



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 0 - 2 1





Vishal, Asiatic Lion



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Dr. Gopal Singh, IFS

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



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DEPARTMENT OF ENVIRONMENT,
FOREST AND CLIMATE CHANGE**

M E S S A G E

I am thrilled to present the annual report for Rajgir Zoo Safari for the year 2020-21, which marks a monumental milestone in our journey towards excellence in wildlife conservation and visitor education. This year, Rajgir Zoo Safari got its inaugural recognition from the Central Zoo Authority, a testament to our unwavering commitment to ensure international standards in zoo management. Received on 16th December 2020, this accolade validates our efforts in creating a scientifically designed facility aimed at conserving endangered wildlife and promoting biodiversity awareness among our visitors.

Throughout the year, we meticulously executed the transfer of wild animals, ensuring their safety and well-being as they acclimatized to their new, larger enclosures mimicking their natural habitats. This transformation will not only ensure enhancement in their health but will also provide enriched experience for our visitors.

Looking ahead, we are on track to complete all visitor facilities, scheduled for inauguration in 2021-22. These enhancements promise an immersive and educational experience amidst Rajgir's breathtaking hills and diverse flora and fauna.

None of our achievements would have been possible without the visionary leadership of Sh. Nitish Kumar, Hon'ble Chief Minister of Bihar. I extend my deepest gratitude for his steadfast support and continuous guidance.

I also express gratitude to the Hon'ble Minister and officials of the Department of Environment, Forest and Climate Change, Bihar, Central Zoo Authority, New Delhi and the MoEF&CC for their invaluable support and cooperation. I commend the dedicated team at Rajgir Zoo Safari whose hard work and commitment are shaping this facility into a model of excellence in wildlife conservation. Together, we aim to exceed expectations and set new standards in wildlife conservation efforts nationally and internationally.

Warm regards,

Dr. Gopal Singh, IFS











Bheema, Tiger

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1 REPORT OF THE OFFICER-IN-CHARGE:



Hemant Patil, IFS
Director,
Rajgir Zoo Safari, Nalanda

The year 2020-21 has become a significant year in the history of Rajgir Zoo Safari as it got its first recognition from Central Zoo Authority. After successful completion of all the facilities required for housing of the wild animals, in accordance with the approved enclosure drawings and as per standards and norms laid down by the central Zoo Authority, Rajgir Zoo Safari got its first recognition on 16th December 2020 after thorough evaluation by the Monitoring and evaluation team from Central Zoo Authority. The broad vision that has been kept in background while developing this facility has been to come up as a center of excellence in ex-situ wildlife conservation and to try to make invaluable contributions to the conservation of native endangered species. Dedicated efforts has been made to develop this facility as a scientifically designed zoo safari with attempt to achieve the ethos of National Zoo Policy for conservation of native endangered species along with sensitizing the visitors about biodiversity conservation. The design strategy has been based on providing a safe and nurturing environment, coupled with cutting-edge veterinary care, while reducing the maintenance cost by using the best quality material so that Rajgir Zoo Safari emerge as a model Zoo. We are dutybound to come as a successful conservation breeding center with a vision to reintroduced several endangered species back into their natural habitats, thus bolstering national efforts towards species recovery and biodiversity conservation through scientific studies and research.

In this year, we successfully carried out transfer of some of the wild animals as per approved collection plan of Rajgir Zoo Safari, after due approval from animal transfer from Central Zoo Authority, New Delhi. The transfer process was meticulously planned and executed, ensuring the safety and well-being of the animals throughout the transition. It was challenging to see that these animals adopt to the new area and the new concept of Safari, where they are getting larger enclosures. It was very heartening to see that all the animals adapted to the conditions and to the larger enclosure created in their natural habitat. Significant improvement was also seen in their health.

During this year we also completed most of the development of all the visitor facilities for its inauguration in 2021-22.

Rajgir Zoo Safari is blessed with vast floral, faunal, avifaunal and butterfly biodiversity with picturesque hills from all sides. It will be very satisfying to see if the tourist like this concept of seeing the wild animals in their near natural habitat. 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, 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 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. 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 and I hope they will leave no stone unturned to develop this safari as per the expectations of the state government.

