

# Jawaharlal Nehru Biological Park

Bokaro, Jharkhand

ANNUAL REPORT FOR THE YEAR

**2018-19**



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

I feel immense pleasure to present the Annual Report of Jawaharlal Nehru Park, Bokaro for the year 2018-19. During this year under the guidance of GM (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, Construction of isolation and quarantine area 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
- Category of zoo : Medium
- Area (in hectares) : 51.160
- Number of visitors : Adult - 1,55,972  
Children - 1,72,093  
Total Visitors - 3,28,065
- 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 : Sri S R Singh

- Education Officer/Biologist : Sri S R Singh

- Compounder : - -

#### ❖ OPERATOR OF THE ZOO

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

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

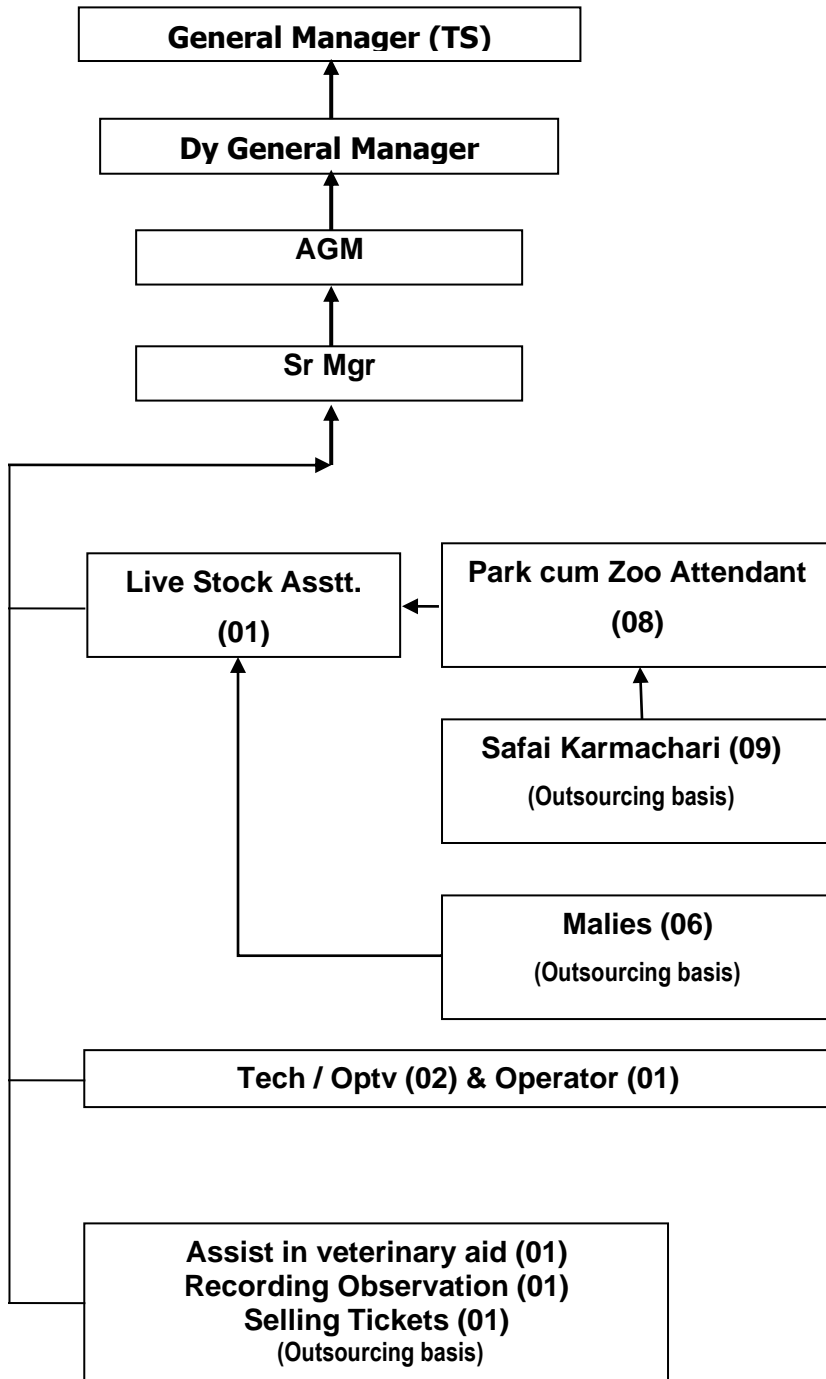
- Contact Details : Ph – (06542)242305, Fax – (06542)240227

