## NAGALAND ZOOLOGICAL PARK, RANGAPAHAR CHUMOUKEDIMA NAGALAND

# Annual Report Year 2022-23

Department of Environment, Forests & Climate Change Government of Nagaland









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#### 1. Report of the Director

The Nagaland Zoological Park, Rangapahar is located at about 8 km from the commercial city of Dimapur in the state of Nagaland. It has a total area of 176 Hectares and now falls under the new district administration of Chumoukedima District of Nagaland. It has a gentle rolling topography with a number of low-lying areas ideal for aquatic birds. The Dhansiri (Dansiri) River flows on the western side of the zoo. Climate of this area is hot and humid in the summer months of April to



May, from the month of June; rains commence and continue till the early part of October. Mild winter starts from November to February-March. The altitude of the area ranges from 45 - 163 m above mean sea level.

The Park has a collection of about 350 plus captive population comprising of mammals, birds and reptiles, mostly indigenous to the region. The species presently housed in the Zoo includes endangered species like Western Hoolock gibbon, Slow Loris, Asian Brown Tortoise, Royal Bengal Tiger and Black Soft-Shell Turtle. Others includes Sambar Deer Barking Deer, Spotted Deer, Common Leopard, Himalayan Black Bear, Macaques, Jackal, Leopard Cat, Jungle Cat, Porcupines and Civet. Reptiles includes Turtles, Tortoise and Burmese Python. The Zoo has among its collection three different species of Hornbills namely, Oriental Pied Hornbill, Rufous necked Hornbill and Brown Hornbill.Birds of prey includeOwls, Crested Serpent Eagle, and Black Kite. Other smaller bird on display includes Great Barbet, Pompadour Green Pigeon, Spotted Dove,Turtle Dove and Vulture.

The Park also has a rich diversity of plants species including a number of fruit-bearing species which attracts many species of birds during the fruiting season. Numerous species of flowering plants are also abundantly found inside the park. Some important tree species includes *Artocarpus sp, Terminalia chebula, Tectona grandis, Mesua ferea, Biscofia javanica, Ficus spp*, etc. Trees especially fruit-bearing species are planted every year to increase tree cover and improve habitat of the park for the birds and animals. Some fruit species viz. *Mangifera indica, Melia azadirach, Terminalia tometosa, Embelica officinalis, Artocarpus heterophylus, Tamarindus indica, Erithryna sp, Bambusa sp, Gmelina arborea*, etc have been planted apart from the other tree species. Many species of medicinal plants are also found naturally inside the park.

The zoo also houses within its boundary wall many free-ranging species of birds and animals. About 56 species of birds that dwell in the forested areas of the park have already been recorded inside the park. About 200 plus species of butterflieshave also been recorded within the park. One can enjoy these fluttering insects amidst the hustle and bustle of the zoo in the specially created park called named as "Butterfly Park" adding to the natural beauty of the area.

As part of zoo education and research, during the year the zoo was able to impart training to Student Interns from various colleges and universities of India. Zoo Volunteer works were undertaken and open to any individual who wishes to contribute to the cause towards the conservation of wildlife. And for this many wildlife enthusiasts come forward to help the zoo during occasions such as World Environment Day, Wildlife Week, Cleanliness Drive, etc. At present the Zoo is undertaking various animal exchange programs with other zoos in India. Notable exchanges include the exchange of a pair of Indian Wolf from Mysuru Zoo for a pair of Himalayan Black Bear from our zoo. Other similar exchange programs are being initiated with the different zoos in India. In addition, animal acquisition is also done to increase the number of specimens for ultimate display for the visitors. Efforts are being made to improve the conditions of wildlife within the zoo. Keeping pace with the need of the growing populace of the city and to create awareness as well as educate the mass about the conservation of wildlife, the zoo makes keen effort to improve management of our captive wildlife. Starting with 10 different species of animals and birds totalling upto64 for display initially in the year 2008, in a span of 15 years, the zoo now houses 48 different species of animals and birds putting the total collection of 350 plus specimens in March 2023.

The comprehensive Master Plan of Nagaland Zoological Park has been prepared and submitted to the Central Zoo Authority for approval. In this regard the Master (Layout) Plan has been approved in 12.08.2014. All the developmental works are being carried out according to the Master Plan Layout which had been approved by the Central Zoo Authority. The animal enclosures have been progressively designed to create large enclosures in the natural environment. The abundant space offered by the zoo has been targeted to setup various safaris in the future. The animal keepers are regularly taken for medical check-ups to keep track of any zoonotic diseases they might acquire through the daily handling of animals. Other regular activities regarding the monitoring of animal healthcare are done with the monitoring staff led by in-house veterinary doctor to prevent any outbreak of diseases in the zoo. The training of zoo keepers, orientation training of zoo guides, training for field staff on tranquilization techniques and exposure trips were organized during the year for capacity building of Zoo personnel.

This Annual Report provides various information on the management and development of Nagaland Zoological Park during the year 2022-23. The exciting relationship between the visitors and wildlife will be further strengthened in the future years to come. I hope, in the coming years, Nagaland Zoological Park will continue to grow as an outstanding centre for wildlife conservation, education and research.

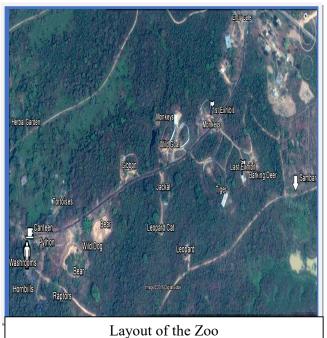
c - Erbern

Dr. C. Zupeni Tsanglai, IFS DIRECTOR Nagaland Zoological Park Director Nagaland Zoological Park Rangapahar : Nagaland

#### 2. History of the Zoo

In the year 1916 an area of 6816 acres of Rangapahar Forest was declared as reserved forest. An area of 7865 acres was later added to the reserved forest in the year 1919. In the year 1924 the total area was increased to 1768.4 acres. A portion of the reserved forest measuring 470 Hectares was declared as Rangapahar Wildlife Sanctuary in 1986 Vide. Govt. Notification No. FOR-84/84 dt. 17/06/86. An area of 176 Hectares was earmarked and was fully fenced with brick wall stretching upto nearly 7 km around for Zoological Park.

The Zoo was officially inaugurated on 28<sup>th</sup> of August 2008 and is currently recognized as a category **Medium Zoo** under the Central Zoo Authority.



Apart from the wildlife in captivity, the park also has a rich biodiversity of plants, animals and birds species inhabiting the forest areas within it. Conservation and protection of biodiversity both flora and fauna forms an important function of the Zoo.

