# First Master Plan (2009-10 to 2018-19)

खनऊ प्राणि उहात

LUCKNOW ZOOLOGICAL GARDENS (LUCKNOW PRANI UDYAN) LUCKNOW (UTTAR PRADESH)



First Master Plan (2008-09 to 2018-19)



# LUCKNOW ZOOLOGICAL GARDENS (LUCKNOW PRANI UDYAN) LUCKNOW (UTTAR PRADESH) INDIA

# PREFACE

Wildlife Management in India is integral to mainstream forest management, yet as a resource needing scientific management, it was a late entrant on the professional scene. We started considering Zoological Parks as part of wildlife management and/ or as centre of *ex-situ* conservation breeding for endangered animal species only very recently. It is only with the creation of Central Zoo Authority in early nineties and formulation of National Zoo Policy of 1998, we started taking Zoological Parks more seriously as part of wildlife management. Most aspects of modern life function according to pre-arranged and accepted plans, objectives, rules and schedules. Zoological Parks should be no exception. A good Management Plan is a pre-requisite for good management.

While the forest Working Plans in India have a history of more than 130 years, the first Wildlife Management Plan in the year 1970 was just about a 100 years younger. The Zoological Parks in India are still bogged down with Master Plans with stress more on display, architecture, themes etc., than on conservation breeding. Hardly any Zoo in India is having a Management Plan prepared by a management planning process, which set out Conservation, Education and Research as objectives of management. Lack of Master / Management Plans resulted in haphazard growth of animal enclosures and other infrastructure in most of Indian Zoos. The Indian Zoos Managements are still not very clear about their objectives, in spite of clearly defined National Zoo Policy. With this backdrop, I started working on the idea of preparing of a comprehensive Management Plan for its implementation for the Lucknow Zoological Gardens, Lucknow. The Zoo was established on the 29<sup>th</sup> of November 1921. For all practical purposes, this document may be treated as First Management Plan of the Zoo.

I am thankful to all the Zoo Authorities who have contributed in one form or the other, in the preparation of this document. Their valuable suggestions have been duly incorporated. The colleagues at the Zoological Gardens made a rich contribution of their ideas and experiences.

> Renu Singh, IFS Director Lucknow Zoological Gardens, Lucknow

# Concept Plan

### Name of the Zoo

Lucknow Zoo, Lucknow, Uttar Pradesh

Category of the Zoo Large Zoo

Area of the Zoo 24.00 ha

#### Objective

(1) Conservation education and awareness(2) Research for conservation

### Theme of display

Broad taxonomical display of wild animal species of national importance with special emphasis on fauna of Himalayan tarai & Fronce Spectary &

## **Animal collection Plan**

Tiger, Lion, Leopard, Hyeana, Wolf, Sloth bear, Himalayan black bear, one horned Rhinoceros, Elephant, Blackbucks, Swamp deer, Thamin deer, Spotted deer, Samber, Barking deer, Hog Deer, Mugger, Gharial, Turtles, Tortoises, Peafowl etc.

#### Master (Layout) Plan

To be prepared accordingly.

GIRAFST, KAHGARNO (ALL SPEKEREX) BLACK PAHIMEN, CHIMPAHILLY ORAHGOTOH, GIBB:

#### Manpower

(i) CF/DCF level full time Officer-in-charge as Director
(ii) DCF/ACF level full time Curator (animals)-1 no. for the present
(iii) Veterinary Officers- 2 Nos.

(iv) Education Officer- 1 No.

(v) Biologist - 1 No.

(vi) Support staff as per needs.

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# PART – I

# <u>Chapter – I</u>

# Introduction

### 1.1-History:-

The Prince of Wales Zoological Gardens, popularly known as Lucknow Zoological Gardens, was established in the year 1921 to commemorate the visit of His Royal Highness, the Prince of Wales to Lucknow. The idea of establishing Zoological gardens at Lucknow emanated from Sir Harcourt Butler, the then Governor of the State and it was received enthusiastically by the prominent landlords and the leading citizens of the State who donated liberally for the construction of animal houses and cages and also presented animals and birds for display from time to time.

A Committee of management was formed consisting of donors and other prominent citizens. Colonel Fanthorpe, Commissioner of Lucknow was appointed as the first President and Sheikh Maqbool Husain as first Secretary of the Commission. The Committee was registered under the Societies Registration Act on the 17<sup>th</sup> August 1926.

Mr. Lintle Bogla, M.C., and Chief Engineer of the Lucknow Improvement Trust designed the layout of the Zoo along with its buildings and cages. 26 buildings along with cages were constructed at a total cost of Rs. 2,08,800 during the period from 1921 to 1926. The main gate on the Narahi side known as "Sir Ludovic Porter Gate" facing west was constructed in 1936.

In the year 1950, the Managing Committee was dissolved and an Advisory Committee was formed with the Secretary to Govt., U.P., Public Health Department as its Chairman and the Director of Medical & Health Services, Uttar Pradesh as Ex-Officio Administrator. In 1966, the administrative control was transferred to the Forest Department and the Advisory Committee was also re-organised with Secretary to Govt., U.P., Forest Department as its Chairman and the Dy. Chief Conservator of Forests (Planning) as Ex-Officio Administrator. From time to time, the reorganisation of the Zoo Advisory Committee was done and presently the new Zoo Advisory Committee, constituted vide Government order No. 1652/14-4-2001-866/93 dated 04-08-2001, is under existence. The new Zoo Advisory Committee consists of the Forest Secretary to the Govt. of Uttar Pradesh as Chairman, Principal Chief Conservator of Forests, Uttar Pradesh as Vice Chairman and Chief Wildlife Warden, Uttar Pradesh as Administrator. The Director of the Zoo is the Member Secretary of the newly constituted Zoo Advisory Committee.

The Uttar Pradesh Govt. vide letter No. 1552/14-4-2001-30/90, Van Anubhag-4, dated 04 June 2001, changed the name of "Prince of Wales Zoological Gardens Trust, Lucknow" to "Lucknow Prani Udyan".

The Uttar Pradesh Government, under Section-5 (1) and (2) of Charitable Endowments Act, 1890 and vide their G.O. No. 6716/14/3-94/76, Van Anubhag-3, dated 31-01-1978, formulated a new management scheme for the management of the Zoo which is effective since 01 Feb. 1978. The management of Lucknow Prani Udyan is being done as per this Scheme of Management.

#### 1.2-Objectives:-

The Zoological Gardens, the world over were established initially for recreational purposes. The collection of animals was a great pastime during the ancient or even medieval times. Many royal families had their private collections of animals. In recent times, public Zoos started coming up and objectives shifted from entertainment/ time pass to education. Earlier, the animals were housed in small chain link cages for exhibition. Zoos made efforts to learn the ways to make them survive there and also propagate them. But however, around the 20th century with augumentation of knowledge on animal husbandry, animal taxonomy, etc. there were number of changes noticed in the objectives and management of Zoos. More behavioural studies were done and more information was collected on their ecology and habitats.

However, as time passed by, the concerns and themes of Zoos also changed. More emphasis was on environmental studies, ecosystem and survival of species and organizing of networks for better management of the species. The emphasis was also on endangered species for their planned breeding. For that purpose a separate proposal for conservation breeding of Swamp deer is being included in this Master Plan.

Lucknow Zoological Gardens was started with the primary objective of Education, awaerness and conservation of indigenous fauna. To achieve this mission, the following **objectives** are focussed upon : -

i) Education, motivation and raising awareness among the local people, students and visitors on the importance of conservation of the ecosystem.

ii) Initiating applied and basic research, conservation and providing proper veterinary facilities.

### 1.3- Physical features like the topography of the area:-

From the view point of topography Lucknow is a part of Ganga – Yamuna Doab of Upper Gangetic plains that is the bank of the Gomti River. The topography is undulating with highlands known as Bangar and are named as Varanasi old flood plains and low lands that indicate the flood plains. The altitude of the area varies between 98mts to 138 mts. above mean sea level. The areas called Khadar are situated at 98mts to 129mts above mean sea level and are spread to about 1 to 2 Kms from the rivers

#### 1.4- Geology, Rock and Soil:-

Geologically the area belongs to Bundelkhand granite group and Vindhy sub group of shail group. The soil is based on the rocks of the above with the reminiscent of the crust of the flood plains.

The area has the minor forest produce such as Grit, salt the raw material for Potassium nitrate.

#### 1.5- Flora and fauna:-

The Zoo is richly covered with trees, some of which are more than 100 years old. It has fodder bearing, fruit bearing, shade bearing and also ornamental trees. Due to its rich greenery, it is a centre of attraction for the morning walkers.

