

# TATA STEEL ZOOLOGICAL PARK JAMSHEDPUR



## ANNUAL REPORT 2022-2023



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## REPORT OF THE OFFICER IN-CHARGE

Greetings to our friends and supporters!

It's been a challenging year after we finally could reopen fully in March, 2022 post COVID-19 closure.

As you read through our annual report, you will see many new and exciting things that were accomplished during the past year. Among these is the creation of a new entrance plaza having a parking facility for the tourists, ticketing office, staff rooms, a stand for the battery operated vehicles for tourist and a small water body with fountains and landscaped garden.

In addition to the above, the zoo undertook many other ventures including:

Creation of a modern commissary for the zoo animals

Creation of an inpatient ward for the birds and primates

And a surgical room for veterinary interventions

While some accomplishments yield important financial rewards or have a positive impact on the environment, others produce priceless moments like those for a young child to experience their first touch of a deer horn in a 'touch n learn programme'. These moments, when children's eyes light up with wonder and their fingers tremble in anticipation, will remain with them for a lifetime, serving as the beginning of a profound connection with nature and animals. All of these moments whether about finances, conservation or making connections, are important as we pursue our mission.

What is the value of an institution that engages people of all ages from a young child experiencing their first close encounter with wildlife, to an adult that sees the excitement and wonder in their child's face as they touch a horn for the first time, to a grandparent creating a lasting memory and connection with a grandchild?

To us, the value of this amazing place is truly significant and powerful. We believe....a lifetime of inspiration begins here. It is the potential to help create the next generation of conservationists or to save a species from extinction that keeps our Zoo striving to reach more people and accomplish greater goals.

I am tremendously proud to look back and see how much our Zoo has accomplished in the last one decade. However, I am even more enthusiastic and passionate about the possibilities for the future. How many more lives can we positively impact by connecting people to animals and nature? How many more animals can we aid in their quest to survive a changing planet?


You may ask yourself "How much can Tata Steel Zoological Park possibly do?" The answer is, more than you ever imagined! If we continue to invest in the future by offering new and enhanced facilities, providing unique and impactful programs, and working to save species, there is no end to what we can accomplish or how many lives we can positively impact.

I invite you to review the 2022-23 annual report, sharing in our many accomplishments and envisioning a truly meaningful future!

Thank you from, not just me, but the entire Zoo management and staff, for your support throughout this year.

Date: 30<sup>th</sup> June, 2023

(ii)

  
Bipul Chakrabarty

## ZOO ACTIVITIES IN FY'2022-23 AT A GLANCE

### RESEARCH AND EDUCATION

#### EDUCATIONAL ACTIVITIES:

#### AWARNESS CAMPAIGN /EVENT CELEBRATIONS/OTHERS



Organization of a "Rally on greening earth" on 5<sup>th</sup> June during **World Environment Day**



Screening of plastics in main gate on occasion of **World Environment Day**



Organization of a bird session on 5<sup>th</sup> June during **World Environment Day**



Inauguration of rejuvenated pond by Chanakya Chaudhary, President TSZS & VP(CS), TSL and plantation on 5<sup>th</sup> June during **World Environment Day**



Celebrated **Van Mahotsav** from 1<sup>st</sup>-31<sup>st</sup> July organized Plantation programmes



Celebrated **International Vulture Awareness Day** on 3<sup>rd</sup> Sept., organized lecture on Need of vulture conservation.



Celebrated **International Cheetah Day** on 17<sup>th</sup> Sept., organized Keeper talk on occasion of "Returns of Cheetah to India".



Celebrated **World Wetland Day** - organised an open air session for school student on "Importance of wetlands and their sustainable use".



Organized “Keeper talk” for visitors throughout the year on Zoo animals.



Organized “Touch n Learn” programme throughout the year for school children.



Organized “School/College group visit” throughout the year for school/College children.

### BIOLOGICAL ACTIVITIES

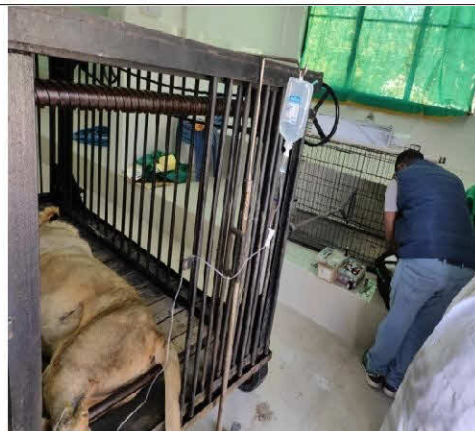


Observation of Feeding behaviour of animals

### Animal Health Care



Treatment of sick/injured animals



Saline therapy to carnivores



Vaccination and De-worming medication

**ANIMAL UPKEEP AND MANAGEMENT IN CAPTIVITY**

**Ecological enrichment activities**



Providing of perches to the Grey Parrots



Making of wooden Platform in Mandrill Monkey display area



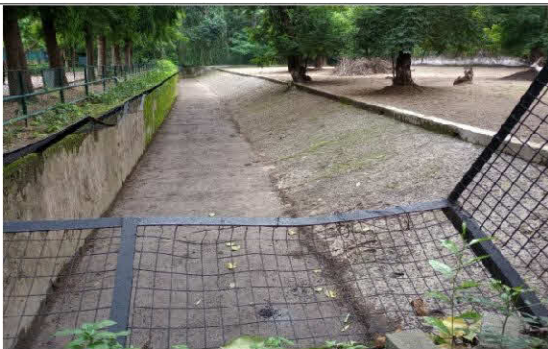
Installation of wooden logs (Leopard enclosure)

**Seasonal management for animals**



**Animal enclosure management**

**Schedule Disinfection and Cleaning activities at animal enclosures**



**Breeding of animals and their care**



## **HISTORY OF TATA STEEL ZOOLOGICAL PARK**

Tata Steel Zoological Park (Zoo) which lies within the heart of the beautiful, green city of Jamshedpur (Jharkhand) was established in 1990. Zoo is operated by Tata Steel Zoological Society, an NGO fully supported by Tata Steel Foundation. The Society is registered under Societies Registration Act, Govt. of Jharkhand and as a 'Charitable' institution under section 12A of the Income Tax Act.

Zoo was formally opened for public visitation on 3rd March 1994. The Zoo is recognized as a 'Medium' category Zoo by Central Zoo Authority u/s 38H of the Wildlife (Protection) Act, 1972 vide letter No. 19-47/92-CZA(52)/ C.No.146960 dated 08.02.2021

The 30 hectares Zoo campus is located on the bank of river Subarnarekha a wetland famous for attracting large number of winter migratory bird species hence adding to the intrinsic value of fauna. The Zoo is being re-imagined as per an approved master layout plan, where animal exhibits have been thoughtfully positioned as per taxonomic classification to give the best immersive and naturalistic experience to the visitors with a lush green surrounding does justice to the prime goal of preserving wild animals and helping them propagate in captivity.

### **Our Vision:**

WE ENVISION A SUSTAINABLE, HEALTHY, AND RESILIENT SINGHBHUM LANDSCAPE WHICH SUPPORTS THE AREA'S UNIQUE BIODIVERSITY, HUMAN COMMUNITIES, AND CULTURE



### **Our Mission:**

*A living centre for education and science, committed to providing satisfying visitor experiences and inspiring passion to protect wildlife and habitats*

### **Our objective:**

Be a catalyst Zoo in strengthening the national efforts in conservation of the rich biodiversity of the country, particularly the fauna

## **ABOUT US- ZOO OPERATIONS**

The Zoo has a full time 'Director' as the Officer-in-Charge. The functional areas being overseeing day to day Zoo operation & Planning. In discharge of responsibilities, Director is assisted by team of officers and staff, which is explained as below. Director reports to Hon. Secretary, Tata Steel Zoological Society for all purpose.

Deputy Director looks after the health care of animals. Major activities of the team being health care of animals, food & nutrition & general hygiene of zoo campus. For smooth discharge of responsibilities, Deputy Director is assisted by a compounder and an nursing assistant. Deputy Director reports to Hon. Secretary, Tata Steel Zoological Society.

Curator looks after day-to-day management of captive wild animals, maintenance of their enclosures, enrichment, feeding, disinfection & transportation. Compiling of quarterly & annual animal inventory of animals and implementation of Disaster management plan are also his duties. For smooth discharge of responsibilities, Curator is assisted by two field Supervisors; a battery of animal Keepers, Field assistant and animal attendants. Curator reports to the Deputy Director for all purposes.

Biologist cum Education (BEO) officer looks after the Zoo Biology, Education awareness & Research activities. Major work being recording of animal behaviour, maintaining studbooks for endangered animals, organizing education awareness programmes, running of the Nature Education Centre & library and Zoo website. BEO is also responsible for drafting Zoo annual report & press notes. BEO is assisted by a Sr. Assistant (Education), interns & volunteers and reports to the Director for all purposes.

