

# Jawaharlal Nehru Biological Park

Bokaro, Jharkhand

ANNUAL REPORT FOR THE YEAR

**2019-20**



**LIST OF CONTENTS**

	Page No.
<u>Report of the Officer In-charge</u>	3
<u>History</u>	4
<u>Vision</u>	5
<u>Mission</u>	5
<u>Objective</u>	5
<u>JNB Park at a Glance</u>	6
<u>Organizational Chart</u>	8
<u>Human Resources</u>	9
<u>Capacity Building</u>	10
<u>Zoo Advisory Committee</u>	10
<u>Health Advisory Committee</u>	10
<u>Budget, Income &amp; Expenditure</u>	11
<u>Daily Feed Schedule</u>	13
<u>Vaccination Schedule</u>	16
<u>De-worming Schedule</u>	16
<u>Disinfection / Cleaning schedule</u>	16

---

<u>Health Check-up of Employees</u>	18
<u>Development Works</u>	18
<u>Education and Awareness Programme</u>	19
<u>Important Events and Happenings</u>	22
<u>Seasonal Special Arrangements</u>	24
<u>Rescue and Rehabilitation</u>	25
<u>Annual Inventory of Animals</u>	26
<u>Mortality of Animals</u>	29
<u>Status of the Compliance with Conditions Stipulated by the CZA</u>	30
<u>Free Living Animals within the Zoo premises</u>	36

## **REPORT OF THE OFFICER IN-CHARGE**

I felt proud to present the Annual Report of Jawaharlal Nehru Park, Bokaro for the year 2019-20. During this year under the guidance of CGM (TS), various developmental activities were initiated at JNB Park.

Repair of park boundary wall, Replacement of damaged iron chain link with new one in Leopard Enclosure, Painting work of park were carried out during this year.

During this year, various Educational and Awareness Programme were carried out in the park on the occasion of World Environment Day, Wildlife Week and International Yoga Day.

Park gives high priority for cleanliness and maintenance of greenery throughout the year. About 1000 tree saplings were planted during this year.

I acknowledge the hard work put in by the dedicated team of JNB Park and I extend my sincere thanks to the management of Bokaro Steel Plant.

## HISTORY

Early in 1959, the existing area of JNB Park used to be a thick forest covered with trees of different varieties, such as Sakhua, Sagwan, Mahua, Arjun and Palas etc.

JAWAHARLAL NEHRU BIOLOGICAL PARK is the dream turned to reality, of the great Visionary, Sri S. R. Ramakrishnan, the then Managing Director of Bokaro Steel Plant who thought to utilize the abundant thick forest area in the city, Sector-IV, Bokaro Steel City of the Jharkhand State.

The park was named after a true lover of nature, Pandit Jawaharlal Nehru, the first Prime Minister of India. The Park is situated in the heart of Bokaro Steel City and spread over an area of 126.42 acres of land having minimal surface gradients (3%) in the Steel Township. The Park was opened for the public on 14-01-1989. It is owned and managed by SAIL/Bokaro Steel Plant.

Now-a-days it is an abode of rare and endangered species of wild life and colourful birds. The lush sylvan surrounding of the park has become a centre place of attraction for the resident of this industrial belt.

The park has come up to this stage due to the skill of Architects, Engineers of the BSL, Naturalists, NGOs and individual associates of the area.

## **VISION**

The vision of JNB Park is to sensitize people for caring and conservation of wild flora and fauna.

## **MISSION**

- I. Conservation and breeding of wild animals/birds of Chotanagpur region, Jharkhand and nearby states.
- II. Provide naturalistic enclosures to various animals for conservation and propagation of wildlife.
- III. As a zoo is a living laboratory, visitors, particularly students will learn habit, habitat, behavior, biology and other interesting information of wildlife at the shortest time which will be useful for protection and conservation of wildlife.

We intend to use state of the art technology for betterment of the Park and want to give a naturalistic habitat. Also, we intend to connect nationally with all Zoo communities.

## **OBJECTIVE**

JNB Park is a condensed source of information about nature and wildlife and the objective of the park will be spreading of conservation, education and create awareness among visitors.

## JNB PARK AT A GLANCE

### ❖ BASIC INFORMATION

- Name of Zoo : Jawaharlal Nehru Biological Park
- Date of Establishment : 14-Jan-1989
- Address : Sector - IV, Bokaro Steel City (827004)
- State : Jharkhand
- Contact details : Ph - (06542)287239  
Fax - (06542)240227  
E-mail - jnbparkbokaro@gmail.com
- Distance from nearest : Ranchi Airport - 130 km  
Bokaro Steel City Railway St. - 13 km  
Govt. Bus Stand, Bokaro - 6 km
- Recognition Validity : 21<sup>st</sup> March 2020 ( Visit of CZA Evaluation Committee's has been done in the month of February'2020)
- Category of zoo : Medium
- Area (in hectares) : 51.160
- Number of visitors : Adult - 1,32,074  
Children - 1,42,306  
Total Visitors - 2,74,380
- Visitors Amenities : Visitor circulation pathway  
Drinking water  
Visitor sheds  
Toilets (gents, ladies & Handicapped)  
Wheel chair

