

Jawaharlal Nehru Biological Park

Bokaro, Jharkhand

ANNUAL REPORT FOR THE YEAR

2020-21



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REPORT OF THE OFFICER IN-CHARGE

It is an immense pleasure for me to present the annual report of Jawaharlal Nehru Biological Park, Bokaro for the yr. 2020-21.

During this year JNB Park remained closed to visitors from 17.03.2020 to 28.02.2021 due to pandemic of Covid-19 as per guidelines of Govt. of Jharkhand. As the situation improved, Govt. permitted to open parks with effect from 01.03.2021 to 31.03.2021.

Repair and replacement of iron chain link in primate enclosure done during this period.

Various educational activities remained closed due to pandemic of Covid-19.

About 500 tree saplings were planted during this year.

I acknowledge the team work put in by the staff 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 : 19th August'2022
- Category of zoo : Medium
- Area (in hectares) : 51.160
- Number of visitors : Adult - 8017
Children - 8533
Total Visitors - 16,550
[JNB Park remain closed to visitors from 17.03.2020 to 28.02.2021 due to pandemic of COVID-19]
- 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 Samrendra Jha

➤ Education Officer/Biologist : Sri Samrendra Jha

➤ Compounder : - -

❖ OPERATOR OF THE ZOO

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

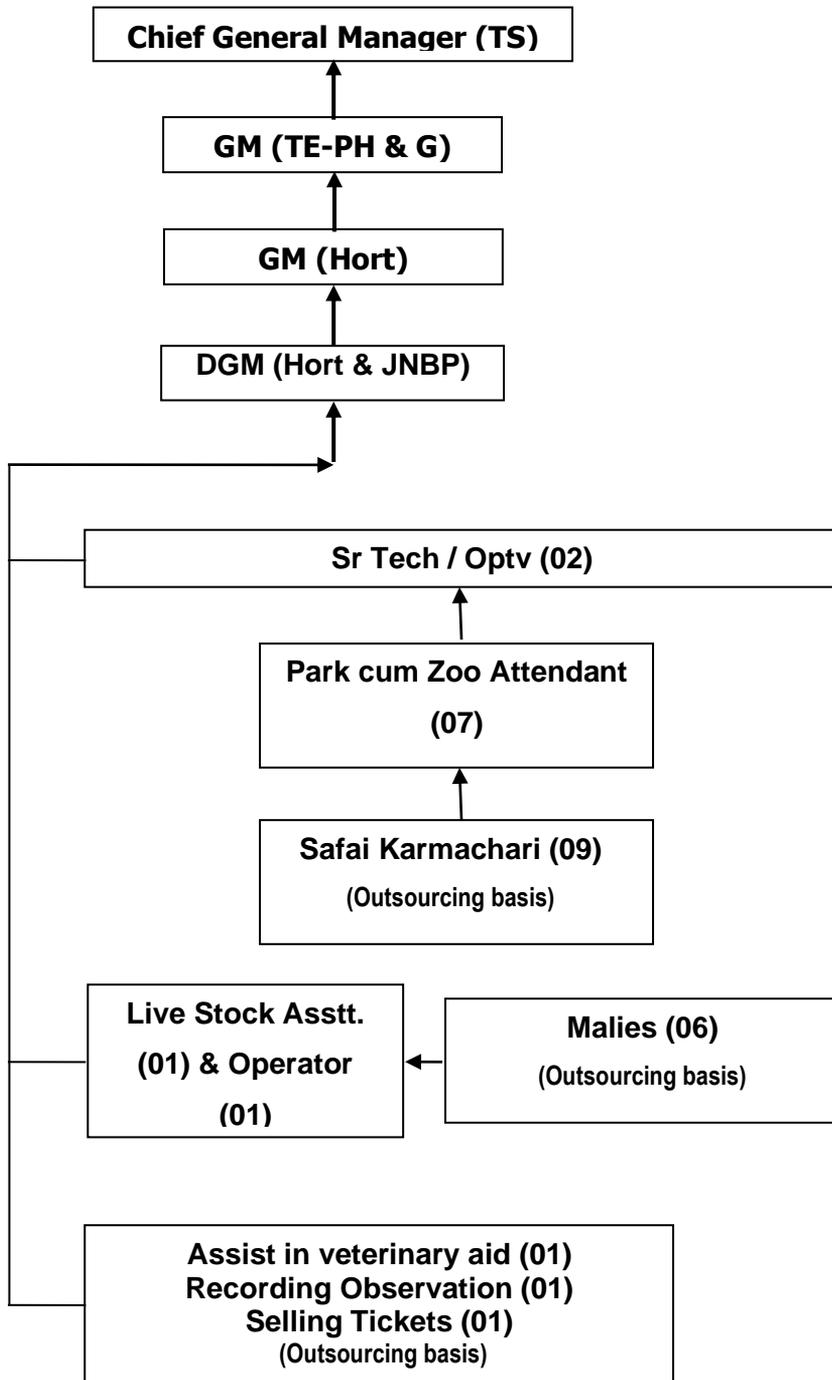
➤ Address : Nagar Sewa Bhawan, Sector – 4,
Bokaro (827001), Jharkhand