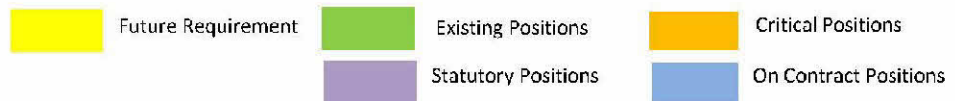
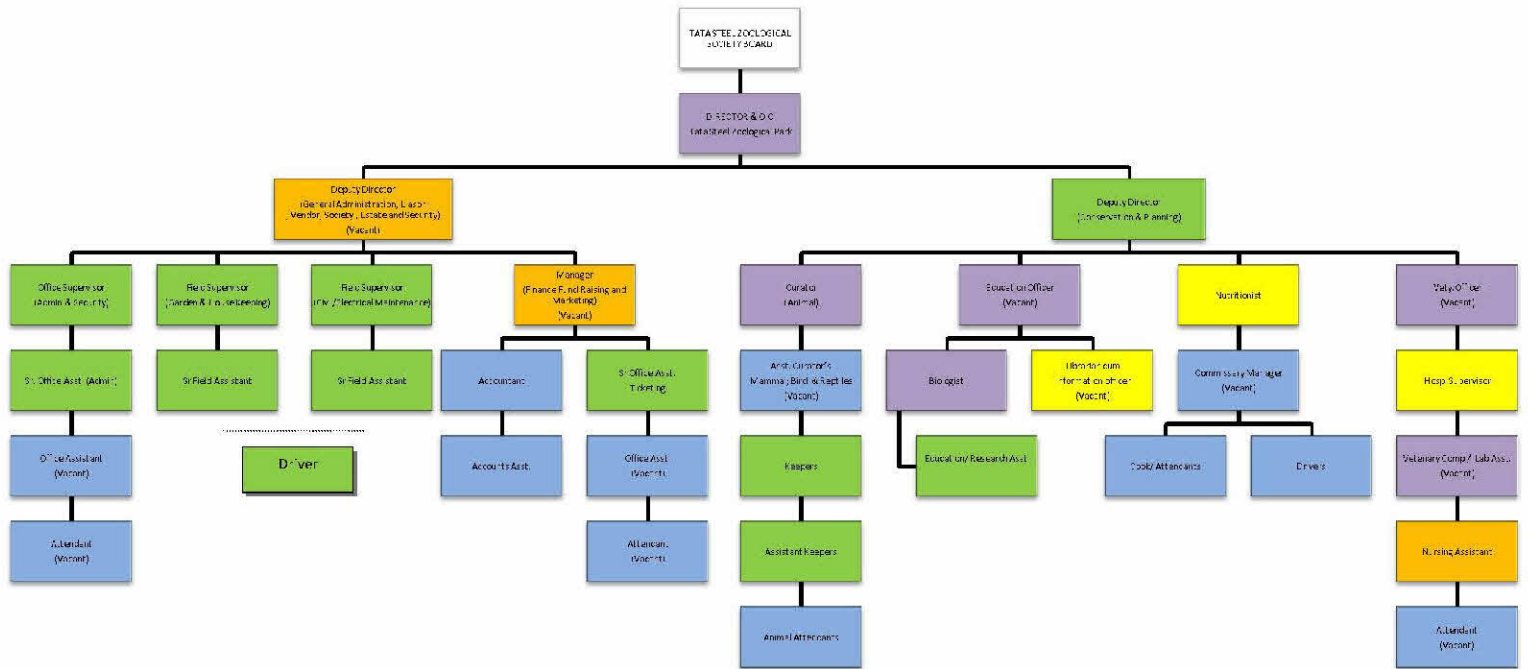
Office Supervisor looks after the office administration, accounting, contracts, procurement, stores, ticketing, meetings of the subcommittees & Society. The office supervisor is also the Zoo security in-charge overseeing daily deployment of security personnel in the Zoo campus. Office Supervisor in discharge of his duties, is assisted by three Sr.office Assistants, an Asst. Accountant and an attendants and reports to the Director for all purpose.

<b>S.No.</b>	<b>Particulars</b>	<b>Information</b>
<b>Basic Information about the Zoo</b>		
1	Name of the Zoo	Tata Steel Zoological Park
2	Year of Establishment	1994
3	Address of the Zoo	Off Marine Drive Road, Near XLRI P.O.-Bistupur, Jamshedpur, East Singhbhum
4	State	Jharkhand
5	Telephone Number	0657-2912181/2912125
6	Fax Number	Nil
7	E-mail address	<a href="mailto:tatasteelzoo@gmail.com">tatasteelzoo@gmail.com</a>



8	Website	Under development
9	Distance from nearest	Airport:145Km (Ranchi Airport)
		Railway Station: 5Km (Tatanagar)
		Bus Stand: 3Km (ISBT)
10	Recognition Valid upto (Date)	19/08/2022
11	Category of zoo	Medium
12	Area (in Hectares)	30
13	Number of Visitors (2022-23)	Adult :285744
		Children :109460
		Total Indian:395204
		Total Foreigners:--Not reported
		Total Visitors: 395204
14	Visitors' Facilities Available in Zoo	Shelters; benches; drinking water kiosk; toilets; wheel chair; battery operated vehicles; food & refreshment stalls.
15	Weekly Closure Day of the Zoo	Monday
<b>Management Personnel of the zoo</b>		
16	Name with designation of the Officer in-charge	Mr. Bipul Chakrabarty, Director
	Name of the Deputy Director	Dr.Manik Palit (Veterinarian)
	Name of the Curator	Dr. Sanjay Kumar Mahato
	Name of the Biologist & Education Officer	Dr. Seema Rani
	Name of the Office Supervisor	Mr. Mritunjay Kumar
<b>Owner / Operator of the Zoo</b>		
17	Name of the Operator	President, Tata Steel Zoological Society
18	Address of the Operator	At Tata Steel Zoological Park, Off Marine Drive Road, Near XLRI P.O.- Bistupur, Jamshedpur, East Singhbhum (Jharkhand) Pincode:831001
19	Contact details/Phone number of Operator	Capt. Amitabh, Secretary, TSZS & Head, Skills Development, Tata Steel Foundation, 3E Road, Northern Town, Jamshedpur-831001 Tel: 0657-6642438; Mb.8092084774
20	E-mail address of Operator	<a href="mailto:c.amitabh@tatasteel.com">c.amitabh@tatasteel.com</a>

# TATA STEEL ZOOLOGICAL PARK ORGANISATIONAL MAPPING



## HUMAN RESOURCE

Sl. No.	Designation	Sanctioned post/ posts	Names of the Incumbent
<b>ADMINISTRATION</b>			
1	Director	One	Mr. Bipul Chakrabarty
2	Deputy Director	One	Dr. Manik Palit (Veterinarian)
3	Office Supervisor	One	Mr. Mritunjay Kumar
4	Accounts Assistant	One	Mr. Rakesh Munda
5	Sr. Office Assistant (Ticketing)	Two	Mr. Shyam Ranjan Mahato, Mr. Biswanath Mazumdar;
6	Sr. Office Assistant (Admin)	One	Mr. Sunil Kar (Till 31/7/2022) & Mr. Kartik Gorai
7	Driver	One	Vacant
<b>CAPTIVE ANIMAL Housing &amp; Welfare</b>			
1	Curator	One	Dr. Sanjay Kumar Mahato
2	Field Supervisor	Two	Mr. Dilip Dey ; Mr. Tarkeswar Ram & Mr. S. A. Ansari (31/01/2023)
3	Field Assistant /Associate	Two	Mr. R. Srinivas; Mr. Ali Akhtar Khan (Till 22/10/2022) & Mr. Som Mahato
4	Keeper (Animals)	Four	Mr. Sulendra Das; Mr. Bijoy Mukhi; Mr. Binod Sharma; Mr. Surendra Kumar Singh; Mr. Lalan Kumar; Mr. Dinesh Mahato
5	Asst. Keeper (Animals) / Animal Attendants	Fourteen	Smt. Malti Manjhi; Smt. Gyani Devi; Smt. Shefali Das; Mr. Mazumdar Mahato; Mr. Rajkishor Harpal; Mr. Manoj Nag; Mr. Bharat Chandra Mahato; Mr. Vishal Singh & Mr. Rajesh Pal; Mr. Suresh Das; Mr. Snehasish Dey & Mr. Dubraj Mardi
<b>CONSERVATION BIOLOGY, EDUCATION &amp; RESEARCH</b>			
1	Biologist cum Education Officer	One	Dr. Seema Rani
2	Sr. Office Assistant (Education)	One	Mr. Pratap Gill
<b>CAPTIVE ANIMAL HEALTH &amp; NUTRITION</b>			
1	Junior Veterinary Officer	One	Vacant
2	Veterinary Compounder	One	Mr. Himanshu Aghara
3	Lab Assistant	One	Vacant
4	Nursing Assistant	One	Mr. Linsa Harpal

