# VAN VIHAR NATIONAL PARK AND ZOO, BHOPAL



Annual Report for the year 2017-18



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#### 1. REPORT OF THE OFFICER-IN-CHARGE

Van Vihar National Park-Zoo is a place that is 'beautiful and alive' any time of the day. A unique National Park and Zoo of 445.21 ha. in the centre of Bhopal City, supports a large number free ranging animals along with captive facilities for carnivores. The medium sized Zoo showcases a variety of wild animals in near nature like conditions, along a linear stretch of five kilometres, facing the grand Bhopal Lake on the other side of the road. The aviaries of Van Vihar are a special abode for more than two hundred species of migratory as well as resident birds and attract a lot of Birders throughout the year. While the Big Cats are a big attraction for the visitors the free ranging herbivores like Spotted Deers, Sambars, and Blue bulls enthral them with their presence in the nearby fields. Wild Boars and Peafowls are a common sight. The area is a rich repository of nearly all botanical species of Central India.

Van Vihar has the unique distinction of being an amalgamation of National Park, Zoological garden, Rescue centre and Conservation Breeding Centre. It is the only place in Central India were the Rescue Centre harbors number of Lions and Tigers rescued from the circuses, Sloth Bears rescued from the Madaries and abandoned / distressed animals like Tigers, Panthers and Bears from the wild. Van Vihar is also been designated as a coordinating zoo for Conservation Breeding of Royal Bengal Tiger and participating zoo for Asiatic Lion. It is also a Conservation Breeding Centre of Hard Ground Barasingha and two species of Gyps Vultures. Van Vihar has proved to be an example of ecorestoration of a degraded area and showcases terrestrial and fresh water ecosystems, in present times. Van Vihar has become a 'must see' destination in the tourism map of Bhopal.

The Vulture Breeding Centre welcomed two Long-billed hatchlings and the Hard Ground Barasingha added three fawns to the family. The efforts in Tiger Breeding are in process.

The Bear Rescue facility, looked after by Wildlife SOS and the Vulture Conservation Breeding Centre, looked after by BNHS took care successfully of the resident Bears and Vultures respectively with Van Vihar presenting a good example of administrative coordination.

During the year top priority was given to the maintenance of infrastructure and significant up-gradation of the hospital complex along with health care of the animals and following the management and veterinary schedules.

The Zoo was appreciated by VIPs during their visit and the number of visitors saw a rize to five lakhs sixty three thousand six hundred and seventy seven (5,63,677) this year as against four lakhs nineteen thousand six hundred and forty one (4,19,641), an increase of about 34% in all.

Another year of effective biodiversity conservation, zoo management and education passed by. The Van Vihar awareness programme was given an uplift by conducting a lot of education and awareness programmes, including celebration of Sparrow Day, World Wildlife Day, Van Vihar foundation day, conducting birding camps, walk- in workshops and a special workshop on Herpetology with the help of WWF.

Van Vihar took up a herculean task of transporting four Hybrid Lions from Guwahati to Bhopal, covering a distance of about 2000 km. in 80 hours. We also enriched the Mukundpur Zoo by sending Sambhars (capture by BOMA technique for the first in the country) and Cheetals.

The Zoo management strives tirelessly with full commitment as a team towards maintenance of the highest levels of cleanliness, services to tourists, health management and upkeep of animals, captive or free ranging.

Van Vihar has again proved to be not only sort after destination by visitors but also a centre for environmental education, scientific health management of big cats, biodiversity conservation and an animal and people friendly zoo.

I would like the extent my special gratitude the Member Secretary CZA, Shri DN Singh, Ex. CWLW, MP, Shri Jitendra Agrawal and PCCF(WL) and CWLW, MP Shri Shahbaz Ahmed for the timely guidance and support. A big thank you to the animal adopters for their contribution to wildlife conservation. I also acknowledge the support and contribution of the Assistant Director Shri Ashok Kumar Jain, Dr. Atul Gupta, Veterinary Officer VVNP, in particular and the staff for their hard work and dedication in the betterment of Van Vihar. With prayers for sustained betterment of Van Vihar National Park - Zoo.

#### Sameeta Rajora, IFS(1992)

CCF and Director
Van Vihar National Park - Zoo
Bhopal, M.P.

#### **HISTORY OF THE ZOO**

About three and a half decades ago, where Van Vihar is located today, major portion of the area was under the control of Revenue Department whereas a few portions were personal properties of private agricultural land owners of Prempura, Dharampuri and Amkheda villages. The entire area was also prone to severe encroachments. In this serene and beautiful location on the bank of the Bhopal Upper Lake, a number of illegal stone quarries were also operational, and the area was under constant threat of being seized by many commercial organizations. A review of the above problems led to the realization of the importance of the conservation and the protection of the wild flora, fauna as well as land. In order to achieve in-situ and ex-situ conservation of the wild flora and fauna, it was decided to provide a legal umbrella to this area under the Wildlife (protection) Act, 1972. A committee of experts was constituted to decide the modalities for constitution of this area as a Protected Area. An area of 445.21 hectares was notified as Van Vihar National Park in the year 1983 as per the committee's recommendations. Out of the 445.21 hectares of land, 388.89 hectares was revenue land and rest of the 56.92 hectare belonged to the villagers of Prempura, Dharampuri, and Amkheda. A compensation of Rs. 23.52 lakhs was paid to the villagers to acquire 56.92 hectares of private holdings. After the constitution of National Park, this acquired area was secured over a period of time, with stonewall and chain link fence from all sides. Efforts of protection and habitat improvement measures were taken which resulted in its enrichment in a very short period of time. The barren area of 445.21 hectare, under strict vigil and protection transformed into an island of a mosaic of different types of vegetation. Van Vihar today is a classic example of clothing a denuded land with woody green fabric within a span of three and a half decades. It is a typical amalgamation of in-situ and ex-situ conservation activities for wild fauna. To cover both the facets of conservation, the Central Zoo Authority further empowered this area and recognized it as a medium sized Zoo on 24.11.94.

Van Vihar National Park and Zoo has emerged as a symbol of conservation and an ideal example of eco-restoration. It is an amazing world of winged creatures, free ranging ungulates and captive carnivores in the midst of greenery. It is listed as a 'must see' in the tourist destinations of Bhopal Town. The characteristic mosaic of wet riparian stretch, plains, grasslands, shrubby vegetation, water pools, rugged slopes, mixed bamboo forest, grass covered plateau and patches of mixed plantations enriches the floral and faunal diversity of the area. This oasis of vegetation plays a vital role as carbon sink for the environmental health of the city of lakes. It is the part of the catchment of Upper Lake that relatively contributes to silt and pollution free water in the reservoir.

Van Vihar has the unique distinction of being an amalgamation of National Park, Zoological garden, Rescue centre and Conservation Breeding Centre. It is the only place in Central India were the Rescue Centre harbors number of Lions and Tigers rescued from the circuses, Sloth Bears rescued from the Madaries and abandoned / distressed animals like Tigers, Panthers and Bears from the wild. Van Vihar is also been designated as a coordinating zoo for Conservation Breeding of Royal Bengal Tiger and participating zoo for Asiatic Lion. It is also a Conservation Breeding Centre of Hard Ground Barasingha and two species of Gyps Vultures.

Under strict protection and vigil, Mother Nature has showered its blessings in the last three decades and the once denuded land is now covered with vegetation. The main species found here include Bel (Aegle marmelos), Amaltas (Cassia fistula), Babul (Acacia nilotica), Reunjha (Acacia leucophloea), Doodhi (Wrightia tinctoria), Landia (Lagerstroemia parviflora), Saja (Terminalia tomentosa), Amla (Emblica officinalis) and Tendu (Diospyros melanoxylon). In the closed areas of fodder farm and plantations, different palatable grass species like Chrysopogon fulvus, Themeda triendra, Heteropogan contortus, Dicanthium annulatum, Chloris dolichostachia etc, are found. Hilly portion of the park, once heavily infested with Lantana, lower plains with Parthenium and Cassia tora weeds are now free of these weeds due to constant interventions and habitat improvement efforts over the years.

Van Vihar has a wide range of herbivores and carnivores. While the herbivores are free ranging, the carnivores have been housed in large enclosures under captive but natural conditions. The near natural conditions provided in big enclosures make it an animal friendly Zoo. It always has an element of surprise for the visitors. It offers them many thrills of a jungle experience, a sudden sighting of tawny tiger behind golden bamboo clumps, roar of lions, a queer laugh of a hyena, alarm call of a Sambar, rutting call of a Chital, fluttering of colorful tiny butterflies and melodious chirping of birds. The migratory birds add to the scenic beauty of the natural and open aviaries in the winters.

The carnivores include Tigers, Lions, Panthers, Hyenas, Jackals and Sloth bears. The herbivores include Sambar, Spotted deers, Bluebulls, Black bucks, Chousinghas, Common Langurs, Wild boars, Porcupines, Hares etc. In addition to this the park also showcases Ghariyal, Crocodiles, Turtles, Star tortoise and Snakes.

#### 2. VISION

I. To become a scientific institution engaged in animal welfare and conservation of wildlife.

II. To be known as a centre of knowledge on effective techniques for maintaining good health and upkeep of resident animals and an example of natural ambience and pollution free environment.

#### 3. MISSION

- I. Compliment the national efforts in conservation of wildlife through planned coordinated conservation breeding of endangered wild animal species of Central India.
- II. Develop amongst visitors, empathy for wild animals and motivate them to support the cause of conservation of wildlife.
- III. Develop amongst the visitors an understanding about the ecological linkages with the life supporting processes of nature and the need for keeping them intact by adopting sustainable life styles and living in harmony with nature.
- IV. Enhancing the role of zoos in conservation of wildlife through collaborative research aiming at attaining management skills for in-situ population and carrying out advocacy for protecting the wild animals and their natural habitat.
- V. To act as Rescue Centre by receiving and keeping orphaned, seized, rescued, injured wild animals subject to availability of appropriate housing for the same.

#### 4. OBJECTIVE

Van Vihar was set up with the following broad objectives in view:

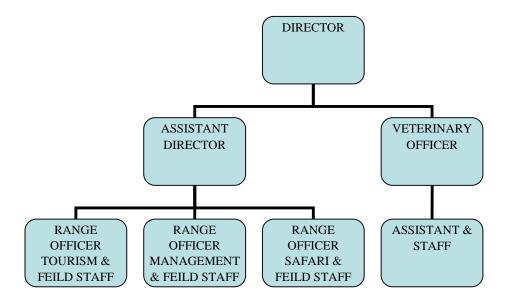
- I. To manage in captivity the wildlife of central India along with animals from other bio geographic regions of India in near-natural simulated habitat conditions to serve as a repository of genes and in-case of further expansion of the area of the zoo some rare exotic species can also be displayed in that area.
- II. To pursue conservation breeding of some rare and endangered species like- tiger, Asiatic lion, gyps vultures and Hard ground Barasingha etc.
- III. To provide the visitors, through a well-designed 'Interpretation programme' an opportunity to enjoy, experience, understand and appreciate nature and the need to conserve wildlife.
- IV. To carry out appropriate studies to strengthen both in-situ and ex-situ wildlife management.
- V. To serve as rescue center in Madhya Pradesh for orphaned, weak, diseased, injured and aged animals found unfit for release in the wild as well as those rescued from traditional animal performers and Circuses.