First aid

Guide maps

Interpretation centre, etc

- Weekly closing day : Monday

#### ❖ MANAGEMENT PERSONNEL

- Officer in – charge : Dr G Chakraborty

- Veterinary Officer : Dr G Chakraborty

- Curator : --

- Education Officer/Biologist : --

- Compounder : --

#### ❖ OPERATOR OF THE ZOO

- Name of Operator : CGM (TS), SAIL/BSL

- Address : Nagar Sewa Bhawan, Sector – 4,  
Bokaro (827001), Jharkhand

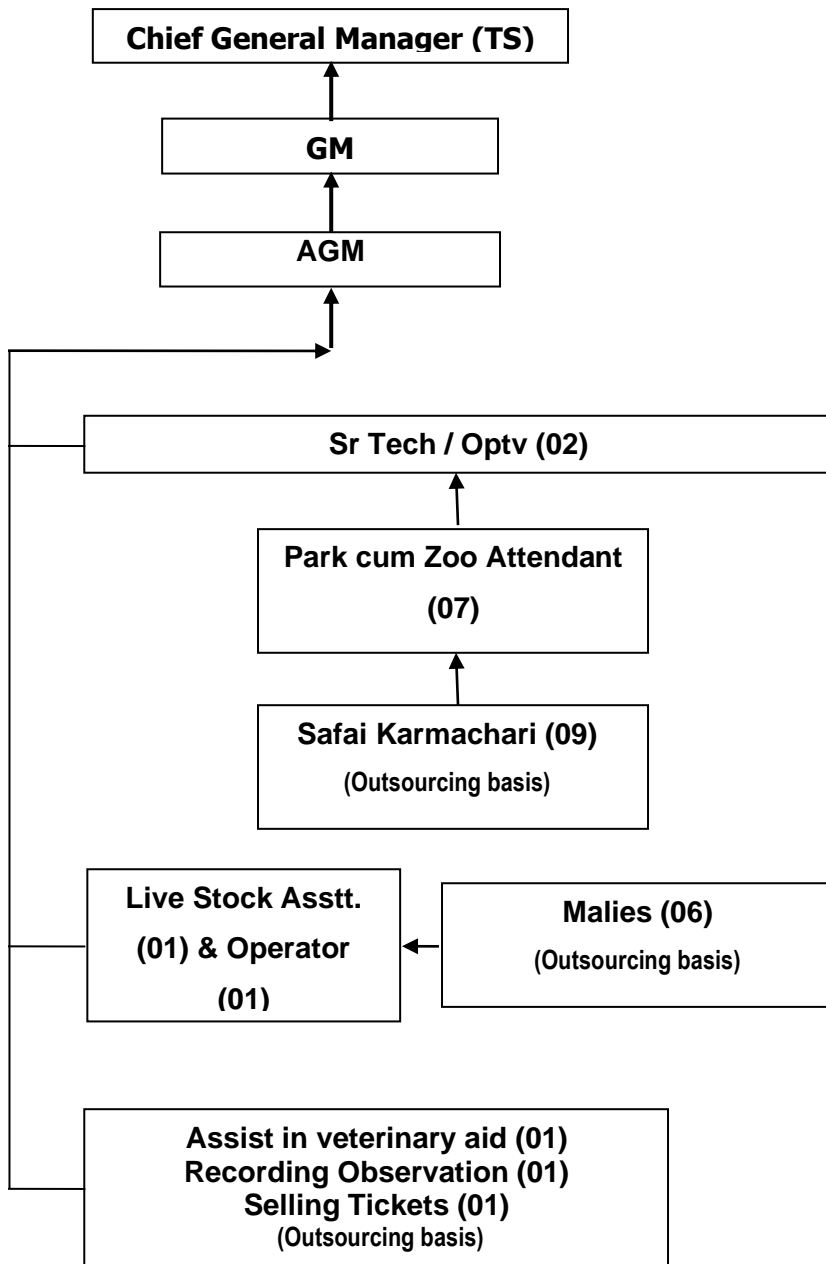
- Contact Details : Ph – (06542)242305, Fax – (06542)240227

- E-mail Address : [jnbparkbokaro@gmail.com](mailto:jnbparkbokaro@gmail.com)





## ORGANIZATIONAL CHART



**HUMAN RESOURCES****ZOO PERSONNEL**

<b>SNo</b>	<b>Designation</b>	<b>Post sanctioned</b>	<b>Name of incumbent</b>	<b>Remarks</b>
1	Director (Officer-in-Charge)	01	01	
2	Veterinary Surgeon	01	01	
3	Curator (animals)	01	00	
4	Education Officer/ Biologist	01	00	01 person is working on outsourcing basis for Recording Observation
5	Supervisor (Park)	02	02	
6	Hort. Supervisor	01	00	
7	Vety. Compounder	01	00	01 Person for Assist in veterinary aid on outsourcing basis
8	Store man	01	00	
9	Assistant	01	00	
10	Lab. Technician	01	00	
11	Operator Pump	01	01	
12	Driver	01	00	
13	Live Stock Asstt.	02	01	
14	Ticket Counter Staff	02	00	01 person is working on outsourcing basis
15	Park / Zoo Attendant	14	07	
16	Mali	17	00	06 persons are working on outsourcing basis
17	Sweeper	16	00	09 persons are working on outsourcing basis

## **CAPACITY BUILDING**

JNB Park Bokaro Management always gave emphasis on in house training as well as training from outside for capacity building of its zoo personnel.

## **ZOO ADVISORY COMMITTEE**

- a. Date of Constitution : 2018
- b. Members : SAIL, Bokaro Steel Plant Officials of  
TE – Civil, Electrical, Water Supply,  
Public Health & Horticulture.
- c. Meetings : One meeting held (during the year).

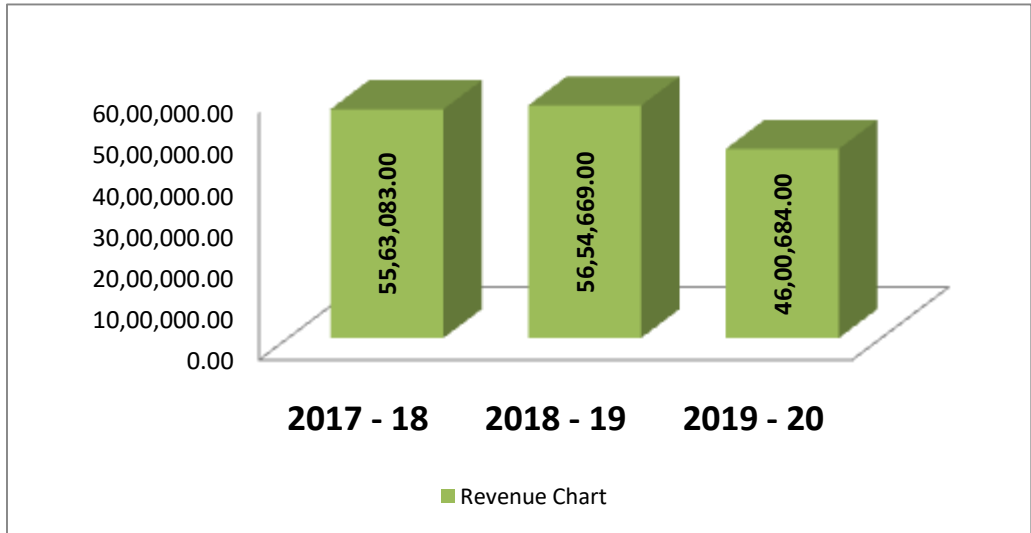
## **HEALTH ADVISORY COMMITTEE**

- a. Date of Constitution : 2018
- b. Members : District Animal Husbandry Officer,  
Bokaro and AGM (TA – Hort)
- c. Meetings : One meeting held (during the year).