## CAPACITY BUILDING

Name and designation of the zoo personnel	Subject matter of Training	Period of Training	Name of the Institution where the Training attended
Mr. Bipul Chakrabarty Director	General Zoo Management	10 <sup>th</sup> -11 <sup>th</sup> Sept.2022	Nandankanan Biological Park, Bhubaneswar, Odisha
As above	Exposure training on management of rescued wild animals	26 <sup>th</sup> -29 <sup>th</sup> Dec.2022	Greens Zoological Rescue & Rehabilitation Centre, Jamnagar(Gujarat)
Mr. Vishal Singh Animal attendant	Keeper Training (Regional Zoo)	21 <sup>st</sup> – 23 <sup>rd</sup> Feb.2023	Zoological Garden, Alipore, Kolkata West Bengal

## ZOO ADVISORY COMMITTEE

The Zoo Advisory committee was reconstituted on 27<sup>th</sup> January, 2023 by Tata Steel Limited. Following are the members of the committee:

1	Vice President, Corporate Services, Tata Steel	President
2	Chief, Corporate Social Responsibility, Tata Steel & CEO, Tata Steel Foundation	Vice President
3	Capt. Amitabh- Head, Skill development Tata Steel Foundation	Secretary
4	Mr. Vinay Kumar Sharma, Sr.Manager (CMAG), Tata Steel	Treasurer
5	Mr. Pranay Sinha, Chief (CS), Tata Steel	Member
6	Mr. Ajay Kumar Singh, Head HRBP, Iron making, Tata Steel	Member
7	Mr. Anuj Kumar Singh, Sr.Manager (Societies), Tata Steel	Member
8	Ms. Shuvra R, Sr.Manager (Communications), Tata Steel Foundation	Member
9	Mr. Sumir Mathur, Sr.legal Counsel, Tata Steel	Member
10	Mr. Ezhilan Arivudai Nambi, Tata Steel Foundation	Member
	<b>Permanent Invitees from Zoological Park</b>	
11	Mr. Bipul Chakrabarty	Director
12	Dr. Manik Palit	Deputy Director

The Zoo advisory committee met on during the month of June, September October & December, 2022 to review the Zoo operations, communications strategy; animal adoption programme and implementation of the master layout plan.

## HEALTH ADVISORY COMMITTEE

Zoo Veterinary Health Advisory Committee members met physically on 25/09/2022 & 17/02/2023. Regular consultation was also held with the members of Health Advisory committee virtually including obtaining their assistance in Post-mortem examination of endangered animals that had died in the Zoo. Following is the constitution of the committee:

1	Dr. M. Navin Kumar, Deputy Director ( Retd) & consultant, Nehru Zoological Park, Hyderabad, Telangana	Chairperson
2.	Dr. A.B. Shrivastav, Director (Retd ), School of Wildlife Forensic and Health, Veterinary College Jabalpur, M.P	Member
3.	Prof. Niranjana Sahoo, Coordinator, Centre for Wild life Health, College of Veterinary Science and Animal husbandry, OUT, Bhubaneswar, Odisha	Member
4.	Dr. Tuhin Chakraborty, Deputy Director ( Retd), ARD, Govt. of West Bengal & former Veterinary officer, Padmaja Naidu Himalayan, Zoological Park, Darjeeling, West Bengal	Member
5.	District Animal Husbandry Officer, East Singhbhum	Ex-officio member
4.	Dr. Manik Palit, Deputy Director and Veterinary Officer, Tata Steel Zoological Park, Jamshedpur, Jharkhand	Coordinator
5	Mr. Bipul Chakrabarty, Director, Tata Steel Zoological Park	Invitee
6	Dr. Sanjay Kumar Mahato, Curator, Tata Steel Zoological Park	Invitee

Following were the outcome of the meetings;

- Committee suggested that in captive conditions new born are not be taken into inventory as they remain under a critical stage for 3-6 months as being followed in major zoos in the country.
- The population of small herbivores should be maintained as per the carrying capacity and collection plan. Overpopulated herbivores like Spotted Deer should not be maintained. Enclosure to be partitioned to segregate the male and female so that breeding can be avoided.
- The night shelter for large cats proposed in the master plan, submitted to CZA, is as per the prescribed norms of CZA. However, the Committee felt that the shelter size may be increased as per the dimension suggested (4 x 3 x 3 meters). The Committee felt that the existing size of the shelter is insufficient for large size animal.

Other than the above advisory committees, the Zoo was also guided by following two sub-committees in its day to day administrative and development matters:

A) Zoo Purchase Committee

Sl. No.	Name / designation	Position
1.	Mr. Arun Kr. Singh, Sr. Manager, Societies, Tata Steel & Member, TSZS till 29/08/2022 Anuj Kr. Singh from 30/08/2022	Chairman
2.	Dr. Manik Palit, Dy. Director, TSZP	Member
3.	Dr. Sanjay Kumar Mahato, Curator, TSZP	Convener

B) Zoo Civil Construction Committee

Sl. No.	Name / designation	Position
1.	Dr. Manik Palit, Dy. Director cum Veterinary Officer, TSZP	Member
2.	Dr. Sanjay Kumar Mahato, Curator, Tata Steel Zoological Park	Convener
3.	Er. P. P. Kundu (Retd.), Tata Steel Utilities & Infrastructure Services Limited	Technical Member
3.	Er. N. K. Singh, PASA Cell, Tata Steel	Technical Member



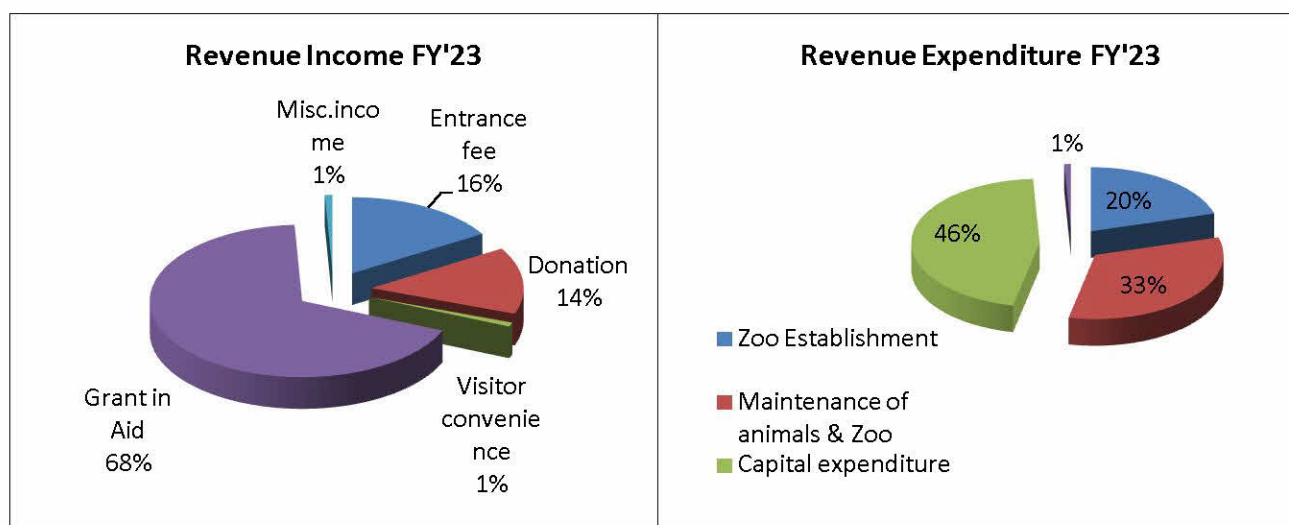
**FINANCIAL PERFORMANCE-  
Statement of Income & Expenditure**

**Revenue Income:**

Tata Steel Foundation during the financial year 2022-23 provided Grant in Aid of ₹4.30crores to Tata Steel Zoological Society for annual maintenance of the Zoo and initiating implementation of the master layout plan. The Society revenue through animal adoption, donation for up-gradation of Zoo Health care infrastructure and other miscellaneous income was ₹2.04 crores.

**Revenue Expenditure:**

Total amount spent by Tata Steel Zoological Society for running the Zoological Park and implementation of the master-plan during 2022-23 was ₹7.30 crores, major expenditure being on maintenance of captive animals, establishment, creation of new entrance plaza with ticketing zone and construction of perimeter wall.



