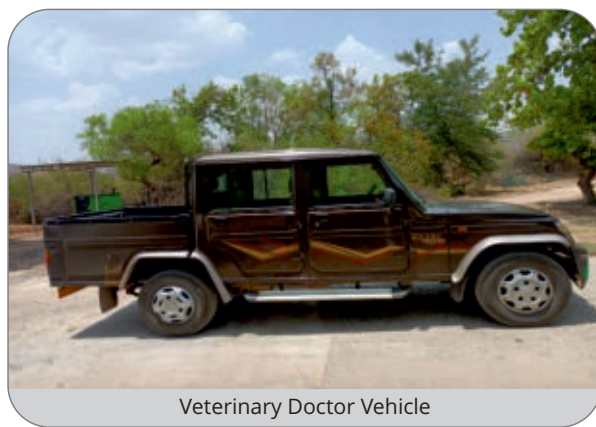
Sky lift Vehicle



Sky lift Vehicle Operation



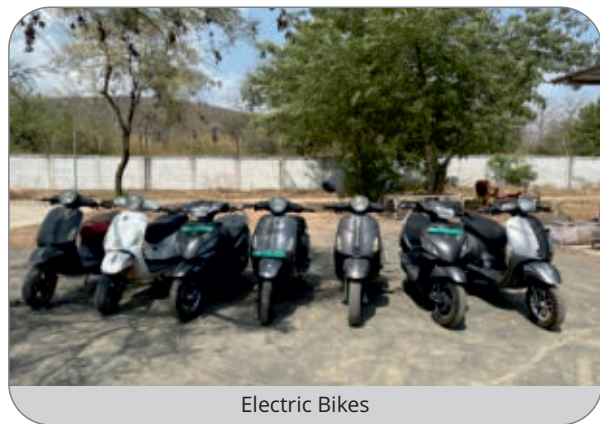
Waste Tipper



Veterinary Doctor Vehicle



Electric Golf Carts



Electric Bikes



Electric Cycles for Internal Movement of Staff



Water Tankers



Modified Zoo Safari Buses



Bus Washing Area

## 19 EDUCATION AND AWARENESS PROGRAMMES DURING THE YEAR

S. No.	Programmes
1.	Vriksha Suraksha Diwas
2.	Bihar Prithvi Diwas
3.	World Environment Day (05 June 2022)
4.	Tiger Day (29 July 2022)
5.	Wildlife Week (02-08 October 2022)



### WORLD ENVIRONMENT DAY (05 JUNE 2022)



### TIGER DAY (29 JULY 2022)



WILDLIFE WEEK (02-08 OCTOBER 2022)





## 20 IMPORTANT EVENTS AND HAPPENINGS IN THE ZOO

S. No.	Programmes
1.	Visit of Important Dignitaries to Rajgir Zoo Safari
2.	Visit of IFS Probationers and other Trainees to learn about Ex-situ Conservation efforts
3.	Delegates from other States to see the Development of Rajgir Zoo Safari
4.	Celebration of Independence day and Republic Day

### VISIT OF HON'BLE MINISTER, DEPARTMENT OF ENVIRONMENT, FOREST AND CLIMATE CHANGE, BIHAR



VISIT OF SECRETARY, MOEFCC, GOI AND MEMBER SECRETARY OF CZA, NEW DELHI



VISIT OF PRINCIPAL SECRETARY, DEPARTMENT OF ENVIRONMENT, FOREST AND CLIMATE CHANGE, BIHAR



## VISIT OF DELEGATION FROM DIFFERENT ZOO'S AND PROTECTED AREA



Team of Pench Tiger Reserve



Team of Pench Tiger Reserve



Team of Meghalaya State Zoo, Shillong



Director, Hampi Zoological Garden, Karnatka



Team of Chhatisgarh Forest Dept.



Team of Chhatisgarh Forest Dept.

## VISIT OF IFS PROBATIONERS



## INDEPENDENCE DAY AND REPUBLIC DAY CELEBRATION



## TRAINEE RANGE OFFICER'S EXPOSURE VISIT



# ऑनलाइन बुकिंग होने से जू सफारी का टिकट कटाना हुआ आसान

- सफ़ारी के ऑनलाइन टिकट का टिकट आज
- टिकट के दौरेन 40% ऑनलाइन टिकट बूक करने का है लक्ष्य
- एक तबियत में मिलेगी ख़ास टिकट

## संबन्धित खबरें

राजगीर के सफ़ारी जू सफ़ारी प्रशासन द्वारा जारी की गई जानकारी के अनुसार, जू सफ़ारी का टिकट अब ऑनलाइन मिलेगा, जिससे बुकिंग का प्रक्रिया आसान हो गई है।

ऑनलाइन बुकिंग से जू सफ़ारी के टिकट का टिकट कटाना आसान हो गया है। ऑनलाइन टिकट बुकिंग से जू सफ़ारी के टिकट कटाना आसान हो गया है। ऑनलाइन टिकट बुकिंग से जू सफ़ारी के टिकट कटाना आसान हो गया है।