Under a well-planned scheme, plantation of flowering trees, ornamental plants, hedges and creepers was undertaken in 1969-70 and presently also the plantation work is being carried out in the zoo premises.

#### 1.6- Climate:-

During winter season the weather is very cold and in summers, the situation is reverse. It is very hot during summers. The summer monsoon starts from mid April and ends in September or early October. The rainy season starts from mid June and there are good rains during the months of July and August.

#### 1.7- Rainfall and Season:-

The mean annual rainfall fluctuates from 410 mm to 1227 mm. The average humidity varies from 82% in winters and 20-36% in summers. Wind and ground frost are common.

#### 1.8- Approach:-

Lucknow Zoological Gardens is situated in the heart of Lucknow, the capital town of Uttar Pradesh. It is about 20 Kms. from Amausi Airport, which is served by flights from New Delhi, Kolkatta, Varanasi, Bangalore and Mumbai. Lucknow is connected with international places too, like Sharjah, Jeddah, etc. The city's railway station, popularly known as Charbagh Railway Junction is a major railway station. It is situated at a distance of around 15Kms. from the zoo. It is connected with all the major cities and towns of the country. The nearest and very old and famous shopping complex Hazratganj is hardly 2Kms. from the zoo.

Lucknow is connected to all major cities by road. Some of the important road distances are: Kanpur-80Kms., Allahabad-210Kms., Ayodhya-135Kms., Delhi-497Kms., Agra-363Kms., Dudhwa National Park-238Kms., Varanasi-305Kms., Khajuraho-320Kms., Corbett and Rajaji National Parks-400Kms.

#### 1.9- Demography of the surrounding area:-

The Lucknow Zoological Gardens is situated in the heart of the town, which is a densely populated area the town of Lucknow envisages an area of about 3244 Sq. kms. and has a population of about 36.8 lakhs. It is situated at an altitude of about 123 meters above sea level. The height of the boundary wall of Lucknow Zoo is around 3 Mt. and the periphery is around 3500 Mt.

#### 1.10- Legal status of the land:-

Lucknow Zoological Gardens is situated in erstwhile Banarsi Bagh, within an area of 70 acres. There is the State Museum in the zoo premises itself, which comes under the Ministry of Culture, and the Director, State Museum heads it. There are several staff in the Museum too and all the staff of the Museum are allowed entry from the Zoo main gate only. The office of the Director of Lucknow Zoo is near the main entrance. The residences of the Director and the Deputy Director are adjacent to the zoo.

### 1.11- Sources of pollution:-

As mentioned earlier, the land on which the Zoological Gardens stands, is in the heart of Lucknow town. The area is sufficiently large for a large zoo. The fringes are thickly populated. There is hardly any polluting agency in the area. So it can be safely said that though legally only 70 acres is with the Gardens, it encloses more than 4000 trees and plants inside and hence, it can be said that ecologically the place has sufficiently good green cover.

### Chapter – II Appraisal of the present arrangement and constraints

#### **II-1-** Animal section:-

The animal section is central to the Zoological Gardens. Like most of the Zoos world wide, Lucknow Zoological Gardens also started like a small menagerie. The placement of the enclosures is more on the basis of suitability of site for the specific animal species than on some identified theme. There are 122 enclosures including off – display enclosures and indoor wards. Of these 18 are open air moated enclosures assigned mainly to Tigers, Lions, Himalayan Black bears, Sloth bears, Asiatic elephant, Bonnet monkeys, capuchin monkeys and Herbivores. For the Pheasants, there is one pheasantry with 14 pens. The pelicans and the various water birds are placed in two water ponds.

For the better management the animal section has been divided into 09 beats. The table below shows the distribution of animal enclosures.

Beat	Name of Enclosure	No. of Enclosure	Rooms	Area for exercise	Teen shed / Veranda	Feeding chamber/ arrangement	Drinking place/ Quarter trough	Scroze re	Water pond
1- Deer Line	Black buck(Moated)	1	1	1	2	2	2		
	Hog deer(Moated)	1	1	1	1	1	1		
	Swamp deer (Moated)	1	1	1	1	1	1		1
	Barking deer (Moated)	1	1	1	1	1	1		
	Sambar deer (Moated)	1	1	1	1	1	1		
	Serpentarium (Old)	10	10			10	10		
	Serpentarium (New)	14				14	14		
	Python	3				3	3		
	Hill Myna /Rosy pastor	1				1	1		
	Dove	1				1	1		
	Bazari	1		1		1	1		
	Lion tailed macaque (Moated)	1	4	1		1	1	1	
	Chimpanzee	1	4	1		2	2	1	

Position of Enclosures in Lucknow Zoo, Lucknow CHAH CE

	T								
	(Moated)								
	Hippo (Moated)	3	4	3	3	3	3		3
2-	Elephant House	1	1	1	1	2	2		1
Elephant	(Moated)								
3- Tiger	Tiger house	2	4	4		4	4	1	4
House	(Moated)								
	Sloth Bear -1	1	9	1	1	4	4		
	(Moated)			_					
	Sloth Bear -2	1	8	1	1	4	4		
	(Moated)								
	Himalayan	1	6	3	1	6	6		3
	Beer(Moated)								
	Pelican (Moated)	1		1	1	1	1		1
	Sambar deer	1	1	1	1	1	1		
	(Moated)								
4-Lion	Panther	2	4	2	2	4	4	1	2
House									
	Small animal	2	6	2		6	6		
	house- Wolf/					and a strength of the	1		
	Hyena/Jackal								
	(Moated)								
	Crocodile	1		2		2	2		2
	(Moated)								
	Ghariyal	1		1		1	1		2
	(Moated)								
	Balrampur	- 1	4	1	1	2	2	1	
	House (Moated)								
	White tiger	2	4	2	1	2	2	1	2
	(Moated)	1	-		1				
	Lion enclosure	1	4	1	1	2	2	1	
	(Moated)								
	Wolf/Hyena	4	4	4		4	4		1
6 D' 1	(Open Moated)	10	10	10		10	10		
5- Bird Section	All Monkeys	10	10	10		10	10		
	Duck pond	1	1	1		1	1		1
	Sarus crane	1		3		2	2		
	Turtle	1		1		1	1		1
	Emu	1	2	3		3	3		1
	All Parrots	2	9	9	9	9	9		
	White Peacock	1	1	1		1	1		
	Hoolock gibbon	1	1	1	1	2	2		
	Black necked	1		1		1	1		
	stork								
	Baboon	3	3	3	3	3	3		
	Horn bill	2		2	2	2	2		
							1		

6- Deer Park	Deer Park	2	2	2	2	3	2		1
	Bonnet Monkey(Moated)	1	4	1		4	4	1	1
	Capuchin Monkey (Moated)	1	4	1	1	4	4		
	Chinkara	1		1	1	1	1		
7- Deer Safari	Giraffe (Moated)	1	2	2		2	2		
	Zebra (Moated)	2	2	2	1	2	2		
	Rhino (Moated)	1	2	1		2	2		1
	Swamp deer (Moated)	1	1	1	1	2	1		1
	Spotted deer	1		1	1	1	1		1
8- New Bird Section	Macaw	3		3	3	3	3		
	Otter	1	1	1		1	1		1
	Pheasantry	11	21	21	21	21	21		
	Sarus	1	1	1		1	1		
9- Hospital	Small ward	1	3			3	3		
	Large Ward	1	4	1		4	4		
	Carnivore Ward	1	3	3		3	3	1	
	Herbivore Ward	1	2	2		2	2		
	Isolation Ward	9	9	9	9	9	9		
10- Nocturn al House		8	8	8		8	8		

# II-2- Veterinary section:-

The Lucknow Zoological Gardens has very well equipped Veterinary Section with a huge and new Veterinary hospital with indoor patient wards for larger carnivores, herbivores, lesser carnivores and birds, Operation Theater, dispensary, nursery for hand rearing, postmortem room, quarantine wards etc.

The hospital is well stocked with required and emergency medicines along with all other amenities. The section is also equipped with tranquilizing rifles, pistols, blow pipes etc., alongwith required drugs.

The hospital will be equipped with 100 mA diagnostic Mobile / portable X-ray, 300 mA Fix X-ray, Whole Body portable veterinary ultrasound machine, Serum/plasma Analyzer (Semi

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Automatic), well equipped operation theatre, Phase Contrast Microscope, refrigerator, incubator, oven, and other gadgets.

The Quarantine ward is situated far away from the animal enclosures.