## DAILY FEED SCHEDULE OF ANIMALS

Captive Animals are provided with a balanced diet drawn up by Curator, Veterinarian and Biologist of the Zoo. Accordingly, food is prepared and distributed on daily basis by animal keepers. All large cats are put on a day's fast every Monday. Details of food provided are given below:

### BIRDS

Sl.No.	Name of Animals	Diet Prescribed for Each Animal	Quantity of Food
1	Pheasants & Fowls	1. Mixed Grain (with 10% germinated moong) 2. Bhuna Gram Powder (Satoo) 3. Boiled Egg or Mealworms 4. Green Veg. Leaves	100 gms 10 gms 15 gms (1/4) 60 gms
2	Peacocks	1. Mixed Grain (with 10% germinated moong) 2. Bhuna Gram Powder (Satoo) 3. Boiled Egg 4. Green Veg. Leaves	200 gms 20 gms 30 gms (1/2) 50 gms
3	Doves, Quails, Partridge	1. Mixed Grain (with 10% germinated moong) 2. Bhuna Gram Powder (Satoo) 3. Boiled Egg 4. Green Veg. Leaves - Palak/Lucerne	50 gms 5 gms 5 gms (1/8) 15 gms
4	Budgerigar/Munia/Finch Java sparrow, Love Birds	1. China Dana/Milletts 2. Green Veg. Leaf 3. Sea Foam 4. Food Booster	50 gms 10 gms Seasonal 5 gms
5	Hill Myna	1. Satoo 2. Banana 3. Germinated Moong 4. Papaya/Guava 5. Seasonal Fruits	25 gms 50 gms 25 gms 25 gms 25 gms
6	Ostrich	1. Mix. Grain 2. Banana 3. Green Veg. leaves 4. Boiled Egg	2.5 Kg 1+1 Pc 250 gms 1 Pc
7	Emu	1. Mixed Grain 2. Boiled Egg 3. Banana 4. Green Veg. Leaves 5. Green Grass	1.5 Kg 1 Pc 2 Pc 250 gms AD LIB
8	Parakeets, Cockatiel Morning - 9.00 AM	1. Soaked gram 2. Ground Nut 3. Sunflower, kusum seeds (seasonal) 4. Germinated moong 5. Soaked corn kernels	25 gms 25 gms 10 gms 10 gms 25 gms



		6. Banana	10 gms
		7. Beat root/carrot	10 gms
		8. Seasonal fruits	10 gms
		10. China Dana	10 gms
	Forenoon - 11.00 - 12.00 Noon	1. Carrots/beat	25 gms
		2. Peas/seasonal fruits	25 gms
		3. Green Chilly	5 gms
		4. Banana	10 gms
		5. Papaya/Guava	25 gms
9	Cockatoo		
	Morning - 9.00 AM	1. Soaked gram	50 gms
		2. Ground Nut (high quality)	50 gms
		3. Sunflower, kusum seeds (seasonal)	20 gms
		4. Germinated moong	10 gms
		5. Soaked corn cornels	25 gms
	11.00 - 12.00 Noon	1. Banana	50 gms
		2. Carrots/beat	25 gms
		3. Peas/seasonal fruits	25 gms
		4. Papaya/Guava	10 gms
		5. Green Chilly	5 gms
		6. Pedigree pellets	10 gms
10	Rainbow Lory	1. Milk	30 ml
		2. Honey	2.5 ml
		3. Cerelac powder	10 gms
11	Jenday Canur	1. Ground Nut	20 gms
		2. Jawar-Bajra	20 gms
		3. Papaya	20 gms
		4. Soaked Gram	20 gms
		5. Germinated Moong	20 gms
		6. Sunflower Seed	10 gms
	NOTE: Grit for all above birds is provided (Sea foam, black salt, sondha Namak etc.)		
12	Goose, Muscovy duck, Common Duck, Mandarin Duck	1. Paddy	100 gms
		2. Rice Bran	100 gms
		3. Green Veg. Leaves	150 gms
		4. Green Grass	ADLIB
		5. Maize Crusted	100 gms
		6. Jowar Crusted	25 gms
		7. Bajra	25 gms
		8. Cheena Dana	25 gms
13	White Ibis	1. Fish	200 gms
14	Pelican	1. Fish	300 gms

## REPTILES

15	Star Tortoise	1. Carrot/Sweet potato 2. Bengal gram 3. Papaya 4. Tomato/Banana, Water melon 5. Cucumber 6. Palak leaves (Green Veg. leaves) 7. Calcium granule	10 gms 10 gms 10 gms 10 gms 10 gms 10 gms 5 gms
16	Crocodile	1. Buffalo Meat	1/2 Kg. in winter 1 Kg. in other season
17	Gharial	1. Dead fish (fresh water)	250 gm to 500gm. per head winter 1.00 kg per/head in other season

## MAMMALS

18	Nilgai, Sambar Deer	1. Concentrated Mixture 2. Chaff (Kutti) paddy straw 3. Molasses 4. Tree Leaves 5. Green Grasses	1.5 Kg 500 gms 100 gms. (Seasonal) AD LIB AD LIB
19	Spotted Deer, Black Buck, Barking Deer, Hog Deer	1. Concentrated Mixture 2. Chaff (Kutti) 3. Molasses 4. Tree Leaves 5. Green Grasses	750 gms 250 gms 50 gms. (Seasonal) AD LIB AD LIB
20	Hippopotamus	1. Concentrated Mixture 2. Banana 3. Bread 4. Potato + Sweet Potato 5. Sweet Pumpkin 6. Molasses 7. Green Grasses 8. Chaff (Kutti)	10 Kg 1.5 Kg 1.5 Kg 2 Kg 2 Kg 250 gms. (Seasonal) 40 Kg 5 Kg
21	Sloth Bear Morning Afternoon Evening	1. Ground Nut 2. Sweet Potato/Potato 3. Carrot 4. Honey or Molasses braising of tree branches 5. Banana 6. Boiled Rice (Kheer) 7. Milk	100 gms 200 gms 100 gms 50 gms 200 gms 750 gms 1 Ltr.

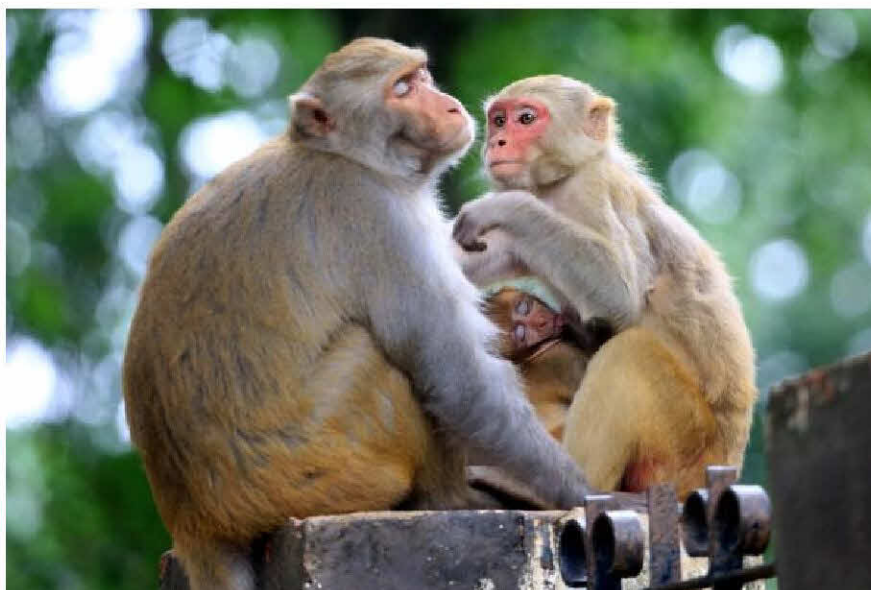
8. Boiled Egg  
9. Cooked Bread (Chapatti)

1 Pc. Seasonal  
750 gms

<b>Formula for Deer concentrated mixture</b>		<b>Formula for Emu mix grain</b>	
Bran Choker	20%	Crushed Maize	45%
Gram (Chana)	10%	Oil Cake	5%
Corn (Makai)	17%	Bird Mix. Grain	35%
Barley (Jau)	20%	Rice Bran	10%
Green Gram (Moong)	15%	Mineral Mixture	2%
Oil Cake (Khalli)	15%	Stone Grit	3%
Mineral Mixture	3%		
<b>Formula for Birds mix grain</b>		<b>Formula for Ostrich mix grain</b>	
Crushed Gram (Chana)	20%	Maize	30%
Whole Paddy	20%	Pearl Millets (Bajra)	10%
Crushed Maize	20%	Sorghum (Jawar)	10%
Wheat	15%	Soya Beans	6%
Split Red Lentils (Masoor Dal)	6%	Wheat Bran	20%
Sorghum (Jawar)	5%	Crushed Gram	10%
Pearl Millets (Bajra)	5%	Mineral Mixture	5%
Germinated Green Gram (Moong)	5%	Vegetable Oil	2%
Mineral Salt	2%	Vita Prot Mixture	2%
Stone Grit	2%	Germinated Green Gram (Moong)	5%

Note: Provided Pork (de-skinned) and chicken to the sick carnivores as per the prescribed by Vet.

Last feed schedule was revised on 25/02/2023 and continued during the year under report.