- 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	01	
4	Education Officer/ Biologist	01	01	
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	00	
12	Driver	01	00	
13	Live Stock Asstt.	02	01	
14	Ticket Counter Staff	02	01	01 person is working on outsourcing basis
15	Park / Zoo Attendant	14	08	
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.

During the year 2018-19, Sri B N Manjhi, Park cum Zoo attendant attended the zoo keeper training held at Bhagwan Birsa Biological Park, Ranchi from 17 to 21<sup>st</sup> December'2018.

<b>SNo</b>	<b>Name &amp; Designation</b>	<b>Subject of Training</b>	<b>Period of Training</b>	<b>Institution where training attended</b>
1	B N Manjhi (Park cum Zoo Attendant)	Training Programme for zoo keepers	17.12.2018 to 21.12.2018	Bhagwan Birsa Biological Park, Ranchi

## **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.

**HEALTH ADVISORY COMMITTEE**

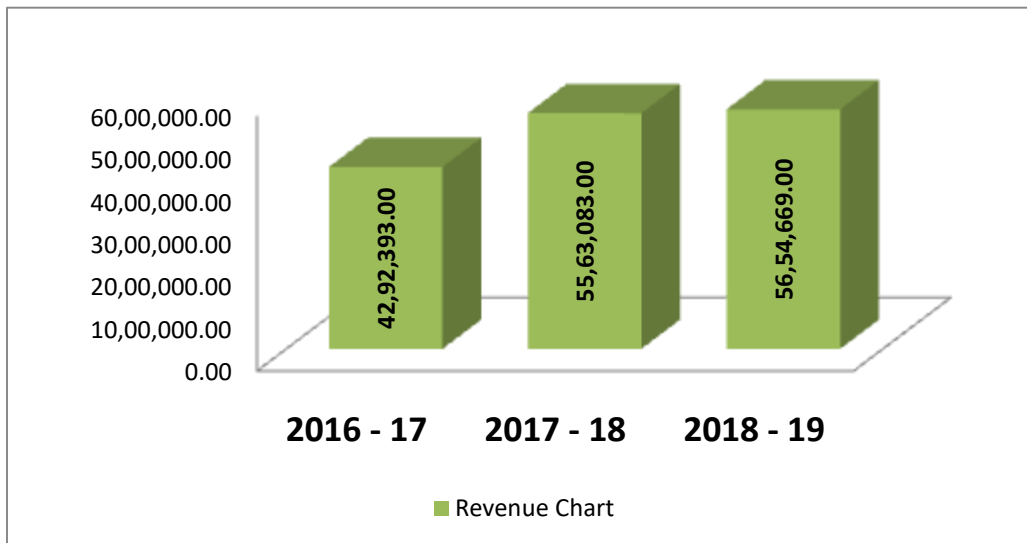
- a. Date of Constitution : 2018
- b. Members : District Animal Husbandry Officer,  
Bokaro and AGM (TA – Hort)
- c. Meetings : One meeting held.