**BUDGET, INCOME AND EXPENDITURE****2019-20**

<b><u>Budget allocated</u></b>	
Administrative Head	1,28,000.00
Service Contracts (SCON)	87,48,546.00
<b>Total :</b>	<b>88,76,546.00</b>
<b>Rs Eighty eight lakhs seventy six thousand five hundred forty six only.</b>	
<b><u>Expenditure &amp; Liability</u></b>	
Administrative Head	67,452.00
Service Contracts	87,48,446.00
<b>Total :</b>	<b>88,15,898 .00</b>
<b>Rs Eighty eight lakhs fifteen thousand eight hundred ninety eight only.</b>	
<b><u>Revenue Earned from Different Sources</u></b>	
Sale of Entry & Camera Tickets	42,54,280.00
Income from Other sources	3,46,404.00
Toy Train	1,58,400.00
Parking Stand	1,88,004.00
<b>Total :</b>	<b>46,00,684.00</b>
<b>Rs Forty six lakhs six hundred eighty four only.</b>	

**REVENUE GENERATED DURING LAST THREE YEARS :**



## DAILY FEED SCHEDULE OF ANIMALS

Sl No	Species	Feed item	Quantity (in kg)	Day of fasting
1	Barking Deer	Deer Mash	0.500	
		Green Grass / Leaves	2.000	
2	Blackbuck	Deer Mash	0.750	
		Green Grass / Leaves	2.000	
3	Brahminy Duck	Paddy	0.100	
		Poultry Feed	0.025	
4	Budgerigar	Cheena Seed	0.010	
5	Cockatiel	Cheena Seed	0.020	
		Palak / Genary saag	0.025	
6	Emu	Apple / Mango	0.150	
		Banana (in nos)	3.000	
		Cabbage	0.100	
		Palak / Genary saag	0.250	
		Pulse Grain Mix	0.500	
7	Goose	Paddy	0.100	
		Pulse Grain Mix	0.100	
8	Him. Black Bear	Apple / Mango	0.250	
		Banana (in nos)	10.000	
		Black Urad Dal	0.075	
		Bread	0.600	
		Carrot / Cucumber	0.750	
		Honey (per year)	2.000	
		Milk (in ltr)	1.000	
		Potato	0.500	
		Pumpkin / Water Melon	0.500	
		Rice Usna	0.750	
		Sweet Potato / Barbati	0.750	
9	Hippopotamus	Banana (in nos)	24.000	
		Cabbage	1.000	

		Carrot / Cucumber	2.000	
		Deer Mash	10.000	
		Kaddu	1.000	
		Kutti	5.000	
		Potato	2.250	
		Raddish	0.500	
		Tomato	0.500	
		Green Grass / Leaves	32.000	
10	Indian Porcupine	Apple / Mango	0.100	
		Carrot / Cucumber	0.150	
		Gram Gota (Soaked)	0.100	
		Banana (in nos)	2.000	
		Pumpkin / Water Melon	0.100	
11	Langur	Banana (in nos)	4.000	
		Bread	0.050	
		Brinjal	0.100	
		Carrot / Cucumber	0.150	
		Gram Gota (Soaked)	0.075	
		Kaddu	0.050	
		Ladies finger / French bean	0.050	
		Potato	0.075	
		Pumpkin / Water Melon	0.075	
		Raddish	0.075	
		Sweet Potato / Barbati	0.150	
12	Leopard	Chicken	5.000	Monday
13	Lion	Goat meat	8.000	Monday
14	Love bird	Palak / Genary saag	0.020	
		Cheena Seed	0.025	
15	Monkey	Banana (in nos)	3.000	
		Bread	0.050	
		Brinjal	0.075	
		Carrot / Cucumber	0.100	
		Gram Gota (Soaked)	0.050	

		Kaddu	0.050	
		Ladies finger / French bean	0.050	
		Potato	0.050	
		Pumpkin / Water Melon	0.050	
		Raddish	0.050	
		Sweet Potato / Barbati	0.100	
16	Nilgai	Deer Mash	2.000	
		Kutti	1.500	
		Green Grass / Leaves	8.000	
17	Parakeet	Apple / Mango	0.020	
		Banana (in nos)	0.500	
		Chilli	0.005	
		Gram Gota (Soaked)	0.020	
18	Peafowl	Garlic	0.010	
		Onion	0.025	
		Pulse Grain Mix	0.100	
		Palak / Genary saag	0.075	
19	Pheasant	Garlic	0.010	
		Palak / Genary saag	0.100	
		Pulse Grain Mix	0.075	
20	Python	Live Chicken (per week)	1.250	
21	Rosy Pelican	Telopia fish	1.250	
22	Sambar	Deer Mash	2.000	
		Kutti	1.500	
		Green Grass / Leaves	8.000	
23	Spotted Deer	Deer Mash	0.750	
		Green Grass / Leaves	3.000	
24	Tiger	Goat meat	10.000	Monday



**VACCINATION SCHEDULE**

SI No	Species	Disease Vaccinated for	Name of the vaccine & dosage/ quantity used	Periodicity	Remarks
01	Avian	Ranikhet vaccine	F1 strain	06 months	

**DE-WORMING SCHEDULE**

SI No	Species	Drug used	Month
01	Carnivores	Albendazole	03 months interval
02	Herbivores	Albendazole	03 months interval
03	Primates	Albendazole	03 months interval
04	Omnivores	Albendazole	03 months interval
05	Avian	Albendazole	03 months interval
06	Reptiles	Albendazole	06 months interval

**DISINFECTION / CLEANING SCHEDULE**

Sl.	Species	Name of enclosures	Disinfectant used & method	Frequency of disinfection
1.	Lion, Tiger, Leopard & Hyena	Lion, Tiger, Leopard & Hyena enclosure	a) Grass cutting in display area	Once in a month
			b) Cleaning of water moat	Once in a month
			c) Sterilization of cells with blow lamp	Half yearly