#### 3. Vision

The Nagaland Zoological Park envisage the need to protect conserve and rehabilitate the wildlife that are endemic to the state, and for this the zoo provides an ideal location to conserve, upkeep and breed the species that are now facing population decline and nearing extinction. It is the vision of Nagaland Zoological Park that all the animals find this place a safe haven for them to live and propagate for future existence. The zoo also wishes to become an integral part in the tourist map of Nagaland.

#### 4. Mission

The Mission of Nagaland Zoological Park is to inculcate and develop a sense of caring towards flora and fauna. To serve as a Conservation Centre for flora of North-East India in general and Nagaland in particular and to promote awareness, educate and provide recreation for the people of the State.

#### 5. Objective

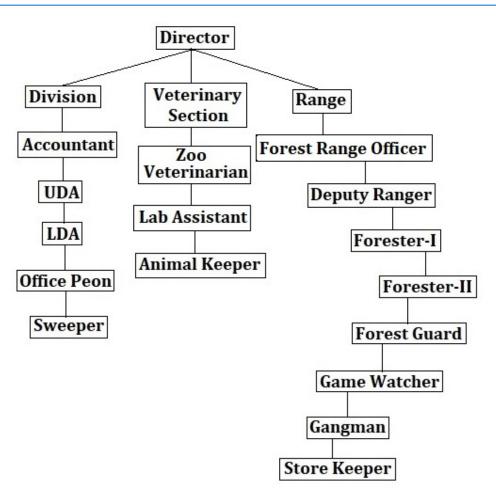
- 1. Ex-situ Conservation programme for the fauna of North-East India and Nagaland.
- 2. Initiate captive breeding of endangered species of the area.
- 3. Promoting Zoo as an institute for Conservation awareness education programme for the people of the state and thus enhance awareness onwildlife conservation.
- 4. As a Centre for conducting scientific studies on the fauna.
- 5. *To provide educative and recreational facilities for the people of the state.*

#### 6. About us

Sl.No	Particulars	Information
Basic I	nformation about the Zoo	
1	Name of the Zoo	Nagaland Zoological Park
2	Year of Establishment	2008
3	Address of the Zoo	Nagaland Zoological Park Rangapahar, Chumoukedima - 797115
4	State	Nagaland
5	Telephone Number	9410572885
6	Fax Number	NA
7	E-mail address	zoomail.nzp@gmail.com
8	Website	www.nagalandzoologicalpark.org
		Airport : 9.8 km
9	Distance from Nearest	Railway Station : 7.4 km
		Bus Stand : 7.7 km

10	Recognition Valid upto (Date)	19 <sup>th</sup> August 2022		
11	Category of zoo	Medium Zoo		
12	Area (in Hectares)	176 Hectares		
		Adult : 69744		
		Children : 29804		
13	Number of Visitors (2022-23)	Total Indian : NA		
		Total Foreigners : NA		
		Total Visitors : 99548		
14	Visitors' Facilities Available in Zoo	Toilets, Resting Sheds, Roadside Benches, Visitors Walkways, Visitors' Information Booth, Drinking Water Points, Route Direction Signboards, Guide Maps, Species Information Boards/Charts, Canteen, Recreational Area, and Battery-operated vehicle, Wheel Chairs, Umbrella, E-Rickshaw and Car Parking.		
15	Weekly Closure Day of the Zoo	Every Monday of the week.		
Mana	gement Personnel the Zoo			
	Name with designation of the Officer-in- charge	Dr. C. Zupeni Tsanglai, IFS Deputy Conservator of Forests (DCF)		
	Name of the Veterinary Officer	1. Dr. Micheal R Tsanglao, Zoo Vet (Honorarium)		
16	Name of the Curator	Smt. Watisungla Amer, SFS		
16	Name of the Biologist	NA		
	Name of the Education Officer	NA		
	Name of the Compounder/Lab Assistant	NA		
Owne	er/Operator of the Zoo			
17	Name of the Operator	Principal Secretary,		
18	Address of the Operator	Principal Secretary, Department of Environment, Forests & Climate Change, Government of Nagaland, Nagaland Kohima		
19	Contact details/Phone number of Operator	09436001788		
20	E-mail address of Operator	ng019@ifs.nic.in		

#### 7. Organizational Chart



#### 8. Human Resources

N/	- <b>f</b> 41	N 1	7 1 1	D 1-	D
Manpower	of the	Nagaland	Loological	Park,	Rangapahar

	Manpower of the Nagaland Zoological Fark, Kangapanar						
Sl. No	Designation	Number of Sanctioned Posts	Names of the incumbent				
1	Director	1	1. Dr. C. Zupeni Tsanglai, IFS				
2	Forest Range Officer	1	1. Smt. Watisungla Amer, SFS				
3	Veterinary Officer	2	<ol> <li>Dr. Micheal R Tsanglao, Zoo Vet(On Honorarium)</li> </ol>				
4	Deputy Ranger	0	NIL				
5	Forester-I	8	<ol> <li>Shri. Hingcu Lungalang</li> <li>Shri. Mughato L. Awomi</li> <li>Smt. Maongkala Jamir</li> <li>Shri. Vinoto. K. Rochill</li> <li>Shri. Inoto G. Chophy</li> <li>Shri. Disurai Kaurinta</li> <li>Shri. Kevipule</li> <li>Shri. N. Imdong Jamir</li> </ol>				

6	Forester-II	1	1. Shri. Imlikaba Ao
7	Forest Guard	10	<ol> <li>Shri. Tokugha Chishi</li> <li>Shri. A. Hotovi Sumi</li> <li>Shri. V. Zakato Chishi</li> <li>Shri. Kapcha Singsit</li> <li>Shri. Awangbo Rentta</li> <li>Shri. Samzaiding</li> <li>Shri. Zulutemjen Longkumer</li> <li>Shri. Imtitongdang Ao</li> <li>Shri. Vekuta</li> <li>Shri. Longchi Konyak</li> </ol>
8	Store Keeper	1	1. Smt. T. Lhoshevi
9	Game Watcher	4	<ol> <li>Shri. H. Nitoho Chishi</li> <li>Shri. Asheto Kinimi</li> <li>Shri. Temsuwati Jamir</li> <li>Shri. Medolhoulie Mehta</li> </ol>
10	Gangman	1	1. Shri. Lamthai Soncho
11	Animal Attendant	3	1. Shri. T. Ruchu 2. Shri. N. Bongkhao Konyak 3. Shri. Bir Bahadur Sunar
12	Mali	2	1. Shri. I. Hebo 2. Shri. Y. Khehoshe Sumi
13	Grass Cutter	2	1. Shri. Suko Khiamnuingan 2. Shri. Hosheto
14	Cook	2	1. Shri. Kakupu Chishi 2. Shri. H. Kiyeto Chishi
15	Sweeper	2	<ol> <li>Smt. Senia Jemu</li> <li>Smt. A. Khutoli Achumi</li> </ol>
16	Chowkidar	3	<ol> <li>Shri. Neingumezo</li> <li>Shri. Vighoto</li> <li>Shri. Husheto Awomi</li> </ol>
	Total	43	