Hemant Patil
Director, Rajgir Zoo Safari, Nalanda

2 HISTORY OF THE ZOO

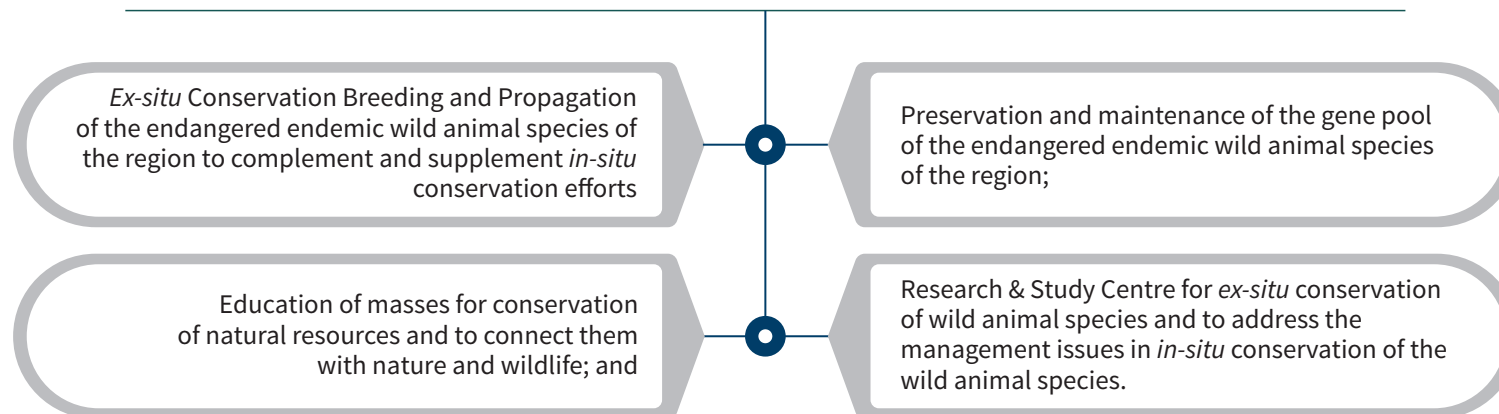
The Rajgir Zoo Safari is first Zoo Safari in the state of Bihar. It has been established in Rajgir Wildlife Sanctuary area by extending the earlier Mrig Vihar. After getting necessary approvals for its establishment from National Board of Wildlife in March 2015, it got its in-principal approval from Central Zoo Authority in May 2017. On 16th December 2020, Rajgir Zoo Safari got recognized as a Zoo by Central Zoo Authority.

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	https://rajgirzoosafari.bihar.gov.in
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 2021-22 (Financial Year from 16 Feb 2022 to 31st March 2022)	Zoo Safari was not opened for public during the reporting Year 2020-21.
Visitors' Facilities Available in Zoo	<p>Following Facilities are developed for visitors.</p> <ul style="list-style-type: none"> ■ Online Ticket Booking ■ Interpretation Centre with audio visuals ■ Orientation Hall ■ Specially modified Safari Vehicles with larger view and Guide in every bus. ■ 180 degree theatre with 180 seating capacity ■ Selfie point ■ Parking ■ Purified Drinking Water Facility ■ Wheel chairs and ramps at entry/exit ■ Washroom Facility ■ Battery Operated Vehicles ■ Signages ■ Visitor sheds ■ Benches ■ Ambulance ■ First Aid Kit ■ Children's Park ■ Shapath Stambh for adopting eco friendly lifestyle- Touch Screen based
Weekly Closure Day of the Zoo	Monday