## VACCINATION & DE-WORMING SCHEDULE

In compliance to Recognition of Zoo Rules, 2009 a vaccination and de-worming schedule has been drawn up by the veterinarian of the zoo and the same is implemented as per details provided below:

#	Species	Diseases covers		Name of the vaccine	Dose and route	Date of vaccination done	Periodicity
1	Tiger, Lion & Leopard	Feline Distemper	Calci virus, Rhinotracheitis and Rabies infection	Feligen CRP	1.00 ml S/C or I/M	23.05.2022 30.09.2022 24.10.22	Annual
2.	Cloven footed Herbivores	Foot & Mouth diseases	FMD virus	Clovax/ Rakcha Ovac	2.00 ml S/C or I/M	22.04.22 and 23.04.22  13.11.22 and 14.11.22	

## DE-WORMING SCHEDULE

#	Class of Animal	Species	Month	Schedule of rotation	Remarks
1.	Large cats and Hyena	Tiger, Lion, Leopard, Hyena	Mar, Jun, Sep, Dec	Four times in a year	Group of medicines changed almost every time
2.	Ursidae	Sloth bear	Mar, Jun, Sep, Dec	Four times in a year	Not change
3.	Herbivores	Hippopotamus, Deer, Antelope	Feb, May, Sept	Three times in a year	Alternate group on each occasion
4	Primates	Mandrill, Macaques, Capuchin monkey, Langur	Feb, May, Aug, Nov	Four times in a year	Sometimes changed
5.	Aves	Peafowl, Ostrich, Emu, Duck, Pelican, Goose, Jungle fowl, Pheasant, Parakeet, Guinea fowl and Small birds	Feb, Jun, Oct	Three times in a year	-do-
6.	Reptiles	Crocodile, Gharial and Indian Star tortoise	Sept and Mar	Twice in a year	-do-

## DISINFECTION SCHEDULE

Curator(Zoo) in consultation with the veterinarian draws up the annual schedule for disinfection of all animal enclosures. Nimyl solution (neem & eucalyptus oil-based disinfectant) is used for cleaning the feeding cells. For open exhibit area lime and turmeric powder are spread adlibitum. Details of the schedule are provided below:

### Disinfection / Cleaning Schedule of Zoo Animal Enclosures

#	Species	Type of Enclosure	Disinfectant used and Methods	Frequency of Disinfection
1	Hippopotamus	Wet moat open enclosure	a) Change of water of wet moat	Weekly
			b) Removal of dung & silt, Lime spreading in moat & enclosure	Monthly
			c) Tall grass cutting in display area	As per requirement
2	Monkeys & Macaques	Wet moat open enclosure and Closed enclosure	a) Lime –bleach spreading in and around enclosure	Weekly
			b) Cleaning of night shelter & cell with lime-bleach	Fortnightly
			c) Sterilization of cells with blow lamp	Monthly
			e) De-silting of wet moat (Langur and Mandrill)	As per requirement
			f) Tall grass cutting and removal in display area (Langur)	As per requirement
3	A. Birds & Pheasants	Closed Aviaries	a) Lime spreading around cells (Out side enclosure)	Weekly
			b) Cleaning of cells with Kohrsolin	Monthly
			c) Turning of soil inside the cells	Monthly
	B. Aquatic birds	Closed enclosure-Chainlink Covered	a) Lime-bleach spreading in and around enclosure	Weekly
			b) Change of water	Monthly
			c) De-silting of pond	As per requirement
4	Deer & Antelope	Open enclosure with chainlink fence	a) Cleaning of enclosure and spreading of lime/bleach	Weekly
			b) Removal of dung from enclosure	Monthly

#	Species	Type of Enclosure	Disinfectant used and Methods	Frequency of Disinfection
5	Bear	Dry moat open enclosure	a) Cleaning of cells with lime/Kohrsolin	Daily
			b) Lime bleach spreading in and around enclosure	Weekly
			c) Sterilization of cells with blow lamp	Monthly
			d) Bush (tall grass) cutting in display area	As per requirement
6	Lion, Tiger, Leopard & Hyena	Dry moat open enclosure, Wet moat open enclosure, Closed enclosure with chainlink covered, Dry moat open enclosure respectively.	a) Cleaning of cells with lime-bleaching/Kohrsolin	Daily
			b) Lime –bleaching spreading in and around enclosure	Weekly
			c) Sterilization of cells with blow lamp	* Weekly
			d) Bush (tall grass) cutting of enclosures	As per requirement
			e) Cleaning of tiger moat	As per requirement
7	Zebra	Open enclosure with chain link fence	Water wash of feeding area	Daily
			a) Lime –bleach spreading in and around enclosure	Weekly
			b) Cleaning of night shelter & cell with lime-bleach	Fortnightly
			b) Removal of dung from enclosure	Monthly/as per requirement
			f) Tall grass cutting and their removal in display area	As per requirement
8	Mugger & Gharial	Open enclosure with wall and chainlink fence	a)Change of pond water	Monthly
			b) Lime powder spreading around enclosure	Weekly
			c) de-silting of pond	As per requirement
			d) Tall grass cutting/ bush cutting	As per requirement

9	Ostrich & Emu	Open enclosure with chainlink fence	a) Removal of dung	Monthly
			b) Lime /Bleach spreading in and around enclosure	Weekly
			c) Tall grass cutting	As per requirement
10	Herbivores enclosure (Deer and Antelopes)	Open enclosure with chain link fence	a) Cleaning of feeding trough	Daily
			b) Lime spreading around feeding pots & on dung	Fortnightly
			c) Cleaning of Drink water pool with lime-bleach	Monthly
			d) Tall grass/Bush cutting	As per requirement
11	Indian Star Tortoise	Closed enclosure with chain link and welded mesh fence	Lime spreading around (Outside) enclosure	Weekly
			Cleaning of encl. and Turning of Soil	Monthly
12	Butterfly Park	Closed enclosure with agronet covered	Cleaning Larva, breeding room and display area	Daily
			Lime spreading in & around the Centre.	As per requirement
13	Herbivores & carnivores	As mentioned above for respective animals	Turning of Soil of display area	Once in 5 years/ as per requirement
14	Large cats	As mentioned above for respective animals	Burning of display area	Yearly

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

All zoo employees including contractual staffs are subjected an annual medical examination. During the year under report, medical examination (Pathological and chest x-ray) conducted.

## **DEVELOPMENTAL ACTIVITIES**

### **ANIMAL HABITATS AND UPKEEP**

During the year under report, the following activities were taken up as part of improving upon the welfare of captive animals:

- a) A new herbivore enclosure 25B constructed as per new Masterplan layout.
- b) 11sitting was organised for Zoo Purchasing Committee Meeting to finalise the annual contracts of animal food and fodder, staff's uniform, Annual medical check-up of staffs, Zoo kiosks/Restaurants, Garden and Housekeeping etc.
- c) There were 3 (three) meeting was organised for Zoo Civil Construction Committee during the year.
- d) White washing and painting of all animal enclosures and office buildings were carried out during the year.
- e) Tar felting of NEC (Nature Education Centre) hall roof Hall done.
- f) Mock drill on Monsoon and Flood Management were organised with the field staffs.
- g) Maintenance of feeding cell/night shelter of mandrill enclosure done and completed.
- h) The surplus animals Black buck (5:8) and Hog deer (2:2) transported to NBWA Safari, Siliguri, WB.

### **AWARENESS AND EDUCATION**

Tata Zoo has been constantly striving on its part to disseminating knowledge and awareness about nature, and wildlife, besides encouraging the general public to participate in the scientific management of the flora and fauna at an individual level. Along with all other initiatives which have been a part of our vision and objectives, we have initiated the compliance with the LiEF (Life style For Environment) initiative by government of India envisioning a better world to live in for ourselves as well as for the generations to come. Falling in the line with former mentions, the primary awareness activities that were undertaken during the year are as follows:

#	Events / Programs	Activity
1	Earth Day	Virtual awareness program via facebook post on the newly emerging threats to our wildlife under the limelight along with measures to avoid it at its best
2	International Day for Biological Diversity	Virtual awareness measures via facebook post to sensitize general public on the importance of "Biodiversity" of Singhbhum District



#	Events / Programs	Activity
3	World Environment Day	-Inauguration of rejuvenated pond by Mr. Chanakya Chaudhary, President (TSZS), VP (CS), TSL. -Plantation activity by the staffs of TSZP -Nukkad Natak organised by “SANSKRITI”, a socio-cultural centre dedicated to people.
4	World Ocean Day	Virtual awareness through facebook post to convey the importance of ocean in the lives of people.
5.	International Yoga Day	Besides conserving and caring for environment, Tata Zoo has initiated to bring its employees even close to nature by ensuring their participation to an open air yoga session.
6	International Tiger Day	Virtual awareness through facebook post, Keeper’s talk on zoo’s tigresses Sunaina and Saloni
7	World Elephant Day	Virtual awareness through facebook post on importance of elephants in an ecosystem
8	International Cheetah Day	In compliance with the initiative taken by the Government of India by bringing back cheetahs to our ecosystem, keeper’s talk on cheetahs and other large carnivores had been organised in the Zoo. Zoo Orientation of students from Goa was organised
9	World Wetland Day	Open air session for school students on the importance of wetlands in the lives of humans and animals.
11	World Forestry Day	Virtual awareness through poster and facebook post on the vitalities of the forest for sustaining the entire earth A school trip was organised
	School Group Visit	Several school group visits were organised to implant the thought of conserving the nature into the students.