#### Manpower of the Blyth's Tragopan Conservation & Breeding Centre, Kohima *under* Nagaland Zoological Park, Rangapahar

Sl.No	Designation	Number of Sanctioned Posts	Names of the incumbent
1	Officer-in-Charge/ Deputy Ranger	1	1. Shri. Medolezo Kire
2	Veterinary Officer	1	1. Dr. Keviseto Kintso ( <i>On</i> <i>Honorarium</i> )
3	Forester-I	4	<ol> <li>Smt. Vilhoutuonuo Theunuo</li> <li>Smt. Kiukhenshi S Yimchunger</li> <li>Smt. Mathiam T Hanso</li> <li>Shri. Theja-o Rhutsa</li> </ol>
4	Biologist	1	1. Smt. Kanili Rakho (On Honorarium)
5	Gangman	1	1. Smt. Toshimongla
	Total	8	

#### 9. Capacity Building of zoo personnel

Sl. No.	Name and designation of the zoo personnel Dr. Michael R. Tsanglao	Subject matter of training Refresher Course on Elephant Healthcare and Managerial Practices	Period of Training 7 days (22-11-22 to	Name of the Institution where the Training attended College of Veterinary
			28-11-22)	Sciences, Khanapara, Assam
2	Officers and Staff of NZP	Animal Rescue and Rehabilitation	2 days 07.07.22 to 08.07.22	Bokakhat, Assam
3	Smt. Watisungla Amer, SFS	All India Zoo Directors' Conference	2 days 10.09.22 to 11.09.22	Nandakanan Biological Park, Bhubaneshwar, Odisha
4	Dr. C. Zupeni Tsanglai, IFS	All India Zoo Directors' Conference	2 days 18.01.23 to 19.01.23	Sri Chamarajendra Zoological Garden, Mysuru, Karnataka
5	Zoo Keepers	Zoo Keepers Training	2 days 18.08.22 to 19.08.22	NZP under WCS India
6	Staff	In- Service Training	6 Months	SEFTI
7	Shri. Disurai Kaurinta, Forester-I Shri. Zulutemjen Longkumer, Fgd	Course on Wildlife Crime	3 days 24.09.22 to 26.09.22	SEFTI

#### 10. Zoo Advisory Committee

- a. Date of Constitution :31<sup>st</sup> March 2016
- b. Chairman :The Principal Chief Conservator of Forests &Chief Wildlife Warden, Nagaland Dimapur
- c. Member Secretary :Director, Nagaland Zoological Park
- d. Members :
  - i. Conservator of Forests (Wildlife & Biodiversity)
  - ii. The Deputy Commissioner, Dimapur
  - iii. The Commissioner of Police, Dimapur
  - iv. The Chief Executive Officer, Dimapur Municipal Council
  - v. The Deputy Director, Veterinary Hospital, Dimapur
  - vi. The Executive Engineer, Roads & Bridges.
- e. Dates on which Meetings held during the year
  - NA

#### 11. Health Advisory Committee

The Zoo is yet to constitute a Health Advisory Committee.

## 12. Statement of income and expenditure of the Zoo

#### STATEMENT OF INCOME & EXPENDITURE FOR THE YEAR 2022-23

(Amount in Lakhs of Rupees)

	STATE N	ON-PLAN	CZA G	RANTS			
	Developmental	Non- Developmental	Developmental	Non- Developmental	Feeds	Revenue	Total
Income/ Allotment	NIL	340.61	88.00	8.40	99.12	26.48	562.61
Expenditure	NIL	340.61	Works Ongoing	8.40	99.12	16.47	464.60
Balance	NA	NIL	NA	0.00	NIL	10.01	10.01

#### **13.** Daily Feed Schedule of Animals

Sl.	Species	Feed item	Qua	antity ( <i>in kg</i> )	Day of fasting
No	(Per Individual)		Winter	Summer	
1	Bear	Bread	0.2	0.2	
		Mango	0.2	0.2	
		Jackfruit	0.2	0.2	
		Maize	0.2	0.2	
		Pumpkin	0.5	0.5	
		Wheat bran	0.2	0.2	
		Common salt	0.05	0.05	
		Rice	0.5	0.5	
		Molasses	0.1	0.1	
2	Tiger	Beef	8	8	Monday
		Chicken (dressed)	2	2	
3	Common leopard	D C			Monday
		Beef	4	4	
	T 1 /	Chicken (dressed)	1.5	1.5	
4	Leopard cat	Chicken (dressed)	0.3	0.3	Monday
5	Common jackal	Beef	0.8	0.8	Monday
		Banana	0.2	0.2	
		Molasses	0.1	0.1	
6	Wild Dog (Dhole)	Beef	0.8	0.8	Monday
		Banana	0.2	0.2	
		Molasses	0.1	0.1	
7	Civets	Banana	0.1	0.1	
		Apple	0.05	0.05	
		Mango	0.05	0.05	

		Guava	0.05	0.05	
		Boiled Egg	1	1	
8	Deer				
0	Deer	Banana	0.2	0.2	
		Wheat bran	0.2	0.2	
		Gram	0.2	0.2	
		Common salt	0.05	0.05	
		Soya flakes	0.1	0.1	
		Cabbage Molasses	0.2	0.1	
9	Spotted Deer	Wheat bran	0.1	0.1	
	Sponed Deer	Gram	0.1	0.1	
		Common salt	0.05	0.05	
		Soya flakes	0.05	0.05	
		Cabbage	0.5	0.1	
		Molasses	0.1	0.1	
10	Sambar	Lessara	0.2	0.2	
		Wheat bran	0.2	0.2	
		Black salt	0.05	0.05	
		Cabbage	0.5	0.5	
		Gram	1.5	1.5	
		Common salt	0.05	0.05	
		Soya flakes	0.1	0.1	
		Molasses	0.20	0.20	
11	Slow loris	Banana	0.1	0.1	
		Apple	0.03	0.03	
		Papaya	0.05	0.05	
		Mango	0.05	0.05	
		Guava	0.05	0.05	
		Jackfruit	0.05	0.05	
		Grapes	0.01	0.01	
		Boiled Egg	1	1	
12	Monkeys	Banana	0.2	0.2	
		Carrot	0.1	0.1	
		Orange	0.1	0.1	
		Papaya	0.1	0.1	
		Mango	0.1	0.1	
		Guava	0.1	0.1	
		Coconut	0.1	0.1	
		Green Pea	0.05	0.05	
		Jackfruit	0.2	0.2	
		Pumpkin	0.05	0.05	
		Boiled Egg	1	1	
13	Hoolock Gibbon	Banana	0.1	0.1	
		Apple	0.1	0.1	
		Papaya	0.1	0.1	
		Mango	0.1	0.1	
		Guava	0.1	0.1	
		Jackfruit	0.2	0.2	
		Grapes	0.05	0.05	
		Boiled Egg	1	1	
		Green Pea	0.05	0.05	
		Sweet Potato	0.1	0.1	