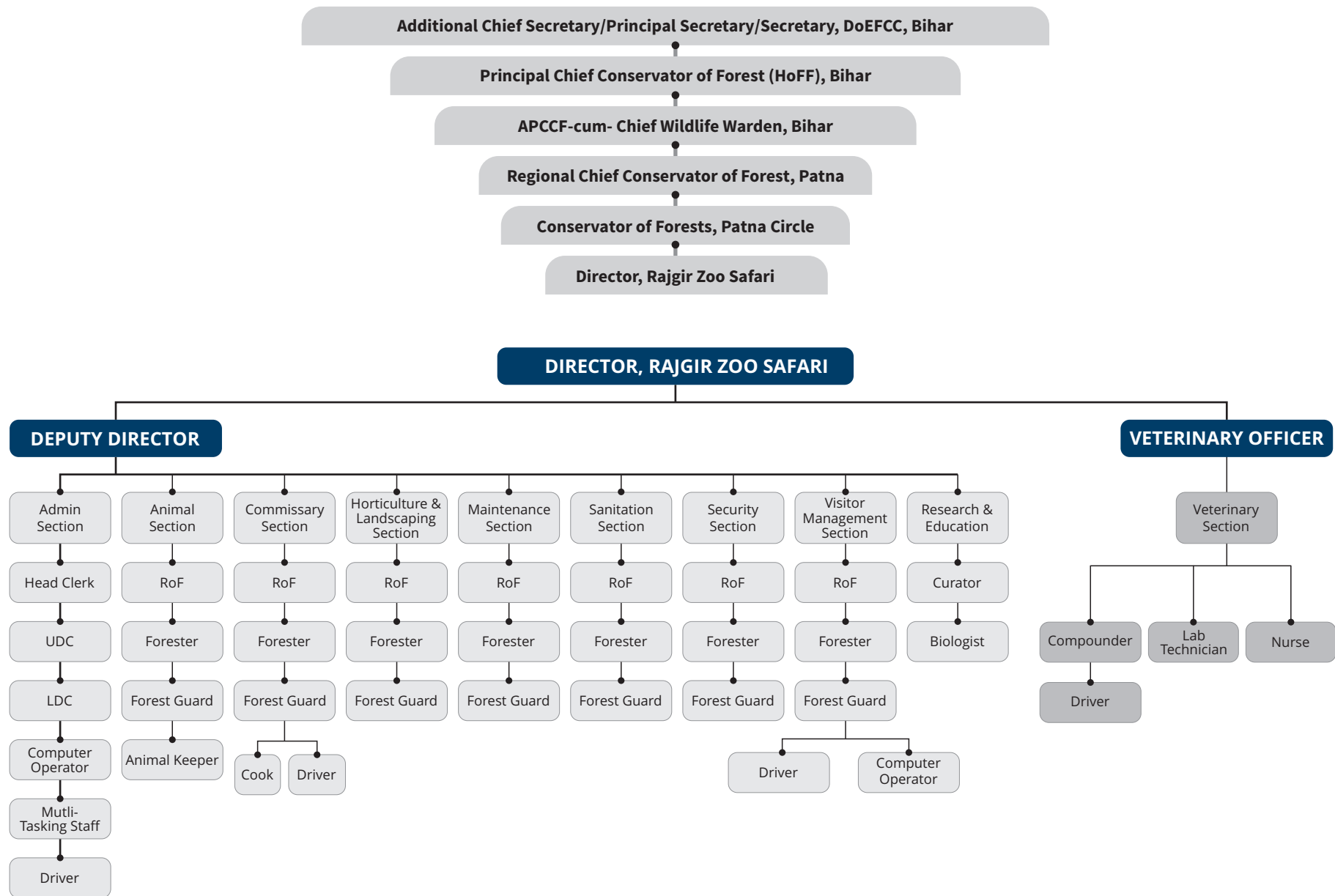
MANAGEMENT PERSONNEL OF THE ZOO

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 2020-21

Sl. No.	Designation	No. of Sanctioned Post	Names of the incumbent
1.	Director	1	Mr Hemant Patil, IFS
2.	Deputy Director	1	Mr Subodh Kumar Gupta
3.	Veterinary Officer	1	Dr Dalip Kumar Baitha
4.	Range Officer of Forest	2	Mr Arvind Kumar, Mr Lala Prasad