Presently the animal section is under the overall control of the Deputy Director cum Veterinary officer and has the following staffs :

Veterinary officer	-01 7	
Head keeper	-01	
Zoo Keepers	-14	MAHG2
Zoo cleaner	-07	Composition
Mahawat	-04	

All the Zoo keepers have been given training in the Zoo Management. The whole section reports for duty on all 7 days of the week. The staff reports for duty as per the zoo timings. The Zoo timings are as follows:-

Month	Time
February to April	8.30 A.M. to 5.30 P.M.
May to July	8.30 A.M. to 6.00 P.M.
August to October	8.30 A.M. to 5.30 P.M.
November to January	8.30 A.M. to 5.00 P.M.

The head keeper makes a round of the entire Zoological Gardens and all the beats in the morning and looks into and takes notes of the reports from the keepers. He then prepares the Daily Report based on his and the keepers observations for the day. The Zoo Keepers clean all the enclosures on daily basis, receive daily diet of the animals on proper challan and feed the animals in the pre decided way. This is done in order to work efficiently and also for safety.

#### Number of Animals:-

Animal I	nventory	according	to	Sechdule	and	Species
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Sechdule	N	Aammls		Birds	Reptiles		
	Number	Number	Number	Number	Number Of	Number	
	of Animals	of Species	of Birds	of Species	Reptiles	of Species	
1&2	169	22	31	05	70	07	
3 & 4	283	07	189	38	19	03	
Exotic	18	07	209	. 10	00	00	
Total	470	36	429	53	89	10	

#### II-3- Store and feed supply section:-

The Zoological Gardens has well housed and equipped commissary section with meat house, kitchen, dry ration store, deep freezer and weighing facilities.

The kitchen is well ventilated and LPG gas is used for cooking purposes. There is well planned animal diet chart for all the animals. Annual tenders are floated for proper and timely supply of all the diet articles. The diet articles are received on proper challan from the suppliers on regular intervals. Meat, fruits, vegetables and green leaves/ bamboo leaves are received on daily basis and distributed to the different beats of the animal section on proper challan. The staff under Commissary section consist of one Storekeeper and a cook, working by deployment.

A separate Commissary Section is already existing in the Zoological Gardens for procurement and supply of food to the animals and other consummable store items. The section has been housed in the building adjacent to the veterinary hospital building and is having one meat house, one dry ration store and fully eqipped kitchen. The LPG facility is being used for the cooking purposes. One deep freezer has been provided for storing meat items. It is proposed to procure another deep freezer for storing fresh fruits and vegetables in addition to raw meat.

Annual tenders are floated every financial year for the daily supply of animal feed. The materials are received on proper challan on daily basis. The food items are segregated, prepared / cooked as per the diet chart.

Presently, the Zoological Gardens collect green fodder from contractor, on the tender basis. In case of emergency, the fodder is collected from the Zoological Gardens itself by loping and cutting of leaves and grasses. It is proposed to search out the possibility of either collecting tree fodder from areas near about the Zoological Gardens or to plant and grow the required green fodder in the Zoo premises itself. This could also be helpful in case of emergency.

#### **II-4-** Sanitation section:-

The section is presently placed under the charge of the Head keeper who is answerable to Deputy Director –cum- Veterinary Officer. This section is manned by 7 full time sweepers. For the working purposes, the whole area of Zoo has been divided into 09 sanitation beats each with 1 sweeper. The 2 beats are being covered by the daily wages Roads, foot paths, public toilets etc are cleaned twice daily. Dustbins have been kept at convenient places. There is a big container, installed by the Lucknow Municipal Corporation, for the storage and daily disposal of the Zoo wastes. The Lucknow Municipal Corporation authorities do the daily cleaning of the container. A Public toilet has been created near the main Baradari lawns and another public toilet is near the Hippo enclosure.

Potable water supply would be ensured to all animal enclosures and feeding cubicles. Heating arrangements and ventilation would also be provided in all the animal houses. Timely installation of winter fittings will be ensured every year in the beginning of the winter season.

Sanitation Section is the important section in the Zoo as lots of solid and liquid wastes are generated every day from the animal enclosures as well as elsewhere in the Gardens. Unless a suitable arrangement is made for its day to day disposal, it will be difficult to keep the Zoo clean and pleasant. Hence, necessary infrastructure needs to be developed. It is essential to provide a complete sewage disposal system, series of dustbins, cleaning and disposal of garbage by transporting it outside the Gardens and sweeping on daily basis. The public toilets need proper and regular cleaning. To achieve these, besides manpower, equipment should also be made

available from time to time. Use of polythene etc should be completely prohibited in the Zoo. Composting of bio – degradable wastes would be done. Compost and the manures so generated may be used for the lawns and gardens.

Sweepers have been placed in the section who report to the Head keeper of the Animals Section. The Head keeper also looks after the sanitation of the Zoological Gardens. For the working purposes, the Zoological Gardens has been divided into 09 sanitation beats each manned by one sweeper and daily wages.

Disinfection schedule given below would be religiously implemented round the year basis.

#### **Disinfection Schedule**

### A. Daily Program

- 1) Concrete and Wooden floor would be cleaned with suitable disinfectant
- 2) food, Feeding and watering trough would be cleaned daily with K.MnO4 @ 2gm. per litre water.
- 3) Drains would be cleaned thoroughly.

### B. Weekly Program

- 1) All debris, foreign particles of enclosures would be thoroughly cleaned.
- 2) Outsides of all enclosures & drains would be sprinkled with Bleaching Powder and lime.

#### C.Fortnightly Program

1) The outer side of all enclosures and drains would be sprinkled with Bleaching Powder.

#### D. Bi-annual Program:

1) All floors (Wooden & Concrete), rods, wires would be sterilized with blow torch.

#### E. Annual Program:

- 1) Rods & Wires would be painted every year.
- 2) Walls, feeding & watering trough would be lime washed every year.
- 3) Removal of top soil (1"-2") of all enclosures would be done yearly after rainy season.

#### II-5- Maintenance section:-

Maintenance of all civil and electrical works is presently being done either departmentally or through external Government agencies. The same system should be continued in the Zoological Gardens.

A small workshop near the store needs to be upgraded as and when required for the purposes like welding, fabrication, carpentary works etc. All modern carpentary tools, gas welding tools and equipments, electrical tools besides basic immediate vehicle maintenance tools should be procured for making it available to meet day to day requirements.

#### II-6- Security section:-

This Section is responsible for the overall security of the Zoological Gardens round the clock. The section is headed by one senior Security incharge and assisted by several chowkidars.

It is very important to keep the Zoo animals, visitors, Zoo staffs and their families, zoo property both movable and immovable safe and secure and to make the zoo function properly. The Zoological Gardens with its vast area is prone to security hazards. The measures that need to be taken during the period of the Management Plan are –

Strengthening of the boundary walls on all quarters along with the gates.

Complete survey of the land.

- As the present security system of employing zoo staff and daily wagers has not been found to be quite effective, an alternative arrangement of installing a police booth right near the main gate may be taken up, after joint consideration with the police authorities.
- A good number of rifles and small arms should be provided to the security staff on duty alongwith search lights and torches for night patrolling.
- CCTV closed circit camera with monitors, search and spot, lights, bioculars, different type of metal detectors and fire fighting and communication system should be erected at zoo.
  - A police outpost may be located outside the zoo premises preferably near to the parking area.
  - All entries and exits after zoo hours should be recorded for keeping watch of any movement.

All the security staff should have proper uniform for both day and night duties with winter clothings and rain coats for different seasons.

A Cotegency plan for the natural and other calamities like terrorist attack, Strikes and escape of animals would be prepired by the zoo Auathorties.

### II-7- Water supply section:-

Presently the only source of water supply in the Zoological Garden is through three tubewells and a large water tank. The tubewells supply water to all the sections of animal

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enclosures in the zoo and also provide water to the lawns at Baradari, Hippo Park, Children's park, and adjoining areas. There are three drinking water tanks for the use of visitors and they are regularly cleaned by the zoo staff.

#### II-8- Disposal of solid waste & liquid waste- sewerage:-

The system of disposal of dead animals is by way of either burial after post mortem, or burning of endangerd feline family like Lion Tiger and Panther. Some times, the dead animals are burnt by using fire wood too. There is a post mortem room for carrying out the post mortem of dead animals. There is a container/ dustbin, setup by the Municipal Corporation for collection of all animal/ human waste, excreta and other garbage of the Zoo.

#### II-9- Visitor's amenities:-

The ticket counter is located outside, near the all three entrance Public toilets exist near the main Baradari lawns, office, lion house, Old bird Section and also near the Hippo enclosure. Four rain shelters are provided for the convenience of the visitors. There is a cloak room near the main gate where visitors can safely keep their belongings. The directional as well as interpretative signages have been placed on appropriate places for convenience of the Zoo visitors. There is provision for drinking water supply at several places inside the zoo campus.