## अपनी सफ़ारी कैसे बूक करें

- ऑनलाइन टिकट बुकिंग के लिए जू सफ़ारी की वेबसाइट पर जाएं।
- ऑनलाइन टिकट बुकिंग के लिए जू सफ़ारी की वेबसाइट पर जाएं।
- ऑनलाइन टिकट बुकिंग के लिए जू सफ़ारी की वेबसाइट पर जाएं।

# बिहारशरीफ 28-08-2022

## जू सफ़ारी में जानवरों के स्टेच्यू के आगे लगाया जाएगा नेम प्लेट



पदाधिकारियों की कार्य दिशा निर्देशानुसार, जू सफ़ारी में जानवरों के स्टेच्यू के आगे लगाया जाएगा नेम प्लेट।

## डेलिगेट्स ने किया राजगीर भ्रमण

वर्ल्ड लाईफ जू सफ़ारी में जंगली जानवरों का किया दीदार

राजगीर के जू सफ़ारी में जंगली जानवरों का किया दीदार। डेलिगेट्स ने जू सफ़ारी का भ्रमण किया।

## जू सफ़ारी में भोला को खीर तो झबरी को पसंद है खिचड़ी

जू सफ़ारी में भोला को खीर तो झबरी को पसंद है खिचड़ी

जू सफ़ारी में भोला को खीर तो झबरी को पसंद है खिचड़ी। भोला को खीर पसंद है, झबरी को खिचड़ी पसंद है।

### FOREST GUARD TRAINING IN RAJGIR ZOO SAFARI

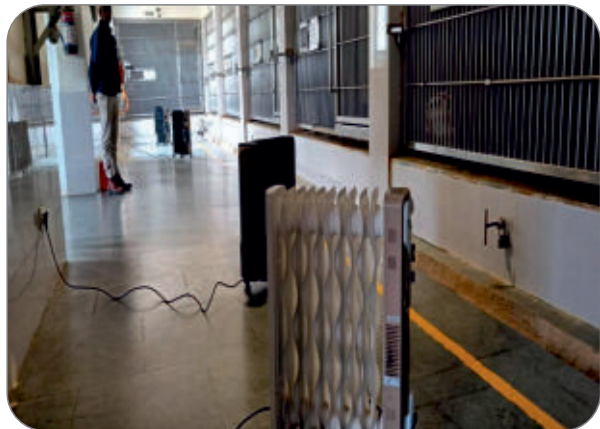


### EXPOSURE VISIT OF BIHAR VETERINARY COLLEGE INTERNSHIP STUDENTS



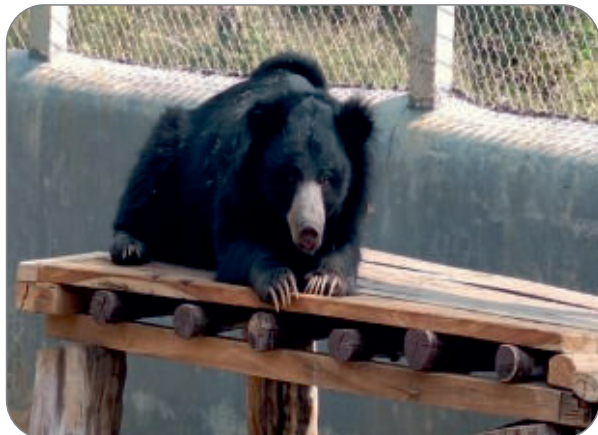
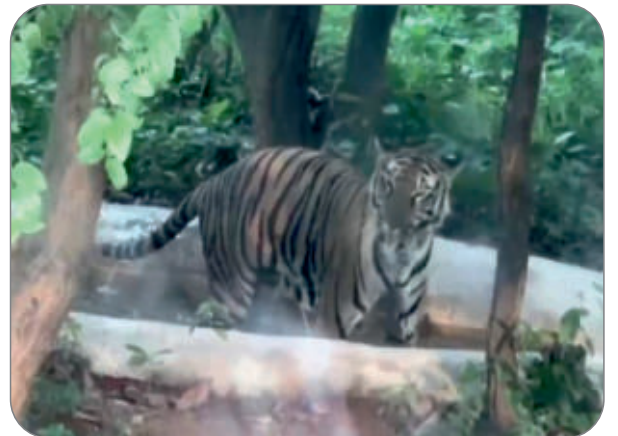
## 21 SEASONAL SPECIAL ARRANGEMENTS FOR UPKEEP OF ANIMALS

- **Diet control:** Addition and deletion of food items as per seasonal requirement.
- **Husbandry practices:** Use of Coolers, Fans and Room Oil-Heaters, Covering of windows, Providing wooden pegs in animals Retiring Rooms and Cells, Post-monsoon Refilling of Murom in Kraal, Filling of Water bodies during Summer and Water sprinkling on roads and surrounding vegetation during summer.
- Trimming of large trees and bushes for proper sunbath.
- Post monsoon work including Grassland maintenance and trimming of bamboo thickets for grazing and browsing respectively along with removal of weeds.
- Cutting of Fireline's before summer season and View strips maintenance post monsoon.