8.2 PERMANENT STAFF OF RAJGIR ZOO SAFARI DURING THE YEAR 2020-21

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 Kumar Anshu, Mr Amit Kumar Sinha

Safari Zone

1.	Range Officer of Forests	1	Mr Lala Prasad
2.	Forester	1	Praveen Kumar Gupta
3.	Forest Guard	6	Mr Anus Mansuri, Mr Bipin Kumar, Ms Ragini Kumari, Mr Sunil Kumar Suman, Mr Pappu Manjhi
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	—
5.	Forest Guard	4	Ms Pooja Kumari, Mr Surya Prakash, Mr Vedvyas Kumar
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	2	—
3.	Forest Guard	6	Mr Amit Kumar, Mr Bawan 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	Online Compulsory Training on “Leveraging Teamwork for Achieving Organizational Objectives”	19th October 2020 to 23rd October 2020	Goa Institute of Training and Studies.
2.	Subodh Kumar Gupta, BFS	Dy. Director	Wildlife Law & Crime in Web Era	12th January 2021	North Eastern Police Academy, Ministry of Home, Umsav Meghalaya (Through Online Mode)
3.	Dr. Dalip Kumar Baitha	Veterinary Officer	Online and Field Training Course on Wildlife Disease Investigation	4th January 2021 to 4th April, 2021	WII, Dehradun and Sariska Tiger Reserve Rajasthan





FOREST GUARD TRAINING FOR WILDLIFE MANAGEMENT



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 : Not held during the year since most of the animal were transferred in the month of March 2021.

12 STATEMENT OF INCOME AND EXPENDITURE OF THE ZOO

Year	Total Revenue	Total Expenditure
2020-21	0	42,08,01,039

* The Rajgir Zoo Safari was not opened for public during the reporting Year 2020-21.

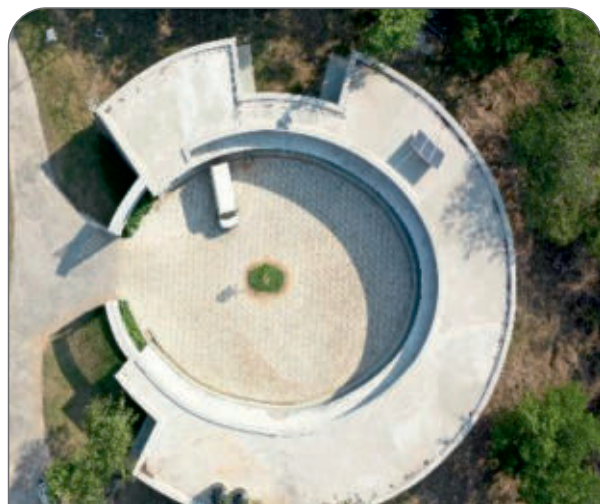
13 DAILY FEED SCHEDULE OF ANIMALS

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		
		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.	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	Lion/Tiger	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.

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 Covid-19 test were conducted on Weekly Basis	Weekly Basis	No Adverse Finding



18 DEVELOPMENT WORKS CARRIED OUT IN THE ZOO DURING THE YEAR

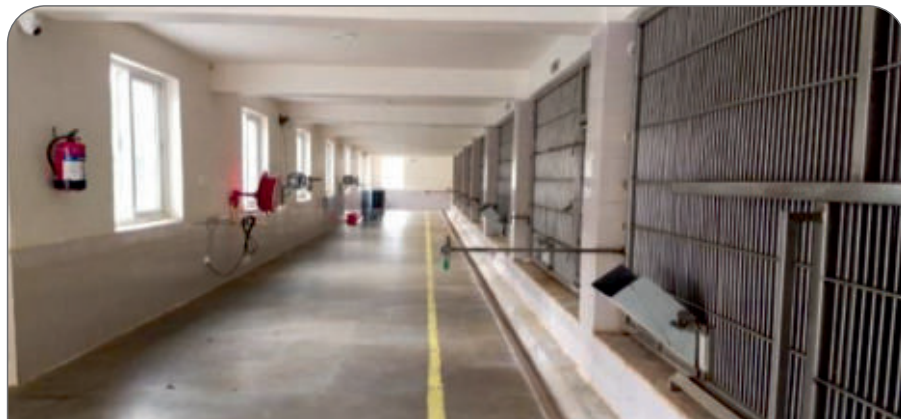
S. No.	Work done
1.	All Facilities of Reception and Orientation Zone Completed
2.	Development of Bird Aviary is in Progress