CHANG2-

#### II-10- Lawns and gardens- landscape section:-

For maintenance of lawns, gardens, road side hedges, Nature trail, etc. a fully equipped garden section has been created in the Zoological Gardens. There is a well stocked nursery behind the spotted deer enclosure. It also has a poly house for protecting plants from extremes of temperature, frost or wind. Planting of trees, shrubs, climbers and hedges is also done from time to time for creating naturalistic environment in and around the animal enclosures and camouflaging the hard/ concrete structure. The Zoological Gardens has been divided into several Garden Beats, each being manned by Malis and overall supervision is done by the Head mali. The section is equipped with all the garden equipments for hoeing, sowing and watering etc.

### Section-b

# **II-1 Collection Plan**

(Schedule I and II)



# Species-TigerScientific Name:Panthera tigris tigris

**Characteristic features:** The Indian Tiger is a rich-coloured well-striped animal with a short coat. We have still to learn whether the Indian Tiger varies in the different States, and what differences in its coloration are produced by season and age.

**Distribution/Range:** Over the wide area of its range, 6 races of the Tiger have been distinguished. The Indian race, designated as the typical Tiger, is found practically throughout India from the Himalayas to cape comorin, except in the deserts of Rajasthan, the Punjab, Cutch, and Sind. Its range extends into Burma.

**Habitat:** In India the Tiger has left its tracks in the winter snows of the Himalayas at an altitude of 10,000 ft. (3050 m.). It lives in humid evergreen forests, in dry open jungle, and in the grassy swamps of the terai, while in the Sunderbans it leads an almost amphibious life in a terrain of trees, mud, and water.



# Species:LionScientific Name:Panthera leo (Linnaeus)

**Distinguishing Characters-** On the average the Asiatic Lion has a scantier mane than the African, but curiously enouth in combination with this character a fuller coat, a longer tassel of hair at the end of its tail, a more pronounced tuft of hair on the elbow joints, and a fuller fringe of hairs on its belly.

**Distribution-** The Asiatic Lion is probably no longer to be found in In Irsq and Iran. It is once found over the whole of northern and central India as for south as narmada.

**Habitat:** The Gir forest lying within junagadh district covering some 500sq miles (1280sq sm.) of rugged country. Is composed mainly of stunted teak trees, palas, jambul, and ber and patches of small bamboo, with an undergrowth of thorny shrubs and bushes.



Species:Leopard or PantherScientific Name:Panthera pardus (Linnaeus)

**Distinguishing Characters-** A typical Panther from the Indian peninsula is a sleek short- haired animal with a fulvour or bright fulvous coat marked with small close-set black rosettes. There is however considerable colour variation.

**Distribution-** The Indian Panther ranges over the whole country and extends into Burma and Ceylon. Panthers from Sind, Kashmir, and Baluchistan are regarded as distinct races.

**Habits-** Panthers are able to live and thrive almost anywhere. They are not restricted to forests or heavy cover like tigers, and thrive as well in open country as among rocks and scrub.



# Species:WolfScientific Name:Canis lupus Linnaeus

**Distinguishing Characters-** Its size, large skull, and teeth distinguish the Wolf from the rest of the family. Colour variable. In general, animals from the plains of India have sandy fawn coats stippled with black. The fwn may bleach to grey and the black become less evident in the scantier summer wear.

**Distribution-** Europe, North America, northern, central, and south western Asia. Within Indian limits, Tibet, Ladak and parts of Kashmir, extending into the desert zone and dry open plains of peninsular India.

**Habits-** Wolves may live in forests, but in India they are more common in bare and open regions. In the barren uplands of Kashmir, Ladak, and Tibet they live as nomads coming down to the valleys in winter, migrating with game and grazing flocks to the snow-line in summer.



# Species:JackalScientific Name:Canis aureus Linnaeus

**Distinguishing Characters-** The Jackal's long drawn, eerie howling at dusk of just before dawn is perhaps more familiar to most people than the animal itself. Its nearest wild relative is the wolf, but the Jackal is smaller in build and meaner in aspect.

**Distribution-** South eastern Europe, south- western Asia, throughout India and Ceylon, extending some way into Burma and south eastern Siam. Three Indian races are recognised.

**Habits-** Jackals live in almost any environment, in humid forest country, or in dry open plains, or desert. They have been found at a height of 12,000 ft. (3660 m.) in the Himalayas and are well established round hill stations 4000-7000 ft. (1220-2135 m.) above sea level.

**Food:** May hunt in pack or alone. Small, wounded animals, carcasses, watermelon patches, sugarcane or fallen ber fruits from their diet.

Breeding: Cubs are born at all times of the year, usually in a hole in the ground.



# Species:Sloth BearScientific Name:Melursus ursinus (Shaw)

**Distinguishing Characters-** With its elongated muzzle and lower lip, long unkempt hair and short hind legs, this is the most uncouth of all bears. Most have a whitish V-shaped breast patch, and usually the muzzle and the tips of the feet are dirty white or yellowish.

Distribution- The forested tracts of India and Assam from the base of the Himalayas to Ceylon.

**Habits-** Sloth bears live where there is sufficient forest to provide food, and favour places where outcroppings of rock and tumbled boulders offer them shelter during the hot weather and the rains. They come out shortly before sunset, hunt for food all night, and retire in the morning.



# Species:Himalayan black BearScientific Name:Selenarctos thibetanus

**Distinguishing Characters-** Its shorter smoother coat and black claws distinguish it at once from the Sloth Bear. Its build is less clumsy and more compact. General colour, typically black, muzzle, tan or brown, chin, white or buff, very characteristic is the V-shaped breast mark which may be white, yellow, or buff.

**Distribution-** In India, Kashmir, the Himalayas, and Assam, extending eastwards into China and Japan, Southwards into Burma and the Malay countries, westwards into Baluchistan.

**Habits-** Steep forested hills are the favoured habitat of this bear. In the Himalayas during summer they may be found near the limits of the tree-line 10,000-12,000 ft. (3050-3660m.) above sea level, but in winter most of them come down to the lower valleys, 5000 ft. (1525m.) and even lower- they have been encountered in the Terai jungles.





# Species: Common otter Scientific Name: Lutra lutra

**Distinguishing Characters-** This distinctive characters of otters as a group have been discussed. The present species can be distinguished from other otters found in India by its fuller, rougher coat, and by its grizzled dorsal surface due to the pale tips of the longer hairs.

**Distribution-** In India the Common Otter is found only in Kashmir, the Himalayas, and Assam, and nowhere in the Peninsula except in south India. Beyond our limits, Europe, North Africa, and suitable localities over the greater part of Asia. Four Indian races are recognised.

**Habits-** In India this is essentially an otter of cold hill and mountain streams and lakes. It makes its lair among rocks and boulders, in hollows beneath the roots of trees growing by the water's edge, or it lies up in reed beds, fern brakes, and bushes.





# Species: Giant squirrels Scientific Name: Ratufa indica

**Distinguishing Characters-** All the Indian squirrels of these dimensions belong to a single genus Ratufa. There species are described from our limits. The Indian Giant Squirrel inhabits the deciduous, mixed deciduous, and moist evergreen forests of peninsular cribbed. In some hill ranges of south India and in Ceylon there is a second species, the Grizzled giant squirrel.

**Habits-** Giant Squirrels live only in forests. They keep to the summits of the higher trees, and seldom if ever come to ground. They move from tree to tree taking amazing leaps with limbs outspread, covering as much as twenty feet in a single bound. They are active and agile animals, most active in the early hours of the morning and in the evening.



# Species: Indian Porcupine Scientific Name: *Hystrix indica kerr*

**Distinguishing Characters-** Porcupines from a separate family of rodents, easily recognised by their hair, modified more or less completely into spines. Other rodents have spines, but never so long or formidable. They reach their highest development in the Indian Porcupine. Its neck and shoulders are crowned with a crest of bristles 6 to 12 inches (15 to 30 cm.) long.

**Distribution-** The Himalyas to Cape Comorin and Ceylon. West wards through Persia and Baluchistan to Syria, Asia Minor, and Palestine.

**Habits-** The Indian Porcupine favours rocky hill sides. It adapts itself to any type of country, moist or arid, and inhabits both open land and forest. In Kumaon and the Western Himalayas, it is found at an altitude of 8000 ft. (2400m.) and more. It shelters by day in caves, amongst rocks, or in a burrow dug by it self, or it uses and, if necessary, enlarges one dug by some other animal.