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14         Porcupines         Pumpkin Maize         0.2         0.2           Maize         0.1         0.1         0.1           Caroot         0.1         0.1         0.1           Yam         0.2         0.1         0.1           15         Hornbills         Papaya         0.1         0.1           Banana         0.1         0.1         0.1         0.1           Apple         0.05         0.05         0.05           Grapes         0.1         0.1         0.1           16         Kite         Chicken         0.15         0.15           17         Ovls         Chicken         0.1         0.1         0.1           17         Ovls         Chicken         0.1         0.1         0.1           18         Peaben         Cabbage         0.1         0.1         0.1           19         Emu         Cabbage         0.1         0.1         0.1           19         Emu         Cabbage         0.1         0.1         0.1           10         Red Jungle Fowl         Cabbage         0.1         0.1         0.1           19         Emu         Cabbage			Coconut	_	0.1		0.1	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			Bread		0.2		0.2	
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$ \begin{array}{ c c c c c c } \hline Grapes & 0.1 & 0.1 & 0.1 \\ \hline Rice & 0.1 & 0.1 & 0.1 \\ \hline Rice & 0.1 & 0.1 & 0.1 \\ \hline 0.2 & 0.1 & 0.2 \\ \hline 0.1 & 0.1 & 0.1 \\ \hline 0.2 & 0.1 & 0.1 \\ \hline 0.2 & 0.1 & 0.1 \\ \hline 0.1 & 0.1 & 0.1 \\ \hline 0.2 & 0.1 & 0.1 \\ \hline 0.1 & 0.1 & 0.1 \\ \hline 0.2 & 0.1 & 0.1 \\ \hline 0.1 & 0.1 & 0.1 \\ \hline 0.2 & 0.1 & 0.1 \\ \hline 0.2 & 0.1 & 0.1 \\ \hline 0.1 & 0.1 & 0.1 \\ \hline 0.2 & 0.2 & 0.2 \\ \hline 0.1 & 0.1 & 0.1 \\ \hline 0.2 & 0.2 & 0.2 \\ \hline 0.1 & 0.1 & 0.1 \\ \hline 0.2 & 0.2 & 0.2 \\ \hline 0.1 & 0.1 & 0.1 \\ \hline 0.2 & 0.2 & 0.2 \\ \hline 0.2 & 0.2 & 0.2 \\ \hline 0.1 & 0.1 & 0.1 \\ \hline 0.2 & 0.2 \\ \hline 0.2 & 0.2 \\ \hline 0.3 & 0.3 \\ \hline 0.05 & 0.05 \\ \hline 0.05 \\ \hline 0.05 \\ \hline 0.005 \\ \hline 0.05 \\ \hline 0.05 \\ \hline 0.005 \\ \hline 0.05 \\$							0.05	
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17OwlsChicken0.15Monday18PeahenCabbage Tomato Dry fish Green pea Broken rice0.10.1 0.2 0.10.1 0.2 0.119EmuCabbage Tomato Broken rice0.1 0.10.1 0.02 0.10.1 0.02 0.120Red Jungle FowlCabbage Tomato Broken rice0.1 0.10.1 0.120Red Jungle FowlCabbage Broken rice0.1 0.10.1 0.121Green Pigeon Broken riceBanana Broken rice0.05 0.10.05 0.222Burmese TortoiseCabbage Broken rice0.3 0.30.3 0.323Turtles Aquatic plants Cabbage0.1 0.10.1 0.124Star TortoiseSweet Potato Pumpkin Qamp								
Image: Calibration of the sected se	16	Kite	Chicken		0.15		0.15	Monday
Image: Calibration of the sected se	17	Owls	Chieler		0.15	+	0.15	Monday
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$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			Tomato		0.2		0.2	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			Maize		0.1		0.1	
Broken rice         0.1         0.1           19         Emu         Cabbage Poultry feed         0.5         0.5           Maize powder         0.2         0.2         0.2           Wheat bran         0.1         0.1         0.1           20         Red Jungle Fowl         Cabbage Poultry feed         0.1         0.1           20         Red Jungle Fowl         Cabbage Poultry feed         0.1         0.1           20         Red Jungle Fowl         Cabbage Poultry feed         0.1         0.1           Poultry feed         0.2         0.2         0.2           Maize         0.1         0.1         0.1           Green Pigeon         Banana         0.05         0.05           Papaya         0.05         0.05         0.05           Quava         0.05         0.05         0.05           Broken rice         0.3         0.3         0.3           Sweet Potato         0.3         0.3         0.3           Pumpkin         0.2         0.2         0.2           Yam         0.3         0.3         0.3           Sweet Potato         0.3         0.3         0.3           Pumpkin			Dry fish		0.02		0.02	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			Green pea		0.1		0.1	
$\begin{array}{ c c c c c c c } \hline Poultry feed & 0.3 \\ \hline Maize powder & 0.2 \\ \hline Maize powder & 0.2 \\ \hline Wheat bran & 0.1 \\ \hline Oultry feed & 0.1 \\ \hline Oultry feed & 0.2 \\ \hline Maize & 0.1 \\ \hline Oultry feed & 0.1 \\ \hline Outry feed & 0.05 \\ \hline Outry feed & 0.05 \\ \hline Outry feed & 0.1 \\ \hline Outry feed & 0.1 \\ \hline Outry feed & 0.2 \\ \hline Outry feed & 0.1 \\ \hline Outry feed & 0.2 \\ \hline Outry feed & $			Broken rice		0.1		0.1	
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	19	Emu	Cabbage					
$ \begin{array}{ c c c c c c c c } \hline Wheat bran & 0.2 & 0.2 \\ \hline Broken rice & 0.1 & 0.1 \\ \hline Outry feed & 0.2 \\ \hline Outry feed & 0.1 \\ \hline Outry feed & 0.05 \\ \hline Outry feed & 0.05 \\ \hline Outry feed & 0.1 \\ \hline Outry feed & 0.05 \\ \hline Outry feed & 0.1 \\ \hline Outry feed & 0.3 \\ \hline Outry feed \\ \hline Outry feed & 0.3 \\ \hline Outry feed \\ \hline Out$					0.3		0.3	
Broken rice $0.1$ $0.1$ 20Red Jungle Fowl $Cabbage$ Poultry feed $0.1$ $0.1$ $Poultry feed$ Green pea $0.1$ $0.1$ $0.1$ $Broken rice$ $0.1$ $0.1$ $0.1$ $21$ Green PigeonBanana $0.05$ $0.05$ $Papaya$ Guava $0.05$ $0.05$ $0.05$ $Broken rice$ $0.05$ $0.05$ $Broken rice$ $0.05$ $0.05$ $Quava$ Broken rice $0.05$ $0.05$ $Quava$ $Quava$ $0.3$ $0.3$ $Quava$ 								
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $								