### **Volunteer Program:**

Volunteers are engaged and associated at Zoo in not only research activities, but also in wildlife conservation awareness & education initiatives.



## **SEASONAL SPECIAL ARRANGEMENTS FOR UPKEEP OF ANIMALS**

- a) Plan for seasonal management was prepared and implemented accordingly. Mainly Zoo needs the plan for summer management, monsoon/flood management and winter management action plan. Mock drill on action plan was also organised.
- b) Zoo grown Lemon provide to all primates during pick summer days as feeding enrichment. Approx 200 pieces of Lemon provided to the captive primitive primates.
- c) Ecological enrichment in World of Parrot (Provided perches), Mandrill enclosure (Provided wooden plate form and hut), all cells of Pheasantry (provided new perches and hiding space), Peacock enclosure (provided Perching site), carried out Earthen pots provided to the birds as nest boxes. Refresh of enclosure substrate with replacement of sand done inkraal of Lion, Tiger, Sloth bear, Mandrill, World of Parrots, Small Mammals enclosure, etc.
- d) Cleaning and re-set up of enrichment items of newly revamped all aquariums done at Aquarium house in the Zoo.
- e) Free ranging three cobras, Five Indian Rock Python and Four Rat snakes were rescued from animal enclosure and released in the Zoo Forest patches.

## **RESEARCH WORK**

In continuation with the previous initiative of “Breeding program for African Grey Parrot”, hand-rearing of newly hatched chicks were concentrated on. The numbers of individuals (African Grey Parrots) which have hatched and have been hand-reared successfully this year are 4 in number. The entire process was scientifically managed under the guidance of Biologist cum Education Officer and the Curator.

## **RESCUE AND REHABILITATION OF WILD ANIMALS**

The Zoo is situated within the largest Elephant landscape (Central-East) of the country which harbours quite a few reserve forests and wildlife sanctuaries notable among them being the Dalma Elephant Reserve. Thus, the zoo regularly cooperates with the Forest Department in rescue and rehabilitation of wild animals. During the year under report, various species of animals rescued by the Forest Department in injured condition and were provided veterinary care at the Zoo Veterinary Hospital before being rehabilitated back to their wild habitat. List of rescues attended during 2022-2023 is provided below:

Sl. No	Date of Rescue	Details of animals and no of specimen	Received from	Action taken	
				Date & place of rehabilitation / Disposal	Reason for housing in the zoo/ if not released in their habitat
1	21.05.2022	Pariah Kite	Local resident- Mr. Shushil Kumar Singh	Released in the park on 27.05.2022	Was poorly in condition admitted for treatment and care. Recovered by one week of time
2	23.05.2022	Fruit Bat	Forest Dept. R F O, Mango	30.05.2022 released in to the wild near the colony of same species in the park	The Bat was found dull and sick, admitted in the hospital for treatment and care. Recovered nicely by one week of care
3	09.06.2022	Hanuman Langur (Male)	Forest. Dept. RFO	Died after one week due septicaemia and shock	Animal was injured on Neck region, Shoulder Joint (Dog biting). Could not sit. Poor condition. Admitted for treatment & care. Applied Inj. Raksharab -/1ml I/M,Inj. Xonxef - 2 ml I/M , Inj. Isoflupridone - 2 ml I/M. Inj. Tetbett - 0.5 ml I/M
4	1.11.22	Rose ring Parakeet (4 juveniles)	Local resident- Mr. P.P Kundu	Since are found not capable to fly, kept in zoo hospital	Parakeet chicks were found sick and not able to fly, admitted at hospital quarantine area and under treatment and care

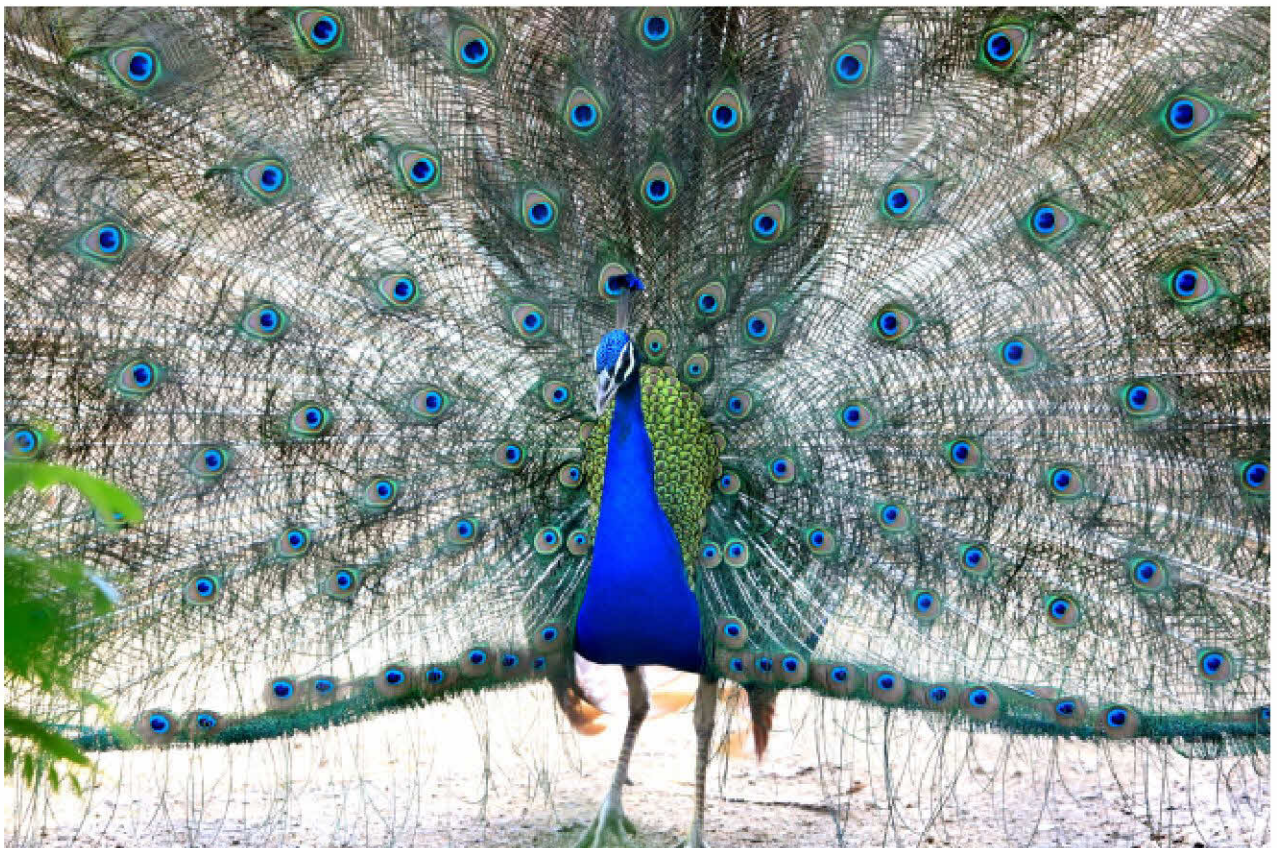
**ANNUAL INVENTORY OF ANIMALS:  
(1.04.2022 to 31.03.2023)**

<b>SCH-I &amp; SCH-II -WILD LIFE (PROTECTION) ACT</b>						
<b>S.No</b>	<b>Name of species</b>	<b>Scientific Name</b>	<b>STOCK AS ON 31.03.2022</b>			
<b>BIRDS</b>			<b>M</b>	<b>F</b>	<b>U</b>	<b>T</b>
1	Pea Fowl (NC)	<i>Pavocristatus</i>	4	7	0	11
2	Hill myna	<i>Gracula religiosa</i>	0	0	3	3
3	Grey Jungle fowl	<i>Gallus sonnererati</i>	0	0	0	0
<b>TOTAL BIRD</b>			<b>4</b>	<b>7</b>	<b>3</b>	<b>14</b>
<b>REPTILE</b>						
1	Gharial	<i>Gavialis gangeticus</i>	0	3	0	3
2	Mugger	<i>Crocodylus palustris</i>	0	1	0	1
<b>TOTAL REPTILE</b>			<b>0</b>	<b>4</b>	<b>0</b>	<b>4</b>
<b>MAMMALS</b>						
1	Sloth Bear	<i>Melursus ursinus</i>	1	0	0	1
2	Black Buck	<i>Antelope cervicapra</i>	14	19	21	54
3	Indian Hog deer	<i>Axis porcinus</i>	6	12	0	18
4	Northern plain Gray Langur	<i>Semnopithecus entellus</i>	3	3	0	6
5	Leopard	<i>Panthera pardus</i>	0	1	0	1
6	Bonnet Monkey	<i>Macaca radiata</i>	2	2	0	4
7	Rehsus Monkey	<i>Macaca mulata</i>	1	3	0	4
8	Tiger Bengal ( Normal)	<i>Panthera tigris</i>	0	2	0	2
9	Tiger Bengal ( White)	<i>Panthera tigris</i>	1	0	0	1
<b>TOTAL</b>			<b>28</b>	<b>42</b>	<b>21</b>	<b>91</b>