# Species: Indian Elephant Scientific Name: *Elephas maximus Linnaeus*

**Distinguishing Characters-** Smaller than the African Elephant. It has not the enormous ears and hollow back of the African species. Further it has four nails on each hindfoot, the African has three. The trunk ends in a single ' lip' in contrast with two equal sized ' lips' in the African species.

**Distribution-** Western Ghats, from Mysore southwards, Orissa, Bihar, Himalayas in U.P. West Bengal, and Assam in India, Ceylon, Burma, Siam, Cochin-China, the Malay Peninsula, Borneo, and Sumatra. The elephants found in Ceylon are regarded as races, distinct from that found in India.

**Habits-** Elephants chiefly frequent areas covered with tall forests where the ground is hilly or undulating, and where bamboos grow in profusion. They are extremely adaptable and will live in steamy humid jungle or in cool elevated forests.



# Species: Indian Rhinoceros Scientific Name: *Rhinoceros unicornis Linnaeus*

**Distinguishing Characters-** The skin of this massive creature is divided into great shields by heavy folds before and behind the shoulders and in front of the thighs. The fold in front of the shoulders is not continued right across the back, a distinctive character of this rhinoceros.

**Distribution-** Formerly extensively distributed in the Gangetic plain today it is restricted to parts of Nepal and West Bengal in the north, the Dooars, and Assam. In Nepal it is found only in the country to the east of Gandak River known as Chitawan, in Assam in isolated areas of the plains.

**Habits-** Though it prefers swamp and grass the Great Indian One horned Rhinoceros is also found in wood jungle up ravines and low hills.





# Species: Chinkara Scientific Name: Gazella gazella

**Distinguishing Characters-** A small gazelle of slender graceful build. The body above is light chestnut, the colour deepening where it joins the white of the underparts on the flanks and buttocks. The white disc around the tail, so prominent in the Tibetan Gazelle, is absent. There is the usual white streak down each side of the face so characteristic of all gazelles, and a dusky patch above the nose.

**Distribution-** The plains and low hills of north western and central India extending through the open lands of the Deccan to a little south of the Krishna River.

**Habits-** Wastelands broken up by nullahs and ravines, scattered bush, and thin jungle are the usual haunts of Chinkara. They are common in the sand hills of the desert zone and in the Salt Range, Punjab, ascend to levels of about 4000 ft. (1200m.) They are shy of man, and are not so frequently seen in cultivation.



# Species: Black buck Scientific Name: Antilope cervicapra (Linnaeus)

**Distinguishing Characters-** The Black buck is the sole representative in India of the enus Antilope. Its striking colour and its beautiful spiralled horns, which may reach the shoulder height of the animal, give it an elegance hardly equalled by any antelope. This exclusively Indian animal is perhaps the most beautiful of all its kind.

**Habits-** Black buck are usually seen in herds of 29 or 30, though in Rajputana and the Punjab gatherings may number several hundreds. These antelopes live in open plains covered with scrub or cultivation. They enter sopen forests which contain wide expanses of grass, and where much persecuted seek refuge in such cover. They feed on grass and various cereal crops.



# Species: Swamp deer Scientific Name- Cervus duvauceli Cuvier

**Distinguishing Characters-** The coat, almost woolly in texture, shades from brown to yellowish brown. The stage are maned and darker in colour. The summer coat of stage and hinds is paler. Some develop sports, not always distinct, of lighter tone. The young are spotted.

**Distribution-** Limited to India. Tow races are recognised, the swamp dwelling duvauceli of the Terai, U.P., Assam, and the Sunderbans distinguished by its splayed hooves and larger skull, and branderi found in the hard open ground of Madhya Pradesh with smaller well knit hooves.

**Hibits-** In the Terai the Barasingha lives on marshland and is seldom out of water. In Madhya Pradesh these deer inhabit grassy maidans in the proximity of forest where they appear to be less dependent on water than spotted deer. Swamp deer are highly gregarious.



# Species: Barking deer Scientific Name: Muntiacus muntjak

**Distinguishing Characters-** The antlers are small, consisting of a short brow tine and an unbranched beam. They are set on bony hair covered pedicels which extend down each side of the face as bony ridges, hence the name Ribfaced Deer. In does tufts of bristly hair replace the horns.

**Distribution-** Muntjacs range over the greater part of the Indo Malayan countries and are found also in China, Formosa, and Japan. Various races are recognised over this wide range.

**Habits-** The haunts of the Muntjac are thickly wooded hills. In the Himalayas and S. India it occurs up to levels of 5000 to 8000 ft. (1500 to 2450m.), sometimes even higher. They are seen singly or in pairs or in small family parties.


# Species- Liontailed macaque Scientific Name- Macaca silenus

**Distinguishing Characters-** Distinguished from all other species of macaques firstly by a great mane of long dark grey or brownish grey hairs growing from the temples and cheeks, and also by its glossy black coat.

**Distribution-** The Western Ghats from North Kanara southwards to Kerala and Kanyakumari District, Tamil Nadu.

**Habits-** The Liontailed Macaque inhabits the dense lonelier forests where it keeps to the evergreen tropical belt between 2000 and 3500 feet (610 and 1070 m.). With its dark colouring and shy and seclusive habits there is little wonder that it is seldom seen in these dimly lit forests. Like other macaques these monkeys are gregarious, living in herds of 12 of 20 animals or more.



## Species- Hoolock Gibbon Scientific Name- Hylobates hoolock

**Distinguishing Characters-** The only ape found in India. It has the distinctive build of an ape, arms much longer than the legs and a tailless body. Males and young females are black, on reaching maturity, between the age of 5 or 6, the female's coat fades to a yellowish grey. A newly born Hoolock is covered with yellow tinted greyish white hair.

**Distribution-** Forests of Assam, found in low land forest also east of the Brahmaputra, Lohit and Dibang rivers to the Salween river in Burma, South to the Chittagong Hill tracts in Bangladesh. The range extends through upper Burma and the northern Shan States in western Yunnan.

**Habits-** Hoolocks live in hill forests. Normally, each family lives separately, parents and young forming a group seldom more than 6 in number. Abundance of food or other factors may cause a number of families to congregate together in a more or less limited area.



# Animal-Giraffe Scientific name – Giraffe camelopardalis

**Characteristic features-** The giraffe with its long legs and its amazingly long neck, when erect, stands up to 3.3 m at the shoulder and nearly 6m at the crown. Its characteristic coloration of a light body and irregular dark spots is very variable, both geographically and between individuals; some animals may be almost white or black, or even unspotted.

Distribution /Range- Africa, south of the Sahara

Habitat- Savanna

**History in Lucknow Zoo-** One pair brought from the Alipore Zoo, Kolkatta in 2002 and 2003.

**Breeding** – Female gives birth to a single off spring, rarely twins, after a gestation of over a year usually 400-468 days.

**Food-** Feeding mostly early in the morning and afternoon on the foliage, buds and fruits on the top of acacia and thorn trees. They may also eat grass, plants and grain crops.



# Animal- Hippopotamus Scientific name – Hippopotamus amphibious

**Characteristic feature-** One of the giant of Africa, the hippopotamus has a bulky body and a massive head and mouth equipped with an impressive set of teeth; the canine teeth form tusk. Its legs are short and thick, and there are four webbed toes on each foot. Body size 3.2-4.2 m.

**Distribution /Range-**Africa, south of the Sahara to Namibia and South or lakes in grassland: Transvaal

Habitat- Rivers or lakes in grassland

History in Lucknow Zoo- First pair of hippo brought in Lucknow zoo in 1977.

**Breeding**– Mating takes places in water at any time of year but is generally time so that birth coincide with the rain and, thus, the luxuriant growth of grass. A single young is born on land or in shallow water after a gestation of 233-240 days.

**Food-** In the evening the hippos emerges to graze on the land, taking short grass and other plants and fallen fruit.



# Animal- Zebra Scientific name – Equus burchelli

**Characteristic feature-** Great variation in pattern occurs in these zebras, both between individuals and the various subspecies. Toward the south of range, the stripes on the hind parts of the body generally become lighter. The body is rounded, and the legs slender, and there is a small erect mane on the back of the neck. The base colour of the body varies from white to yellowish, and stripes may be light to dark brown or black.

Distribution /Range-E. and S. Africa

Habitat- Grassy plains, lightly wooded savanna, hills.

**Breeding**– The female gives birth to a single young, rarely twins, after a gestation of about a year.

**Food-** Active, in the daytime these zebras leave their resting place at dawn and move to grazing grounds to feed on grass and some times on leaves and barks. They must drink regularly.