FACILITIES DEVELOPED IN SAFARI ZONE OF RAJGIR ZOO SAFARI

HERBIVORE ENCLOSURE



BEAR ENCLOSURE



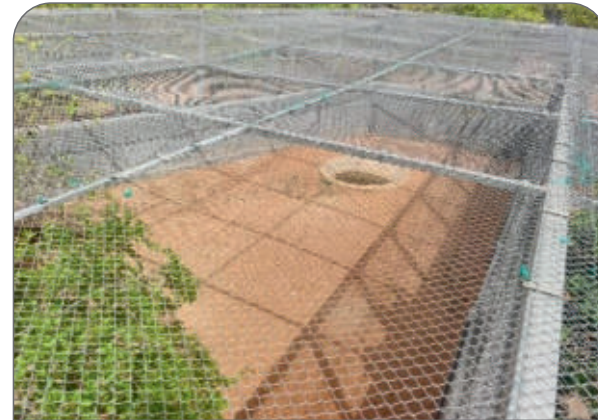
LEOPARD ENCLOSURE



TIGER ENCLOSURE



LION ENCLOSURE



FACILITIES DEVELOPED IN MANAGEMENT ZONE OF RAJGIR ZOO SAFARI

VETERINARY HOSPITAL



Bird's-eye View



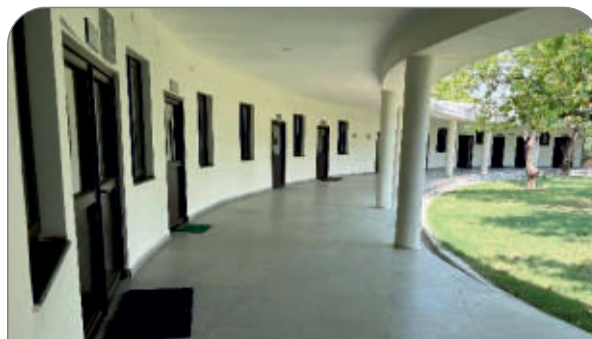
Front View



Foot wash at Main Gate of Hospital



Reception Area



Corridor Area Left Side



Corridor and Lawn Area



Corridor and Lawn Area



Laboratory Main Entrance



Surgical and PM Kit Bag



Large Animal PM Kit



Large Animal Surgical Instruments Kit



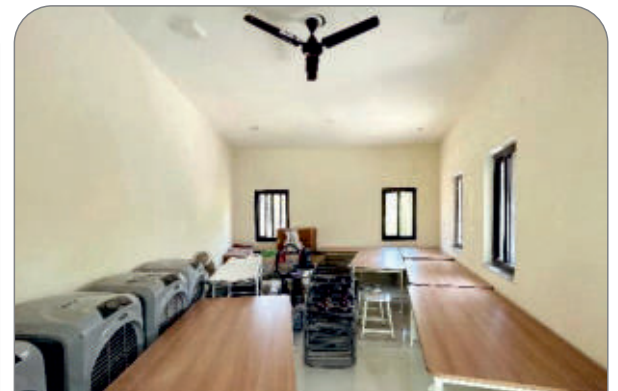
Small Animal Surgical Instruments Kit



Weighing Machine



Weighing Machine to weigh animal



Store Room



Hospital Pantry



S.S Carnivores Transportation Cage



Trolley for Large Animal



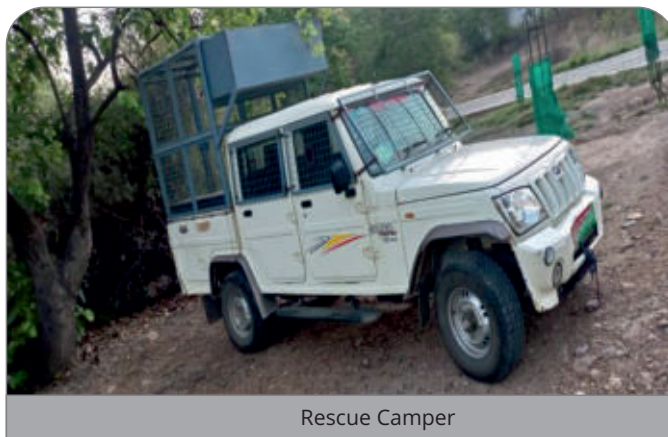
Doctor Chamber 2



S.S Drug Trolley



Vaccine Carrier



Rescue Camper



Rescue Tractor



Solar and Water Tank



CCTV Control Unit

HERBIVORE AND CARNIVORE QUARANTINE FACILITY



Aerial View



Keeper Room



Herbivore Quarantine Keeper's Gallery



Cells of Carnivore Quarantines



Carnivore Quarantine Keeper's Gallery



Herbivore Quarantine Cells

POST MORTEM ROOM



Postmortem Building



Postmortem Hall



Doctor's Room with Shower



Sample Collection Room

COMMISSARY



Bird's Eye View



Front View



Interior View



Record Room



CCTV Camera with LED Tv



Weight Recording Machine



Non- Veg Preparation Room



Non-Veg Preparation Room



Food Utensils Storage



Stove with Cylinder



Chimney in Non-Veg Section