## ANIMAL WELFARE AND VETERINARY CARE ACTIVITY IMPORTANT ACHIEVEMENTS OF THE YEAR

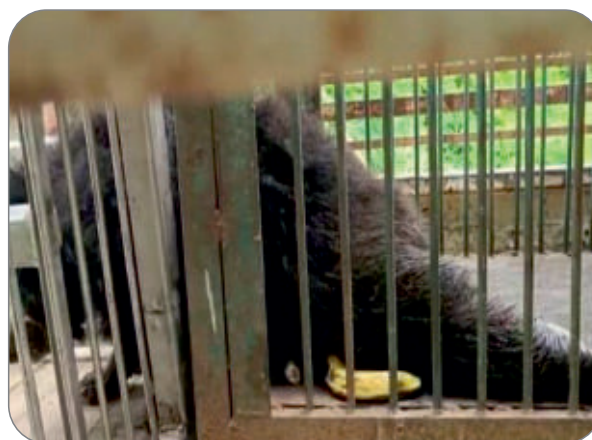
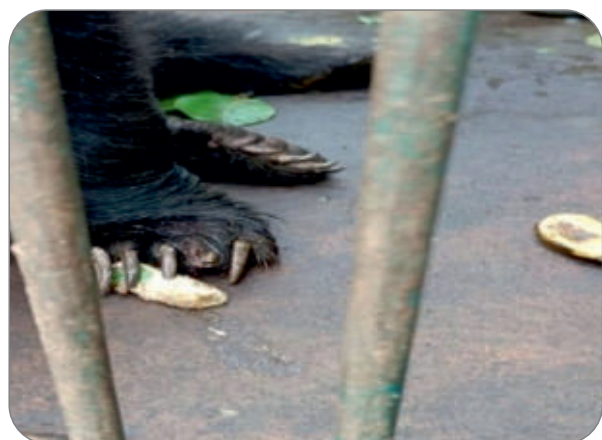
### TREATMENT OF BEAR WITH HIND PORTION IMMOBILITY

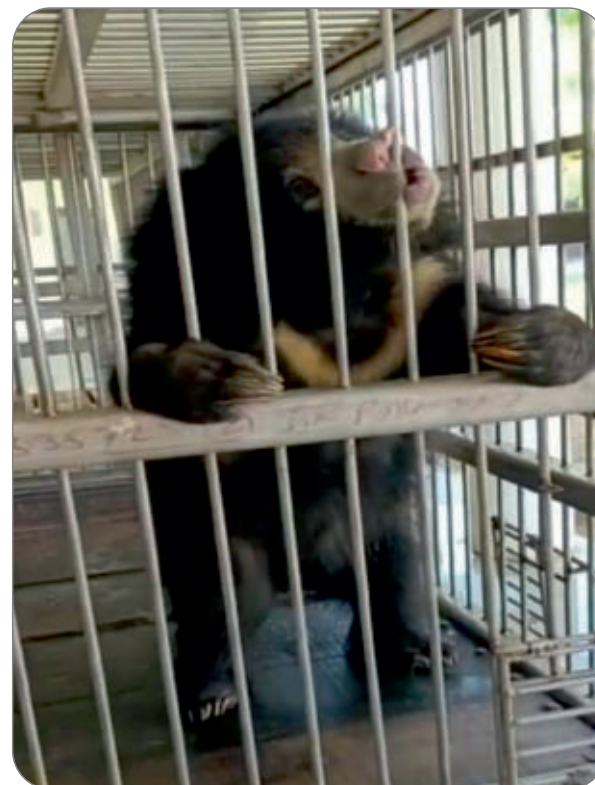
On 31.08.2022, as per directions received from Principal Chief Conservator of Forest-cum-Chief Wildlife Warden, Bihar, an injured female Sloth Bear was sent to Rajgir Zoo Safari hospital from Banka Forest Division for its better treatment.

It was reported that the bear was rescued from residential area near to forest region of Banka District. She was unable to walk from her hind legs and suffering from continuous vomiting at the time of rescue. On close observation it was observed that she was having many wounds on her body. One nail of left foreleg was missing and maggot wound was seen at the base of nail left foreleg.

On arriving at Hospital, the animal was taken inside the observation room and multiple X-rays were taken to rule out fracture of hind-limb or any other parts of the body. The animal was treated symptomatically with antibiotic anti-inflammatory, analgesic and anti-emetic medicines for first 3 to 4 days. The maggot wounds were also treated along with supportive treatment like methylsulphonylmethane (MSM) Glucosamine, Chondroitin, Vitamin C and Hyaluronic acid and Vitamin E.

The food of the animal is supplemented with powerful minerals, antioxidants, multivitamins, Vitamin D-3, Calcium and Nutrients rich in Omega-3 and Taurians. The animal was also given infra-red diathermy therapy daily for 5 to 6 times. The animal recovered and started walking on all his four legs after 40 days of intensive care.