#### Animal-Scientific name – Hamadryas Baboon Papio hamadryas

**Characteristic feature-** The male hamadryas baboon is as much as twice the size of the female and has a heavy mane around its neck and shoulders. Females and younger males lack the mane and have brownish hair. Like all baboons, this species has a dog like muzzle and a sloping back.

Distribution /Range-Africa; Ethiopia, Somalia; S. Saudi Arabia.

Habitat- Dry rock country, savanna, semi-desert.

History in Lucknow Zoo- Brought from the Kanpur zoo in 1992.

**Breeding** – The peak breeding season is May to July and the female produces one, really two, young after a gestation of between 170-175 days.

Food- They eat almost any plants, insects and small animals.



Animal- Japanese Macaque Scientific name – Macaca fuscata

**Characteristic feature-** The only monkey found in Japan, the Japanese macaque is the sole primate other than man able to withstand a cold, snowy winter and near- freezing temperatures. Is a medium sized, well built monkey, with dense fur and long whiskers and beard. Active both on ground and in trees.

Distribution /Range- Japan
Habitat- high-altitude forest
History in Lucknow Zoo- Brought from the Kanpur zoo in 1992.
Breeding- Female gives birth to one young after a gestation of between 6na d7 months.
Food- It feeds mainly on nuts, berries, buds, leaves and bark.



Animal-Scientific name – Capuchin monkey

**Characteristic feature-** A lively, intelligent monkey like all the capuchins, this species is slender and long- limbed, with a partially prehensile tail. There is considerable variation in colour over the range, but these capuchins are usually different shades of brown. Alert and fast moving they are inquiring by nature have great manual dexterity and investigate all sorts of plants and fruit in hope that they may be edible.

Distribution /Range- parts of Colombia, Venezuela, upper Amazon area; Trinidad.

Habitat- forest

History in Lucknow Zoo- Brought from Kanpur zoo in 1988

Breeding – The female usually gives birth to a young one although twins have been known.

Food- Shoots, fruit, insects, young birds "eggs are all part of their diet.





# Animal- Hyaena Scientific name – *Hyaena hyaena*

Distribution/Range: India, South- western Asia, northern Africa.

**Habitat:** Hyena is rare in Forested deistic abandoned in open country. Especially where low hills ravines offer convenient holes and caves for shelter.

Habits: They come out in quest of food by night, retiring before sun rise.

**Foods:** Though scavengers by profession, performing useful services as such, hyenas do not feed wholly on carrion. Occasionally sheep and goats and quite often stray dogs are carried of by them.

**Breeding:** Matting time is in the cold whether; gestation period is about 90-110 days



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## Animal- Spotted deer Scientific name – Axix axis

**Distribution/Range:** In the forest as the base of the Himalaya and practically through the Peninsula and Ceylon.

Habitat: Where ever there is jungle combined with good grazing and plentiful supply of water.

**Habits:** They are seen in herds of 10 to 30, which may contain 2 are 3 stags. But assemblages numbering several hundereds have been met with.

Foods: Green grass leaves etc.

**Breeding:-** Breeding take place in winter months, gestation period is about 6 months. But fawns may be met with at any season.





Animal- Samber Scientific name – Cervus unicolor

Distribution/Range: India, Burma and Ceylon.

**Habitat:** Forested hill side, preferably near cultivation, are the favourite haunt of the Samber.

Habits: They feed mainly at night and retire into heavy cover at daybreak and do usually come out till dusk.

Foods: Grasses, Leaves and various kind of wild fruits.

**Breeding:** Breeding takes place in November and December. The young are born in late may or early June.



# Animal- Hog deer Scientific name – *Cervus porcinus*

**Distribution/Range:** North India from Sind and the Punjab to Assam. Range extend into Burma.

**Habitat:** Grass jungle, by the bank of rivers, Grass cover Delta ice land and open grass plains.

**Habits:** Hog deer are generally solitary creatures. Sometimes small parties up to 18 or so may be found grazing together.

Foods: Grasses etc.

Breeding: Breeding took place in Sep. to Oct. and young are born in April and May.



# Animal- Mugger Scientific name – Crocodylus palustris

**Distribution/Range:** Throughout the Indian sub continent **Habitat:** Rivers, Lakes and other large water bodies in the plains and up to 600 m in the Hills.

**Habits:** The best known and most widely distributed among the three species of Indian Crocodilians. Large specimens usually spend the day basking on the bank or a rock facing the water, ready to slip in at the least alarm.

**Foods:** Hunts more or less exclusive in water. The diet is largely fish but any animal that can be over come is taken.

**Breeding:** Matting has been observed from mid January in south India to March in the northern part of the country.



Animal- Gharial Scientific name – *Gavialis gangeticus* 

**Distribution/Range:** Confined to the Indud, Ganga, Brahmputra, and the Mahanadi river systems in the Indian subcontinent and the Irrawaddy and Arakan river systems in Myanmar. **Habitat:** Rivers.

**Habits:** River dwelling crocodilians inhabiting deep pools at river junctions and bends, called kunds and the deep gorges in hilly country.

**Foods:** Predominantly fish. Occasionally takes turtles, birds and small mammals and said to feed on corpses.

**Breeding:** Ghariyal nest in late March, early April and the nesting season is said not to vary by more then 10 days in any year.

## Section-c

32,5,6

# II-1- General Zoo administration section:-

For the better control and co-ordination of different sections in the Lucknow Zoological Gardens, a separate section known as Zoo administration section has been created and housed in the office building.

It is housed in the office building itself and is headed by the Head Clerk. The Section has been further divided into two sub – sections namely Account Section with one Accountant, and one assistant accountant, a Head Booking clerk, 4 Booking clerks, and the Establishment Section with one Accounts Clerk cum Typist to look after the establishment and general correspondence.

A separate record room has also been attached with the administration section for keeping all the earlier records, registers and files.

CHANL

S.No.	Designation	Sanctioned Strength
1.	Director	01
2.	Dy. Director cum Veterinary officer	01
3.	Asstt. Veterinarian	01
4.	Deputy Ranger	01
5.	Curator (Aquarium)	01
6.	Garden Supervisore	01
7.	Head Clerk	01
8.	Accountant	01
9.	Assistant Account	01
10.	Accounts Clerk	01
11.	Security Incharge	01
12.	Head Booking Clerk	01
13.	Booking Clerk (including Train)	04
14.	Assistant Serpentarium Keeper	01
15.	Electrician-cum-mechanic	01
16.	Driver-cum- mechanic	01
17.	Head Keeper	01
18.	Head Mali	01
19.	Fisher- Man	02
20.	Conductor-Guard(Bal Train)	01
21.	Senior Keeper	06
22.	Senior Mahawat	01
23.	Senior Sweeper	03
24.	Chowkidar	20
25.	Junior Keeper (including Peon-cum-Keeper	08
26.	Junior Sweeper	04

The sanctioned posts as per the Scheme of Management are as follows: -

27.	Mali	18
28.	Coolie	03
29.	Bhishti	01
30.	Junior Mahawat	03
31.	Temp. Mali	01
32.	Black Smith- cum-welder	01
	Total	93

As the Zoological Gardens is a Trust, it recycles the income generated as a result of sale of tickets, fees from Restaurant, pedal boating, weighing machine, sale of T-shirts and caps, etc. the zoo also receives Grant from the State Govt., which goes mainly towards salary, food for animals and their maintenance etc.

For the developmental activities, the Central Zoo Authority also gives financial assistance to the zoo.

The Govt. of U.P. also provides funds for some infrastructure development in the zoo. log A veterinary hospital for wild animals.

## Section-d

## II-1-Research:-

There is no research section in the Zoological Gardens as of now but there is a proposal to engage a full timeBiologist for this section. Hence, there should be a Research Attendant in the Section to attend to the research activities. The research section should be fully equipped with Research Unit with computer, refrigerator and laboratory equipments like oven, weighing machine, microscope, infrastructure and can be housed in the Hospital building.

## Section-e

# II-1-Conservation breeding:-

Given the scale of global habitat destruction, climatic changes and population explosion, it is pertinent to think whether Zoos are really having a role in conservation.

Zoos are working against the tide of extinction of various species at a time. The Zoos have limited space and resources, and hence, have directed those resources to a considerable extent on specific wild animals. In some cases, zoos are almost the only institution working towards conservation of species in critical situation.

The primary objective of ex-situ conservation should be to assist the national or global efforts in the conservation of highly endangered species. The objective of keeping each and every animal in the Zoological Gardens should be well defined. The zoo bred animals of these identified animal species can be released in the wild to augment the dwindling population of these animal species where they are still existing, or can be reintroduced in the areas where these were found in the recent past if the habitat is still conducive for the animal.