**BUDGET, INCOME AND EXPENDITURE****2018-19**

<b><u>Budget allocated</u></b>	
Administrative Head	1,55,500.00
Service Contracts (SCON)	1,17,84,473.00
<b>Total :</b>	<b>1,19,39,973.00</b>
<b>Rs One crore nineteen lakhs thirty nine thousand nine hundred seventy three only.</b>	
<b><u>Expenditure &amp; Liability</u></b>	
Administrative Head	54,711.00
Service Contracts	1,12,05,379.00
<b>Total :</b>	<b>1,12,60,090.00</b>
<b>Rs One crore twelve lakhs sixty thousand ninety only.</b>	

<b><u>Revenue Earned from Different Sources</u></b>	
Sale of Entry & Camera Tickets	52,07,428.00
Income from Other sources	4,47,241.00
Toy Train	1,58,400.00
Parking Stand	1,88,004.00
Aquarium	1,00,837.00
<b>Total :</b>	<b>56,54,669.00</b>
<b>Rs Fifty six lakhs fifty four thousand six hundred sixty nine 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	3.000	
3	Brahminy Duck	Paddy	0.100	
		Poultry Feed	0.025	
4	Budgerigar	Cheena Seed	0.020	
5	Cockatiel	Cheena Seed	0.020	
		Palak / Genary saag	0.020	
6	Cockatoo	Ground Nut	0.200	
7	Com. Palm Civet	Banana (in nos)	4.000	
		Black Urad Dal	0.025	
		Rice Usna	0.050	
8	Emu	Apple / Mango	0.100	
		Banana (in nos)	2.000	
		Cabbage	0.050	
		Palak / Genary saag	0.250	
		Poultry Feed	0.100	
		Pulse Grain Mix	0.500	
9	Goose	Paddy	0.100	
		Poultry Feed	0.025	
10	Him. Black Bear	Apple / Mango	0.200	
		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	0.600	
		Sweet Potato / Barbati	0.750	
11	Hippopotamus	Banana (in nos)	18.000	
		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	
12	Hyena	Chicken	3.000	Monday
13	Indian Porcupine	Apple / Mango	0.040	
		Carrot / Cucumber	0.150	
		Gram Gota (Soaked)	0.100	
		Ground Nut	0.055	
		Pumpkin / Water Melon	0.050	
14	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	
15	Leopard	Chicken	5.000	Monday
16	Lion	Goat meat	8.000	Monday
17	Love bird	Palak / Genary saag	0.020	
		Cheena Seed	0.020	

18	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
19	Nilgai	Deer Mash	2.000
		Kutti	1.000
		Green Grass / Leaves	8.000
20	Parakeet	Apple / Mango	0.010
		Banana (in nos)	0.500
		Chilli	0.005
		Gram Gota (Soaked)	0.020
		Ground Nut	0.015
21	Peafowl	Garlic	0.010
		Onion	0.025
		Poultry Feed	0.025
		Pulse Grain Mix	0.100
		Palak / Genary saag	0.075
22	Pheasant	Garlic	0.010
		Mung Gota	0.050
		Pulse Grain Mix	0.020
		Hen egg (in nos)	1.000
23	Python	Live Chicken	As required
24	Quail	Pulse Grain Mix	0.010
25	Rosy Pelican	Telopia fish	1.250
26	Sambar	Deer Mash	2.000
		Kutti	1.000



		Green Grass / Leaves	8.000	
27	Spotted Deer	Deer Mash	0.750	
		Green Grass / Leaves	3.000	
		Tiger	Goat meat	10.000

## 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	Cleaning everyday

			water tanks. Cleaning of cells with Haldi.	
			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 09.02.2019 at Bokaro General Hospital, Bokaro.

Sl No	Name	Designation	Check-up Date	Findings
01	Dr G Chakraborty	AGM	09 <sup>th</sup> Feb'2019	Good Health
02	R K R Rajesh	Live St. Asstt	09 <sup>th</sup> Feb'2019	Good Health
03	Md M Bag	P/Z Atten.	09 <sup>th</sup> Feb'2019	Good Health
04	H Bauri	P/Z Atten.	09 <sup>th</sup> Feb'2019	Good Health
05	U Naik	P/Z Atten.	09 <sup>th</sup> Feb'2019	Good Health
06	S K A Raffique	P/Z Atten.	09 <sup>th</sup> Feb'2019	Good Health
07	B Manjhi	P/Z Atten.	09 <sup>th</sup> Feb'2019	Good Health
08	G Prasad	P/Z Atten.	09 <sup>th</sup> Feb'2019	Good Health
09	A Ansari	P/Z Atten.	09 <sup>th</sup> Feb'2019	Good Health

## **DEVELOPMENT WORKS**

Various development works were carried out at JNB Park during the year 2018-19 as per detailed below :

1. Repair of park boundary wall.
2. Replacement of damaged iron chain link with new one in Leopard Enclosure.
3. Construction of Isolation and Quarantine area.