### TREATMENT OF AN OLD TIGER SUFFERING FROM MULTIPLE SEIZURE AND BLOOD PROTOZOA

It was reported that an old male Tiger was seen limping in the early morning of 8 Feb 2023 in its retiring room Krall. The limping was followed by couple of epileptic seizures and frothing from its mouth. The animal was immediately shifted to wildlife hospital of Rajgir Zoo Safari. The frequency of Seizures increased on 9th February 2023. The animal was treated symptomatically with IV fluids, antibiotics, anabolic steroids, multivitamins, Acetylcysteine & Long-acting barbiturate (Phenobarbitone) till 10th February 2023. On 10th February 2023 the blood collection was done for haematology, biochemistry tests and blood parasite examination. The biochemistry examination revealed high level creatinine value (3.67mg/dl) along with increase in neutrophils which was found in its haematology report. The blood smear examination was found positive for Cytosporidium sp. After getting the positive test reports for Cytosporidium sp., the tiger was treated with Imidocarb Dipropionate 12% w/v Injection. The animal had left the food and water since 8th February 2023. After initial treatment for Cytosporidium sp., the animal started taking solid food along with coconut water, which was increased gradually to its normal diet. The injectable medicines were stopped on 22nd February 2023. As the animal was old, it was advised to continue the supportive oral treatment for long time.



## **22 RESEARCH WORK CARRIED OUT AND PUBLICATIONS**

Rajgir Zoo Safari is in process of signing a memorandum of understanding with Patna Veterinary College to carry out research work on the wild animals kept at Rajgir Zoo Safari.

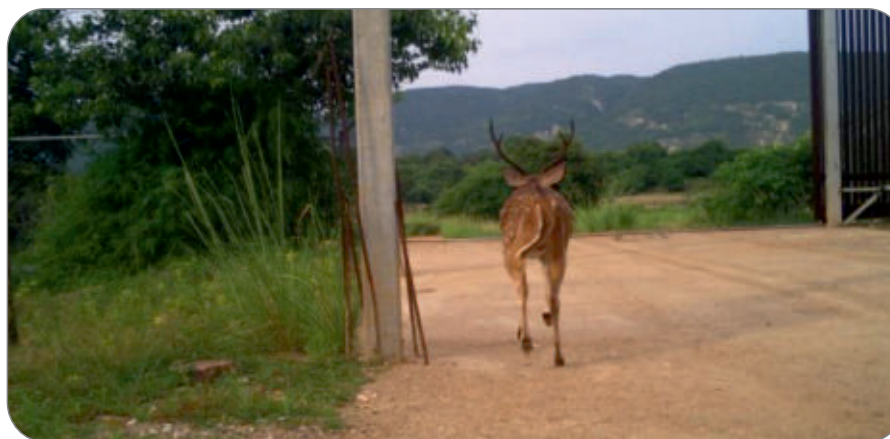
## **23 CONSERVATION BREEDING PROGRAMME OF THE ZOO**

None

## 24 ANIMAL ACQUISITION / TRANSFER / EXCHANGE DURING THE YEAR 2022-23

### A. Animals Arriving in the Zoo

H.No.	Species	Number (M:F:U)	From Which Zoo	Date of arrival in the Zoo
1.	Leopard	2:0:0	Patna Zoo	14-05-2022
2.	Tiger	1:0:0	Patna Zoo	14-05-2022
3.	Sloth Bear	0:1:0	Banka Forest Division	31.08.2022
4.	Spotted Deer	25:75:0	Already Existing in Zoo Safari Area	—
5.	Nilgai	1:3:0	Already Existing in Zoo Safari Area	—



B. Animal going from Zoo				
H.No.	Species	Number (M:F:U)	From Which Zoo	Date of arrival in the Zoo
1.	Asiatic Lion	0:1:0	Sanjay Gandhi Biological Park, Patna	—



## 25 RESCUE AND REHABILITATION OF WILD ANIMALS CARRIED OUT BY THE ZOO

Sl. No.	Date of Rescue	Species with number of animals rescued with their sex	Received From	Date of submission of report to the CWLW/CZA	Action Taken	
					Date and Place of rehabilitation in their habitat	Reason for housing in the zoo, if not released in their habitat
1.	25.12.2021	Leopard	Saran	Letter No.316 dated 13.05.2022	—	For better treatment and health care.
2.	27.12.2021	Leopard	Araria		—	
3.	04.03.2022	Tiger	Valmiki Tiger Reserve-1		—	
4.	30.08.2022	Sloth Bear	Banka	Letter No 566 dated 05.09.2022	—	





## 26 ANNUAL INVENTORY OF ANIMALS

### Form – II [See Rule 11(1)] Part – A Inventory Report for the Year : 2022-23

RAJGIR ZOO SAFARI, NALANDA

Animals listed under Schedule-I & Schedule-II of Wildlife (Protection) Act, 1972 Endangered species.