Lucknow Zoological park is situated in the Indo Gangetic plains of Uttar Pradesh. The state of Uttar pradesh has endemic swamp deer population in the terai tract of the state. The swamp deer is almost restricted to the district Lakihmpur kheri especially is Jhadi tal of Kishanpur sanctuary and certain pockets of Bijnor and adjoining districts. Keeping this in view the zoo park can be developed as a conservation breeding centre for Swamp deer. The population of Swamp deer is steadily increasing in the zoo. On an average 4 births per year are recorded in the past few years.

#### Section-f

#### **II-1- Education and awareness:-**

The Education section is housed in the Nature Interpretation Centre building. There is one fully equipped Zoo Library inside the recently created Nature Interpretation Center. The Nature Interpretation Centre is located right near the main gate entrance of the Zoological Gardens. Booklets, maps, Newsletter, leaflets, Annual reports etc are regularly being produced for extension purposes. In addition to that, the Section organizes different celebrations like World Environment Day, World Forestry Day, Wildlife Week, Van Mahotsava, etc. This section works in collaboration with different Schools, NGOS and other Organizations from Lucknow and surrounding areas. This section also plays a major role in Adoption scheme of animals and Touch-Table programmes for school children.

## Section-g

**II-1-** Activity peculiar/unique to the zoo:- The Lucknow zoo acts as a breeding centre for the Swamp deers. Proposal is included in management plan.

# Part - II

# Chapter-I

# **Future objective:-**

- 1. The mission of Lucknow Zoological Gardens is to encourage people to develop a caring attitude towards its flora and fauna.
- 2. To serve as a dynamic nature conservation center by promoting breeding programs of rare and endangered species of Uttar Pradesh, and
- 3. To offer excellent service, recreation, eco-awareness and education.
- 4. Conservation education and awareness
- 5. Research for conservation

## Chapter – II

## **Future Action Plan:-**

20000

#### 2.1- Proposed animal collection plan and population size:-

Lucknow Zoological Gardens is a specialized Zoo which has been identified for the captive breeding of Swamp deer and it has been seen that Swamp deer are successfully breeding in the Zoo. The Zoological Gardens has provided Swamp deer to a number of Zoos all over India.

Around 98 types of animal/birds species have been identified for display and breeding in the Zoological Gardens. Some of these are not critically endangered and not in need of immediate ex-situ efforts but have been included just for display and research purposes. Whereas, others have been adopted as a part of planned conservation breeding project for their ultimate rehabilitation in the areas where they are still existing or were found in the recent past. The list of the species forming part of Collection Plan alongwith the population size is given below.

S. no.	Name of the Species	Carrying Capacity
1.	Himalayan black bear	08
2.	Sloth bear	10
3.	Hybrid Lion	08
4.	Bengal Tiger	04
5.	White Tiger	02
6.	Leopard/Panther	04
7.	Wolf Indian	06
8.	Jackal	02
9.	Hyena	06
10.	Otter	02
11.	Civet cat	08
12.	Giraffe	04
13.	Indian Rhino	02
14.	Hippopotamus	04
15.	Zebra	06
16.	Black buck	20
17.	Hog deer	20
18.	Swamp deer	50
19.	Spotted deer	50
20.	Sambar deer	10
21.	Thamin deer	10
22.	Barking deer	20
23.	Chinkara	06
24.	Porcupine	06

# ANIMAL COLLECTION PLAN

CHAMA -

25.	Giant Squirrel	04
26.	Hoolock Gibbon	02
27.	Macaque Bonnet	10
28.	Macaque pigtailed	02
29.	Macaque Stump tailed	06
30.	Hamadryas baboon	04
31.	Monkey rhesus	02
32.	Japanese Monkey	02
33.	Capuchin Monkey	10
34.	Lion tailed Monkey	02
35.	Barheaded Goose	10
36.	Whistling Teal	10
37.	White eye pochard	10
38.	Pin tail	10
39.	White Stork	02
40.	Painted Stork	10
41.	White Necked Stork	02
42.	Black Necked Stork	04
43.	Stork Adjutant	02
44.	Grey Heron	10
45.	Spoon bill	10
46.	White Ibis	10
47.	Common Crane	02
48.	Demoiselle Crane	10
49.	Sarus Crane	06
50.	Cockateal	50
51.	Cockatoo	04
52.	Blossom headed Parakeet	10
53.	American Parakeet	10
54.	Black capped Lorry	06
55.	Rose ring Parakeet	10
56.	Large Indian Parakeet	10
57.	Blue Yellow Macaw	06
58.	Baramini duck	10
59.	Coot	10
60.	Muscovy duck	10
61.	Lesser flamingo	08
62.	Grey horn bill	04
63.	Great horn bill	02
64.	Reeves pheasant	04
65.	Red Jungle fowl	06
66.	Spur fowl	02
67.	Common pea fowl	00
68.	White peacock	06
69.	Golden pheasant	04

70.	Green pheasant	06
71.	Silver pheasant	06
72.	Lady Amherst pheasant	04
73.	Kalij pheasant	06
74.	Grey Partridge	04
75.	Emu	06
76.	Rosy pelican	30
77.	Purple moor hen	10
78.	Rosy Paster	10
79.	White dove	20
80.	Hill Myna	06
81.	Diamond dove	20
82.	Green Dove	10
83.	Indian red breasted parakeet	10
84.	Indian Python	10
85.	Cobra	04
86.	Rat Snake	04
87.	Snake sand	04
88.	Turtle	10
89.	Crocodile Marsh (Mugger)	04
90.	Ghariyal	04
91.	Viper	04
92.	Monitor Lizard	02
93.	Earth Snake	04
94.	Royal Snake	04
95.	Fishing Cat	04
96.	Civets	08
97.	Owls	10
98.	Porcupine	06
99.	Leopard Cat	04
100.	King Cobra	04

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# Justification of keeping endangered species:-

Today when wildlife habitat is under severe pressure and a large number of species of wild animals have become endangered, the Zoo have not only to sustain their own population, but also augment the depleting populations of endangered species in the wild. Keeping in view of these facts, a group of experts was formed by the Central Zoo Authority just after its creation in 1992 with a mandate to prepare a strategy for conservation breeding of endangered species in Indian Zoos. The group identified about 35 manuals, birds and reptiles for their probable

captive breeding in Zoos. The Chief Wildlife Warden of the States within the natural distribution of the species, were selected as coordinators for the species under the programme. Responsibility for maintaining of the studbook for select endangered species was also given to Zoos. Taking note of the past success and failure of ex-situ breeding of endangered species un Indian Zoos, the issue was again taken up for discussion in the meeting of the Central Zoo Authority in year 2005.

This was felt that Indian Zoos have to have at least 100 properly and scientifically bred and physically, genetically and behavirourally healthy individuals of each endangered wild animal species in captivity to act as insurance cover in case of population loss of the species in the wild. Three objectives i.e. having proper captive stocks to continue display, have properly bred animals to act as insurance and for reintroduction or release in the wild in case needed, form very base of planned coordinated conservation breeding programme in Indian Zoos.

#### Initiatives

In spite of all efforts in the past, the conservation breeding of identified endangered species could not be implemented in to in Indian Zoos as the number of animals of such species in Indian Zoos was either small or the Zoos did not have the species in captivity. Another reason was non availability of technical personnel to monitor the programme as well as financial resources to run the programmes. To bring in a holistic development of Zoos in India and to achieve the main objective of Zoos as Centres which can compliment the national effort of wildlife conservation in India, we need to infuse more technical and scientific culture in operation of our Zoos and change the general perception of Zoos from being mere picnic spots to more of a scientific institution.

All the Zoos in India are equipped with small veterinary facilities along with veterinary personnels as per the classification of the Zoo and as per the standards and norms under the Recognition of Zoo Rules. The Zoos have also been asked to develop mechanism with local veterinary colleges/universities/hospitals in the region to provide specialized services and diagnostic facilities to them. Indian Veterinary Research Institute, Bareilly has been identified as a National Referral Centre (NRC) to provide super specialty services and diagnostic facilities to the issue of health care of wild animals, training of Zoo veterinarians and conducting research on health care and nutrition of wild animals in captivity.