# 5. ABOUT US

S.No.	Particulars	Information				
Basic I	Basic Information about the Zoo					
		T				
1	Name of the Zoo	Van Vihar National Park - Zoo, Bhopal				
2	Year of Establishment	24.11.1994				
3	Address of the Zoo	Van Vihar National Park - Zoo, Bhadbhada Road, Bhopal, M.P 462003				
4	State	Madhya Pradesh				
5	Telephone Number	0755-2674278				
6	Fax Number	0755-2674278				
7	E-mail address	dirvvnp.bpl@mp.gov.in				
8	Website	mpforest.gov.in				
9	Distance from nearest					
	Airport:	about 17 km.				
	Railway Station:	about 7 km.				
	Bus Stand:	about 8 km.				
10	Recognition Valid upto (Date)	31 July 2017 (Renewal under process)				
11	Category of zoo	Medium				
12	Area (in Hectares)	445.21 hectares				
13	Number of Visitors (Financial Year)	Adult and Children: - 5,63,733 (No separate record is kept children under five get free entry, for the rest, rates are uniform)				
		Total Indian: 5,63,733				
		Total Foreigners : - Nil (Not recorded as the entry rates are uniform)				
		Total Visitors: 5,63,733				
14	Visitors' Facilities Available in Zoo	Visitors have to walk five km. from Ramu Gate near Boat Club up to Cheeku Gate near Jehanuma Retreat (Hotel) to enjoy nature and view wild animals. A number of facilities are provided for the visitors to make their VVNP experience comfortable and memorable. Some of the facilities are:  I. Drinking water stations at six places (Ramu Gate, Safari office, Lion enclosures, Snake Park, Cheeku gate and Vihar Vithika)				

S.No.	Particulars	Information	
		<ul> <li>II. Toilet at four places (Ramu Gate, Lion enclosures, Snake Park and Vihar Vithika)</li> <li>III. Sit-outs at Chhatghar, Vihar Vithika and at many places along the road.</li> <li>IV. Guiding staff at all enclosures.</li> <li>V. Battery Operated Vehicle/ Golf Cart services for the tourists at prescribed rates.</li> <li>VI. Cafeteria at Cheeku gate/ two food kiosks in the tourist zone.</li> <li>VII. Bicycles services for the visitors on rental basis.</li> <li>VIII. Regular bird watching camps.</li> <li>IX. Jungle Safari service to view herbivores at prescribed rates.</li> <li>X. Walk-in educational workshops from time to time.</li> </ul>	
15	Weekly Closure Day of the Zoo	Friday	
	Management Pers	connel of the zoo	
16	Name with designation of the Officer in-charge	Sameeta Rajora, IFS (1992)	
	Name of the Veterinary Officer	Dr. Atul Gupta,	
	Name of the Curator	Range Officer Safari	
	Name of the Biologist	-	
	Name of the Education Officer	-	
	Name of the Compounder/ Lab Assistant	-	
	Owner / Opera	tor of the Zoo	
17	Name of the Operator	Capt. Anil Khare (IFS)	
18	Address of the Operator	Secretariat, MP Govt. Vallabh Bhawan Bhopal	
19	Contact details/Phone number of Operator	0755-2579747	
20	E-mail address of Operator	secyforest@mp.gov.in	

## 6. ORGANIZATIONAL CHART



## 7. HUMAN RESOURCES

# Manpower of the Zoo\*

Sl.No.	Designation	Number of	Names of the incumbent
		Sanctioned Posts	
1	Director	1	Smt. Sameeta Rajora
2	Assistant Director	1	Shri Ashok Kumar Jain
3	Veterinary Officer	1	Dr. Atul Gupta
4	Range Officer	6	Shri S.S. Anwar
5			Shri S.K.Parashar
6			Shri G.S. Nagar
7			Shri Ratiram Partey
8	Deputy Ranger	3	Shri Ramnarayan Barse
9	Superintendent	1	-
10	Stenographer	1	-
11	Assistant grade-I	1	-
12	Accountant	1	-
13	Assistant grade-II	2	Shri Satendra Singh
14	Cinema Operator	1	Shri Rajesh Dixit
15	Draftsman	1	Smt Reena Bareliya
16	Assistant Grade-III	4	Shri Vasudev Sharma
17			Shri Kumel Abbas
18			Shri K.D. Panjwani
19			Shri Rajendra Jatav
20	Forester	10	Shri L.N. Keer
21			Smt. Reena Gokhe
22			Shri S.D. Mishra

23			Shri Gopal Kewat
24	-		Shri Faiyaz Khan
25	-		Shri Chandrashekhar Sharma
26	-		Ku. Deepty Tantuvay
27	-		Shri N.C. Mishra
28	Forest gaurd	43	Smt. Purnima Khare
29	- Cook gaara		Shri Dinesh Tiwari
30	-		Shri Manoj Nahariya
31	-		Shri Devendra Batham
32	-		Shri Dilip Batham
33	-		Smt. Sushma Lypton
34	-		Shri Ashok Kumar Mehra
35	-		Shri Avanish Tripathi
36	-		Shri Vinod Jatav
37	-		Shri Roopkumar Mehar
38	-		Shri Ramkumar Thakur
39	-		Shri Devendra Bardele
40	1		Shri Kamlesh Chaturvedi
41	-		Shri Dharmendra Rajput
42	-		Shri Sachin Parsai
43	_		Shri Jasman Raghuvanshi
44	_		Shri Santosh Rajput
45	-		Shri Laxminidhi Puri
46	-		Shri Hariprasad Patel
47	-		Shri Sharmanand Gaire
48	-		Shri Ashok Kumar Ghote
49	-		Shri Suresh Kumar Patel
50	_		Shri Narendra Meholiya
51	_		Shri Anil Gavhade
52	_		Shri Surendra Gavhade
53	_		Shri Sachin Sanodiya
54	1		Shri Trilok Singh Mali
55	-		Shri Ravi Sharma
56	-		Shri Anil Kumar Yadav
57	-		Shri Gautam Lodhi
58	-		Shri Jasvant Singh
59	-		Shri Pratap Rajput
60	-		Shri Naval Kushwaha
61	-		Smt Swati Namdev
62	-		Shri Pradeep Yadav
63	-		Shri Bhagwan Singh Thakur
64	-		Shri Rajendra Singh
65	-		Shri Dharmendra Mohare
66	Driver	2	Shri Bijor Singh Uikey
67	211701		Shri Prem Singh Chauhan
68	Peon	2	Shri Sriram Kachhi
00	1 6011		Onn Omain Nacilli

69	Daftari	1	Mohd. Ajeem
70	Animal keeper	64	Shri Magaliya Tahir
71			Shri Babulal Jaiswal
72			Shri Hariprasad Chavadiya
73			Shri Pangla Tahir
74			Shri Ramphool Meena
75			Shri Omprakash Uekey
76			Shri Dinesh Irpache
77			Shri Ramesh Dhuliya
78			Shri Narmada Prasad Pal
79			Shri Brijmohan Patel
80			Shri Narmada Prasad
81			Shri Govind Joshi
82			Shri Dendu singh
83			Shri Kishan Bhandari
84			Shri Ramanad Meena
85			Shri Radheshyam Joshi
86			Shri Daulatram Namdev
87			Shri Kalu Singh Jamra
88			Shri Radhacharan Verma
89			Shri Devraj Tiwari
90			Shri Veerbhan Rai
91			Shri Revaram Pal
92			Shri Kailash Yadav
93			Shri Ramesh Chand Nagar
94			Shri Suryamani Shukla
95			Shri Rajkumar Sahu
96			Shri Narayan Jatav
97			Shri Shiv Kumar
98			Shri Laxman Singh Uikey
99			Shri Shiv Avatar Dewedi
100			Shri Arun Gupta
101			Shri Ramswarup Nagar
102			Shri Gajraj Singh Uikey
103			Shri K. Simhachalam
104			Shri Kunjilal yadav
105			Shri Iqbal Qureshi
106			Shri Maneesh Yadav
107			Shri Bhagvan Singh Thakur
108			Shri Sanjeev Singh
109			Shri Ramsevak Vishwakarma
110			Shri Dinesh Singh
111			Shri Haripal Singh Vist
112			Smt Kala Bai
113			Shri Pradeep Nagar
114			Mohd. Ikrara Qureshi

115	Shri Gopal Singh
116	Shri Kailash Rathore
117	Shri Dauaram
118	Shri Omprakash Marshkole
119	Shri Jog Singh
120	Shri Munna Lal Yadav
121	Shri Pavan Kumar Giri
122	Shri Jeevanlal Yadav
123	Shri Subhash Dhoke
124	Shri Chokhelal Yadav
125	Shri Amar Singh
126	Shri Veerendra Pawar
127	Smt Saroj Meena
128	Shri Khuman Singh
129	Shri Peetambar Datta
130	Shri Shambhulal Parnam
131	Shri Dinesh Sen
132	Shri Toliya Tahir
133	Shri Dinesh Patel

<sup>\*</sup>Please give above mentioned information in respect of all zoo personnel, from the Officer incharge up to the Animal Keeper.

# 8. CAPACITY BUILDING OF ZOO PERSONNEL

SI.	Name and	Subject matter of Training	Period of	Name of the Institution
No.	designation		Training	where the Training
	of the zoo			attended
	personnel			
1	Dr. Atul Gupta,	A- ZIMS workshop	16- 17 May	Forestry Training
	Vet. Doctor		2017	Institute, Kanpur, UP
		B- Capacity building if	10-15	Delhi Zoo
		Indian Zoo Veterinarians on	September	
		Animal Health Management	2017	
		in captivity.		
		C- Interactive session on	12-13	Veermata Jijabai
		Zoological Information	March 2018	Bhosle Udyan-Zoo,
		Management System		Byculla (East),
		(ZIMS) & data entry in the		Mumbai
		software		
2	Shri Jaswant	Capacity building measures	19- 25	Sakarbag Zoo
	Singh	on regional basis	February	Junagarh, Gujarat
	Raghuvanshi,		2018	
	Forest Gaurd			

#### 9. ZOO ADVISORY COMMITTEE -

- a. **Date of constitution -** Proposal sent for constitution
- b. Members -
- c. Dates on which Meetings held during the year-

#### 10. HEALTH ADVISORY COMMITTEE-

- a. Date of constitution -11.10.2017
- b. Members Director Van Vihar, Assistant Director, Van Vihar, Dr. Atul Gupta, Veterinary Officer, Van Vihar, Special invitees: Dr. Kajal Jadhav, Assistant Professor. School of Wildlife Forensic and Health, Jabalpur, Dr. S.K.Tumadiya, Assistant Veterinary Surgeon State Veterinary Hospital Bhopal Dr. Amol Narbade, Veterinary Officer Wildlife SOS Van Vihar Bhopal, Range Officer Safari, Range Officer Management, Range Officer Tourism and concerned animal keepers.
- **c.** Dates on which Meetings held during the year 27.10.17, 6.11.17, 14.11.17, 13.12.17 and 5.2.18

## 11. STATEMENT OF INCOME AND EXPENDITURE OF THE ZOO

The financial statement provided to **VVNP** can be subdivided into following categories for year 2017-18.