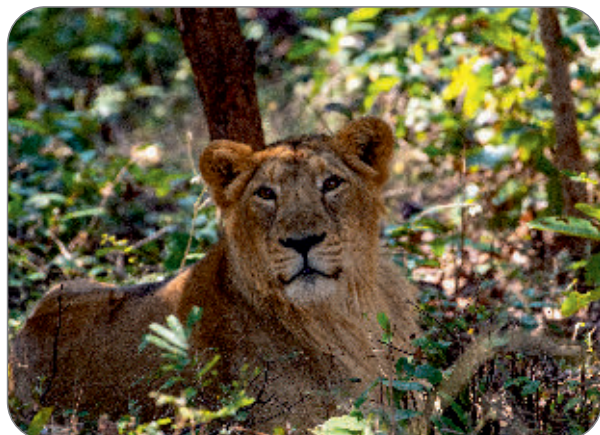
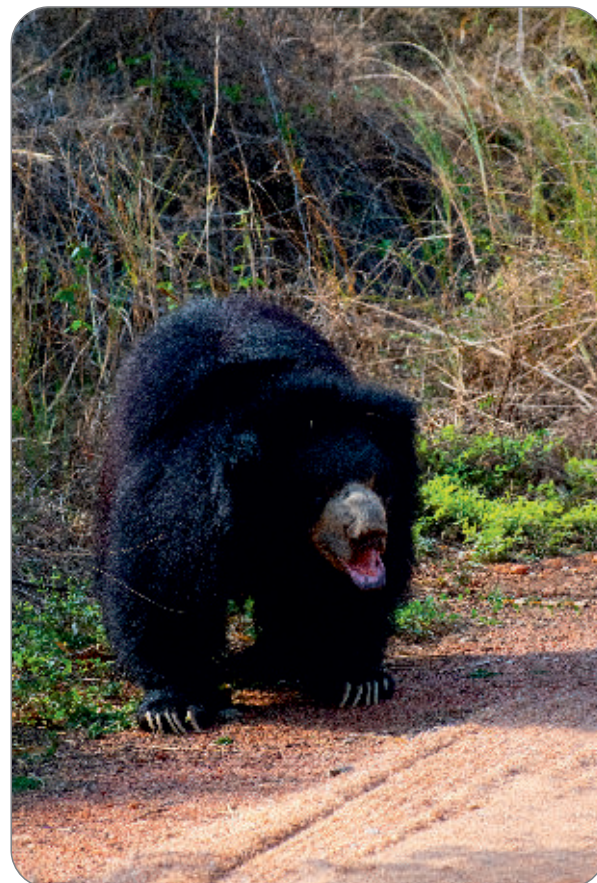
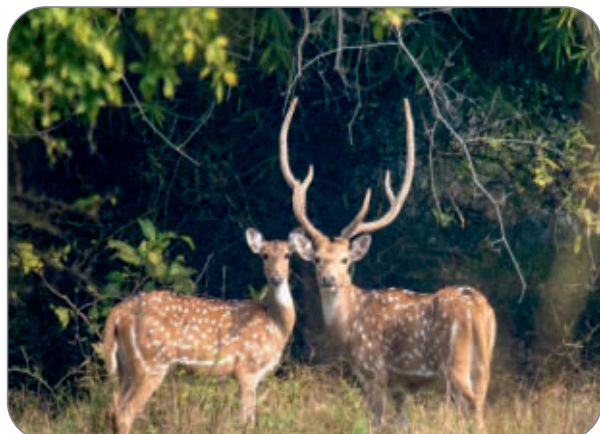
Sl. No.	Animal Name	Scientific Name	Stock as on 01.04.2022				During the Year												Stock as on 31.03.2023				
							Births			Acquisitions			Disposals			Deaths							
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T	
<b>MAMMALS</b>																							
1.	Black Buck	<i>Antilope cervicapra</i>	1	2	1	4	0	0	1	0	0	0	0	0	0	0	1	0	1	1	2	4	
2.	Deer-Hog	<i>Axis porcinus</i>	3	6	0	9	0	0	2	0	0	0	0	0	0	0	0	0	3	6	2	11	
3.	Bear- Sloth	<i>Melursus ursinus</i>	1	1	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	2	0	3	
4.	Asiatic Lion	<i>Panthera leo persica</i>	3	4	0	7	0	0	0	0	0	0	1	0	0	0	0	0	3	3	0	6	
5.	Leopard / Panther	<i>Panthera pardus</i>	1	1	0	2	0	0	0	2	0	0	0	0	0	0	0	0	3	1	0	4	
6.	Tiger-Royal Bengal	<i>Panthera tigris tigris</i>	1	1	0	2	0	0	0	1	0	0	0	0	0	2	0	0	2	1	0	3	
<b>TOTAL MAMMALS</b>			10	15	1	26	0	0	3	3	1	0	0	1	0	2	1	0	13	14	4	31	
<b>TOTAL ANIMALS</b>			10	15	1	26	0	0	3	3	1	0	0	1	0	2	1	0	13	14	4	31	

### Part – B (Other than Endangered Species\*)

Sl. No.	Animal Name	Scientific Name	Stock as on 01.04.2023				During the Year												Stock as on 31.03.2024				
							Births			Acquisitions			Disposals			Deaths							
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T	
<b>MAMMALS</b>																							
7.	Spotted Deer	<i>Axis axis</i>	0	0	0	0	0	0	4	25	75	0	0	0	0	0	0	0	25	75	4	104	
8.	Nilgai- Blue Bull	<i>Boselaphus tragocamelus</i>	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	1	3	0	4	
9.	Barking Deer	<i>Muntiacus muntjak</i>	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	
10.	Sambar Deer	<i>Rusa unicolor</i>	2	6	4	12	0	0	7	0	0	0	0	0	0	0	0	0	4	7	8	19	
<b>TOTAL MAMMALS</b>			2	9	4	15	0	0	11	26	78	0	0	0	0	0	0	0	31	87	12	130	
<b>GRAND TOTAL</b>			12	24	5	41	0	0	14	26	79	0	0	1	0	0	1	0	44	101	16	161	

WILDLIFE OF RAJGIR ZOO SAFARI, NALANDA





## 27 MORTALITY OF ANIMALS

### Details of death report during 2022-23 (from 1st April, 2022 to 31st March, 2023)

Sl. No.	Species	Scientific Name	Date	Sex	No.	Cause of death
1	Black buck	<i>Antelope cervicapra</i>	08.12.2022	F	01	Diaphragmatic hernia and pneumonic collapse.
2	Chital	<i>Axis axis</i>	04.03.2023	F	01	Died due to old age.