$ \begin{array}{ c c c c c c c } \hline Polity feed & 0.2 & 0.1 \\ \hline Maize & 0.1 & 0.1 \\ \hline Green pea & 0.1 & 0.1 \\ \hline Broken rice & 0.1 & 0.1 \\ \hline 0.1 & 0.1 & 0.1 \\ \hline 0.05 & 0.05 & 0.05 & 0.05 \\ \hline 0.005 & 0.05 & 0.05 & 0.05 \\ \hline 0.005 & 0.05 & 0.05 & 0.05 \\ \hline 0.005 & 0.05 & 0.05 & 0.05 & 0.05 \\ \hline 0.005 & 0.05 & 0.05 & 0.05 & 0.05 \\ \hline 0.005 & 0.05 & 0.05 & 0.05 & 0.05 & 0.05 & 0.05 \\ \hline 0.005 & 0.0$								
$ \begin{array}{ c c c c c c c } \hline Maize & 0.1 & 0.1 \\ \hline Green pea & 0.1 & 0.1 \\ \hline Broken rice & 0.1 & 0.1 \\ \hline 0.1 & 0.1 & 0.1 \\ \hline 0.2 & 0.2 & 0.2 \\ \hline Yam & 0.3 & 0.3 & 0.3 \\ \hline 0.3 & 0.3 & 0.3 & 0.3 \\ \hline 0.2 & 0.2 & 0.2 & 0.2 \\ \hline Yam & 0.3 & 0.1 & 0.1 & 0.1 \\ \hline Cabbage & 0.2 & 0.2 & 0.2 \\ \hline Yam & 0.3 & 0.3 & 0.3 & 0.3 \\ \hline 0.4 & 0.1 & 0.1 & 0.1 & 0.1 \\ \hline Cabbage & 0.2 & 0.2 & 0.2 \\ \hline 24 & Star Tortoise & Sweet Potato & 0.03 & 0.03 & 0.03 \\ \hline Pumpkin & 0.2 & 0.2 & 0.2 & 0.2 \\ \hline 24 & Star Tortoise & Sweet Potato & 0.03 & 0.03 & 0.03 & 0.03 \\ \hline Pumpkin & 0.03 & 0.03 & 0.03 & 0.03 & 0.03 & 0.03 \\ \hline Pumpkin & 0.03 & $	20	Red Jungle Fowl						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$								
Broken rice         0.1         0.1           21         Green Pigeon         Banana         0.05         0.05           Papaya         0.05         0.05         0.05           Guava         0.05         0.05         0.05           Burmese Tortoise         Cabbage         0.3         0.3           Sweet Potato         0.3         0.3         0.3           Pumpkin         0.2         0.2         0.2           Yam         0.3         0.3           23         Turtles         Molluscs         0.1           Aquatic plants         0.1         0.1           Cabbage         0.2         0.2           9         0.3         0.3           23         Turtles         Molluscs         0.1           Aquatic plants         0.1         0.1         0.1           Cabbage         0.2         0.2         0.2           24         Star Tortoise         Sweet Potato         0.03         0.03           Pumpkin         0.03         0.03         0.03           Quark         Green leaves         0.1         0.1								
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			<u>^</u>					
Papaya $0.05$ $0.05$ Guava $0.05$ $0.05$ Broken rice $0.05$ $0.05$ 22Burmese TortoiseCabbage $0.3$ Sweet Potato $0.3$ $0.3$ Pumpkin $0.2$ $0.2$ Yam $0.3$ $0.3$ 23TurtlesMolluscs $0.1$ Aquatic plants $0.1$ $0.1$ Cabbage $0.2$ $0.2$ 24Star TortoiseSweet Potato $0.03$ Pumpkin $0.03$ $0.03$ Qualic plants $0.1$ $0.1$ $0.03$ $0.03$ $0.03$ Qualic plants $0.1$ $0.1$	0.1							
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$\begin{array}{c c c c c c c c c c c c c c c c c c c $				_				
Sweet Potato         0.3         0.3           Pumpkin         0.2         0.3           Yam         0.3         0.3           23         Turtles         Molluscs         0.1         0.1           Aquatic plants         0.1         0.1         0.1           Cabbage         0.2         0.2         0.2           24         Star Tortoise         Sweet Potato         0.03         0.03           Pumpkin         0.03         0.03         0.03           Yam         0.03         0.03         0.03           Olise         Sweet Potato         0.03         0.03           Pumpkin         0.03         0.03         0.03           Yam         0.03         0.03         0.03	22	Darman and Track						
Pumpkin         0.2         0.2           Yam         0.3         0.3           23         Turtles         Molluscs         0.1         0.1           Aquatic plants         0.1         0.1         0.1           Cabbage         0.2         0.2         0.2           24         Star Tortoise         Sweet Potato         0.03         0.03           Pumpkin         0.03         0.03         0.03           Yam         0.03         0.03         0.03           Green leaves         0.1         0.1         0.1	22	Burmese Tortoise		_				
Yam         0.2         0.2           23         Turtles         Molluscs         0.1         0.1           Aquatic plants         0.1         0.1         0.1           Cabbage         0.2         0.2         0.2           24         Star Tortoise         Sweet Potato         0.03         0.03           Pumpkin         0.03         0.03         0.03           Yam         0.03         0.03         0.03           Other leaves         0.1         0.1         0.1				_				
23     Turtles     Molluscs     0.1     0.1       Aquatic plants     0.1     0.1     0.1       Cabbage     0.2     0.2       24     Star Tortoise     Sweet Potato     0.03     0.03       Pumpkin     0.03     0.03     0.03       Yam     0.03     0.03     0.03       Green leaves     0.1     0.1				_				
Aquatic plants0.1Aquatic plants0.1Cabbage0.224Star TortoiseSweet PotatoPumpkin0.03Yam0.03Green leaves0.1								
Cabbage         0.2         0.2           24         Star Tortoise         Sweet Potato         0.03         0.03           Pumpkin         0.03         0.03         0.03           Yam         0.03         0.03         0.03           Green leaves         0.1         0.1         0.1	23	Turtles		_				
24         Star Tortoise         Sweet Potato         0.03         0.03           Pumpkin         0.03         0.03         0.03           Yam         0.03         0.03         0.03           Green leaves         0.1         0.1         0.1								
Pumpkin         0.03         0.03           Yam         0.03         0.03           Green leaves         0.1         0.1	24	Star Tortoise				+		
Yam         0.03         0.03           Green leaves         0.1         0.1	- ·			-				
Green leaves 0.1 0.1				-				
				-				
	25	Burmese Python		-				
		-					·	