S. No.	NAME OF PLAN	ALLOTMENT	EXPENDITURE
			5,90,34,528
1.	10-2046 NON PLAN (2899)	2,00,37,441	(includes exp. from central server)
2.	10-2046 PLAN (6349) WILD LIFE MANAGEMENT OUTSIDE CONSERVATION AREA (for VCBC)	14,40,000	14,40,000
3.	PARK DEVELOPMENT FUND	1,11,00,000	1,10,92,726

#### 12. DAILY FEED SCHEDULE OF ANIMALS

S.N o	Species	Feed Item	Quantity		Day of Fasting
			Summer	Winter	lasting
1	Tiger	Buffalo meat	7-9 kg/day	8-10 Kg/day	Friday
2	Lion	Buffalo meat	6-8 kg/day	6-8 kg/day	Friday
3	Leopard	Buffalo meat	3-3.5 kg/day	3.5-4kg/day	Friday

4	Hyena	Buffalo meat	2-3kg/day	2-3kg/day	Friday
5	Jackal	Buffalo meat	1.5-2kg/day	1.5-2kg/day	Friday
6	Sloth Bear	Morning			-
		Corn flour	75 gm	75 gm	
		Sorgum flour	75 gm	75 gm	
		Barley flour	75 gm	75 gm	
		Wheat flour	150 gm	150 gm	
		Bajara flour	160 gm	160 gm	
		Salt	10 gm	10 gm	
		Egg boiled	01 No.	01 No.	
		Honey	50 gm	50 gm	
		Dates	100 gm	100 gm	
		Vegetables	150 gm	150 gm	
		Afternoon			-
		Fruits (seasonal)	01 kg	01 kg	
		Evening			-
		Daliya	350 gm cooked in 07 Its water	350 gm cooked in 07 lts water	
		Milk	01 Lts	01 Lts	
		Banana	02 no	01 Lis 02 no	
7	Bison	Croon gross	Ad-lib	Ad-lib	
/	DISON	Green grass Sudana			
		Dry fodder	03 kg Ad-lib	03 kg Ad-lib	
		Salt licks	Always	Jaggery-01 kg	
		Sait licks	Available	Always Available	
0	Cnotted	Croop groop	Ad lib	Ad-lib	
8	Spotted Deer	Green grass Sudana	Ad-lib 400 gm		
		Dry fodder	Ad-lib	400 gm Ad-lib	
		Salt licks	Always Available	Always Available	
9	Sambar	Green grass	Ad-lib	Ad-lib	
		Sudana	750 gm	750 gm	

		Dry fodder	Ad-lib	Ad-lib
		Salt licks	Always Available	Always Available
10	Nilgai	Green grass	Ad-lib	Ad-lib
		Sudana	750 gm	750 gm
		Dry fodder	Ad-lib	Ad-lib
		Salt licks	Always Available	Always Available
11	Blackbuck	Green grass	Ad-lib	Ad-lib
		Sudana	300 gm	300 gm
		Dry fodder	Ad-lib	Ad-lib
		Salt licks	Always Available	Always Available
12	Chowsingha	Green grass	Ad-lib	Ad-lib
		Sudana	150 gm	150 gm
		Dry fodder	Ad-lib	Ad-lib
		Salt licks	Always Available	Always Available
13	Crocodile and Gharihal	Buffalo meat	15 kg/ day	15 kg/ day
15	Turtle	Buffalo meat	03 kg/alternate day for all	03 kg/alternate day for all
16	Star Tortoise	Ladyfinger+Tomato +Cucumber	100-150 gm/day	100-150 gm/day -

# 13. VACCINATION SCHEDULE OF ANIMALS

S.No	Species	Disease vaccinated for	Name of Vaccine and dosage/ quantity used	Perio dicity	Rema rks
1	Tiger	Feline Rhinotracheitis+Calici+Panl eukopenia	Fel-o-vax(killed virus) 01 ml	Yearly	
2	Leopard	Feline Rhinotracheitis+Calici+Panl eukopenia	Fel-o-vax(killed virus) 01 ml	Yearly	
3	Lion	Feline	Fel-o-vax(killed	Yearly	

		Rhinotracheitis+Calici+Panl eukopenia	virus) 01 ml	
4	Hyena	Rabies	Raksharab 01 ml	Yearly
		canine distemper, canine adenovirus, canine parvo, canine parainfluenza canine leptospirosis	Nobivac DHPPI+Lepto O1 dose	Yearly
5	Jackal	Rabies	Raksharab 01 ml	Yearly
		canine distemper, canine adenovirus, canine parvo,	Nobivac DHPPI+Lepto	Yearly
		canine parainfluenza canine leptospirosis	O1 dose	
6	Sloth Bear	Rabies	Defencer	Yearly
	Deal	canine distemper, canine adenovirus, canine parvo, canine parainfluenza, canine leptospirosis	Vanguard plus 5L4	Yearly

# 14. DE-WORMING SCHEDULE OF ANIMALS

S.No	Species	Drug used	Month
1	Tiger	Praziquintal, Ivermectin, Fenbendazole, Doramactin,	May, August, December, March
2	Leopard	Praziquintal, Ivermectin, Fenbendazole, Doramactin	May, August, December, March
3	Lion	Praziquintal, Ivermectin, Fenbendazole, Doramactin	May, August, December, March
4	Hyena	Praziquintal, Ivermectin, Fenbendazole, Doramactin	May, August, December, March
5	Jackal	Praziquintal, Ivermectin, Fenbendazole, Doramactin	May, August, December, March
6	Sloth Bear	Praziquintal, Ivermectin Fenbendazole	July, Nov, Jan. March
7	Bison	Albendazole, Fenbendazole	May, August, December, March

## 15. DISINFECTION SCHEDULE

S.no	Species	Type of enclosure	Disinfectant used and method	Frequency of disinfection	
1	Tiger	Housing	Fumigation	Monthly	
2	Tiger	Housing	Bleaching powder	Monthly	
3	Tiger	Housing	Lyzol	Daily	
4	Tiger	Water hole in enclosure	lime	forthnight	
5	Lion	Housing	Fumigation	Monthly	
6	Lion	Housing	Bleaching powder	Monthly	
7	Lion	Housing	Lyzol	Daily	
8	Lion	Water hole in enclosure	Lime	fortnight	
9	Leopard	Housing	Fumigation	Monthly	
10	Leopard	Housing	Bleaching powder	Monthly	
11	Leopard	Housing	Lyzol	Daily	
12	Leopard	Water hole in enclosure	Lime	fortnight	
13	Hyena	Housing	Fumigation	Monthly	
14	Hyena	Housing	Bleaching powder	Monthly	
15	Hyena	Housing	Lyzol	Daily	
16	Hyena	Water hole in enclosure	Lime	fortnight	
17	Sloth Bear	Housing	Fumigation	Monthly	
18	Sloth Bear	Housing	Bleaching powder	Monthly	
19	Sloth Bear	Housing	Lyzol	Daily	
20	Sloth Bear	Water hole in enclosure	lime	forthnight	

# 16. HEALTH CHECK-UP OF EMPLOYEES FOR ZOONOTIC DISEASES

SI.No.	Name	Designation	Date of	Findings of
			Health	Health Check
			Check up	up
1	Shri Santosh Parashar	Range Officer	17.8.17	Fit
		Safari		
2	Shri Narendra Miholiya	Forest Gaurd	28.8.17	Fit
3	Shri Jasman Singh	Forest Gaurd	28.8.17	Normal
	Raghuvanshi			
4	Shri Ashok Mehra	Forest Gaurd	28.8.17	Fit
5	Shri Sharmanand Gaire	Forest Gaurd	17.8.17	Fit

6	Shri Avanish Tripathi	Forest Gaurd	17.8.17	Fit
7	Shri Suresh Patel	Forest Gaurd	17.8.17	Fit
8	Shri Hari Prasad Patel	Forest Gaurd	17.8.17	Fit
9	Shri Dilip Batham	Forest Gaurd	28.8.17	Fit
10	Shri Jog Singh	Sthai Karmi	17.8.17	Fit
11	Shri Narmada Prasad Pal	Sthai Karmi	17.8.17	Fit
12	Shri Bhagwan Singh	Sthai Karmi	17.8.17	Fit
13	Shri Omprakash Uikey	Sthai Karmi	28.8.17	Fit
14	Shri Kalu Singh Jamra	Sthai Karmi	28.8.17	Fit
15	Shri Dinesh Irpache	Sthai Karmi	28.8.17	Normal
16	Shri Mangaliya Tahir	Sthai Karmi	17.8.17	Fit
17	Shri Suryamani Shukla	Sthai Karmi	28.8.17	Fit
18	Shri Laxman Singh Uikey	Sthai Karmi	17.8.17	Fit
19	Shri K. Simhachalan	Sthai Karmi Sweeper	28.8.17	Fit
20	Shri Hariprasad	Sthai Karmi Sweeper	28.8.17	Fit
21	Shri Gopal Rathore		28.8.17	Fit
22	Shri Santosh Parochia		28.8.17	Fit
23	Shri Sadal Ansari		28.8.17	Fit

## 17. DEVELOPMENT WORKS CARRIED OUT IN THE ZOO DURING THE YEAR

- Hospital Complex Extension and modernization of hospital complex with improved medical facilities were established to create better facilities for animals in captivity and for rescued animals.
- Herbivore and Carnivore Indoor Ward extension- The existing carnivore indoor ward was upgraded to a ICU facility and a herbivore indoor ward was established in the Hospital Complex for better medical care and continuous observation of the sick/injured animals.









3. **Maintenance works** – Special attention was given to the following works:- Weed eradication, road maintenance, cleaning and maintenance of housings and enclosures as per schedule, sustained water facilities, fire protection works, boundary wall reinforcement, tourist services and facilities etc.





#### 18. EDUCATION AND AWARENESS PROGRAMMES DURING THE YEAR

I. Walk in Workshop - A 'Walk-in workshop' was organized on 21<sup>st</sup> March 2018 on the occasion of World Forestery Day. The staff of Van Vihar spread awareness regarding the need of forests and the ecosystem services given by forests among the visitors. The messages issued by the Hon'ble Chief Minister, Shri Shivraj Singh Chauhan, Hon'ble Minister of Forests, Dr. Gauri Shankar Shejwar and Hon'ble Minister of State for Forests Shri Surya Prakash Meena were displayed at the two entrances and visitor points to highlight the need of conservation of forests and Wildlife.