**ANIMALS of OTHER SCHEDULE**

<b>BIRDS</b>			<b>M</b>	<b>F</b>	<b>U</b>	<b>T</b>
1	Cockateel	<i>Nymphicus hollandicus</i>	0	0	24	24
2	Bar Headed Goose	<i>Anser indicus</i>	0	0	1	1
3	Black headed Ibis	<i>Threskionis melanocephalus</i>	0	0	0	0
4	Rainbow Lory	<i>Tricoglossus haematodus</i>	0	1	0	1
5	Larg. Ind. Parakeet	<i>Psittacula cupatrai</i>	10	4	3	17
6	Rose Ring. Parakeet	<i>Psittaculakrameria</i>	3	3	0	6
7	Red Breasted parakeet	<i>Psittacula alexandri</i>	1	0	0	1
8	Red Jungle Fowl	<i>Gallus gallus</i>	1	0	0	1
9	Silver pheasant	<i>Lophuranyx themera</i>	1	2	0	3
10	Reeves pheasant	<i>Syrnaticus reevesi</i>	0	1	0	1
11	Lady Amherst pheasant	<i>Chrysolophus amherstiae</i>	0	1	0	1
12	Ring necked pheasant	<i>Phasianuscolchinus</i>	1	0	0	1
13	Emu	<i>Dromaius novaehollandiae</i>	2	5	1	8
14	Ostrich	<i>Struthio camelius</i>	0	1	0	1
15	Sulphur crest. Cockatoo	<i>Cocatoegalarita</i>	2	1	0	3
16	African Grey Parrot	<i>Psittacus erithacus</i>	2	2	6	10

17	Great white Pelican	<i>Pelecanus Onocrotalus</i>	0	1	0	1
18	Indian Eagle owl	<i>Bubo begalensis</i>	0	0	1	1
20	Budgerigar	<i>Melopsittacus undulatus</i>	0	0	19	19
21	Java Sparrow	<i>Lonchura oryzivora</i>	0	0	1	1
22	Helmeted Guinea Fowl	<i>Numida meleagris</i>	0	0	1	1
23	Japanese quail	<i>Coturnix japonica</i>	0	0	5	5
<b>TOTAL</b>			<b>23</b>	<b>22</b>	<b>62</b>	<b>107</b>
<b>MAMMALS</b>						
1	Sambar Deer	<i>Cervus unicolor</i>	1	5	1	7
2	Chital	<i>Axis axis</i>	38	60	11	109
3	Indian muntjack	<i>Muniacus muntjack</i>	2	4	0	6
4	Nilgai	<i>Boselaphus tragocamelus</i>	2	2	3	7
5	Stripped Hyaena	<i>Hyaena hyaena</i>	2	0	0	2
6	Hippopotamus	<i>Hippopotamus amphibius</i>	1	0	0	1
7	Mandrill Monkey	<i>Mandrillus sphinx</i>	4	12	0	16
8	Indian crested Porcupine	<i>Hystrix begalensis</i>	1	1	0	2
9	African Lion	<i>Panthera leokrugerii</i>	2	3	0	5
10	Grant's Zebra	<i>Equus bohemii</i>	1	1	0	2
<b>TOTAL</b>			<b>60</b>	<b>90</b>	<b>16</b>	<b>166</b>
<b>REPTILES</b>						
1	Red-eared slider turtle	<i>Trachemys scripta elegans</i>	1	1	0	2
2	Indian Star tortoise	<i>Geochelone elegans</i>	13	9	0	22
<b>TOTAL</b>			<b>14</b>	<b>10</b>	<b>0</b>	<b>24</b>



**Annual Mortality  
(2022-23)**

S.No.	Name of the Animal	Scientific name	Sex	Date of death	Reason of Death
<b>Mammals</b>					
1	Black fawn buck	<i>Antilope cervicapra</i>	1, Male	19.04.2022	Internal hemorrhage of chest cavity may be due to in-fight
2	black fawn buck	<i>Antilope cervicapra</i>	1, Male	1.05.2022	Tympany & bloat lead to asphyxia
3	Hunauman Langur	<i>Cemnopithicus entelus</i>	1, Female	11.05.2022	Hepatitis and hemorrhage of avdominal cavity
4	Black fawn buck	<i>Antilope cervicapra</i>	1, Female	30 05.2025	Fracture of femur bone, in-fight injury
5	Black fawn buck	<i>Antilope cervicapra</i>	1, Male	8.06.2022	Tympany & bloat lead to asphyxia
6	Balck fawn buck	<i>Antilope cervicapra</i>	1, Male	16.06.2022	Cardio-respiratory failure along with Hepatitis
7	Black buck	<i>Antilope cervicapra</i>	1, Male	20.06.2022	Damage of pulmonary tissue
8	black fawn buck	<i>Antilope cervicapra</i>	1, female	24.06.2022	Maternal rejection
9	Axis deer	<i>Axis axis</i>	1, Male	28.06.2022	internal hemorrhage of chest cavity may be due to in-fight
10	Black buck	<i>Antilope cervicapra</i>	1, Female	3.07.2022	Cardio-respiratory failure .
11	Hog deer	<i>Axis porcinus</i>	1, female	7.07.2022	Cardio-respiratory failure of unknown etiology
12	Black buck	<i>Antilope cervicapra</i>	1, Female	17.07.2022	Hypovolumic shock due to internal hemorrhage of chest
13	Nil gai (calf )	<i>Boselaphus tragocamelus</i>	1, Male	22.07.2022	Septcaemia and shock
14	Axis deer	<i>Axis axis</i>	1, Female	18.07.2022	Carcass decomposed and damaged , not conducted P.M
15	Black buck	<i>Antilope cervicapra</i>	1, Female	5.08.2022	Penumonia-cardio-respiratory failure
16	Axis deer	<i>Axis axis</i>	1, Female	9.08.2022	Chest injury and internal hemerrhage
17	Black buck	<i>Antilope cervicapra</i>	1, Male	9.08.2022	Nephritis and senility
18	Barking deer	<i>Muntiacus muntjack</i>	1, Male	17.08.2022	Cardio-respiratory failure and chest injury ( perforated wound )
19	Indian Leopard	<i>Pantera pardus</i>	1, Male	21.08.2022	Cardio-respiratory failure
20	Axis deer	<i>Axis axis</i>	1, Female	25.08.2023	Cardio-respiratory failure n hipatitis ace & ascitis
21	Hog Deer	<i>Axis porcinus</i>	1, Male	27.08.2022	Cardio-respiratory

22	Axis deer	<i>Axis axis</i>	1, Female	30.08.2022	failure n hepatitis and nephritis Cardio-respiratory failure n Internal hemorrhage- infight
23	Black buck	<i>Antilope cervicapra</i>	1, Male	11.09.2022	Hypovolumic shock due to internal hemorrhage of chest
24	Black buck	<i>Antilope cervicapra</i>	1, Female	15.09.2022	Cardio-respiratory failure
25	Black buck	<i>Antilope cervicapra</i>	1, Female	22.09.2022	Hypovolumic shock due to internal hemorrhage of chest
26	Barking deer	<i>Muntiacus muntjac</i>	1, Male	7.10.2022	Died due to hemorrhage of chest cavity ( Hypovolumic shock ) in-fight
27	Nil Gai	<i>Boselaphus tragocamelus</i>	1, Female	11.10.2022	Cardio-respiratory failure and internal heorrhage of gravid uterus
26	Axis deer	<i>Axis axis</i>	1, Female	13.10.2022	Cardio-respiratory failure & septicaemia due to infected wound
27	Axis deer	<i>Axis axis</i>	1, Female	19.10.2022	Cardio-respiratory failure & Nephritis
28	Axis deer	<i>Axis axis</i>	1, Female	28.10.2022	Cardio-respiratory failure & Chest hemrrhage , hypovolumic shock
29	Black buck (Albino)	<i>Antilope cervicapra</i>	1, Male	9.11.2022	Cardio-respiratory failure respiratory distress ( pneumonia ) & senility
30	Black buck	<i>Antilope cervicapra</i>	1, Female	10.11.2022	Cardio-respiratory failure, pneumonia & septicaemia
31	Black buck	<i>Antilope cervicapra</i>	1, Female	15.11.2022	Cardio-respiratory failure and Nephritis & hepatitis due to old age
32	Barking Deer	<i>Muntiacus muntjac</i>	1, Female	15.12.2022	Cardio-respiratory failure & pneumonia .
33	Black buck, Albino	<i>Antilope cervicapra</i>	1, Female	20.12.2022	Cardio-respiratory failure & nephritis due to old age
34	Black buck	<i>Antilope cervicapra</i>	1, Male	27.12.2022	Cardio-respiratory failure respiratory distress ( pneumonia )
35	Black buck	<i>Antilope cervicapra</i>	1, Male	4.01.2023	Cardio-respiratory failure respiratory distress ( pneumonia )
36	Black buck	<i>Antilope cervicapra</i>	1, Male	6.02.2023	Cardio-respiratory failure and Nephritis , due to old age
37	Black buck	<i>Antilope cervicapra</i>	1, Male	10.02.2023	Cardio-respiratory failure, & pneumonia and nephritis due to