#### 14. Vaccination Schedule of Animals

Sl. No	Species	Date	Vaccine Used	Remark
1.	Dholes	05/06/2022	Vanguard plus 5L4, Antirabies (Raksharab)	Administered
2	Tigers	27/07/2022	Felovax, Antirabies (Raksharab)	Administered
3	Leopard	22/08/2022	Felligen, Antirabies (Raksharab)	Administered

#### 15. De-worming Schedule of Animals

Sl. No	Species	Date	Oral/ Injection	Remark
1	Dhole (Wild Dog), Jackals	23/01/ 2023	Ivermectin 10 mg mixed in meat @.5mg/kg bwt.	As per Stool screening results every 3 months.
2	Barking Deer, spotted deer	do	Ivermectin 1.5 g mixed in feeds @ .3 mg/kg bwt	do
3	Macaques/ primates	do	Fenbendazole 150mg in feeds	do
4	Large Cats	do	Ivermectin 1.5 g mixed in meat @.5mg/kg bwt.	do
5	Large Mammals	do	Ivermectin 1.5 g mixed in meat @.3mg/kg bwt.	do
6	Birds of prey	do	Fenbendazole .50mg /kg bwt.	do

#### **16.** Disinfection Schedule

Sl. No	Species	Date	Oral/ Injection	Remark
1	All the enclosures	All Year Round	KMnO <sub>4</sub> mixed in water @10g in 25 litres every week inside the cell.	Daily cleaning with water.

#### 17. Health Check-up of employees for Zoonotic diseases

The following Zoo staffs of Animal Section were sent for Regular Medical Checkup/Screening on 9<sup>th</sup> February 2023 to Chief Medical Officer, District Civil Hospital, Dimapur. They were tested for zoonotic diseases and also basic health check-up was done to ensure their good health. No one was found to have any type of zoonotic diseases apart from minor complaints that are easily treatable by OTC medicines.

## **18.** Developmental Works carried out in the zoo during the year

Sl. No.	Name of Work	Grant	Status	Year of Completion
1	Enrichment of enclosure	0.72 L	Completed	2023
2	Construction of Aviary at BTCBC	88 L	Ongoing	2023
3	Financial Assistance to BTCBC	7.68 L	Completed	2023

## **19.** Education and Awareness programmes during the year

Sl. No	Program	Date	Participants
1	Ban on Single Use Plastics	14 <sup>th</sup> Feb 2023	Officers and staff of NZP
2	World Environment Day 2022	5 <sup>th</sup> June 2022	Students from various schools and colleges
3	Wildlife Week Celebration	2 <sup>nd</sup> to 8 <sup>th</sup> October 2022	Staff and Invitee Students.
4	Exposure Trip to Bokakhat, Assam	$7^{th}$ to $8^{th}$ July 2022	Officers and Staff
5	Bird Watching Workshop	6 <sup>th</sup> October 2022	College Students
6	Students Internship	All the year round	Students and researchers from various technical colleges in India.
7	Flag Hoisting at Amrit Sarovar Sites in NZP	15 <sup>th</sup> Aug 2022 and 26 <sup>th</sup> Jan 2023	Dignitaries, Officers and Staff of NZP
8	CZA Species in FOCUS	7 <sup>th</sup> March 2023	Officers of NZP (Online)
9	Celebration of Wildlife Day 2023	3 <sup>rd</sup> March 2023	Officers and Staff of NZP and students.
10	Inauguration of E-Car and Souvenir Shop	8 <sup>th</sup> October 2022	Chief Wildlife Warden, Nagaland, Officers and Staff of NZP
11	Installation of Solar Street Light	3 <sup>rd</sup> July 2022	Officers and Staff of NZP
12	Installation of CCTV	3 <sup>rd</sup> July 2022	Officers and Staff of NZP
13	Morning Bird Walk	12 <sup>th</sup> March 2022	College Students
14	Zoo Logo Competition	5 <sup>th</sup> June 2022	Open Category
15	Cleaning and Plantation at Herbal Garden	2 <sup>nd</sup> October 2022	Unity College, Dimapur

#### 20. Important Events and happenings (Photographs)



Fig 1: Wildlife Week Celebration 2022



Fig 2: Inauguration of E-Rickshaw at NZP by CWLW Nagaland Shri. Ved Pal Singh



Fig 3: Face Mask Painting Competition during Wildlife Week Celebration 2022



Fig 4: Pledge Signing during Wildlife Week Celebration 2022



Fig 5: Staff Exposure Trip to Bokakhat, Assam



Fig 6: NMHS Monitoring Committee Visit



Fig 7: NMHS Monitoring Committee Visit



Fig 8: Zoo Keepers Training at NZP



Fig 9: PCCF & HoFF, Nagaland Visit to NZP



Fig 10: Inauguration of Souvenir Shop at NZP



Fig 11: Inauguration of Souvenir Shop at NZP



Fig 12: Inauguration of Renovated Veterinary Hospital at NZP



Fig 13: Celebration of World Turtle Day 2022 at NZP



Fig 14: Rock Painting Competition during Celebration of World Turtle Day 2022 at NZP



Fig 15: Release of Captive Asian Brown Tortoise at Intanki National Park



Fig 16: Zoo Logo Competition Winner 2022



Fig 17: Animal Rescue Team NZP



Fig 18: Animal Rescue Team NZP



Fig 19: Animal Exchange with Lucknow Zoo



Fig 20: St. Joseph University Zoology Dept Field Visit



Fig 21: Hatching Onset of Asian Brown Tortoise



Fig 22: Zoo Keepers Training 2022 at NZP

Sl. No.	Species	Upkeep	Status
1	Hornbills	Enclosure	Completed and
1	Homoms	Enrichment	Utilizing
			Ounzing
2	Wild Dog	Enclosure	Completed and
		Enrichment	Utilizing
3	Assamese Macaque	Secondary	Completed
	_	Protection	
4	Oriental Pied Hornbill	Artificial Nesting	Completed and
		Box	Utilizing
5	Hoolock Gibbon	Enclosure	Completed and
		Enrichment	Utilizing
		Structures	
6	Asian Black Bear	Enclosure	Completed
		Enrichment	
		Structures and	
		Shelter	
7	Burmese Python	Strengthening of	Completed
		exhibit closures	

#### 21. Seasonal special arrangements for upkeep of animals

#### 22. Research Work carried out and publications

- 1. "A Survey on Butterflies of Nagaland Zoological Park" by Shri. P. Thirumalainathan, Zoo Biologist (*Unpublished*)
- 2. "Free-Ranging Birds of Nagaland Zoological Park" by Shri. OnenjungshiAo, Photographer.
- 3. "A Study on Incubation Methods of Asian Giant Tortoise" by Shri. Vinoto K. Rochill, Forester-I (*Unpublished*)