#### II. World Wildlife Day Celebrations-

An awareness programme on conservation of big cats was organized at Van Vihar National Park, Bhopal on 3rd March 2018. On the occasion of World Wildlife Day a

'Walk-in workshop' was organized, in the visitor zone on the theme "Predators under threats". Out of 1545 visitors that visited Van Vihar, 935 took part in the programme. A quiz was also organised, which attracted a lot of attention where in participants were asked to identify photographs of various breeds of big cats, on which information was shared with them.

All the participants were also asked to take a pledge to protect the big cats after which they were given a badge to take back as a souvenir.

The participants appreciated this event very much. It was for the first time that this kind of Walk-in workshop was organized by the Van Vihar Management and it was a grand success.







#### III. World Sparrow Day-

World Sparrow Day was celebrated on 20.3.2018 at Van Vihar with great enthusiasm. A photography exhibition and competition was held with the association of Bhopal Camera club and other photographers. The exhibition was inaugurated by Sameeta Rajora, Director Van Vihar and Dr. Geeta Rani Gupta a senior wildlife photographer. The sparrow nest bokes were distributed to visitors that were provided by Bhopal Birds. Shri Akshat Shrivastava of 'We Sparrow', Shri A.K.Khare, retired ACF and Assistant Director Van Vihar Shri A.K.Jain provided information and badges to visitors throughout the Day. The exhibition and awareness programme was much appreciated by one and all.







## IV. Wildlife Week -

A clutch of activities and competitions focusing on wildlife will be held at Van Vihar National Park, Bhopal. Objective of competitions, to be held from October 1 to 7, is to create awareness towards forest and wildlife protection among students and people. The events are enumerated below:-

Date	Time	Categories & Events	Topics
1.10. 17	10.30 AM	Wildlife week Inauguration	
	10.30 AM - 13.30 PM	PAINTING COMPETITION	(1) Students of Class I to IV Subject:- "Butterflies of Van Vihar"
			(2) Students of Class V to VIII Subject:- "Birds of Van Vihar"
			(3) Students of class IX to XII Subject:- "Birds of Van Vihar"
			(4) College Student Subject:-Wild animal in India culture"
			(5) Differently abled
			Subject:- Own Choice
2.10.17	6.00 AM to 8.30 AM	Bird watching & Biodiversity camp	
	9.00 AM to 11.00 AM	Rangoli Competition	Rangoli Competition (I to VIII)  Sub:- Birds of Van Vihar - Small King fisher, Red crested pochard, Common hoopoe, Common Moorhen, Black rumped flameback. Coppersmith barbet, Plum headed parakeet, indian roller, Red avadavat, White throated kingfisher  Rangoli Competition (Open)  Sub:- Lesser florican, Great India Bustard, Forest owlet

Date	Time	Categories & Events	Topics
	7.00 AM to 1.00	Photography	Photography competition
	PM	competition	(For school and college students)
			Theme -Van Vihar
3.10.17	6.00 AM to	Bird watching &	
	8.30 AM	Biodiversity camp	
	10.30 AM	School Debate	School Debate
			Subject: Tigers roaming in forest areas near
			Bhopal town should be translocated to other forest
	40.00.414	Tanahana Wantahan	areas Teachers Workshop
	10.30 AM	Teachers Workshop	Role of Vultures in our Environment
4.10.17	6.00 AM to	Bird watching &	Role of Values in our Environment
4.10.17	8.30 AM	Biodiversity camp	
	10.00 AM to	Extempore Speech	Extempore Speech
	12.00 PM		Junior Group- Class V to VIII
			Senior Group - IX to XII
			Open Group- College & Other
	12.30 AM	Teachers debate	Teachers debate competition
		competition	Subject: Zoos are achieving their objectives in
			India
5.10.17	6.00 AM to	Bird watching &	
	8.30 AM	Biodiversity camp	Face and the second sec
	10.30 AM to	Essay competition	Essay competition
	12:30 PM		Junior Group - Class 5 to 8 Subject:- My visit to Van Vihar
			Senior Group - Class 9 to 12
			Subject:- National Parks and Sanctuaries are
			necessary for wildlife conservation
			College Students
			Subject- Tigers for us, we for tigers
	1.00 PM	College Students	College Students Debate (Final)
		Debate (Final)	Subject:- Development and Environmental
			Conservation can go hand in hand
6.10.17	10.00 AM	Awareness generation	Awareness generation through Creativity
	onwards	through Creativity	Workshops
		Workshops	Butterfly making & flower making     Art out of Nature
			<ul><li>Art out of Nature</li><li>Clay modeling</li></ul>
			Bookmark making
			<ul><li>Stone bees painting</li></ul>
		01117 001/27777	
	11.30 AM	QUIZ COMPETITION	QUIZ COMPETITION
			(Semi final & finals) Class IX to XII
7.10.17	9:00 AM -	Fancy Dress	Wildlife Theme
	11:00 AM	Competition (Wildlife	
		Theme)	
	11.00 AM –	Open Quiz,	
	12:00 PM	Photography	
		exhibition	
	12.00 PM -	Prize distribution &	
	1.00 PM	Closing ceremony	

# **Glimpses of the Wildlife Week**



Inauguration



**Painting Competition** 



Painting competition for special children



Rangoli competition



**School student Debate competition** 



**College student Debate competition** 



**Extempore Speech competition** 



**Teachers Workshop** 



**Fancy Dress competition** 



Creativity workshop on Bees



**Clay Modelling** 



Art out of Nature



**Prize Distribution** 



Wildlife Conservation awards

# V. Bird Watching Camps -

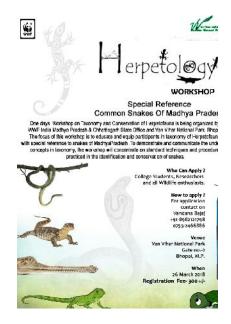
Van Vihar is a paradise for birds, both resident and migratory. So far, about 205 bird species have been identified. A number of birds visit the lake adjoining Van Vihar in winter and fly back after winter ends. These include Painted storks, Woolly necked storks, King fisher, Red crested pochards, Shikra, Coots, Spot bills, Ibises spp. etc.





#### VI. Herpetology Workshop -

The workshop was organised by WWF-India MP &CG State Office and Van Vihar National Park,it started at 10 AM in Van Vihar. There were 18 participants who participated in this workshop along with the WWF volunteers. Director of Van Vihar Sameeta Rajora and the Assistant Director Shri A.K. Jain, conducted the workshop. Nikhil Raut representative of WWF presented sessions on reptiles along with Shri Ritesh Sirothia incharge STSF who took a session on the crime related to reptiles. The participants were made aware about the prevention of snake bite, the protocol of snake rescue and the need of conservation using various audio-visual aids. Certificates of participations were distributed in the end.



- 19. IMPORTANT EVENTS AND HAPPENINGS- Van Vihar was blessed by the visit of a number of stalwarts and dignitaries who not only praised the efforts of the management at Van Vihar, but also enjoyed a memorable experience. Some of their remarks are listed below with gratitude:-
  - 1- Mr. Vishwas Sawarkar (I.F.S. Retd.) Pune visited on 13.11.17 "This is a unique park with captive facility, terrestrial and fresh water ecosystem. The health care of captive animals is outstanding. Regular monitoring maintaining the highest standards are central features. Habitat management for free ranging species is supported by sincerity and practability, Rescue Work for snakes and protocol contribute to techniques. Breeding programmes for selected species on track and the staff is fully trained and equipped. It is a most effectively managed park".
  - 2- Dr. Harsh Vardhan, Hon'ble Minister of Environment, Forest and Climate Change, Govt. of India visited Van Vihar on 14.12.17. He was very appreciative of the management of Van Vihar, in particular about the health management of the rescued animals. He was very vocal about the brilliant team work of the officers and the subordinates and praised their commitment towards the overall management of the Zoo and rescue centres. In a hurried feedback he remarked," Feel happy visiting this place", in the visitor book.

- 3- Dr. S.C. PANT (I.F.S. Retd.) Gujarat visited on 18.12.17 and had to this to say, "Wonderful place, well maintained in-spite of being very close to the city. Excellent centre for public awareness on wildlife, Nature and Environment. Multifunctional centre having variety of functions related to wildlife. Hard work is key to success. Keep it up.
- 4- Smt. Anandiben Patel, Hon'ble Governor of Madhya Pradesh visited on 27.02.18 and had these encouraging words of praise for Van Vihar, "I was delighted to visit Van Vihar and observe this novel effort to conserve and preserve wildlife well within the confines of a large metropolitan area. I was pleased to observe that the animals were well cared for. The staff was knowledgeable and welcoming and the facilities were top notch. I wish them continued success in their efforts and I am certain Van Vihar will remain one of the highlights of Bhopal city in the years to come."
- 5- Shri C.K. Mishra, Secretary Ministry of Environment, Forest and Climate Change Govt. of India visited Van Vihar on 07.03.18 and made the following observations "The visit of Van Vihar was indeed an wonderful experience. To see such a spot in the middle of the city was an experience in itself. Clearly on display was the passion of the officers and staff of Van Vihar towards what they were doing.

Must congratulate the Director and all the officials of this Van Vihar as well as the staff on the work very well done. Thank you and all the best.





Hon'ble Minister of Environment, Forest and Climate Change, Govt. of India





Hon'ble Governor of Madhya Pradesh

#### 20. SEASONAL SPECIAL ARRANGEMENTS FOR UPKEEP OF ANIMALS

#### 1. Summer arrangements -

For captive animals - Bhopal experiences high temperatures in summer. Temperature reaches up to 47°C. To keep the housings and kraals comfortable for captive animals, Desert coolers are provided. The doors and windows are covered with 'Khus mats', which are watered periodically to ensure coolness. The kraals are covered on top with hessian cloth too. The water holes in the enclosures are covered with temporary sheds for keeping the water cool and providing shade to animals, when they take a dip to get relief from the scorching heat.

For Free ranging animals - Large number of herbivores reside inside the zoo area. During this period scarcity of natural fodder and water is felt. To mitigate this, artificially created water holes at a number of places are filled with drinking water and green fodder is placed at strategic places on daily basis. 'Sudana' a nutrient supplement is also made available during the period for herbivores. Artificial shade arrangements are also made near the water holes.

2. Winter arrangements - Housing of captive animals are covered with curtains and at the peak period of winter heating facility in the housings is also provided. Special attention is given to the reptile housings for providing warmth during winter.













#### 21. RESEARCH WORK CARRIED OUT AND PUBLICATIONS

**Research Work -** The Wetland Bird Survey was conducted for the first time in association with local NGOs.

**Publication -** Brochures for Snake conservation awareness and prevention of snake bite with the help of WWF and Ecotourism Board were published. This was done to carry on an awareness programme to enhance sensitivity towards reptiles specially snakes that come out near human habitations and become a threat as well as victims in such situations. This reading material was published for people in general and students participating in 'Anubhuti' programme of the Forest Department.



**Vulture App -** To sensitize people regarding dwindling population of vultures, the need for their conservation, and to be able to report sightings a vulture app was prepared and uploaded on Google play store in the name of 'Vultures of Madhya Pradesh'. This is the first app of its kind.