## **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 2018. 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 GM(TS) 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 06/10/2018 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 class 08 & 09. 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 behavior and feeding habits. On this occasion together with the children involved in the program, all JNB Park staffs are took the GREEN PLEDGE (Harit Pratigiya). Debate and Quiz Competition was conducted by Sri S R Singh, Sr Mgr (JNB Park) with support of our program partner GIANTS, 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 Rabindra Kumar, CEO (Bokaro Dairy) with support of Dr G Chakraborty, AGM (TA - Hort).



#### ❖ CELEBRATION OF 4<sup>th</sup> INTERNATIONAL YOGA DAY

4<sup>th</sup> International Yoga Day was celebrated on 21<sup>st</sup> June, 2018 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

A massive tree plantation drive was undertaken by JNB Park under the guidance of GM (TS). About 500 tree saplings of various species were planted inside the JNB Park in the year 2018-19 before the onset of monsoon to make the Bokaro Steel City green and clean.

# बोकारो जैविक उद्यान में लगे हैं आधा दर्जन से अधिक विदेशी पेड़

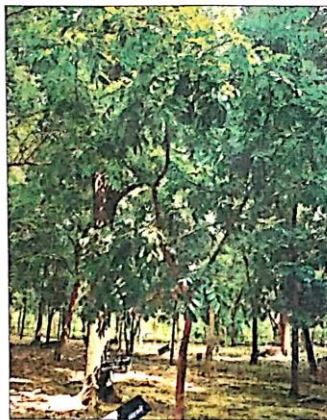


**सुनील तिवारी** > बोकारो

बोकारो सेक्टर चार स्थित जवाहरलाल नेहरू जैविक उद्यान में 10 हजार से अधिक पेड़ हैं. इनमें साउथ अमेरिका का 'केननबॉल ट्री', अफ्रीका का 'महोगनी', यूरोप का 'झाड़' समेत आधा दर्जन से अधिक विदेशी पेड़ भी शामिल हैं. ये पेड़ उद्यान स्थित 'स्मृति वृक्ष विहार-01 व 02' में लगे हैं और यहां आने वाले लोगों के आकर्षण का केंद्र हैं. इन पेड़ों का व्यावसायिक के साथ-साथ औषधीय महत्व भी है.

**237 तरह के देशी-विदेशी पशु-पक्षियों का बसेरा** : 127 एकड़ क्षेत्रफल में फैले जैविक उद्यान में महुआ, बेल, शहतूत, आम, अमरूद, इमली, जामुन, जंगल जलेबी, केसीया सियामिया, पेल्टोफोरम, गुलमोहर, अमलतास, लेजेस्ट्रोमिया, देशी अशोक, कचनार, पाकड़, बरगद, गुलर, पीपल, नीम, शीशम, सागवान, सेमल, अर्जुन, कर्दब, बहेड़ा, पुत्रजीवा, अशोक, कमरख, बकुल आदि के कई पेड़ भी हैं. यह उद्यान 237 तरह के देशी-विदेशी पशु-पक्षियों का बसेरा है.