## 23. Conservation breeding programme of the Zoo

Sl.No.	Species	Status
1	Conservation Breeding of Burmese Tortoise in collaboration with Turtle Survival Alliance - India	Successful hatching for the 4 <sup>th</sup> Year.
2	In-house breeding programme for Oriental Pied Hornbills.	Successful nesting and hatching during the year.
3	Conservation Breeding of Blyth's Tragopan under CZA	Successful nesting and hatching.
4	Artificial Incubation of eggs of selected species.	Under Trial

### 24. Animal acquisition/transfer/exchange during the year

А.	Animal	Animals arriving in the Zoo						
	Sl.No.	Species	Number (M:F)	From which Zoo	Date of arrival in the zoo			
		NIL						
В.	Animal	s going from the Zoo	1	I				
	Sl.No.	Species	Number (M:F)	Going to which Zoo	Date of arrival in the zoo			
	1	Himalayan black bear (Ursus thibetanus) 1:1						
	2	Asian leaf turtle ( <i>Cyclemys dentata</i> )	3:1					
	3	Bengal slow loris (Nycticebus bengalensis)	3:0	Greens Zoological				
	4	Burmese python ( <i>Python bivittatus</i> )	2:1	Rescue &	Departure from NZP on 11.03.2023			
	5	Asian forest tortoise (Manouriaemys)	3:1	Rehabilitation Centre, Jamnagar, Gujarat				
	6	Indian jackal ( <i>Canis aureus</i> )	3:3					
	7	Rhesus macaque (Macaca mulatta)	1:1					
	8	Assam macaque (Macaca assamensis)	1:1					

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
1	18.04.2022	Common Jackal <b>0:0:1:1</b>	Kohima Nagaland	20.05.2022	-	Loss of Habitat
2	13.05.2022	Common Jackal <b>0:0:1:1</b>	Kohima Nagaland	16.06.2022	-	Loss of Habitat
3	14.05.2022	Peacock Softshell <b>0:0:1:1</b>	Chumoukedima Nagaland	16.06.2022	-	Loss of Habitat
4	14.05.2022	Common Jackal <b>0:0:1:1</b>	Kohima Nagaland	16.06.2022	-	Loss of Habitat
5	18.06.2022	Asiatic Black Bear <b>0:1:0:1</b>	Dimapur Nagaland	14.07.2022	-	Loss of Habitat
6	28.06.2022	Asiatic Black Bear <b>1:0:0:1</b>	Dimapur Nagaland	14.07.2022	-	Loss of Habitat
7	03.08.2022	Burmese Rock Python <b>0:0:1:1</b>	Kohima Nagaland	09.10.2022	-	Loss of Habitat
8	09.09.2022	Slow Loris <b>0:0:1:1</b>	Dimapur Nagaland	09.10.2022	-	Loss of Habitat
9	19.09.2022	Leopard Cat 0:0:1:1	Tuensang Nagaland	09.10.2022	-	Loss of Habitat
10	06.11.2022	Asiatic Black Bear <b>1:0:0:1</b>	Kohima Nagaland	02.12.2022	-	Loss of Habitat
11	13.11.2022	Asiatic Black Bear <b>1:0:0:1</b>	Kohima Nagaland	02.12.2022	-	Loss of Habitat
12	17.12.2022	Stump Tailed Macaque <b>1:0:0:1</b>	Kohima Nagaland	21.01.2023	-	Loss of Habitat
13	18.01.2023	Keeled Box Turtle <b>1:0:0:1</b>	Pherima Nagaland	21.01.2023	-	Loss of Habitat
14	18.01.2023	Asian Leaf Turtle <b>0:1:0:1</b>	Medziphema Nagaland	21.01.2023	-	Loss of Habitat

## 25. Rescue and Rehabilitation of wild animals carried out by the Zoo

15	12.02.2023	Clouded Leopard <b>0:0:1:1</b>	Mokokchung Nagaland	17.03.2023	-	Loss of Habitat
16	01.03.2023	Rhesus Macaque <b>0:0:1:1</b>	Mokokchung Nagaland	17.03.2023	-	Loss of Habitat
17	09.03.2023	Great Barbet <b>0:0:1:1</b>	Dimapur Nagaland	17.03.2023	-	Loss of Habitat
18	17.03.2023	Red Jungle Fowl <b>0:1:0:1</b>	Dimapur Nagaland	05.04.2023	-	Loss of Habitat
19	17.03.2023	Red Jungle Fowl <b>1:0:0:1</b>	Dimapur Nagaland	05.04.2023	-	Loss of Habitat
20	24.03.2023	Jungle Cat <b>1:0:0:1</b>	Mokokchung Nagaland	05.04.2023	-	Loss of Habitat
21	25.03.2023	Asian Palm Civet <b>0:0:1:1</b>	Dimapur Nagaland	05.04.2023	-	Loss of Habitat
		7:3:11:21				

#### 26. Annual Inventory of animals

#### Form – II [See Rule 11(1)] Part - A Inventory Report for the year: 2022-23

#### **Endangered Species**

		Part –	В		
Total	-	Species – 30			128
<u>Reptiles</u>	-	Species – 7	Specimens	-	19
Birds	-	Species – 18	Specimens	-	97
Mammals	-	Species – 5	Specimens	-	12

#### Other than Endangered Species

Mammals	-	Species – 4	Specimens	-	52
Birds	-	Species – 9	Specimens	-	34
Reptiles	-	Species – 5	Specimens	-	144
Total	-	Species – 18			230
			Total Pop	ulatio	n - 358

#### 27. Mortality of animals

Mortanty of annuals and birds during the year 2022-25								
Sl.No.	Species name	м	F	J	Un	Total	DATE OF DEATH	AGE CLASS
1	Barking Deer				1	1	12.06.2022	Juvenile
2	Pompadour Green Pigeon				1	1	03.08.2022	Juvenile
3	Pompadour Green Pigeon				1	1	09.09.2022	Juvenile
4	Pompadour Green Pigeon				1	1	09.09.2022	Juvenile
5	Pompadour Green Pigeon				1	1	27.12.2022	Juvenile
6	Pompadour Green Pigeon				1	1	27.12.2022	Juvenile
7	Spotted Dove				1	1	29.12.2022	Juvenile
8	Spotted Deer		1			1	30.12.2022	Adult
9	Spotted Dove				1	1	29.12.2022	Juvenile
10	Emu	1				1	02.03.2023	Adult
	TOTAL 1 1 8 10							

Mortality of animals and birds during the year 2022-23

## **28.** Status of the Compliance with conditions stipulated by the Central Zoo Authority

The Zoo has been recognized as a medium zoo by the Central Zoo Authority, New Delhi upto 19<sup>th</sup> August 2022. All efforts and attempts are being made to comply with the stipulated conditions for continuation of recognition of the zoo. The zoo is continuously working towards the development of infrastructures and facilities within the zoo for the captive wildlife, visitors and zoo personnel.