#### 22. CONSERVATION BREEDING PROGRAMME OF THE ZOO

Van Vihar is a coordinating Zoo for Royal Bengal Tiger and Vulture Breeding and a participating zoo for Lion Breeding. Van Vihar also has a Breeding Centre for Hard Ground Barasingha.

Van Vihar has a Tiger Breeding Plan and efforts for Tiger Breeding are under way. The founder population at present has two males (Wild caught) and five females (four zoo bred and one wild caught).

The Vultures have successfully bred in the last two years. The centre has a founder population of 50 Vultures of two Gyps species (33 Long-billed vultures and 17 White-backed vultures). The vultures at the Vulture Conservation Breeding Centre attempted breeding for the first time during the breeding season 2016-17. A total of 5 nests were constructed, three during 2016-17 and two during 2017-18. In all, three eggs were laid, two during 2016-17 (one of each species) and four (all long billed) during 2017-18. Two fledglings are successfully carrying on since 2017. Out of the four eggs of 2017-18, three eggs hatched and one was infertile. One of the three hatched birds was hand reared successfully. The efforts at VCBC are under way persistently by BNHS in coordination with Van Vihar.

The Hard Ground Swamp Deer, also known as the Barasingha were translocated from the Kanha Tiger Reserve to Van Vihar in January, 2015. They were 7 in numbers (3 males and 4 females). They started breeding successfully in the breeding centre in 2016 when two fawns were born. In 2017 three more fawns were added to this number making the population 12. The Barasinghas have adapted well at Van Vihar and are breeding successfully.

## 23. ANIMAL ACQUISITION / TRANSFER / EXCHANGE DURING THE YEAR

A.	Animals arr	iving in the Zoo			
	H.NO.	Species	Number (M:F)	From which	Date of
				Zoo	arrival in the
					Z00
		Hybrid Lion	(2:2)	Assam State	14.04.2017
		( <u>Panthera leo</u>		Zoo,	
		persica)		Guwahati,	
				Assam	
B.	Animals go	ing from the Park	·		
	H.NO.	Species	Number (M:F)	Going to	Date of
				which Zoo	deposition
					from the zoo
		Sambhar (Rus	<u>a</u> (2:3)	Mukundpur	23.3.18
		<u>unicolor</u> )		Zoo	
		Cheetal (Ax	<u>is</u> (0:2)	Mukundpur	23.3.18
		<u>axis</u> )		Zoo	

# First ever translocation of Sambhar in India on 23.03.2018 from Van Vihar National Park to Mukundpur Zoo





Translocation Team VVNP and Translocated Sambhars (including two Cheetals)

## 24. RESCUE AND REHABILITATION OF WILD ANIMALS CARRIED OUT BY THE ZOO

S.no	Date of	Species with	Received from	Date of	Actio	on taken
	Rescue	number of		Submission	Date and	Reasons for
		animals		of Report to	Place of	housing in the
		rescued with		the CWLW /	zoo, if not	
		their sex		CZA	in their	released in their
		(M:F:U:T)			habitat	habitat
1	28-04-17	Panther	Karakvani	2.5.17	Van Vihar	After examination
		(1:0:0:1)	Village		National Park,	found not fit for
			Obedullaganj		Bhopal	release to the wild.
			Forest Division			

## 25. ANNUAL INVENTORY OF ANIMALS

**Inventory Report for the Year: 2017-18** 

# **Endangered Species\***

S. No.	Animal Name	Scientific name	Ор	ening	Stock a	s on	ı	Births		Acc	Acquisition		Disposal		Death		1	Closing Stock as on				
			М	F	U	Т	М	F	U	М	F	U	М	F	U	М	F	U	М	F	U	Т
1	*Antelope four horned Chowsinga	Tetraceros quadricorn is	7	3	0	10	0	0	0	0	0	0	0	0	0	1	0	0	4	2	0	6
2	Bear sloth	Melursus ursinus	17	11	0	28	0	0	0	0	0	0	0	0	0	0	0	0	17	11	0	28
3	*Black buck- Krishna Mrig	Antilope cervicapra	23	27	10	60	0	0	0	0	0	0	0	0	0	0	0	0	22	25	10	57
4	Deer Swamp Barasinga	Cervus duvauceli branderi	3	4	2	9	0	0	3	0	0	0	0	0	0	0	0	0	3	4	5	12
5	Indian Bioson-	Bos	3	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	2

	Gaur	gaurus																				
6	*Chinkara- Indian Gazelle	Gazelle gazelle bennetti	2	1	0	3	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1
7	* Jackal	Canis aureus	0	0	63	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76	76
8	* Langur Common	Semnopith ecus entellus	0	0	40	40	0	0	0	0	0	0	0	0	0	1	0	0	1	0	66	67
9	Leopard / Panther	Panthera pardus	7	2	0	9	0	0	0	2	2	0	0	0	0	1	0	0	8	4	0	12
10	Lion Indian	Panthera leo persica	1	2	0	3	0	0	0	2	2	0	0	0	0	0	1	0	3	3	0	6
11	Tiger Bengal	Panthera tigris tigris	3	5	0	8	0	0	0	0	0	0	0	0	0	1	0	0	2	5	0	7
12	Tiger Bengal ( White)	Panthera tigris tigris	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
13	Crocodile Long Snouted- Ghariyal	Gavialis gengeticus	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
14	Crocodile marsh- (Mugger)	Crocodylu s palustris	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12
15	Turtle Fresh Water Indian soft shelled	Lissemys punctata punctata	0	0	28	28	0	0	0	0	0	0	0	0	0	0	0	4	0	0	24	24
	Sch-I & II	TOTAL	67	56	155	278	0	0	3	4	4	0	0	0	0	6	1	4	64	55	193	312

<sup>\*</sup>Animals under Schedule I and Schedule II of the Wild Life (Protection) Act, 1972

Part – B

Other than Endangered Species

S. No.	Animal Name	Scientific Ope		Opening Stock as on			Births		Acquisition		Disposal		Death			Closing Stock as on						
			М	F	U	Т	М	F	U	М	F	U	М	F	U	М	F	U	М	F	U	Т
16	* Deer Sambhar	Rusa unicolor	0	0	278	278	0	0	0	0	0	0	0	0	0	1	1	0	0	0	285	285
17	* Deer spotted (Chital)	Axis axis	2	4	499	505	0	0	0	0	0	0	0	0	0	1	0	0	1	4	518	523
18	Hyaena Stripped	Hyaena hyaena	1	3	0	4	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	3
19	* Nilgai - Blue Bull	Boselaphus tragocamelus	0	0	84	84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	65
20	* Pig Wild - Wild Boar	Sus scrofa	0	0	48	48	0	0	0	0	0	0	0	0	0	1	0	0	1	0	52	53
21	* Porcupine Indian	Hystrix Indica	0	0	3	3	0	0	0	0	0	0	0	0	0	1	0	0	0	1	19	20
22	Tortoise Indian Star	Geochelon e elegans	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	1	0	0	8	8
	Sch- III&IV	TOTAL	3	7	921	931	0	0	0	0	0	0	0	0	0	4	2	1	3	7	947	957

## **26. MORTALITY OF ANIMALS**

Sl.No.	Animal Name (with individual identification mark, if any)	Scientific Name	Sex	Date of Death	Reason of Death as per the Post-mortem report		
1	Deer Sambar	Rusa unicolor	F	25.04.17	Senility		
2	Antelope four horned Chowsinga	Tetraceros quadricornis	М	17.05.17	Senility		
3	Chinkara- Indian Gazelle	Gazelle gazelle bennetti	М	22.06.17	Bloat		
4	Turtle Fresh Water Indian soft shelled	Lissemys punctata punctata	U	07.09.17	Diagnosis could not be made as carcass was putrefied		
5	Turtle Fresh Water Indian soft shelled	Lissemys punctata punctata	U	07.09.17	Multiple organ failure		
6	Turtle Fresh Water Indian soft shelled	Lissemys punctata punctata	U	14.09.17	Senility		
7	Turtle Fresh Water Indian soft shelled	Lissemys punctata punctata	U	14.09.17	Senility		
8	Tiger Bengal	Panthera tigris tigris	М	09.11.17	Death may be respiratory failure along with multiple organ failure		
9	Lion Indian	Panthera leo persica	F	22.11.17	Due to Hepato-renal pathy leading to toxemia		
10	Leopard (Panther)	Panthera pardus	М	21.01.18	Respiratory Failure and cardiac arrest		
11	Star Tortoise	Geochelone elegans	U	22.01.18	Senility		
12	Indian Bison (Gour)	Bos gaurus	М	11.02.18	Infighting leading to trauma and shock		
13	Langoor	Semnopithecus entellus	М	17.02.18	Electrocution		
14	Cheetal	Axis axis	М	19.02.18	Senility		
15	Hyeana	Hyaena hyaena	F	24.02.18	Multiple organ failure due to senility		
16	Deer Sambar	Rusa unicolor	М	08.03.18	Senility		
17	Wild Boar	Sus scrofa	М	08.03.18	Senility		
18	Porcupine	Hystrix Indica	М	04.02.18	Traumatic shock		

# 27. COMPLIANCE WITH CONDITIONS STIPULATED BY THE CENTRAL ZOO AUTHORITY

Letter No. F. No. 19-29/92-CZA(144)(Vol. VI)(M) dated: 22.07.2014

Sr.	Norm	Condition Stipulated	Time	Since	Status with regard to compliance of
No	No.		Period	when	the conditions
	under		to	pending	
	RZR,		Comply		
	2009				
1. G		equirement			
1.	1.3	The snakes in the pit get	Within one		Snake pits are present in the Snake transit
١.	1.5	disturbed due to top viewing.	year		centre to house rescued non poisonous
		The snake should be	y ca.		snakes for some time before they are
		displayed at equal level.			released in the wild. The pits have been
					covered with a net and visitors are kept
2 4	las la latua	tive and Staffing Battons			away.
2. Ac		tive and Staffing Pattern	Within one		The proposal has been cont to the DCCE
2	2.2	Quick action is required to recruit Biologist-cum-			The proposal has been sent to the PCCF Wildlife for approval.
		recruit Biologist-cum- Education Office.	year		villalite for approval.
2 D	.volonm				
3. De	3.1	ent and Planning The Members of the Expert	Within		Lay out plan of the Master plan of Van Vihar
J.	J. I	Group on Zoo Designing of	three		has been approved vide letter F.No/ 19-
		CZA made certain	months		29/92-CZA (144) (Vol.VII) (AK)/6953 dated
		observations which have not	months		07.04.15. The revision of Master Plan is
		been complied till date. So,			underway and will be submitted to CZA
		Master Plan needs revision.			shortly.
4	3.4	The animal collection plan	Within		Complied.
7	5.4	should be prepared in CZA	three		Compiled.
		format.	months		
<b>Δ</b> Δr	nimal hou	using, display of animals and a		LIIFAS	
5	4.1,	The enclosures of snakes	Within one	34103	The objections are being addressed in the
5	4.2,	are small in size and a few	year		revised Zoo Master Plan.
	4.3,	are kept in pits.	yeai		Totalog Zoo Master Filam
	4.4. &	Star tortoise, Leopard			
	4.5	enclosures are small in size			
	1.0	whereas, one Tiger			
		enclosure is very large.			
		These enclosures should be			
		re-done as per CZA's norms.			
6	4.6	The enclosures of Tiger,	Within six		Complied
		Leopard, Bear and Jackal	months		
		require behavioral			
		enrichment tools.			
7	4.7	There should be screening	Within six		Complied
		space between Tiger	months		,
		enclosure.	-		
8.	4.9	All the enclosures should	Within one		Standoff barriers are in place as per CZA
		have standoff barriers as per	year		norms. The hedge will be planted in the
		CZA's norms. Hedge should	•		coming rains, preparations have been done.
		be planted between moat			
		wall and standoff barriers.			
9.	4.10	Most of the enclosures do	Within six		The process of placing appropriate signages
		not have appropriate	months		has been taken up.
		signages. There is need to			
		install signages with			
		adequate information.			
		-			