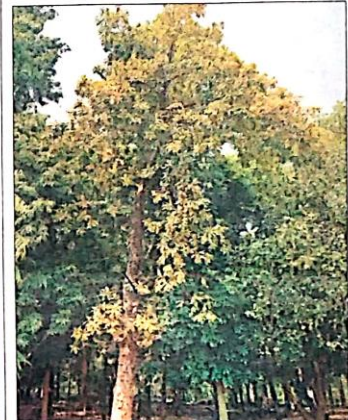
**'महोगनी' के पेड़ से बनता है बंदूक का बट**



अफ्रीका के 'महोगनी' का पौधा चार फरवरी 1991 को तत्कालीन सांसद एसकेटी रामचंदन ने इस उद्यान में लगाया था. 28 वर्ष में 'महोगनी' उद्यान के बड़े पेड़ों की गिनती में शामिल हो गया है. 'महोगनी' अफ्रीका व अमेरिका के जंगल में पाया जाता है. यह डोमिनिकन गणराज्य का राष्ट्रीय वृक्ष है. बेलीज की राष्ट्रीय मुद्रा पर भी यह चित्रित है. महोगनी की लकड़ी, पतियों व बीज का इस्तेमाल होता है. इसका उपयोग फर्नीचर, जहाज, बंदूक की बट, खेल के सामान व भूकंपरोधी मकान बनाने में होता है.



**'केननबॉल ट्री' के फूल का क्या कहना**



'केननबॉल ट्री' का पौधा पांच जनवरी 1990 को सेल के तत्कालीन निदेशक-वित्त सीआर जम्बुनाथन ने लगाया था. इस पेड़ के फूलों के खुशबू का क्या कहना. 'केननबॉल ट्री' साउथ अमेरिका का पेड़ है. इसके सुंदर व सुगंधित फूल व बड़े फल आकर्षण का केंद्र है. भारत में इसका सांस्कृतिक व धार्मिक महत्व है. इसके फूल को 'शिवलिंगी' कहा जाता है. इसके कई हिस्से से बीपी, टयूमर, दर्द, सूजन, सर्दी, मलेरिया, घाव, त्वचा की बीमारियां आदि के लिए औषधि बनती है.

**भारत के 'गुलनार' की तरह है यूरोप का 'झाड़'**

'झाड़' के पेड़ यूरोप व अफ्रीका के शुष्क इलाके में पाये जाते हैं. इसकी तुलना भारत के 'गुलनार' से की जा सकती है. यह झाड़ीदार होता है. इसकी तारीर शीतल है. पत्ते बड़े-बड़े व फल छोटे-छोटे होते हैं. शरीर के सूजन व पेट की गैस को खत्म करता है. इसका काढ़ा खून को साफ करता है. इसके पत्ते का भाप लेने से सर्दी दूर होती 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 ganry 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**

Sl 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	12.10.2018	Female Peafowl (Pavocristatus) - (0:1)	Forest Range Officer, Urban Forest Area, Dhanbad	Letter No. - 1815 dated 29.10.2018	--	As per report of the Forest Range Officer, Dhanbad, Students of a school has rescued the peafowl 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: 2018-19

<b>PART – A</b>																						
<b>Endangered Species (Schedule I and II )</b>																						
S. No.	ANIMAL NAME	SCIENTIFIC NAME	OPENING STOCK as on 01.04.2018				BIRTHS			ACQUISITIONS			DISPOSALS			DEATHS			CLOSING STOCK as on 31.03.2019			
			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	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	5
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	25	0	42	1	1	0	0	0	0	0	0	0	1	0	0	17	26	0	43
4	Langur Common	<i>Semnopithecus entellus</i>	7	3	0	10	1	0	0	0	0	0	0	0	0	0	0	0	8	3	0	11
5	Leopard (Panther)	<i>Panthera pardus</i>	1	1	0	2	1	1	0	0	0	0	0	0	1	0	0	1	2	0	3	
6	Macaque Bonnet	<i>Macaca radiata</i>	4	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	5
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	1	1	0	2	
<b>Total of Endangered Species</b>			48	40	0	88	3	2	0	0	0	0	0	0	2	0	0	49	42	0	91	