## 28 COMPLIANCE WITH CONDITIONS STIPULATED BY THE CENTRAL ZOO AUTHORITY

Sl. No.	Norm No. under RZR, 2009	Condition Stipulated	Time Period to Comply	Since when pending	Status with regard to compliance of the conditions
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Details enclosed as "Annexure- A"

## 29 LIST OF FREE LIVING WILD ANIMALS WITHIN THE ZOO PREMISES:-

### Free Range Birds of Rajgir Zoo Safari, Nalanda.

Sl. No.	Common Name	Scientific Name	Status	IUCN/WPA Status
1	Little Cormorant	<i>Phalacrocorax niger</i>	R*2	Sch-IV
2	Indian Pond Heron	<i>Ardeola grayi</i>	R*1	Sch-IV
3	Cattle Egret	<i>Bulbulcus ibis</i>	RA1	Sch-IV
4	Little Egret	<i>Egretta garzetta</i>	R*2	Sch-IV
5	Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	RM3	Sch-IV
6	Black (Paharia) Kite	<i>Milvus migrans</i>	RM1	Sch.-I
7	Shikra	<i>Accipiter badius</i>	RM2	Sch.-I
8	Bronze-winged Jacana	<i>Metopidius indicus</i>	R*2	Sch.-IV
9	Red-wattled Lapwing	<i>Vanellus indicus</i>	R*A1	Sch-IV
10	Yellow-footed Green Pigeon	<i>Treron phoenicoptera</i>	R*2	Sch-IV
11	Eurasian Collared Dove	<i>Streptopelia decaocto</i>	R*A1	Sch-IV
12	Spotted Dove	<i>Streptopelia chinensis</i>	R*A1	Sch-IV
13	Alexandrine Parakeet	<i>Psittacula eupatria</i>	R*3	Sch-IV
14	Rose ringed Parakeet	<i>Psittacula krameri</i>	R1	Sch-IV
15	Common Hawk Cuckoo	<i>Hierococcyx (Cuculus) varius</i>	R*2	Sch-IV
16	Asian Koel (Koel)	<i>Eudynamys scolopacea</i>	R*1	Sch-IV
17	Greater Coucal	<i>Centropus sinensis</i>	R1	Sch-IV
18	Barn Owl	<i>Tyto alba</i>	R3-4	Sch-IV
19	Spotted Owlet	<i>Athene brama</i>	R1	Sch-IV
20	Asian Palm Swift	<i>Cypsiurus (parvus) batasiensis</i>	R2	Sch-IV

## Free Range Birds of Rajgir Zoo Safari, Nalanda.

Sl. No.	Common Name	Scientific Name	Status	IUCN/WPA Status
21	Common Kingfisher	<i>Alcedo atthis</i>	RM1	Sch-IV
22	Stork-billed Kingfisher	<i>Halcyon (Pelargopsis) capensis</i>	R3	Sch-IV
23	White-throated Kingfisher	<i>Halcyon symnensis</i>	R*1	Sch-IV
24	Green Bee-eater	<i>Merops orientalis</i>	R*M1	Sch-IV
25	Common Hoopoe	<i>Upupa epops</i>	RBW2	Sch-IV
26	Blue-throated Barbet	<i>Megalaima asiatica</i>	R2	Sch-IV
27	Black-rumped Flameback	<i>Dinopium benghalense</i>	N1	Sch-IV
28	Brown Shrike	<i>Lanius cristatus</i>	W2	Sch-IV
29	Eurasian Golden oriole	<i>Oriolus oriolus</i>	RMP2	Sch-IV
30	Black-hooked Oriole	<i>Oriolus xanthornus</i>	R*2	Sch-IV
31	Black Drongo (King-Crow)	<i>Dicrurus (adsimillis) macrocerus</i>	R*A1	Sch-IV
32	Asian Pied Starling	<i>Sturnus contra</i>	R*2	Sch-IV
33	Common Myna	<i>Acridotheres tristis</i>	R1	Sch-IV
34	Rufous (Indian) Treepie	<i>Dendrocitta vagabunda</i>	R2	Sch-IV
35	House Crow	<i>Corvus splendens</i>	RA**1	Sch.-V
36	Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	R1	Sch-IV
37	Red-vended Bulbul	<i>Pycnonotuse cafer</i>	R1	Sch-IV
38	Jungle Babbler	<i>Turdoides striatus</i>	E1	Sch-IV
39	Red-throated Flycatcher	<i>Ficedula (Muscicapa) parva</i>	WP1	Sch-IV
40	Common Tailorbird	<i>Orthotomus sutorius</i>	R1	Sch-IV
41	Blyth's Reed Warbler	<i>Acrocephalus dumetorum</i>	WP(B**?)1	Sch-IV
42	Oriental Magpie Robin	<i>Copsychus saularis</i>	RM1	Sch-IV
43	Olive-backed (Indian Tree) Pipit	<i>Anthus hodginsi</i>	MAW2	Sch-IV
44	White (Pied) Wagtail	<i>Motacilla alba</i>	S,W	Sch-IV
45	White-browed Wagtail	<i>Motacilla maderaspatensis</i>	E2	Sch-IV
46	Pale-billed Flowerpecker	<i>Dicaeum erythrorhynchos</i>	NA2	Sch-IV
47	Purple-rumped Sunbird	<i>Nectarinia zeylonica</i>	R2	Sch-IV
48	Purple Sunbird	<i>Nectarinia aslatica</i>	R*AM1	Sch-IV
49	House Sparrow	<i>Paser domesticus</i>	M1	Sch-IV