2.	Himalayan Black Bear	Bear enclosure	a) Grass cutting in display area	Once in a month
			b) Sterilization of cells with blow lamp	Half yearly
3.	Blackbuck, Spotted Deer, Barking Deer, Sambar & Nilgai	Deer & Antelopes enclosure	a) Removal of dung from enclosure	Weekly
4.	Monkey and Langur	Monkey, Langur enclosure	a) Sterilization of cells with blow lamp	Half yearly
5.	Peafowl, Pelican, Duck, Parakeet, Quail, Cockatiel, Budgeriger, Love Bird & Pheasant	Birds & pheasant enclosure	a) Turning of soil in the display area	Yearly
6.	Hippopotamus	Hippo enclosure moat	a) Cleaning of water moat	15 days interval
7.	Python	Python room	a) Cleaning of room	Two times in a months
8.	---	All Enclosures	a) Cleaning of feeding platforms and drinking water tanks. Cleaning of cells with Haldi.	Cleaning everyday
			b) Floor surface disinfection by disinfectants – Sodium bicarbonate, Potassium permanganate, etc.	Once after 15 days

## **HEALTH CHECK-UP OF EMPLOYEES**

The employees of JNB Park have been screened against zoonotic diseases as on 09.03.2020 at Bokaro General Hospital, Bokaro.

Sl No	Name	Designation	Check-up Date	Findings
01	Dr G Chakraborty	GM	During 2019 - 20	Good Health
02	H M Shukla	Sr Tech/OPTV		Good Health
03	T Goswami	Sr Tech/OPTV		Good Health
04	S K Ojha	Operator		Good Health
05	R K R Rajesh	Live St. Asstt		Good Health
06	Md M Bag	P/Z Atten.		Good Health
07	B Bara	P/Z Atten.		Good Health
08	U Naik	P/Z Atten.		Good Health
09	S K A Raffique	P/Z Atten.		Good Health
10	B Manjhi	P/Z Atten.		
11	G Prasad	P/Z Atten.		
12	A Ansari	P/Z Atten.		

## **DEVELOPMENT WORKS**

Various development works were carried out at JNB Park during the year 2019-20 as per detailed below :

1. Repair of park boundary wall.
2. Replacement of damaged iron chain link with new one in Leopard Enclosure.
3. Painting work of park.

## **EDUCATION & AWARENESS PROGRAMME**

Efforts are being made for conservation of wildlife on global level. Laws are also being enacted for its protection. But the protection of wildlife is not just a matter of legislation, it requires creation of awareness in the mind of the masses about the role and importance of wildlife. Being a wildlife concern, JNB Park has always been making sincere efforts to generate the feeling of compassion towards wildlife in the mind of masses by conducting educational campaign and programme from time to time for the voiceless too. Educational programme and conservation awareness activities have always been given priority in our Park. In this direction following steps have been taken during this year.

### **❖ CELEBRATION OF WORLD ENVIRONMENT DAY**

Like previous year this year also World Environment Day was celebrated with great zeal and enthusiasms on 05 June 2019. Tree plantation, up-rooting of parthenium, special cleaning programme of enclosures, interaction with the visitors were arranged. In addition awareness campaign programme was also organized. Respected ED's and other respected invitees planted saplings on this occasion.

### **❖ CELEBRATION OF WILDLIFE WEEK**

As per guidelines of Central Zoo Authority, New Delhi, celebration of Wildlife Week has been held on 11.10.2019 for achieving national effort towards conservation and education awareness. On this occasion, BSL School students participated.

On this occasion, debate and quiz competition was held amongst students of secondary classes. Students are briefed about park. As Zoo is a living laboratory, they are given knowledge of various trees and their importance, various animals / birds - their behaviour and feeding habits. On this occasion Park staffs together with the children involved in the program. Debate and Quiz Competition was conducted by park officials with support of our program partner GIANTS Gr (NGO), Bokaro. Debate and Quiz Competition was judged by Mrs Kavita (President, Giants Bokaro) and Mr Ram Pravesh (Secretary, Giants Bokaro).

Prizes were distributed by Chief Guest Sri Bibhakar, CGM (TS) with support of Dr G Chakraborty, GM (TA - Hort) and Sri Anil Kumar, AGM (TA - Hort).



**❖ CELEBRATION OF 5<sup>th</sup> INTERNATIONAL YOGA DAY**

5<sup>th</sup> International Yoga Day was celebrated on 21<sup>st</sup> June, 2019 as per guidelines of Central Zoo Authority, New Delhi at Jawaharlal Nehru Biological Park, Bokaro.

During this occasion children and adults have all joined together in the Yoga Program. This experience was very good for health benefits of the people of the city.

Due to these small but effective activities in the field of education and awareness, it has gained tremendous popularity among school children and Nature lovers. The triumph of our Biological Park is directly related with visitor's concern & affection towards the animals and birds.

## IMPORTANT EVENTS & HAPPENINGS

### बोकारो एक्टिविटी

लाइफ बोकारो

धनबाद, सोमवार  
09.09.2019

03

## 'अक्षय' व 'करीना' के घर धमाल मचा रहे तीन नये शावक

### बोकारो जैविक उद्यान

मादा तेंदुआ ने 19 जुलाई को दिया था तीन शावकों का जन्म

### शरीर संवादाता > बोकारो

बोकारो जू में 'अक्षय' व 'करीना' के घर नये शावकों का धमाल आकर्षण का केंद्र बना है। बात हो रही है जैविक उद्यान के तेंदुआ नर-अक्षय व मादा-करीना की। तेंदुआ के घर खुशियां आयी हैं। करीना ने 19 जुलाई को तीन शावकों को जन्म दिया है। 19 सितंबर को बच्चे दो माह के हो जायेंगे, लगभग डेढ़ वर्ष पूर्व भी करीना ने दो बच्चों का जन्म दिया था, उसमें से एक की मौत हो गयी थी, एक बच्चा अभी है। मादा होने के कारण



तेंदुआ परिवार में आये तीन नये मेहमान.