S. No.	ANIMAL NAME	SCIENTIFIC NAME	OPENING STOCK as on 01.04.2018				BIRTHS			ACQUISITIONS			DISPOSALS			DEATHS			CLOSING STOCK as on 31.03.2019			
			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	Duck Brahminy - Ruddy Shelduck	<i>Tadorna ferruginea</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	Parakeet Alexandrine	<i>Psittacula eupatria</i>	3	3	0	6	0	0	0	0	0	1	0	0	0	0	0	0	2	3	0	5
12	Parakeet Rose Ring	<i>Psittacula krameri</i>	3	4	0	7	0	0	0	0	0	1	1	0	0	0	0	0	2	3	0	5
13	Pelican Rosy / White	<i>Pelecanus onocrotalus</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	
14	Quail Jungle Bush - Bater	<i>Perdica asiatica</i>	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	
15	Deer Barking (Kakar)	<i>Muntiacus muntjak</i>	2	4	0	6	0	2	0	0	0	0	0	0	0	0	0	2	6	0	8	
16	Deer Sambar	<i>Rusa unicolor</i>	2	2	0	4	0	0	0	0	0	0	0	0	2	0	0	0	2	0	2	
17	Deer Spotted (Chital)	<i>Axis axis</i>	26	24	0	50	2	3	0	0	0	0	0	0	2	1	0	26	26	0	52	
18	Hyaena Stripped	<i>Hyaena hyaena</i>	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
19	Lion Hybrid	<i>Panthera leo</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
20	Nilgai - Blue Bull	<i>Baselaphus tragocamelus</i>	2	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	
21	Porcupine (Albino)	<i>Hystrix indica</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
<b>Total of Species (Sch III and IV)</b>			44	41	0	85	2	5	0	0	0	0	2	1	0	7	1	0	37	44	0	81

S. No.	ANIMAL NAME	SCIENTIFIC NAME	OPENING STOCK as on 01.04.2018				BIRTHS			ACQUISITIONS			DISPOSALS			DEATHS			CLOSING STOCK as on 31.03.2019			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
<b>Exotic Species</b>																						
22	Budgeriger	<i>Melopsittacus undulatus</i>	19	16	0	35	10	9	0	0	0	0	0	0	0	0	0	0	29	25	0	54
23	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
24	Emu	<i>Dromaius novaehollandiae</i>	8	4	0	12	0	0	0	0	0	0	0	0	0	2	0	0	6	4	0	10
25	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
26	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
27	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
28	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>			38	28	0	66	10	9	0	0	0	0	0	0	2	0	0	46	37	0	83	
<b>GRAND TOTAL</b>			130	109	0	239	15	16	0	0	0	0	2	1	0	11	1	0	132	123	0	255

## MORTALITY OF ANIMALS

S.No.	Animal Name with Scientific Name	Sex	Date of Death	Reason of Death
1	Emu (chick) ( <i>Dromaius novaehollandiae</i> )	M	07.05.2018	Heat stroke.
2	Sambar ( <i>Rusa unicolor</i> )	M	20.05.2018	Heat stroke.
3	Black Buck ( Krishna Mrig) ( <i>Antilope cervicapra</i> )	M	28.05.2018	Traumatic injury & Shock
4	Emu (sub adult) ( <i>Dromaius novaehollandiae</i> )	M	12.12.2018	Paralysis
5	Leopard cub ( <i>Panthera pardus</i> )	M	24.12.2018	Pneumonia
6	Stripped Hyaena ( <i>Hyaena hyaena</i> )	M	31.12.2018	Senility
7	Deer Spotted (Chital) ( <i>Axis axis</i> )	M	04.01.2019	Shock
8	Sambar ( <i>Rusa unicolor</i> )	M	06.01.2019	Old age
9	Deer Spotted (Chital) ( <i>Axis axis</i> )	M	10.01.2019	Traumatic injury
10	Nilgai (Blue Bull) ( <i>Boselaphus tragocamelus</i> )	M	26.01.2019	Hepatitis
11	Deer Spotted (Chital) ( <i>Axis axis</i> )	F	15.02.2019	Traumatic injury
12	Brahminy Duck ( <i>Tadorna ferruginea</i> )	M	10.03.2019	Old age

## 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.	Viewing area of herbivores has been made 30% of the total area.



<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.