Non- Veg Distribution Counter



Fish & Chicken Preparation Room



Deep Freezer



Ice Box



Weighing Machine



Cold Storage Room



Non- Veg Delivery Vehicle



Feed Storage Rack



Feed storage Utensils



Water Purifier



Refrigerator



Grass storage shed



Grass cutting machine



Tractor for Grass delivery



Weighing Bridge

19 EDUCATION AND AWARENESS PROGRAMMES DURING THE YEAR

S. No.	Programmes
1.	—

**The Rajgir Zoo Safari was not opened for public during the reporting Year 2020-21.*

20 IMPORTANT EVENTS AND HAPPENINGS IN THE ZOO

VISIT OF CENTRAL ZOO AUTHORITY EVALUATED TEAM, NEW DELHI



VISIT OF SENIOR OFFICIALS OF FOREST DEPARTMENT



INDEPENDENCE DAY AND REPUBLIC DAY CELEBRATION



NEWS IN PRINT MEDIA



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, covering of windows, providing wooden pegs in animals Retiring Rooms and Cells, 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.





VERMI COMPOST UNIT MAINTENANCE



VERMI COMPOST UNIT MAINTENANCE



SOIL AND MOISTURE CONSERVATION WORK



22 RESEARCH WORK CARRIED OUT AND PUBLICATIONS

None

23 CONSERVATION BREEDING PROGRAMME OF THE ZOO

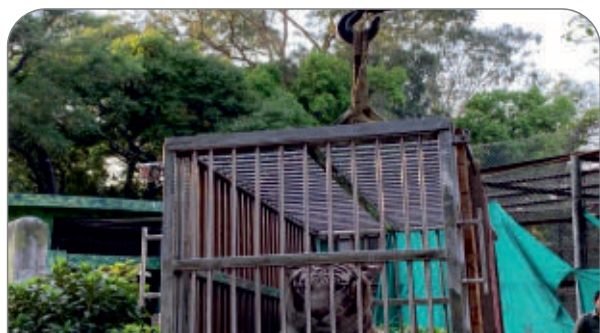
None

24 ANIMAL ACQUISITION / TRANSFER / EXCHANGE DURING THE YEAR 2020-21

A. Animals Arriving in the Zoo				
H.No.	Species	Number (M:F:U)	From Which Zoo	Date of arrival in the Zoo
1.	Sambar	1:3:0	Patna Zoo	18.01.2021
		1:2:0		01.02.2021
		0:1:0		04.02.2021
2.	Hog Deer	1:3:0	Patna Zoo	31.01.2021
		1:3:0		04.02.2021
3.	Barking Deer	2:6:0	Patna Zoo	08.02.2021
4.	Tiger	1:0:0	Patna Zoo	09.03.2021
		0:1:0		15.03.2021
5.	Lion	1:0:0	Patna Zoo	22.03.2021