उसका नाम 'विदिता' रखा गया है। इस तरह तेंदुआ परिवार की संख्या फिलहाल छह हो गयी है। करीना अपने तीन बच्चों

का ख्याल एक मां की तरह बाड़े में बखूबी रख रही है, बच्चों के आस-पास किसी को भटकने नहीं दे रही है। उद्यान

### अनहोनी के डर से पिता बाड़े से बाहर

जैविक उद्यान के प्रबंधक ने रविवार को बताया - लगभग दो माह पूर्व तेंदुआ करीना ने तीन बच्चों को जन्म दिया। लगभग एक माह तक उसके बाड़े में परदा लगा कर रखा गया, पिता अक्षय को बाड़े के बाहर या दूसरे बाड़े में रखा जाता है, कारण, बच्चों पर परदा गया तो अनहोनी हो सकती है, मां करीना से कोई खतरा नहीं है, फिलहाल, परदा हटा दिया गया है, बचकनू इसके बाड़े के पास जाने पर मां करीना बच्चों के आस-पास भटकने नहीं देती है, बच्चों पर विशेष नजर रखी जा रही है।

### एक वर्ष बाद साथ रखने में परेशानी

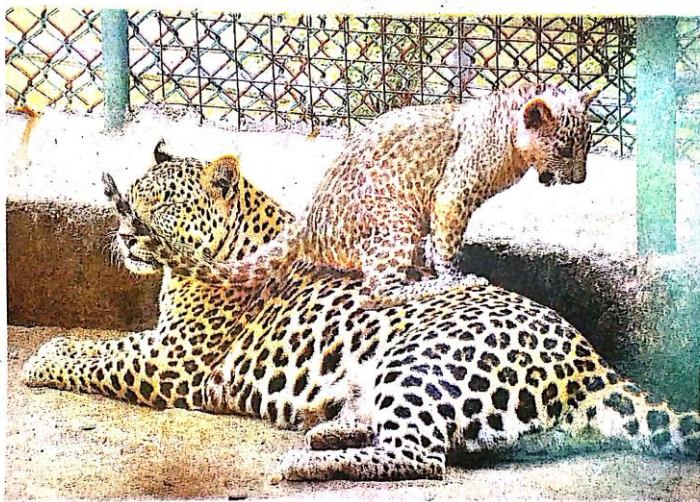
उद्यान प्रबंधक के अनुसार एक वर्ष बाद सबको एक साथ रखने में बहुत परेशानी होती है, कारण, पिता लगभग एक वर्ष तक बच्चों के आस-पास भी नहीं भटकता है, ऐसे में जब बच्चे बड़े हो जाते हैं, तब साथ रहने में परेशानी होती है, इसलिए सबसे पहले बच्चों को पिता के बगल वाले बाड़े में रखा जाता है, कुछ दिनों में बच्चों के साथ पिता की जान-पहचान हो जाती है, तब सभी को एक साथ रखा जाता है, फिलहाल, मां बच्चों के साथ है।

### टाटा जू से आये थे अक्षय व करीना

जैविक उद्यान में लगभग पांच वर्ष पूर्व टाटा जू से तेंदुआ अक्षय-नर व करीना-मादा को लाया गया था, उद्यान प्रबंधन ने दोनों को बोकारो के माहौल के अनुकूल ढाला, दोनों ने बोकारो के मौसम के साथ एडजस्ट भी कर लिया, लगभग डेढ़ वर्ष पूर्व भी करीना ने दो बच्चों को जन्म दिया था, उनमें एक बच्चे की मौत हो गयी, जबकि एक अभी जिंदा है, बच्चा मादा है, फिलहाल, तेंदुआ परिवार के बढ़ने से उद्यान प्रबंधन हर्षित है, बच्चों के रख-रखाव पर विशेष रूप से ध्यान दिया जा रहा है।

फिलहाल मां के दूध पर ही निर्भर हैं, इसलिए उद्यान प्रबंधन की ओर से इस बात का विशेष रूप से ख्याल रखा जाता

है कि बच्चों ने दूध पिया या नहीं, पिता अक्षय बाड़े के बाहर ही आराम करते हैं, लगभग एक वर्ष बाद सभी साथ रहेंगे,

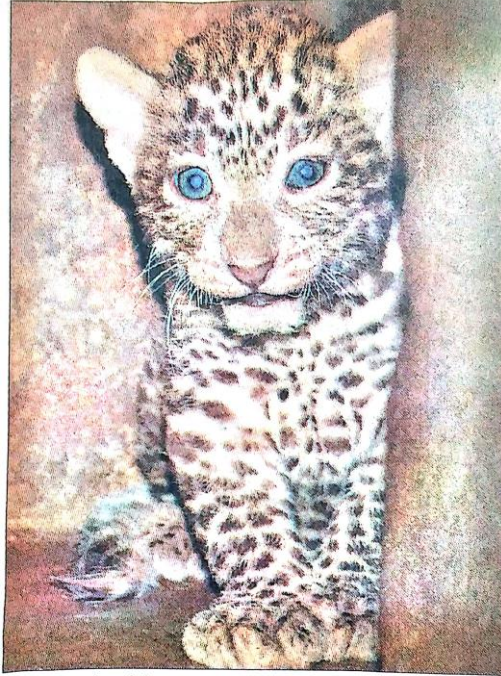


### ...पर मेरी तो तू मां है!

चीता का नाम सुनकर ही शरीर में सिहरन दौड़ जाती है। जानवर तो जानवर, इंसान भी इसके पास जाने का साहस नहीं कर पाते। लेकिन बात जब बच्चे की हो तो चीता के मन में भी वही ममता होती है, जो अन्य किसी जानवर या इंसान में। गुलाबी टंड शुरु हो चुकी है। गुरुवार को टंड से बचने के लिए बोकारो के सेक्टर चार स्थित जाहजर लाल नेहरू जैविक उद्यान में यह मादा चीता अपने बाड़े से निकलकर बैठ गई। इधर, निश्चित भाव से बैठी अपनी मां के पीठ पर चढ़कर खेलता नन्हा चीता

● गनीष कुमार

## बोकारो जैविक उद्यान के नये मेहमान



अपने तीन भाई बहनों के साथ 19 जुलाई के जन्मे इस तेंदुआ के शावक की आंखें यह बताने के लिए काफी हैं कि भविष्य में इसकी दहाड़ से पूरा बोकारो जैविक उद्यान गूँज उठेगा. फोटो। मुकेश झा **विस्तृत खबर पढ़ें पेज 03 पर**

### जैविक नेहरू उद्यान

बोकारो के इस उद्यान में कारगर हुआ सामान्य प्रयोग, आज हरियाली ही हरियाली

## इस उद्यान के पेड़ों से मिल रहा हरियाली का संदेश

रामवृत्ति प्रसाद • बोकारो

इस्पात नगर बोकारो का जवाहर लाल नेहरू जैविक उद्यान। आम लोगों की जुबान के मुनासिब चिड़ियाघर। बोकारो में जो भी अतिथि आए हैं, उन्होंने इस जैविक उद्यान में पौधारोपण किया। भारत रत्न से सम्मानित मिसाइल वैज्ञानिक डॉ. एपीजे अबुल कलाम ने जैविक उद्यान में महोगनीका पौधा लगाया था जो अब वृक्ष बन चुका है।