5. U	okeep an	d Healthcare of animals		
10	5.2 (6)	The food and water samples should be got tested randomly.	Within one months	Complied.
11	5.3(5)	The operator should prepare and use keeper dairy, daily report, animal history card, animal treatment card and studbook.	With immediate effect	The keeper diary, daily report, animal history sheet card, animal treatment card and studbook are maintained to date.
12	5.3 (6)	The staff involved in the healthcare of animals should be screened against zoonotic diseases once every year.	Within one year	Complied. Health check-up completed in August 2017. No health issues found in the staff.
13	5.2(6)	The food and water samples should be got tested randomly.	Within one month	Complied.
9. Ad	cquisition	n and breeding of animals		
14	9.6 (b)	The zoo should prepare conservation breeding plan of Tiger and Vulture.	Within one month	Van Vihar has a Tiger and Vulture breeding plan. Efforts for Tiger Breeding are under way. Vulture breeding has been successful at the VCBC in the last two years.
15	9.8	The zoo should prepare animal history card and studbook of endangered species.	Within three months	Animal history card and stud book of endangered species is being strictly maintained at the zoo.
11.	Educatio	n and Outreach activities	-1	·
16	11.1	The exhibit centre requires a lot of improvement in terms of labeling, information and statics.	Within six months	The process is under way.
17	11.2	The physical handling of animals should be stopped.	With immediate effect	No physical handling or touching of animals is allowed.
	isitors fa			
18	12.2	The zoo should have anti snake venom.	Within three months	Anti snake venom is kept at two places at Van Vihar.

# F. No. 19-29/92-CZA(144)(Vol. V)(M) Dated: 08.10.2010

1. (	General	requirements		
1	5	As the zoo is located in the centre of the city hence entire zoo should be surrounded by the perimeter concrete wall.	2 year	The land mass of the zoo is completely surrounded by a three meter high stone wall and the lake side is completely fenced with three meter high chain-link fence.
2. /	Adminis	trative & Staffing pattern	l	<u>'</u>
2	2	The zoo operator should post fulltime curator, biologist and education officer.	One year	The Range Officer Safari has all the duties that are assigned to a Curator of a Zoo. The proposal for engaging a Biologist cum Education Officer has been sent to the CWLW.
3. [	Develop	ment & Planning		
3	1	Follow up for the approval of the Master plan of the Van Vihar zoo should be expedited and get approved at the	One year	The revision of the Zoo Master Plan is in process and everything as per norms, principle and guidelines of CZA is being incorporated.

		earliest.		
4	5	Visitor facilities especially shelter should be "pucca" building type structure with proper design and material.	One year	The pucca shelters for visitors along with toilets and drinking water facility is provided in buildings.
5	9.	Any decision of the Central Zoo Authority about any animal being sent to a particular zoo for augmenting the number of founder animals for the conservation breeding programme of the species shall be binding on the concerned zoo.	As and when require	The zoo abides by the CZA decisions.
4. A	nimal h	ousing, display of animals and a	nimal enclosures	
6	2	Common palm civet should be shifted to regular housing built as per the CZA guidelines	Within six months	The zoo does not possess a palm civet in any enclosure.
		Grasses from Crocodile and Gharial enclosure has to removed immediately and sand mound should be provided for basking and nesting of the animals.	Within six months	Complied.
		Leopard enclosure should have inclined iron sheet to prevent escape of animals.	Within six months	Will be complied, the enclosure is safe and has wire-mesh overhangs at present.
		Chain link fences of the display enclosures should be properly erected without any looseness and with proper concrete & brick grouting as have in the enclosure of Rescue centre.	Within six months	Complied.
		Standoff barriers in front of leopard enclosure should be replaced.	Within six months	Complied.
		Moat of the enclosures should be repaired.	Within six months	Complied.
		Zoo should not store or place any type of the manure in front of the enclosures or nearby to the visitor's path.	Within six months	Not a practice in VVNP.
		Grasses from the all the enclosures should be removed regularly. Some of the trees and bamboo vegetation from the carnivore enclosures may be trimmed to have some open spaces and increase the visibility.	Within six months	Complied.
		The zoo should plan to construct some more glass viewing enclosures for snakes and existing pit enclosures has to be dismantled. Zoo should also ensure identification of the	Within six months	Provision is being kept in the Zoo Mater Plan under revision.

	snakes (sex etc) before put them for display.		
	The zoo should put more effort to provide congenial conditions to sloth bear for breeding as this is hard species to be bred in captivity.	Within six months	The sloth bear rescue centre does not allow breeding.
	Hyena enclosure needs to be strengthened.	Within six months	Complied.
	Actual number of free ranging animals has to be ascertained.	Within six months	Population census for free ranging animals is done every year by transect method. Van Vihar has 26 permanent transect lines laid down for this purpose.
7 3	Snake pits are vulnerable to visitor disturbance hence need to be rebuilt on the pattern of glass enclosure.	One year	The pits have been covered with a net and visitors are kept away. Suggested provisions are being incorporated in the Zoo Master Plan under revision.
8 5	Regular enclosure for Common palm civet as per the guideline of the CZA is need to built.	Six months	The zoo does not possess a palm civet.
9 6	Tiger, leopard and lion, civet and hyena enclosure need to have special efforts to enrich the environment of the enclosure to meet the species specific behavioural requirements of the animals.	3 months	Complied.
10 9	The zoo shall provide appropriately designed and effective stand off barriers at every animal display enclosure to regulate the movement of visitors especially in crocodile, tiger, turtle and gharial enclosure.	6 months	Complied.
11 10	The zoo shall have appropriate signage with relevant information on the biology, behaviour and the population status of the species in the wild at every display enclosure.	6 months	Additions under process.
5. Upkeer	and healthcare of animals	1	·
12   3	The timing of distribution of food, placement of food and way of distribution of food to the animals shall be regulated in such a manner that the animals get maximum opportunity to express natural instincts and skills and behaviour related to feeding.  Crocodile and gharial should be largely fed with fishes.	With immediate effect.	The food requirements are given utmost importance. The animals are being fed fresh food as per their assigned diet plan. The food given to crocodiles and gharial is a supplement to the already existing fishes in the habitat.
13 5	The zoo should ensure that the left over feed, excreta of animals and all other wastes	With immediate effect.	Complied. The incinerator is functional.

		are removed promptly from the feeding cells and kraals and		
		the feeding cells and kraals are washed and disinfected.		
		Incinerator may be made		
		functional at the earliest. Meat should not be allowed to rotten		
		in the water.		
9.		uisition and breeding of animal		
14	(4)	Zoo may make effort to pair the Himalayan black bear.	6 months	The Zoo has no Himalayan black bear now.
15	(6)	The zoo should develop & implement project on	6 months	Complied.
		conservation breeding of the tiger and vultures as per the		
		guideline of the CZA.		
16	(7)	The surplus animals from the	As and	The zoo abides by the CZA decisions.
		breeding population shall be made available to the	when require.	
		contributing zoo for display purposes on the basis of		
		quality of housing and		
		infrastructural facilities available with the zoos.		
17	(9)	The zoo shall endeavour to limit the number of animals of	As and when	The zoo abides by the CZA norms and conditions.
		each species within the limits	require.	os.nanono.
		set by the animal collection plan of the zoo by		
		implementing appropriate population control measures		
		like segregation of sexes,		
		vasectomy, tubectomy and implantation of pellets etc., with		
		due consideration of the health		
		and welfare of the animals and interest of their long term		
		survival.		
<b>10</b>	Resear	ch activities  The zoo shall endeavour to	Six	The Zoo will take-up the activity as and when
10		carry out collaborative research	months	required. The management at present follows
		for evolving innovative strategies for providing the		the CZA guidelines and the observations of the veterinarian for providing good quality of
		animals housed in the zoo a		life and ensuring longevity.
		better quality of life, enhanced longevity, higher genetic and		
		behavioural viability and improved reproduction		
		potential and to achieve the		
		said goal the every zoo		
11.		ication and outreach activities		
19	(1)	The interpretation centre should be maintained properly	Six months	Is being complied.
		with modern media devices		
		and quality signage on animals and warning signage should be		
		placed at all appropriate		

		places.		
20	(2)	No physical handling or performances by animals shall be permitted as part of educational activity.	With immediate effect.	No handling of animals is done for educational activity.
12.	Vis	itors facilities		
21	(1)	The zoo shall provide adequate civic facilities for visitors at appropriate and convenient places in the zoo including for physically disadvantaged persons and such facilities shall be so located that they do not mask or impact the view of enclosures.	With immediate effect.	Complied. Signages in Brail are provided for the visitors. The facility of wheel chair and golf cart is also available.

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Ger	neral		
1.	2.	The zoo should not acquire any animal in violation of the Act or Rules made there under. Prior permission of the Central Zoo Authority shall be obtained for acquisition of animals listed under Schedule I & II of the Act.	The Zoo abides by the CZA rules.
2	11A	A collection plan of animals to be housed and displayed in the zoo should be prepared. The plan should be prepared keeping in view due regard to the availability of land, water, electricity and climatic condition of the area.	The Zoo has an animal collection plan in CZA format.
Adr	ninistrat	ive and staffing pattern	
3.	13	The zoo should have an official with masters degree in Wildlife Sciences/Zoology as a full time Curator solely responsible for looking after the upkeep of animal and maintenance of animal enclosures.	The Range Officer Safari has all the duties that are assigned to a Curator of a Zoo. He works full time for the above cause.
Ani	mal encl	osure – Design, Dimensions and othe	Essential features
4.	15.	Standoff barriers should be provided to all animal enclosures for keeping the visitors at a safe distance from the animals.	Complied.
4	18	The mammals in the zoo should be provided food inside a feeding cell/ retiring cubicle or feeding kraal. The number and size of feeding cells or kraals will be such that the dominant animals do not deprive other animals from getting adequate food.	Complied.
6	20	Designing of new enclosures for endangered species shall be finalized with approval of the Central Zoo	The Zoo abides by CZA norms.