38	Axis deer	<i>Axis axis</i>	1, Male	20.03.2023	old age Cardio-respiratory failure and Nephritis , sue to old age
<b>Birds</b>					
1	Japnese Quail	<i>Cotrnix coturnix japonica</i>	1, Male	8.07.2022	Open wound in the chest Sternam area (Traumatic )
2	Japnese Quail	<i>Cotrnix coturnix japonica</i>	2, Male	16.07.2022	Died due to enteric infection.
3	Red breas. Parakeet	<i>Psttacula alexxandri</i>	1, Female	22.07.2022	Enteritis and dehydration shock
4	Black headed Ibis	<i>Threskionis melanocephalus</i>	2, Male	21.08.2022	Cardio-respiratory failure and shock predisposed to flood like condition
5	Japnese Quail	<i>Cotrnix coturnix japonica</i>	1, Male	27.08.2022	Died due to Hepatitis and enteritis
6	Cokatiel	<i>Nyphicus hollandicus</i>	1, Female	28.08.2022	Died due to white diarrhoea and shock
7	African Grey Parrot	<i>Psittacus erithacus</i>	1, Male	20.11.2022	Cardio-respiratory failure dehydration and shock
8	Red jungle fowl	<i>Gallus gallus</i>	1, Female	20.12.2022	Cardio-respiratory failure & tumour like growth in the abdomen
9	Budgerigar	<i>Melopsittacus undulatus</i>	3 unsexed	24.12.2022	Cold expsure and pneumonia
10	Japnese Quail	<i>Cotrnix coturnix japonica</i>	1, Female	10.01.2023	Died due to ( pneumonia ) predisposed by cold exposure
11	Budgerigar	<i>Melopsittacus undulatus</i>	1Male	11.01.2022	Cold expsure and pneumonia
12	Budgerigar	<i>Melopsiticus undulatus</i>	1,Male	12.01.2023	Died due to ( pneumonia ) predisposed by cold exposure
13	Ros ring parakeet	<i>Psittacula Krameri</i>	1, Male	20.01.2023	Died due to Tumour like growth in the abdomen
14	Japnese Quail	<i>Cotrnix coturnix japonica</i>	1, Female	1.02.2023	Death could be due to egg bound condition followed with dehydration
15	Ring.N. Pheasant	<i>Phasianus colchinus</i>	1, Female	4.03.2023	Cardio-respiratory failure & dehydration ses es
16	Grey Jungle fowl	<i>Gallus sonneratti</i>	1, Female	13.03.2023	Cardio-respiratory failure & head injury, shock due to in-fight injury
17	Grey lag goose	<i>Anser anser</i>	1, Male		Senility , old age death



Sl.No	Name species	of	Scientific name	No & Sex	Date	Reason of Death
<b>Reptile</b>						
1	Indian tortoise	Star	<i>Geochelone elegans</i>	Female-1	14.10.2022	Died due to Eggbound condition and shock
2	Indian tortoise	Star	<i>Geochelone elegans</i>	Female-1	9.02.2023	Died due to Eggbound condition and shock

**DETAILS OF COMPLIANCE W.R.T CONDITIONS CONVEYED BY CENTRAL ZOO AUTHORITY VIDE Letter No.19-47/92-CZA(52)/ C.No.146960 DATED 08.02.2021**

S.No.	Norm No.	Condition	Time period	Status of compliance as on 30/06/23
<b>(1) General requirements</b>				
1	10.1(8)	One old obese rhesus macaque with pendulous abdomen should be kept off display	Immediately	Animal Expired
<b>(2). Administrative &amp; staffing pattern</b>				
2.	10.2(2)	Scientific and Technical staff specified in the Recognition of Zoo Rules,2009 as applicable for a 'Medium Zoo' should be appointed in the Zoo.	Sixty months	Compounder appointed. Organisational structure developed
<b>(4) Animal Housing, display of animals and animal enclosures:</b>				
3	10.4(3)	Enclosures and night shelters should be made rat proof by fixing net on the drain outlets	One month	Completed
<b>(5). Upkeep and Healthcare of animals</b>				
4	10.5(2)	For large cats, goat meat is being procured which is not cost effective. District administration should be approached for permitting supply of buffalo meat to the zoo for the specific purpose of feeding the large carnivores in the zoo. Guidance on the subject can be had from the in-charge, Bhagwan Birsa Biological Park, Ranchi.	Three months	Completed
5	10.5(2)	Random food and water samples are not being tested in a recognised laboratory. A system should be introduced for random checking of food and water on a regular basis and sample reports should be properly documented and kept on record	Two months	Process of testing initiated and ongoing

S.No.	Norm No.	Condition	Time period	Status of compliance as on 30/06/23
6	10.5(6)	Enclosures and night shelters of important species should have CCTV facility with monitors in room of Director and Veterinary Officer to keep a close watch on the health and behavioural disposition of animals.	Six months	Being implemented as part of the master layout plan. Large carnivores covered.
<b>(6). Veterinary and infrastructure facilities</b>				
7	10.6(3)& 10.7(4)	Post-mortem room needs to be modernized with an oil-fired incinerator instead of the present wood fired one, which is not permitted by the CPCB/SPCB. Waste water from PM room needs to be collected in a pit outside and appropriately treated before being discharged. Also, the chimney of the present incinerator is surrounded by leaves and branches of adjacent trees. The chimney needs to be insulated from the surrounding vegetation to eliminate the possible fire hazard.	Eighteen months	Plan for new PM room and incinerator has been finalised. Work awarded to Tata Steel UISL. Ongoing
8	10.6(5)	Veterinary support staff namely the Lab Assistant and the Stockman/ Compounder should be appointed in the Zoo.	One year	Compounder appointed
9	10.6(6)	Zoo management should have such an arrangement for animal diagnostics with a local veterinary college laboratory and should enter into an MoU with the local veterinary College.	Four months	Letter of support received from RDDDL, Kolkata.
<b>9.Acquisition and breeding of animals</b>				
10	10.9(4)	Efforts should be continued for pairing of remaining unpaired animals, viz Bengal Eagle Owl, Hippo, Ring-Necked Pheasant, Bar-Headed Goose, Ostrich and Mugger. If pairing is not possible, it could be translocated to some other zoo where its mate is available.	One year	Ostrich has expired. Ring necked pheasant paired. Proposal for pairing of mugger, hippo are underway.
11	10.9(9)	Number of Nilgai, Chital and blackbuck housed in the zoo should be restricted to the prescribed number for a Medium Zoo and the Master Plan approved by the Central Zoo Authority.	Eighteen months	Ongoing
12	10.9(10)	Although a Disaster Management Team (DMT) has been constituted under the Curator, there is no written Disaster Management Plan (DMO). Zoo authorities should formulate a DMP at the earliest to be followed by the DMT.	Six months	Completed and submitted to CZA

**CAMPUS WILD ANIMAL DIVERSITY  
LIST OF FREE-LIVING ANIMALS**

**Bird Diversity**

Red Vented Bulbul  
Red whiskered bulbul  
Grey Partridge  
Stone Curlew  
Purple Sunbird  
Hoopoe  
Golden Oriole  
Coppersmith Barbet  
Common Mynah  
Asian pied starling  
BrahmnyMynah  
Small blue kingfisher  
White Breasted Kingfisher  
Common Crow  
Crow Pheasant  
Baya  
Kite  
Parakeets  
Green Bee-Eater  
Black Drongo

Magpie Robin  
Spotted Dove  
Ring Necked dove  
Spotted munia  
Rock Pigeon  
Little Cormorant  
Darter  
White Breasted Water Hen  
Lesser whistling teal  
Common Coot  
Bronze winged Jacana  
Pond heron  
Night heron  
Cattle egret  
Little Egret  
Asian Koel

**Mammal Diversity**

Jungle cat  
Golden jackal  
Indian Flying fox  
Lesser bandicoot rat  
Indian Grey Mongoose  
Indian palm squirrel

**Reptile Diversity**

Indian Rat Snake  
Indian Rock Python  
Checkered Keelback  
Common trinket  
Indian Cobra  
Indian Soft shell turtle  
Bengal Monitor lizard

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