तीन दशक से इस जैविक उद्यान में विशिष्ट अतिथियों से पौधे लगवाने का सिलसिला चलता आ रहा है। अतिथियों ने इतने पौधे लगाए हैं कि चिड़ियाघर में अब हर ओर हरियाली छा गई है। संदेश सिर्फ एक कि हमारी धरत को सुंदर और स्वच्छ हवा से परिपूर्ण बनाना है तो पौधे



### पर्यावरण संरक्षण

- डॉ कलाम जैसे विशिष्ट अतिथि यहां आकर लगा चुके पौधा
- आम लोग भी हो रहे पर्यावरण संरक्षण को लेकर जागरूक



जैविक उद्यान में पेड़ के पास लगा डॉ कलाम के नाम का बोर्ड • जगरण

### हर पेड़ के साथ सुखद स्मृति

बोकारो के सेक्टर चार में बनाए गए जैविक उद्यान में अनेक प्रजातियों के पौधे लगाए गए जो अब पेड़ बन चुके हैं। हर पेड़ के साथ कुछ न कुछ सुखद स्मृति जुड़ी हुई है। जो यहां पौधा लगाता है वह किसी न किसी स्मृति के तहत इसे लगाकर आजीवन याद रखता है। पेड़ के नजदीक उसे लगाने वाले अतिथि का नाम पढ़ने के बाद चिड़ियाघर में आने वाले लोगों में सहसा जिज्ञासा जग जाती है।

• बोकारो इस्पात संयंत्र का अवलोकन करने के लिए अति विशिष्ट अतिथियों का आगमन होता है। पर्यावरण संरक्षण का संदेश देने के लिए अतिथियों से जैविक उद्यान में पौधारोपण कराया जाता है। अब यह परंपरा हो गई है। पेड़ के साथ अतिथियों की भी यादें जुड़ी हुई हैं।

मणिकांत धान, संचार प्रमुख, बोकारो इस्पात संयंत्र

लगाने के साथ इसे सहेजने होगा। कई लोगों ने उद्यान के रजिस्टर में दर्ज किया है कि उन्हें यहां आकर पौधा लगाने की प्रेरणा मिली है। 1 अक्टूबर 2001 को डॉ एपीजे अबुल कलाम जब भारत सरकार

के मुख्य वैज्ञानिक सलाहकार थे तब वे बोकारो आए। बोकारो स्टील लिमिटेड प्रबंधन उन्हें जैविक उद्यान ले गया। वहां उन्होंने पौधा लगाया और पेड़ों के महत्व को बताया था। इस उद्यान में कलाम ही

नहीं, वर्तमान पेट्रोलियम, प्राकृतिक गैस एवं इस्पात मंत्री धर्मendra प्रधान, पूर्व इस्पात मंत्री दिनेश गोस्वामी, आध्यात्मिक गुरु श्री रविशंकर, झारखंड के पूर्व राज्यपाल वेद मारवाह, एमओएच फारूख एवं डॉ.

सैयद रजी, छत्तीसगढ़ के पूर्व मुख्यमंत्री अर्जीत जोगी, सेल के पूर्व अध्यक्ष एमआरआर नावर, एसके रंगटा, सीएस वमा समेत 325 अति विशिष्ट अतिथियों ने पौधारोपण किया है।



## **SEASONAL SPECIAL ARRANGEMENTS**

During the winter season of the year care is taken for proper upkeep of animals. Curtains have been put on the windows of the enclosures of leopard, tigress and lioness. Room heaters are provided in the enclosures of carnivores. Straws are being provided in the enclosures of birds, python, deers, blackbucks, etc.

During summer, fiber sheet shed has been provided on the hippo water pool. Fans and coolers have been provided in the enclosures of carnivores. Water tank of hippo, himalayan black bear, tigress are being kept full round the clock. Succulent fruits and vegetables are being provided to primates and himalayan black bear.

Bird enclosure is covered with fiber sheet and wet gunny bag sheets are provided in the wall to protect birds from heat. Spraying of water is done is floors and display areas.

All animals are provided with electrolyte powder and Vit B complex during this period.

## RESCUE AND REHABILITATION

SI No	Date of Rescue	Species with number of animals rescued with their sex (M:F:U:T)	Received from	Date of Submission of Report to the CWLW/ CZA	Action taken	
					Date and place of rehabilitation in their habitat	Reasons for housing in the zoo, if not released in their habitat
01	05.07.2019	Female Barking deer (Muntiacus muntjak) - (0:1)	Forest Range Officer, Petarwar Range, Bokaro, Jharkhand	Chief wildlife warden, Jharkhand, Ranchi granted permission for acquisition vide Letter No. - 1283 dt 05.07.19. Submitted report to the CZA vide Letter No. - TA/D/BP/ 1533 dt 19.02.20 for grant of permission.	--	As per report of the Forest Range Officer, Peterwar villagers rescued the female Barking deer from a well and sent to JNB Park for safe keeping and survival.

# ANNUAL INVENTORY OF ANIMALS

Form – II

[See Rule 11(1)]

Inventory Report for the year: 2019-20

<b>PART – A</b>																						
<b>Endangered Species (Schedule I and II )</b>																						
S. No.	ANIMAL NAME	SCIENTIFIC NAME	OPENING STOCK as on 01.04.2019				BIRTHS			ACQUISITIONS			DISPOSALS			DEATHS			CLOSING STOCK as on 31.03.2020			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
1	Peafowl	<i>Pavo cristatus</i>	4	2	0	6	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	6
2	Bear Himalayan Black	<i>Ursus thibetanus</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
3	Black Buck (Krishna Mrig)	<i>Antelope cervicapra</i>	17	26	0	43	2	0	0	0	0	0	0	0	0	0	0	0	19	26	0	45
4	Langur Common	<i>Semnopithecus entellus</i>	8	3	0	11	1	0	0	0	0	0	0	0	0	0	0	0	9	3	0	12
5	Leopard (Panther)	<i>Panthera pardus</i>	1	2	0	3	2	1	0	0	0	0	0	0	0	0	0	0	3	3	0	6
6	Macaque Bonnet	<i>Macaca radiata</i>	4	1	0	5	0	0	0	0	0	0	0	0	0	1	0	0	3	1	0	4
7	Macaque Rhesus	<i>Macaca mulatta</i>	14	6	0	20	0	0	0	0	0	0	0	0	0	0	0	0	14	6	0	20
8	Tiger Bengal (White )	<i>Panthera tigris tigris</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
9	Python Indian - Rock	<i>Python molurus</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
<b>Total of Endangered Species</b>			49	43	0	92	5	1	0	0	0	0	0	0	1	0	0	0	53	44	0	97