Herbivore Transfer in Retiring Room



Tiger Transfer in Retiring Room



Lion Transfer in Retiring Room

H.No.	Species	Number (M:F:U)	From Which Zoo	Date of arrival in the Zoo
—	—	—	—	—

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.	—	—	—	—	—	—

26 ANNUAL INVENTORY OF ANIMALS

Form - II [See Rule 11(1)] Part - A

Inventory Report for the Year : 2020-21

RAJGIR ZOO SAFARI, NALANDA

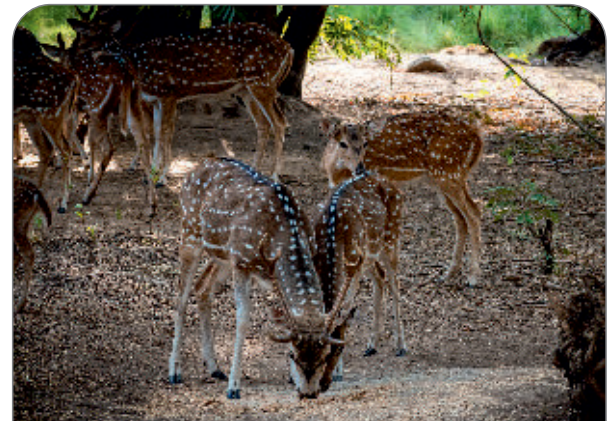
Animals listed under Schedule-I & Schedule-II of Wildlife (Protection) Act, 1972 Endangered species.

Sl. No.	Animal Name	Scientific Name	Stock as on 01.04.2020				During the Year												Stock as on 31.03.2021						
							Births			Acquisitions			Disposals			Deaths									
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T			
MAMMALS																									
1.	Deer-Hog	<i>Axis porcinus</i>	0	0	0	0	0	0	0	2	6	0	0	0	0	0	0	0	0	0	0	2	6	0	8
2.	Asiatic Lion	<i>Panthera leo persica</i>	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
3.	Tiger-Royal Bengal	<i>Panthera tigris tigris</i>	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	2
TOTAL MAMMALS			0	0	0	0	0	0	0	4	7	0	0	0	0	0	0	0	0	0	0	4	7	0	11
TOTAL ANIMALS			0	0	0	0	0	0	0	4	7	0	0	0	0	0	0	0	0	0	0	4	7	0	11

PART - B (Other than Endangered Species*)

Sl. No.	Animal Name	Scientific Name	Stock as on 01.04.2021				During the Year												Stock as on 31.03.2022						
							Births			Acquisitions			Disposals			Deaths									
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T			
MAMMALS																									
4.	Barking Deer	<i>Muntiacus muntjak</i>	0	0	0	0	0	0	0	2	6	0	0	0	0	0	0	0	0	1	0	2	5	0	7
5.	Sambar Deer	<i>Cervus unicolor</i>	0	0	0	0	0	0	1	2	6	0	0	0	0	0	0	0	0	0	0	2	6	1	9
TOTAL MAMMALS			0	0	0	0	0	0	1	4	12	0	0	0	0	0	1	0	4	11	1	16			
GRAND TOTAL			0	0	0	0	0	0	1	8	21	0	0	0	0	0	1	0	8	18	1	27			

WILDLIFE OF RAJGIR ZOO SAFARI, NALANDA



27 MORTALITY OF ANIMALS

Details of death report during 2020-21 (from 1st April, 2020 to 31st March, 2021)

Sl. No.	Species	Scientific Name	Date	Sex	No.	Cause of death
1	Barking Deer	<i>Muntiacus muntjak</i>	12.03.2021	F	01	The said animal is died due to Amphistomiasis.

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

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

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

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
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	No such case during the period.
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	Being Complied.
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	Being 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	Being Complied.











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