		Authority.					
Δni	mal care	, health and treatment					
7	22.	The zoo should provide a proper waste disposal system for treating both solid and liquid waste generated in the zoo.	Complied.				
8	28.	A schedule for routine examination including parasite checks of the animals should be prepared and implemented.	Routine examination of animals is done as per schedule by the Veterinarian.				
9	30	The zoo shall maintain animal history sheets and treatment cards in respect of each animal of endangered species.	Complied.				
Vet	erinary f	acilities					
10	31.	The veterinary unit shall have isolation and quarantine wards to take care of newly arriving animals and sick animals as to minimize the chances of infections spreading to other animals.	The Zoo has this facility. It also has a indoor treatment facility with OT.				
11	35.	The zoo should have a proper facility for disposal of carcasses without affecting the hygiene of the zoo.	The Zoo has a separate PM house and a specified area for disposal of carcasses including a incinerator.				
		animals					
12	36.	The zoo should keep in its collection only such number of animals and such species for which housing facility exists. The zoo operators shall be responsible for ensuring that the number of animals of any species does not go beyond the holding capacity of the enclosures available in the zoo and housing standards are not compromised for keeping the excessive numbers.	Complied.				
13	37	The zoo should shift single male Hyena and male Gharial and male Ratel to a recognized zoo in the country in consultation with the CZA.	Not applicable at present.				
Mai	ntenanc	e of Records and submission of inven					
14	40.	To safeguard against uncontrolled growth in the population of spotted deer, nilgai and Hanuman langur, Sambar, the zoo shall implement appropriate population control measures.	There is no problem or complaint as yet, regarding growth of these species.				
15	42.	The records of birth, acquisition, disposals and death of the animals should be maintained. The inventory of the animals in the zoo as on 31 <sup>st</sup> March of every year shall be submitted to the Central Zoo Authority by 30 <sup>th</sup> April of the same year.	This is being maintained and reported .				

16	43.	A brief summary of the death of animals in the zoo for every financial year, along with the reasons of death identified on the basis of post-mortem report and diagnostic tests should be submitted to the Central Zoo Authority.	This is being maintained and reported .
Edι	ication a	and Research	·
17	45.	Every enclosure in the zoo should bear a signboard displaying scientific information regarding the animals exhibited in it.	Complied.

## 28. LIST OF FREE LIVING WILD ANIMALS WITHIN THE ZOO PREMISES

## a. Mammals-

- 1. Sambhar
- 2. Cheetal
- 3. Neelgai
- 4. Black buck
- 5. Langoor
- 6. Wild boar
- 7. Jackal
- 8. Porcupine

## b. Birds -

S.No	Nomenclature	Water/ Terrestrial/ Arboreal	Migratory/ Resident/ Local Migratory	Status
1	Little Grebe	water	M	Rare
	Tachybaptus ruficllis			
2	Indian Shag	water	M	Uncommon
	Phalacrocorax fuscicollis			
3	Little Cormorant	water	LM	Common
	Phalacrocorax niger			
4	Large Cormorant	water	M	Rare
	Phalacrocorax			
5	Darter	water	LM	Rare
	Anhinga rufa			
6	Grey Heron	water	R	Common
	Ardea cinerea			
7	Purple Heron	water	R	Less abundant
	Ardea purpurea			
8	Large Egret	water	R	Common
	Ardea alba			
9	Median Egret	water	R/LM	Less abundant
	Egretta intermedia			
10	Little Green Heron	water	R/LM	Very rare
	Ardeola striatus			
11	Night Heron	Arboreal	R	Uncommon
	Nycticorax nycticorax			
12	Pond Heron	water	R	Common
	Ardcola grayii			

13	Cattle Egret	W/T	R	Common
	Bubulcus ibis			
14	Little Egret	W/T	R	Common
	Egretta garzetta			
15	Chestnut Bittern	W/A	LM	Very rare
	Ixobrychus cinnamomeus			
16	White Stork	W	М	Extremely rare
	Ciconia ciconia			
17	Painted Stork	W/T	LM	Uncommon
	Mycteria leucocephala			
18	Openbilled Stork	W/T	LM	Common
	Anastomus oscitans			
19	Whitenecked Stork	water	LM	Uncommon
	Ciconia episcopus			
20	Blacknecked Stork	water	М	Extremely rare
	Ephippiorhynchus asiaticus			•
21	White Ibis	water	М	Less abundant
	Threskiornis aethiopica			
22	Glossy Ibis	water	М	Rare
	Plegadis falcinellus			110.0
23	Black Ibis	water	LM	Rare
	Pseudibis papillosa	Water	Lili	raio
24	Spoonbill	water	М	Common
	Platalea leucorodia	Water	141	Common
25	Barheaded Goose	water	M	Uncommon
25	Anser indicus	water	IVI	Officontinion
				0
26	Brahminy Duck	water	M	Common
	Tadorna ferruginea			0
27	Comb Duck	water	LM	Common
	Sarkidiornis melanotos	-1		0
28	Lesser Whistling Teal	water	LM	Common
	Dendrocygna javanica			
29	Pintail	water	М	Common
	Anas acuta			
30	Common Teal	water	M	Uncommon
	Anas crecca			
31	Spotbill	water	LM	Common
	Anas poecilorhyncha			
32	Mallard	water	М	Very rare
	Anas platyrhynchos			
33	Gadwall	water	М	Common
	Aas strepera			
34	Wigeon	water	M	Common
	Anas Penelope			
35	Shoveller	water	М	Less abundant
	Anas clypeata			
36	Gargeny	water	М	Common
	Anas querquedula			
37	Common Pochard	water	М	Uncommon
	Aytya ferina			
38	Redcrested Pochard	water	М	Common
	Netta rufina			
39		<del>- 1</del>	†	.,
00	White-eyed Pochard	water	M	Very rare

40	Cotton Teal	water	M	Common
	Nettapus coromandelianus			
41	Blackwinged Kite	Terrestrial	R	Uncommon
	Elanus caeruleus			
42	Common Pariah Kite	Terrestrial	R	Common
	Milvus migrans			
43	Shikra	Terrestrial	R	Common
	Accipiter badius			
44	White-eyed Buzzard	Arboreal	R	Uncommon
	Butastur teesa			
45	Spotted Eagle	Terrestrial	M	Rare
	Aquila clanga			
46	Tawny Eagle	Terrestrial	LM	Very rare
	Aquila vindhiana			
47	Crested Serpent Eagle	Arboreal	R	Rare
	spilornis cheela			
48	Peregrine Falcon	Arboreal	LM	Extremely rare
	Falco peregrines			
49	Short toed Eagle	Terrestrial	R	Uncommon
	Circaetus gallicus			
50	Marsh Harrier	W/T	M	Common
	Circus aeruginosus			
51	Whitebacked Vulture	Terrestrial	R	Extremely rare
	Gyps bengalnsis			
52	Indian Longbilled Vulture	Terrestrial	LM	Extremely rare
	Gyps indicus			
53	Palla's Fishing Eagle	W/T	М	Extremely rare
	Haliaeetus leucoryphus			
54	King Vulture	Terrestrial	R	Extremely rare
	Sarcogyps calvus			
55	White Scavenger Vulture	Terrestrial	R	Common
	Neophron percnopterus			
56	Kestrel	Terrestrial	R	Uncommon
	Falco tinnunculus			
57	Common Grey Quail	Terrestrial	R	Common
	Coturnix coturnix			
58	Rain Quail	Terrestrial	R	Rare
	Coturnix coromandelica			
59	Painted Partridge	Terrestrial	R	Extremely rare
	Francolinus pictus			
60	Grey Partridge	Terrestrial	R	Common
	Francolinus pondicerianus			
61	Red Jungle Fowl	Terrestrial	R	Rare
	Gallus gallus			-
62	Common Peafowl	Terrestrial	R	Common
	Pavo cristatus			
63	Common Crane	water	LM	Uncommon
	Grus grus			
64	Sarus Crane	water	R/LM	Common
	Grus antigone	****	-	-
65	White Breasted Waterhen	water	R	Common
	Amaurornis phoenicurus			
66	Indian Moorhen	water	R	Uncommon
	Gallinula chloropus			

67	Purple Moorhen	water	R/LM	Common
	Porolyrio porphyrio			
68	Coot	water	M	Common
60	Fulica atra	· · · · · · · · · · · · · · · · · · ·	R	Camman
69	Bronze winged Jacana Metopidius indicus	water	K	Common
70	Pheasant Tailed Jacana	eten		Camman
70	Hydrophasianus chirurgus	water	R	Common
71	Black winged Stilt	water	R/LM	Common
71	Himantopus himantopus	water	IX/LIVI	Common
72	Indian Courser	Terrestrial	R	Uncommon
12	Cursorius coromandelicus	Terrestrial	N .	Officontinion
73	Red wattled Lapwing	W/T	R	Common
13	Vanellus indicus	VV/1	N .	Common
74	Spurwinged Plover	water	R	Rare
74	Vanellus spinosus	water	ĸ	Raie
75	<u> </u>	Torroctrial	В	Uncommon
75	Yellow Wattled Lapwing Vanellus malabaricus	Terrestrial	R	Uncommon
76	Curlew	water	M	Very rare
10	Numenius arquata	water	IVI	very rare
77	Blacktailed Godwit	)oto#	NA	Uncommon
77	Limosa limosa	water	M	Uncommon
70		eter	N4	Doro
78	Painted Snipe	water	М	Rare
70	Rostratula benghalensis			Unananana
79	Common Snipe	water	M	Uncommon
	Gallinago gallinago			
80	Redshank	water	M	Rare
0.1	Tringa tetanus			
81	Marsh Sandpiper	water	M	Less abundant
00	Tringa stagnatilis	et en		Unananana
82	Greenshank	water	М	Uncommon
00	Tringa nebularia	-1		0
83	Spotted Sandpiper	water	М	Common
0.4	Tringa glareola	-1		0
84	Common Sandpiper	water	M	Common
	Tringa hypoleucos	10/55		
85	Little Ringed Plover	W/T	M	Common
	Charadrius dubius	10/55		
86	Kentish Plover	W/T	M	Uncommon
07	Charadrius	-*:	••	11
87	Temminck's Stint	water	M	Uncommon
00	Clalidris temminckii			
88	Ruff and Reeve	water	M	Very rare
00	Philomachus pugnax	- * ·		5
89	Brownheaded Gull	water	М	Rare
00	Larus brunnicephalus			
90	Blackbellied Tern	water	М	Very rare
0.1	Sterna acuticauda		- n-	
91	River Tern	water	R/M	Common
	Sterva aurantia			
92	Yellowlegged Green Pegion	Arboreal	R	Rare
	Treron phoenicoptera			
93	Blue Rock Pegion	Terrestrial	R	Common