S. No.	ANIMAL NAME	SCIENTIFIC NAME	OPENING STOCK as on 01.04.2019				BIRTHS			ACQUISITIONS			DISPOSALS			DEATHS			CLOSING STOCK as on 31.03.2020				
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T	
<b>PART – B (Other than Endangered Species)</b>																							
<b>Species (Schedule III and IV )</b>																							
10	Parakeet Alexandrine	<i>Psittacula eupatria</i>	2	3	0	5	0	0	0	0	0	0	1	0	0	0	0	0	0	2	3	0	5
11	Parakeet Rose Ring	<i>Psittacula krameri</i>	2	3	0	5	0	0	0	0	0	0	1	1	0	0	0	0	0	2	3	0	5
12	Pelican Rosy / White	<i>Pelecanus onocrotalus</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
13	Quail Jungle Bush - Bater	<i>Perdica asiatica</i>	2	2	0	4	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0
14	Deer Barking (Kakar)	<i>Muntiacus muntjak</i>	2	6	0	8	1	0	0	0	0	0	0	0	0	0	0	0	0	3	6	0	9
15	Deer Sambar	<i>Rusa unicolor</i>	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
16	Deer Spotted (Chital)	<i>Axis axis</i>	26	26	0	52	3	1	0	0	0	0	0	0	0	0	0	0	0	29	27	0	56
17	Lion Hybrid	<i>Panthera leo</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
18	Nilgai - Blue Bull	<i>Baselaphus tragocamelus</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
19	Porcupine (Albino)	<i>Hystrix indica</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
<b>Total of Species (Sch III and IV)</b>			37	44	0	81	4	1	0	0	0	0	0	0	0	2	2	0	39	43	0	82	

S. No.	ANIMAL NAME	SCIENTIFIC NAME	OPENING STOCK as on 01.04.2019				BIRTHS			ACQUISITIONS			DISPOSALS			DEATHS			CLOSING STOCK as on 31.03.2020			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
<b>Exotic Species</b>																						
20	Budgeriger	<i>Melopsittacus undulatus</i>	29	25	0	54	1	1	0	0	0	0	0	0	0	0	0	0	30	26	0	56
21	Cockatiel	<i>Nymphicus hollandicus</i>	4	4	0	8	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	8
22	Emu	<i>Dromaius novaehollandiae</i>	6	4	0	10	0	0	0	0	0	0	0	0	4	3	0	2	1	0	0	3
23	Love Birds	<i>Agapornis</i>	4	4	0	8	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	8
24	Lady Amherst's Pheasant	<i>Chrysolophus amherstiae</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
25	Silver Pheasant	<i>Lophura nycthemera</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
26	Hippopotamus	<i>Hippopotamus amphibius</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
<b>Total of Exotic Species</b>			46	37	0	83	1	1	0	0	0	0	0	0	4	3	0	43	35	0	78	
<b>GRAND TOTAL</b>			132	124	0	256	10	3	0	0	0	0	0	0	7	5	0	135	122	0	257	

## MORTALITY OF ANIMALS

S.No.	Animal Name with Scientific Name	Sex	Date of Death	Reason of Death
1	Emu ( <i>Dromaius novaehollandiae</i> )	M	09.12.2019	Shock due to bee sting
2	Emu ( <i>Dromaius novaehollandiae</i> )	M	09.12.2019	Shock due to bee sting
3	Emu ( <i>Dromaius novaehollandiae</i> )	M	09.12.2019	Shock due to bee sting
4	Emu ( <i>Dromaius novaehollandiae</i> )	M	09.12.2019	Shock due to bee sting
5	Emu ( <i>Dromaius novaehollandiae</i> )	F	09.12.2019	Shock due to bee sting
6	Emu ( <i>Dromaius novaehollandiae</i> )	F	09.12.2019	Shock due to bee sting
7	Emu ( <i>Dromaius novaehollandiae</i> )	F	09.12.2019	Shock due to bee sting
8	Quail Jungle Bush ( <i>Perdica asiatica</i> )	M	10.12.2019	Pneumonia
9	Quail Jungle Bush ( <i>Perdica asiatica</i> )	F	10.12.2019	Pneumonia
10	Quail Jungle Bush ( <i>Perdica asiatica</i> )	M	25.12.2019	Pneumonia
11	Quail Jungle Bush ( <i>Perdica asiatica</i> )	F	25.12.2019	Pneumonia
12	Macaque Bonnet ( <i>Macaca radiata</i> )	M	28.12.2019	Pneumonia

## COMPLIANCE WITH CONDITIONS STIPULATED BY THE CENTRAL ZOO AUTHORITY

Sl No	Norm No Under RZR, 2009	Condition Stipulated	Status with regard to compliance of the conditions
<b>1. General Requirements</b>			
1	10.1(5)	The zoo should have pucca boundary wall of minimum 02 mts high on both sides to control intruders entering into the zoo on north-west side near Sector - 9 of park. The zoo may adopt placing concertina wire on boundary wall along with CCTV cameras for the safety of visitor and animals and may deploy security guards.	Repair work of boundary wall completed. Extra security guards also deployed.
2	10.1(9)	Failed to prevent breach of boundary wall by feral cattle and dogs and entry in to the zoo due to damaged boundary wall and unauthorized construction outside boundary wall.	Boundary wall repaired and entry of animals stopped.
3	10.1(9)	Housed Domestic pigeons and Guinea fowls, they should be removed from the zoo.	Pigeons and Guinea fowls removed from the zoo.
<b>2. Administration and staffing pattern</b>			
4	10.2(1)	Failed to appoint 'Whole time in - charge' for the zoo. The zoo should have full time Director / Officer - in - charge of the zoo with adequate administrative and financial powers. The designation of the	Proposal sent for approval of higher management.