Symbols	
<b>E</b>	Endemic to the Indian subcontinent (resident unless otherwise indicated)
<b>N</b>	Near endemic (resident unless otherwise indicated)
<b>R</b>	Resident
<b>B</b>	Breeder
<b>S</b>	Summer visitor
<b>A</b>	Altitudinal migrant
<b>M</b>	Migrants within the subcontinent (e.g. breeds in the Himalays & winters in)
<b>P</b>	Pasage migrant
<b>W</b>	Winter visitor
*	Subject to some (local) seasonal movement or nomadism
**	Localised or patchily distributed (eg. B**= breeds locally)
?	Status uncertain
<b>1</b>	Abundant or very common
<b>2</b>	Common
<b>3</b>	Fairly common
<b>4</b>	Uncommon

Free Range Mammals of Rajgir Zoo Safari, Nalanda.		
S.No.	Name of species	Scientific Name
<b>1</b>	Blue bulls	<i>Boselaphus tragocamelus</i>
<b>2</b>	Wild boar	<i>Sus scrofa</i>
<b>3</b>	Civet – Common Palm	<i>Paradoxurus hermaphroditus</i>
<b>4</b>	Stripped Squirrel	<i>Funambulus palmarum</i>
<b>5</b>	Porcupine	<i>Hystericus indica</i>
<b>6</b>	Jackals	<i>Canis aureus</i>
<b>7</b>	Hare	<i>Lepus nigricollis</i>

Free Range Reptiles of Rajgir Zoo Safari Nalanda		
S.No.	Name of species	Scientific Name
<b>1</b>	Indian spectacled cobra	<i>Naja naja</i>
<b>2</b>	Krait	<i>Bungarus caeruleus</i>
<b>3</b>	Russell's viper	<i>Daboia russelli</i>
<b>4</b>	Indian rock python	<i>Python molurus</i>
<b>5</b>	Common wolf snake	<i>Lycodon capucinus</i>
<b>6</b>	Common vine snake	<i>Ahaetulla nasuta</i>
<b>7</b>	Common bronzeback tree snake	<i>Dendrelaphis tristis</i>
<b>8</b>	Monitor lizard	<i>Varanus varanus</i>
<b>9</b>	Rat snake	<i>Zamenis longissimus</i>
<b>10</b>	Oriental rat snake	<i>Ptyas mucosa</i>
<b>11</b>	Common cat snake	<i>Boiga trigonata</i>
<b>12</b>	Common sand boa	<i>Eryx conicus</i>
<b>13</b>	Chekered keelback	<i>Fowlea piscator</i>
<b>14</b>	Brahminy worm snake	<i>Ramphotyphlops braminus</i>
<b>15</b>	Buff striped keelback	<i>Amphiesma stolatum</i>
<b>16</b>	Common kukri	<i>Oligodon arnensis</i>

## ANNEXURE A

## 30 DETAILS ON COMPLIANCE OF THE CONDITIONS STIPULATED BY THE CENTRAL ZOO AUTHORITY

(as per the earlier letter of grant of recognition issued to the zoo)

Issued vide Letter No. (1) Computer. No. 139450, F. No. 20-4/2015-CZA(Vol-II)(E), dated 18.12.2020.

Sr. No	Norm No. under RZR, 2009	Condition Stipulated	Time Period to Comply	Since when pending	Status with regard to compliance of the conditions as submitted by the Officer-in-charge of the Zoo
1.	10 (1.1)	The zoo should make efforts to maintain population of physically, genetically and behaviourally healthy animals.	Right from the opening/beginning of zoo.	18.12.2020	Complied.
2.	10 (2.2)	The zoo should appoint a Biologist and Education Officer before the Zoo is opened to public.	Once the Zoo is opened.	18.12.2020	The appointment is under process.
3.	10 (3.1)	The amended Master Plan of the Zoo should be prepared and submitted to CZA for its approval.	Six months.	18.12.2020	Master Layout Plan has been submitted for approval. Master Plan is under process of submission.
4.	10 (3.5)	The rescued animals to be housed at the Rescue Centre should have prior approval from the Chief Wildlife Warden of the state.	With immediate effect.	18.12.2020	Complied
5.	10 (4.3)	The zoo should ensure completion of minor construction works such as chain-link fixtures, entry gate, finishing touches in holding rooms, door locking mechanism towards keeper gallery etc. and a report should be submitted to CZA before opening the Zoo.	Before the time of opening of the Zoo.	18.12.2020	Complied
6.	10 (4.10)a & 10 (11.1)a	The Zoo should ensure installation of appropriately located bilingual signages containing the biological & behavioural information of respective animals.	Before the Zoo is operationalized.	18.12.2020	Complied. It is a Safari where visitors are taken in a Bus to see the wild animals. Hence, the information about the animal biology, behaviour etc are being provided to the visitors through audio-visual means in the Safari Bus and Guides deployed in the Safari Bus.
7.	10 (4.10)c & 10 (11.1)b	The Zoo should also make effort to complete the work of Interpretation Centre at the earliest.	One year.	18.12.2020	Complied.