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

➤ E-mail Address : jnbparkbokaro@gmail.com



ORGANIZATIONAL CHART



HUMAN RESOURCES**ZOO PERSONNEL**

SNo	Designation	Post sanctioned	Name of incumbent	Remarks
1	Director (Officer-in-Charge)	01	01	
2	Veterinary Surgeon	01	01	
3	Curator (animals)	01	01	
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

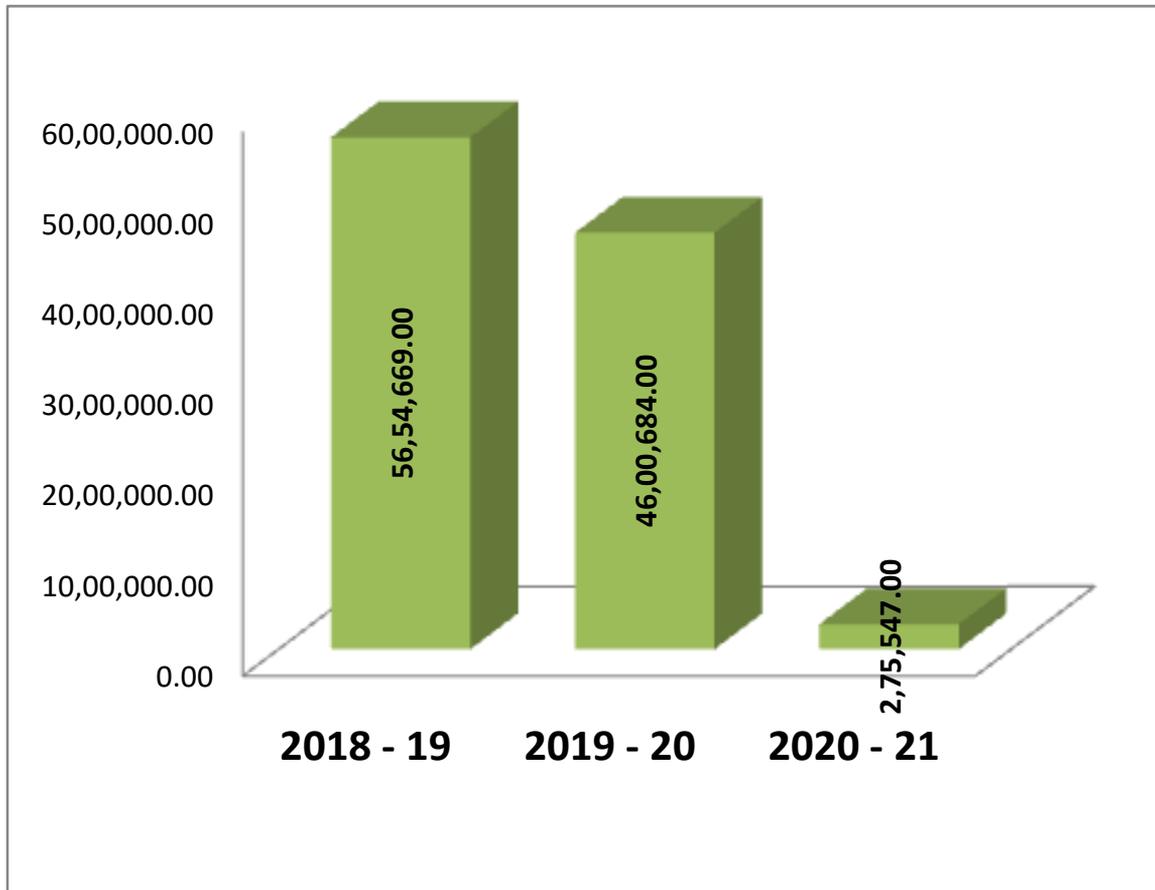
- a. Date of Constitution : 2018
- b. Members : District Animal Husbandry Officer,
Bokaro and AGM (TA – Hort)
- c. Meetings : One meeting held (during the year).