		present in - charge so called Assistant General Manager (Town Administration & Horticulture) should be changed accordingly.	
5	10.2(2)	The zoo should appoint Veterinary Officer, Curator and laboratory Assistant as mandatory under Recognition of Zoo Rules, 2009.	Proposed services will be taken on outsourcing basis.
<b>3. Development and Planning</b>			
6	10.3(7)	Failed to construct Isolation and Quarantine area.	Construction of isolation & quarantine ward is completed.
7	10.5(10)	All keepers in the zoo should write the Keepers Diary in the format as prescribed by the CZA and submit the same to their senior.	Implemented.
<b>4. Animal housing, display of animals and animal enclosures</b>			
8	10.4(2)	The enclosure housing the Rhesus macaques does not meet the minimum requirement with respect to its area and feeding and retiring cells as prescribed by the CZA. The zoo should modify the same, providing the enclosure with the area as prescribed by CZA. Prior approval of the design should have also got approved from CZA.	The house of Rhesus macaque has been made more naturalistic as per minimum requirement.
<b>6. Veterinary and infrastructure facilities</b>			



9	10.6(1)	The zoo hospital should have all basic diagnostic facilities, comprehensive range of drugs, operation theatre and in-patient wards.	Zoo Hospital has been provided drugs and basic diagnostic facilities. Construction of operation theatre and in-patient ward completed.
<b>9. Acquisition and breeding of animals</b>			
10	10.9(4)	The zoo has been housing single Hippo, Lion and White tiger. They should be paired within six months.	For pairing of animals, exchange proposal has been communicated.
11	10.9(8)	Failed to maintain Individual Animal History card for animals and the Herd Sheet for Herbivores.	Implemented.

Other conditions based on recommendations by the evaluating officers are as follows:

Sl No	Norm No Under RZR, 2009	Condition Stipulated	Status with regard to compliance of the conditions
<b>1. General Requirements</b>			
1	10.1(7)	The excess leaf litter generated in the zoo should not be burnt inside the zoo. It may be used for vermin-compost.	Vermin-compost pits have been made and burning of leaf stopped.
<b>3. Development and Planning</b>			
2	10.3(4)	The viewing area for visitors in herbivore enclosures should not be more than 30% of the total area.	Tree Plantation has been done to make viewing area 30%

<b>4. Animal housing, display of animals and animal enclosures</b>			
3	10.4(1)	The iron angle and GI pipes provided as perch in all the aviaries should be replaced by wooden logs or bamboo.	Iron perch replaced by wooden logs.
4	10.4(10)	The signage opposite to the aviary should be removed as it disturbs the birds housed therein.	Signage removed.
5	10.4(1)	The aquarium housing various species of turtles along with exotic fishes and without providing any areas for bask should be removed and should be provided with appropriate housing.	Turtles removed.
6	10.4(3)	The electric poles with covered wiring and open switch boxes were seen. The same should be got repaired.	Electric switch boxes repaired.
7	10.4(3)	The broken chain-link mesh at Blackbuck enclosure due to falling of tree should be repaired. It should have been addressed promptly by zoo authorities.	Broken chain link repaired.
8	10.4(3)	The zoo should trim trees adjacent to boundary wall on both sides for the safety and security of animals.	Trees trimmed.
9	10.4(3)	Visitors pathway in front of animal house of Leopard should be blocked.	Pathway in-front of leopard blocked.
10	10.4(3)	All animal houses, particularly of those of large and small carnivores should be locked.	All animal houses locked.

11	10.4(2)	The kraal of lion should be of at least 100sq mts in size. At present all kraals of large carnivores are accessible to visitors which should not be allowed, by diverting the visitor path. The kraals should be screened by planting trees.	Kraal of lion enclosure screened by planting trees.
12	10.4(10)	Signage inside the zoo needs improvement. They should contain biological information of the species housed therein.	Biological information written on the signage.
13	10.4(2)	The water trough in White tiger enclosure should be saucer shaped.	Water trough in white tiger enclosure has been made saucer shaped.
14	10.4(3)	The zoo should not use Phenolic disinfectant.	other disinfectant (sodium bicarbonate, potassium permanganate are being used).
15	10.4(9)	The zoo should plant green hedge between the stand - off barrier and parapet wall. The stand - off barrier provided at Sambar and Hippo enclosures needs immediate repair.	Green hedge planted between stand - off barrier and parapet wall. Stand off barrier at sambar and hippo enclosures repaired.
16	10.4(1)	The metal structure lying inside the Himalayan black bear enclosure should be replaced by wooden natural artefacts.	Wooden natural artefacts are being added in Himalayan black bear enclosure.

<b>5. Upkeep and healthcare of animals</b>			
17	10.5(2)	The animal feed store should be rodent proof.	Animal feed store had been modified as rodent proof and more hygienic.
18	10.5(3)	The cooking of food for Sloth bear and other animals should be done in the kitchen area rather cooking next to the animal exhibit.	Cooking of food for bear being done in the kitchen area.
<b>9. Acquisition and breeding of animals</b>			
19	10.9(8)	Individual Animal History card for animals should be maintained. For the herbivores, the herd sheet should be maintained.	Individual animal history cards are being maintained.
<b>12. Visitors' facilities</b>			
20	10.12(2)	The zoo should keep anti snake venom at zoo.	Anti snake venom are arranged at Bokaro General Hospital of our steel plant which is adjacent to park.
21	10.12(3)	The zoo should make arrangements for providing access to the handicapped persons (Divyang) for viewing wild animals at various animal enclosures.	Arrangements are made at entry gate and providing access to animal enclosures for handicapped persons.

## FREE LIVING ANIMALS WITHIN THE ZOO PREMISES

JNB Park has adopted broad taxonomic display of wild animal species of the area.

### Free Ranging Category of Mammals, Birds and Reptiles :

- a. **Mammals** : In the free ranging category of Mammals, we find Jackals, foxes, mongoose abundantly moving around the Park area.
- b. **Birds** : Bird species of various types are generally found inside the park area. This includes little cormorant, crow pheasant, koel, water hen, king fisher, rose ring parakeet, hoopoe, owl, oriole, wood pecker, drongo, babbler, Indian Myna, Pahari Myna, Tree pie, Bulbul, Dove, Pigeon, Magpie Robin, Wagtail, Flower Pecker, etc excluding migratory birds.
- c. **Reptiles** : Reptiles like Pythons, Cobras, Dhamins, Kraits are seen frequently in the area.