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Sr. No	Norm No. under RZR, 2009	Condition Stipulated	Time Period to Comply	Since when pending	Status with regard to compliance of the conditions as submitted by the Officer-in-charge of the Zoo
8.	10 (5.2)3	The Zoo should have appropriate storage facility for meat and feed for the animals, at least for one week keeping in view the emergency situation like prevailing pandemic (COVID-19).	With immediate effect.	18.12.2020	Complied.
9.	10 (5.2)6	The Zoo authorities should take up the random food and water samples being tested periodically for microbiological, toxicological and any other contaminants at recognized laboratory.	Six months.	18.12.2020	Complied.
10.	10 (5.3)3	At the time of acquisition of animals, all animals arriving should be screened for parasitic loads and prophylactic medicines administered as per clinical requirements and vaccination of animals against infectious diseases are also done, as per the prescribed schedule.	Six months.	18.12.2020	Complied.
11.	10 (5.3)4	The Zoo should have written schedule of vaccination and de-worming of different species of wild animals proposed to be housed at Zoo and the same should also be displayed at the enclosure.	With immediate effect.	18.12.2020	Complied. Written schedule of vaccination and de-worming of different species of wild animals has been prepared, followed, and displayed at the enclosure.
12.	10 (5.3)5	The Zoo should maintain detailed records of observations of biological and social behaviour and health status of the animals including feed intake, medication and treatment provided in the keeper's diary, daily reports, animal history cards and treatment cards, as per standards specified by the Central Zoo Authority.	With immediate effect.	18.12.2020	Complied. All records are being maintained as per the standards specified by the CZA.
13	10 (5.3)6	All staff of the Zoo involved with upkeep and healthcare of Zoo animals screened against zoonotic diseases once every year and action appropriate should be ensured.	With immediate effect.	18.12.2020	Complied. The staff involved in animal upkeep and health care are being screened for zoonotic diseases every year.
14.	10 (5.3)8 & 10 (6.4)	The Zoo should have formal linkages with some Veterinary University/Institution through a MoU on healthcare, preventive, health management, surgical interventions, clinical tests, disease diagnosis and consultation in treatment and management.	One year.	18.12.2020	Complied. MoU with Bihar Veterinary College, Patna is under progress.
15.	10 (1.9)	Prior to operationalising the Zoo, it shall be ensured that all wild and domestic animals shall be driven out of the Zoo campus, before releasing animals in safari.	With immediate effect.	18.12.2020	Complied.



Sr. No	Norm No. under RZR, 2009	Condition Stipulated	Time Period to Comply	Since when pending	Status with regard to compliance of the conditions as submitted by the Officer-in-charge of the Zoo
16.	10 (6.2)1	The Zoo should have appropriate animal restraint equipment, accessories and drugs before operationalized.	With immediate effect.	18.12.2020	Complied.
17.	10 (6.3)	The Zoo/Rescue Centre Should appoint support staff (Lab Assistant & Compounder) as specified by the CZA.	As early as possible.	18.12.2020	Complied.
18.	10 (8.1)	The Zoo/Rescue Centre should not euthanize any animal unless doing so is essential for relieving from suffering from incurable disease/condition as per the norms of CZA.	With immediate effect.	18.12.2020	Complied.
19.	10 (10.1)	The Zoo should have act on implementation of research plan as indicated in the Master Plan and conducted research on need-based solution-oriented research projects.	From the beginning itself.	18.12.2020	Research papers have been presented by the Zoo Veterinarians at different forums. Also, detailed need-based solution-oriented research is being taken up once MoU with Bihar Veterinary College, Patna is signed.
20.	10 (12.1) a & b	Additional number (1 or 2) of drinking water point and urinals can be provided alongside the exit road of the Zoo Safari.	One year.	18.12.2020	Complied.
21.	10 (12.2)	The Zoo should ensure availability of first-aid facilities including snake anti-venom and life saving drugs, readily available in the Zoo premises.	With immediate effect.	18.12.2020	Complied.
22.	10 (12.3)	The Zoo should ensure that visitor facilities are “Divyang Jan” friendly and have easy access. Further, wheel chair should also be readily available.	Before opening of the Zoo to public.	18.12.2020	Complied.



Sundari, Female Sloth Bear



Swarna, Tigress



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