BUDGET, INCOME AND EXPENDITURE**2020-21**

<u>Budget allocated</u>	
Administrative Head + LVPR	1,98,000.00
Service Contracts (SCON)	1,10,00,000.00
Total :	1,11,98,000.00
Rs One cr eleven lakhs ninety eight thousand only.	
<u>Expenditure & Liability</u>	
Administrative Head + LVPR	1,75,298.00
Service Contracts	1,10,00,000.00
Total :	1,11,75,298.00
Rs One cr eleven lakhs seventy five thousand two hundred ninety eight only.	
<u>Revenue Earned from Different Sources</u>	
Sale of Entry & Camera Tickets	2,46,680.00
Income from Other sources	28,867.00
Toy Train	13,200.00
Parking Stand	15,667.00
Total :	2,75,547.00
Rs Two lakhs seventy five thousand five hundred forty seven only.	

Note : JNB Park remain closed to visitors from 17.03.2020 to 28.02.2021 due to pandemic of COVID-19.

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 at Bokaro General Hospital, Bokaro.

Sl No	Name	Designation	Check-up Date	Findings
01	Dr G Chakraborty	GM	During 2020 - 21	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.		Good Health
11	G Prasad	P/Z Atten.		Good Health
12	A Ansari	P/Z Atten.		Good Health

DEVELOPMENT WORKS

Various development works were carried out at JNB Park during the year 2020-21 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. But this year JNB Park remain closed to visitors from 17.03.2020 to 28.02.2021 due to pandemic of COVID-19.

IMPORTANT EVENTS & HAPPENINGS

JNB Park remain closed to visitors from 17.03.2020 to 28.02.2021 due to pandemic of COVID-19.

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
-	-	-	-	-	-	-

ANNUAL INVENTORY OF ANIMALS

Form – II

[See Rule 11(1)]

Inventory Report for the year: 2020-21

PART – A																						
Endangered Species (Schedule I and II)																						
S. No.	ANIMAL NAME	SCIENTIFIC NAME	OPENING STOCK as on 01.04.2020				BIRTHS			ACQUISITIONS			DISPOSALS			DEATHS			CLOSING STOCK as on 31.03.2021			
			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	1	0	0	3	2	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>	19	26	0	45	2	1	0	0	0	0	0	0	1	1	0	20	26	0	46	
4	Langur Common	<i>Semnopithecus entellus</i>	9	3	0	12	1	1	0	0	0	0	0	0	0	0	0	10	4	0	14	
5	Leopard (Panther)	<i>Panthera pardus</i>	3	3	0	6	0	0	0	0	0	0	0	0	1	0	0	2	3	0	5	
6	Macaque Bonnet	<i>Macaca radiata</i>	3	1	0	4	0	0	0	0	0	0	0	0	0	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	3	0	0	11	6	0	17	
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	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	
Total of Endangered Species			53	44	0	97	3	2	0	0	0	0	0	0	6	1	0	50	45	0	95	