History Card of captive wildlife species, where mandatory, is being maintained. Pairing of single sexed captive wildlife is being initiated on priority and few captive wildlife has been successfully paired through the animal exchange programme.

Priority is being accorded to follow de-worming schedule and vaccination schedule of all captive wildlife. Routine mandatory health check-up for the staff is being conducted through the assistance from the District Hospital authorities of Dimapur.

In-house conservation breeding programme is being taken up for the selected species and potential conservation breeding programme for funding through Central Zoo Authority has been identified.

## 29. List of free-living wild animals within the zoo premises

Fre	ee Living Mam	mal	S
1	Sambar Deer	Cer	vus unicolor
2	Golden Jackal	Car	iis aureus
3	Barking Deer	Mu	ntiacus muntjak
4	Assamese Macaque	Macaca assamensis	
Ins	sects		
1	Butterflies		200 Plus Species and counting.

#### **Free Living Reptiles**

	1	
1	Common Sand Boa	Erycinae
2	Monitor Lizard	Varanus bengalensis
3	Burmese Rock Python	Python molurus bivittatus
4	Burmese Tortoise	Manouria emys
5	Tokay Gecko	Gekko gecko

## Free Living Birds

1	Common Lora	Aegithina tiphia
2	Abbots Babbler	Malaco cinlaabbotti
3	White bellied Blue Flycatcher	Cyornis pallipes
4	Black Baza	Aviceda leuphotes
5	Common Emerald Dove	Chalco phaps
6	White Rumped Munia	Lonchura striata
7	Blue Throated Barbet	Megalaima asiatica
8	Ashy Wood Swallow	Artyamus fuscus
9	Rufous Treepie	Dendrocitta vagabunda
10	Green Billed Malkoha	Phaenico haeus
11	White Breasted Waterhen	Amaurornis phoenicurus
12	Lesser Whistling Teal	Dendrocygna javanica
13	Red Vented Bulbul	Pycononotusbafer
14	Black Crested Bulbul	Pycnonotus melanicterus
15	Tailor Bird	Orthotomus sutorius

17Scarlet Backed Flower PeckerDicaeum cruentatum Pecker18Black DrongoDicrurus macrocercus19Oriental Magpie RobinCopsychus saularis20Red jungle FowlGallus gallus21Spangled DrongoDicrurus hottentottus22Common HoppoeUpupa epops23Long Tailed ShrikeLanius schach24Indian Scrimitar BabblerPomatorhinus erythrogenys25Black Naped MonarchHypothymins azurea26Greater Necklaced Laughing ThrushGarrulax pectoralis27Common MynaAcridotheres tristis28Greater CoucalCentropus sinensis29Asian Barred OwletGlaucidium cuculoides30Chestnut Tailed StarlingSturnus malabaricus31Spot Winged StarlingSaraglossa spiloptera32Forest WagtailDendronanthus indicus33Indian RollerCoracias benghalensis34White Throated KingfisherAlcedo36Spotted DoveSpilopelia chinensis37Little Spider hunterArachnothera longirostra38Lesser CoucalCentropus bengalensis39Pompadour Green PigeonTreron sphenura40Vertider FlycatcherEunyia sthalassina41White Throated FantailRhipidura albicollis42Barn SwallowHirundo rustica43Eurasian Tree SparrowPasser montanus44Great TitParus major45Small	16	Dollar Bird	Eurystomus orientalis
18       Black Drongo       Dicrurus macrocercus         19       Oriental Magpie Robin       Copsychus saularis         20       Red jungle Fowl       Gallus gallus         21       Spangled Drongo       Dicrurus hottentottus         22       Common Hoppoe       Upupa epops         23       Long Tailed Shrike       Lanius schach         24       Indian Scrimitar Babbler       Pomatorhinus erythrogenys         25       Black Naped Monarch       Hypothymins azurea         26       Greater Necklaced       Garrulax pectoralis         Laughing Thrush       Acridotheres tristis         28       Greater Coucal       Centropus sinensis         29       Asian Barred Owlet       Glaucidium cuculoides         30       Chestnut Tailed Starling       Saraglossa spiloptera         31       Spot Winged Starling       Saraglossa spiloptera         32       Forest Wagtail       Dendronanthus indicus         33       Indian Roller       Coracias benghalensis         34       White Throated Kingfisher       Alcedo         35       Common Kingfisher       Alcedo         36       Spotted Dove       Spilopelia chinensis         37       Little Spider hunter       Arachnoth	17		Dicaeum cruentatum
20Red jungle FowlGallus gallus21Spangled DrongoDicrurus hottentottus22Common HoppoeUpupa epops23Long Tailed ShrikeLanius schach24Indian Scrimitar BabblerPomatorhinus erythrogenys25Black Naped MonarchHypothymins azurea26Greater Necklaced Laughing ThrushGarrulax pectoralis27Common MynaAcridotheres tristis28Greater CoucalCentropus sinensis29Asian Barred OwletGlaucidium cuculoides30Chestnut Tailed StarlingSaraglossa spiloptera31Spot Winged StarlingSaraglossa spiloptera32Forest WagtailDendronanthus indicus33Indian RollerCoracias benghalensis34White Throated KingfisherAlcedo36Spotted DoveSpilopelia chinensis37Little Spider hunterArachnothera longirostra38Lesser CoucalCentropus bengalensis39Pompadour Green PigeonTreron sphenura40Vertider FlycatcherEumyia sthalassina41White Throated FantailRhipidura albicollis42Barn SwallowHirundo rustica43Eurasian Tree SparrowPasser montanus44Great TitParus major45Small NiltavaNiltavamac grigoriae46Brown ShrikeLanius cristatus	18		Dicrurus macrocercus
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43     Eurasian Tree Sparrow     Passer montanus       44     Great Tit     Parus major       45     Small Niltava     Niltavamac grigoriae       46     Brown Shrike     Lanius cristatus	41	White Throated Fantail	Rhipidura albicollis
44     Great Tit     Parus major       45     Small Niltava     Niltavamac grigoriae       46     Brown Shrike     Lanius cristatus	42	Barn Swallow	Hirundo rustica
45     Small Niltava     Niltavamac grigoriae       46     Brown Shrike     Lanius cristatus	43	Eurasian Tree Sparrow	Passer montanus
46     Brown Shrike     Lanius cristatus	44	Great Tit	Parus major
	45	Small Niltava	Niltavamac grigoriae
47 White Wagtail Dendronanthus indicus	46	Brown Shrike	Lanius cristatus
	47	White Wagtail	Dendronanthus indicus

#### Thank You

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- **a**: 9410572885

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Director Nagaland Zoological Park Rangapahar : Nagaland