94	Ring Dove	Terrestrial	R	Common
	Streptopelia decaocto			
95	Red Turtle Dove	Terrestrial	R	Common
	Streptopelia tranquebarica			
96	Spotted Dove	Terrestrial	R	Common
	Streptopelia chinensis			
97	Little Brown Dove	Terrestrial	R	Common
	Streptopelia senegalensis			
98	Roseringed Parakeet	Arboreal	R	Common
	Psittacula krameri			
99	Blossomheaded Parakeet	Arboreal	R	Uncommon
	Psittacula cyanocephala			
100	Indian Cuckoo	Terrestrial	R	Rare
	Cuculus micropterus			
101	Hawk Cuckoo	Terrestrial	R	Uncommon
	Cuculus varius			
102	Pied Crested Cuckoo	Terrestrial	LM	Common
	Clamator Jacobinus			
103	Koel	Terrestrial	R	Common
	Eudynamys Scolopacea			
104	Coucal	Terrestrial	R	Common
	Centropus sinensis			
105	Barn Owl	Terrestrial	R	Uncommon
	Tvto alba			
106	Indian Great Horned Owl	Terrestrial	R	Uncommon
	Bubo bubo	10110011141		• • • • • • • • • • • • • • • • • • • •
107	Spotted Owlet	Terrestrial	R	Common
107	Athene brama	Terrestrial		Common
108	House Swift	Terrestrial	R	Common
100	Apus affinis	Terrestrial	IX.	Common
109	Alpine Swift	Terrestrial	LM	Very rare
103	Apus melba	Terrestrial	LIVI	very rare
110	Crested Tree Swift	Terrestrial	R	Uncommon
110	Hemiprocne longipennis	Terrestrial	N N	Officontinion
111	Common Indian Nightjar	Terrestrial	R	Common
111	= -	Terrestriai	, K	Common
110	Caprimulgus asiaticus			Common
112	Pied Kingfisher	water	R	Common
440	Ceryle rudis			0
113	Small Blue Kingfisher	water	R	Common
	Alcedo atthis			
114	Whitebreasted Kingfisher	W/T	R	Common
4	Halcyon smyrnensis			
115	Stork Billed Kingfisher	water	M	Very rare
44.5	Pelargopsis capensis			<b>-</b>
116	Black capped Kingfisher	water	M	Extremely rare
	Halcyon pileata			
117	Bluetailed Bee-Eater	Terrestrial	LM	Uncommon
	Merops philippinus			
118	Small Green Bee-eater	Terrestrial	R	Common
	Merops orientalis			
119	Blue Jay	Terrestrial	R	Common
	Coracias benghalensis			
120	Ноорое	Terrestrial	R	Common
	Upupa epops			

121	Common Grey Hornbill	Terrestrial	R	Uncommon
	Tockus birostris			
122	Coppersmith	Terrestrial	R	Common
	Megalaima haemacephala			
123	Blackbacked Woodpecker	Arboreal	R	Very rare
	Chrysocolaptes festivus			
124	Brown Capped	Dendrocopos	R	Uncommon
	Pygmywoddpeeker			
125	Mahratta Woodpecker	Arboreal	R	Uncommon
	Picoides mahrattensis			
126	Goldenbacked Woodpecker	Arboreal	R	Uncommon
	Dinopium benghalense			
127	Eurasian wryneck	Arboreal	R	Uncommon
	Jynx torquilla			
128	Large Green Barbet	Arboreal	R	Common
	Megalaima zeylanica			
129	Indian Pitta	Arboreal	R	Uncommon
	Pitta brachyuran			
130	Redwinged Bushlark	Terrestrial	R	Uncommon
	Mirafra erythroptera			
131	Blackbellied Finch-Lark	Terrestrial	R	Common
	Eremopterix grisea			
132	Rufoustailed Finchlark	Terrestrial	R	Common
	Ammomanes phoenicurus			
133	Crested Lark	Terrestrial	R	Common
	Galerida cristata			
134	Dusky Crag Martin	Terrestrial	R	Common
	Hirundo concolor	10.100.114.	•	Common
135	Swallow	Terrestrial	R	Common
100	Hirundo rustica	refrestrial		Common
136	Indian Cliff Swallow	Terrestrial	R	Common
100	Hirundo fluvicola	refrestrial	11	Common
137	Wiretailed Swallow	Terrestrial	R	Common
107	Hirundo Smithii	refrestrial	IX.	Common
138	Striated Swallow	W/T	R	Very rare
100	Hirundo daurica	****		very rare
130	Baybacked Shrike	Terrestrial	R	Rare
108	Lanius ecxubitor	ICIICSUIAI	N.	ivaie
140	Rufous backed Shrike	Terrestrial	R	Common
. 10	Lenius schach	. on our lan		Common
141	Golden Oriole	Terrestrial	LM	Common
''	Oriolus oriolus	Torrostrial		Common
142	Black headed Oriole	Arboreal	R	Uncommon
172	Oriolus xanthornus	Alboroal	K	Choominon
143	Black Drongo	Terrestrial	R	Common
173	Dicrurus adsimilis	Torrestrial	IX.	Common
144	Whitebellied Drongo	Terrestrial	R	Uncommon
177	Dicrurus caerulescens	TOTICOLIA	IX.	GIIGGIIIIIGII
145	Racket-tailed Drongo	Arboreal	R	Rare
140	Dircrurus paradiseus	Albultai	N.	ivaie
146	Rosy Pastor	Terrestrial	M	Very rare
140		renestra	IVI	very rate
117	Sturnus roseus	Torroctrial	В	Common
147	Brahminy Myna	Terrestrial	R	Common
	Sturnus pagodarum			

148	Greyheaded Myna	Terrestrial	М	Uncommon
	Sturnus malabaricus			
149	Indian Myna	Terrestrial	R	Common
	Acridotheres tristis			
150	Bank Myna	Terrestrial	LM	Rare
	Acridotheres ginginianus			
151	Pied Myna	Terrestrial	R	Common
	Sturnus contra			
152	Tree Pie	Terrestrial	R	Common
	Dendrocitta vegabunda			
153	House Crow	Terrestrial	R	Common
	Corvus splendens			
154	Jungle Crow	Terrestrial	R	Common
	Corvus macrorhynchos			
155	Common Wood Shrike	Arboreal	R	Very rare
	Tephrodornis pondicerianus			
156	Blackheaded Cuckoo Shrike	Terrestrial	R	Very rare
	Coracinamelanoptera			
157	Large Cuckoo Shrike	Arboreal	R	Rare
	Coracina novaehollandiae			
158	Scarlet Minivet	Arboreal	R	Rare
	Pericrocotus flammeus			
159	Small Minivet	Arboreal	R	Uncommon
	Pericrocotus cinnamomeus			
160	Whitebellied Minivet	Terrestrial	R	Rare
	Pericrocotus erythropygius			
161	lora	Terrestrial	R	Common
	Aegithina tiphia	10.100111111		
162	Goldfronted Chloropsis	Arboreal	R	Rare
	Chloropsis aurifrons	711201041		raio
163	Goldmantled Chloropsis	Arboreal	R	Very rare
100	Chloropsis cochinchinensis	711201041		voly laio
164	Red vented Bulbul	Terrestrial	R	Common
104	Pycnonotus cafer	Terrestriai	IX.	Common
165	Yollow-eyed Babbler	Terrestrial	R	Less abundant
103	-	Terrestriai	N.	Less abundant
166	Chrysomma sinense	Terrestrial	В	Common
166	Common Babbler	Terrestriai	R	Common
407	Turdoides caudatus	Tamastrial		0
167	Large Grey babbler	Terrestrial	R	Common
100	Turdoides malcolmi	Tamastrial		0
168	Jungle Babbler	Terrestrial	R	Common
100	Turdeides striatus			
169	Redbreasted Flycatcher	Arboreal	M	Uncommon
	Muscicapa parva			<u> </u>
170	Tickel's Blue Flycatcher	Terrestrial	R	Less abundant
	Muscicapa tickelliae		_	
171	Paradise Flycatcher	Terrestrial	R	Rare
	Terpsiphone paradise			
172	Verditer Flycatcher	Arboreal	R	Rare
	Muscicapa thalassina			
173	Greyheaded Flycatcher	Arboreal	R	Common
1/3				
	Culicicapa ceylonensis Whitebrow Fantail Flycatcher			

176	Prinia socialis Franklin's Wren-Warbler	Terrestrial	_	
_		Torrostrial	_	
	5	Terrestriai	R	Less abundant
	Prinia hodgsonii			
177	Bristled Grassbird	Terrestrial	n/a	Recently discovered
	Chaetornis striatus			
	Tailor Bird	Terrestrial	R	Less abundant
	Orthotomus sutorius			
179	Lesser Whitethroat	Arboreal	M	Common
	Sylvia curruca			
180	Bluethroat	Terrestrial	M	Very rare
	Erithacus svecicus			
	Magpie Robin	Terrestrial	R	Common
	Copsychus saularis			
	Black Redstart	Terrestrial	M	Common
	Phoenicurus ochruros			
183	Brown Rock chat	Terrestrial	R	Common
	Cercomela fusca			
184	Collared Bushchat	Terrestrial	M	Uncommon
	Saxicola torquata			
185	Pied Bush Chat	Terrestrial	R	Uncommon
	Saxicola caprata			
186	Indian Robin	Terrestrial	R	Common
	Saxicoloides fulicata			
187	Blue Rock Thrush	Terrestrial	R	Very rare
	Monticola solitaries			
188	Grey Tit	Arboreal	R	Uncommon
	Parus major			
189	Yellow cheeked Tit	Arboreal	R	Rare
	Parus xanthogenys			
190	Brown Rock Pipit	Terrestrial	R	Rare
	Anthus similis			
191	Paddyfield Pipit	Terrestrial	R	Common
	Anthus novaeseelandiae			
192	Thickbilled Flowerpecker	Arboreal	R	Uncommon
	Dicaeum agile			
193	Yellow Wagtail	Terrestrial	M	Uncommon
	Motacilla flava			
194	Yellowheaded Wagtail	Terrestrial	M	Uncommon
	Motacilla citreola			
195	Grey Wagtail	Terrestrial	М	Uncommon
	Motacilla cinerea			
196	White Wagtail	Terrestrial	R	Common
	Motacilla alba			
197	Large Pied Wagtail	Terrestrial	R	Common
	Motacilla maderaspatensis			
198	Purple Sunbird	Terrestrial	R	Common
	Nectarimia asiatica			
199	White eye	Terrestrial	R	Common
	Zosterops palpebrosa			
200	Yellow Throated Sparrow	Terrestrial	R	Common
	Petronia xanthocollis			
201	House Sparrow	Terrestrial	R	Common
	Passer domesticus			

202	Baya	Terrestrial	LM	Common
	Ploceus philippinus			
203	Red Munia	Terrestrial	LM	Very rare
	Estrilda amandava			
204	Spotted Munia	Terrestrial	LM	Rare
	Lonchura punctulata			
205	Whitebacked Munia	Terrestrial	LM	Very rare
	Lochura striata			
206	White Throated Munia	Terrestrial	LM	Common
	Lonchura malabarica			
207	Crested Bunting	Terrestrial	LM	Uncommon
	Melophus lathami			