S. No.	ANIMAL NAME	SCIENTIFIC NAME	OPENING STOCK as on 01.04.2020				BIRTHS			ACQUISITIONS			DISPOSALS			DEATHS			CLOSING STOCK as on 31.03.2021			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
PART – B (Other than Endangered Species)																						
Species (Schedule III and IV)																						
10	Parakeet Alexandrine	<i>Psittacula eupatria</i>	2	3	0	5	0	0	0	0	0	0	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	0	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	1	1	0	2
13	Deer Barking (Kakar)	<i>Muntiacus muntjak</i>	3	6	0	9	1	3	0	0	0	0	0	0	0	0	0	0	4	9	0	13
14	Deer Sambar	<i>Rusa unicolor</i>	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
15	Deer Spotted (Chital)	<i>Axis axis</i>	29	27	0	56	1	0	0	0	0	0	0	0	2	2	0	0	28	25	0	53
16	Lion Hybrid	<i>Panthera leo</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
17	Nilgai - Blue Bull	<i>Baselaphus tragocamelus</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
18	Porcupine (Albino)	<i>Hystrix indica</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total of Species (Sch III and IV)			39	43	0	82	2	3	0	0	0	0	0	0	0	0	0	0	39	43	0	82

S. No.	ANIMAL NAME	SCIENTIFIC NAME	OPENING STOCK as on 01.04.2020				BIRTHS			ACQUISITIONS			DISPOSALS			DEATHS			CLOSING STOCK as on 31.03.2021				
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T	
Exotic Species																							
20	Budgeriger	<i>Melopsittacus undulatus</i>	30	26	0	56	0	4	0	0	0	0	0	0	0	0	0	0	0	30	30	0	60
21	Cockatiel	<i>Nymphicus hollandicus</i>	4	4	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	8
22	Emu	<i>Dromaius novaehollandiae</i>	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3
23	Love Birds	<i>Agapornis</i>	4	4	0	8	0	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	0	1	0	0	1
25	Silver Pheasant	<i>Lophura nycthemera</i>	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
26	Hippopotamus	<i>Hippopotamus amphibius</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total of Exotic Species			43	35	0	78	0	4	0	0	0	0	0	0	1	0	0	0	42	39	0	81	
GRAND TOTAL			135	122	0	257	5	9	0	0	0	0	0	0	9	4	0	0	131	127	0	258	

MORTALITY OF ANIMALS

S.No.	Animal Name with Scientific Name	Sex	Date of Death	Reason of Death
1	Hybrid Lion (Panthera leo)	F	03.06.2020	Cardiac arrest
2	Leopard (Panthera pardus)	M	27.09.2020	Internal hemorrhage & shock
3	Silver Pheasant (Lophura nycthemera)	M	03.10.2020	Old age
4	Peacock (Pavo cristatus)	M	07.10.2020	Old age
5	Macaque Rhesus (Macaca mulatta)	M	02.01.2021	Old age
6	Spotted Deer (Axis axis)	M	10.01.2021	Old age
7	Black Buck (Antilope cervicapra)	F	12.01.2021	Old age
8	Macaque Rhesus (Macaca mulatta)	M	12.01.2021	Pneumonia
9	Spotted Deer (Axis axis)	M	12.01.2021	Traumatic shock due to infighting
10	Macaque Rhesus (Macaca mulatta)	M	02.02.2021	Shock due to infighting
11	Spotted Deer (Axis axis)	F	03.02.2021	Pneumonia
12	Spotted Deer (Axis axis)	F	10.02.2021	Shock due to traumatic injury
13	Black Buck (Antilope cervicapra)	M	28.03.2021	Shock due to traumatic injury

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
1. General Requirements			
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.
2. Administration and staffing pattern			
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.
3. Development and Planning			
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.
4. Animal housing, display of animals and animal enclosures			
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.
6. Veterinary and infrastructure facilities			

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.
9. Acquisition and breeding of animals			
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
1. General Requirements			
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.
3. Development and Planning			
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%

4. Animal housing, display of animals and animal enclosures			
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.

5. Upkeep and healthcare of animals			
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.
9. Acquisition and breeding of animals			
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.
12. Visitors' facilities			
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.