The coordinating and participating Zoos have been asked to construct appropriate enclosure for the targeted wild animal species to fulfill their physical and behavioural needs. The coordinating Zoo for each targeted species have also been requested to create off display conservation breeding facility either in the Zoo compound or as satellite facilities. School of Planning and Architecture (SPA), New Delhi has been assigned the study on Zoo Design and Architecture to help the Zoos in this regard. In order to infuse new technology en the field of reproduction and molecular characterization of endangered species, a Laboratory (Laboratory for Conservation of Endangered Species- LaCONES) has been established at Hyderabad. A Memorandum of Understanding (MoU) has been signed with the Wildlife Institute of India, Dehradun for preparation and updating of National Studbook for the identified endangered wild animal species being taken up for conservation breeding programme. The Zoos are also being provided funds in form of small grant fellowships to organize studies to deal with the local issues and the coordinating Zoos have been asked to engage technical manpower for preparation of conservation breeding management plans for the targeted species. All these initiatives are being made to modify and equip the Zoos for taking up this great responsibility and participate in conservation breeding programme. ISS- ZIMS Authorities have also been contacted to assist the Indian Zoos in data compilation and record keeping.

#### Strategy

The ex-situ conservation breeding of endangered species in India is a joint venture of insitu and ex-situ wildlife managers. This is a need based activity. The Chief Wild Life Warden and protected area managers have been requested to identify the species which need immediate intervention in the form of ex- situ conservation breeding for the protected areas under their control. Wildlife Wing of the State Governments have been requested to conduct time to time census of wild animals in collaboration with scientific institutions and non government organizations to assess the field conditions as well as identify animal species which need help from Zoos. Another component of the programme is identification of the Protected Area having wild population of the proposed species/re-introduction site in the vicinity of the conservation breeding facility. The in-situ managers of the protected areas will be taking corrective measures to address the cause of decline/extinction of wild population of the targeted species in its natural habitat. Analyzing suitability of the wild habitat for the targeted species, the number of animals left in the habitat, assessing and analysing the cause of decline/loss if number of animal species and the inputs required for the improvement of the habitat in the form of habitat manipulation to make it more suitable for the target species and protection required in case the cause is found to be hunting, trapping etc. form major component of the programme. It was felt that critically endangered wild animal species with few hundreds/thousands (or say less than 2500) left in the wild need to be taken up for ex-situ conservation breeding in the zoos on immediate basis in the country. Species with localized distribution should get preference in the scheme of things.

The existing zoos are the other major component of the programme as there is huge infrastructure and trained manpower available there to deal with the issue. Two to four zoos (participating Zoos) in the habitat range of the targeted species will take part in the breeding programme of the targeted species. Conservation breeding facility in the form of off display centre (if the appropriate land is available in the zoo compound) or in the form of satellite facility will be created only in one (coordinating zoo) to two zoos of the region. Other zoos in the country in addition to the coordinating zoo and participating zoos may continue to display the species in naturalistic enclosures.

The possibility of identifying around 25 animals as founders will be assessed from the existing captive population in Indian zoos. Efforts will be made to acquire suitable founders from centres and foreign zoos to initiate the programme or to induce new blood into the existing founder population. If required, the Government of India will also be approached for allowing acquisition of animals of wild origin from the rescue centres or from wild for initiation/continuation of breeding programmes. The target will be to have at least 100 physically, genetically and behaviourally healthy animals in captivity in Indian zoos/breeding centres. Sequence of steps to be taken up under the planned coordinated Conservation Breeding Programme of critically endangered wild animal species in India is:

- 1- Identification of species
- 2- Approximate number of animals of the species in the wild.
- 3- Number of animals of the species in captivity in Indian Zoos.
- 4- Identification of coordinating zoos
- 5- Identification of participating zoos
- 6- Existence of animal enclosures in coordinating, participating and other zoos.
- 7- Existence/creation of off-display enclosure for conservation breeding in coordinating Zoo.
- 8- Identification of founders
- 9- Marking of founders(transponders, ear tags or rings)

- 10- Preparation if animal history sheets and animal observation sheets of the identified founders by the Zoos
- 11- Compilation of Studbook by the National Studbook Keeper, (Wildlife Institute of India, Dehradun)
- 12- Liaison with the International Studbook Keeper of the species (if any)
- 13- Possibility of acquiring the founders from foreign Zoos (if required ) and details of the Zoos from where founders can be acquired
- 14- Physical health check up of the founders using the veterinary hospital in the Zoo as well as National Referral Centre (Indian Veterinary Research Institute, Bareilly)
- 15- Genetic health check up of the founders using blood samples or body parts with help from LaCONES, Hyderabad
- 16- Engagement of Technical Assistant in the coordinating Zoo
- 17- Preparation of conservation breeding management plan of the species.

The creation of appropriate housing facility in the form of off display conservation breeding centre/satellite facility along with the project office in the coordinating Zoos will be funded by the Central Zoo Authority on 100% basis. The maintenance of the conservation breeding facility will be the sole responsibility of the Zoo Operators/Stare Governments.

More than 90% of the recognized Zoos in the country are operated or controlled by the State Forest/Wildlife Departments. These are also managing the in situ facilities that make the coordination between the in – situ and ex-situ wildlife conservation activities much easier.

Help of the national/international organization, institutions, NGOs and related bodies will also be sought to make the programme successful. World Association of Zoos and Aquariums (WAZA) will also be requested to support the activity as part of global species management programme. Conservation Breeding Specialist Group of SSC-IUCN will also be engaged in the activity. The wild animals bred as part of the coordinated conservation breeding activity, will occasionally be released in the identified habitats following IUCN guidelines for the purpose involving Reintroduction Specialized Group of SSC-IUCN. The main purpose of this will be to have hands on experience and develop the mechanism for such operations, so that they can be used in case of exigencies in formal release operations, Zoos may have to conduct in future.

Present stock of wild animals of the commoner species from unplanned breeding of unknown lineage or prolific breeding species in Indian Zoos again of doubtful lineage will be phased ort and replaced by the individuals of the desirable species bred and kept in more planned and scientific ways, which are physically, genetically, behaviourally healthy and can be used as future insurance for the cades of exigencies. The conservation breeding programme is not necessarily to breed the animals of the targeted species for reintroduction in the wild only but to have proper stock for display in the Zoos and to have the right animals as an insurance for exigencies and for experimental release in the wild.

#### 2.2- Layout plan of the zoo:- (Annexure- 1)

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## 2.3- Inadequacies and shortcoming:-

The Lucknow zoo full fills all its objectives however there are a few constraints related to the budget and finance which are being enlisted in the management plan (Annexure-8)

#### 2.4- Peculiar problems:-

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It is imperative to mention here that Lucknow Zoo in the previous and current year has also been functioning as a rescue centre for the abandoned, injured and rescued wild animals. There is huge financial requirement for better upkeep and treatment of these animals at the Zoo. If CZA supports the zoo financially for the better upkeep of this rescued animals, the financial burden of these animals will reduce drastically on the Lucknow Zoo administration.

The CZA may consider to transfer these additional rescued animals to the more fevourable rescue/ rehabilitation centers for the better upkeep of these animals as per the rules and guidelines of the CZA.

# Chapter –III

# Personnel Planning-

SI. No.	Name of Post	Number of Post	Source of Recruitment
(A)	ADMINISTRATIVE SECTION		
1.	Director	1	Deputation
2.	Head Assistant	1	Promotion
3.	Senior Assistant	1	Promotion
4.	Senior Clerk	1	Promotion
5.	Junior Clerk	1	Direct/ Promotion
6.	Junior Clerk/Steno typist	1	Promotion/Deputation
7.	Curator	1	Deputation
8.	Deputy Ranger	1	Deputation
9.	Store-Keeper	1	Promotion/Direct
10.	Dakia	1	Direct
<b>(B)</b>	WILDLIFE MEDICAL SECTION		
11	Deputy Director/Wilcllife Veterinarian	1	Direct/Prometicin
12	Assistant Veterinarian	1	Direct
13	Hospital attendant' Laboratory Assistant	1	Direct
(C)	PUBLIC RELATION/ZOO EDUCATION		
	SECTION		
14.	In-charge Public relation/ Zoo Education	1	Promotion/Direct
15.	Senior Booking Clerk	1	Promotion
16.	Junior Booking Clerk	5	Promotion/Direct
17.	Receptionist	1	Direct
(D)	WILDLIFE WELFARE SECTION		
18.	Head Keeper	1	Promotion
19.	Senior Keeper	4	Promotion
20.	Keeper	8	Promotion
21.	Assistant Keepers	8	Direct
22.	Assistant Keepers-cum-Sweeper	8	Direct
23.	Fisherman	1	Promotion
24.	Junior Fisherman	1	Direct
25.	Mahawat/Keeper	2	Promotion
26.	Chara-Cutter-Cum-Safaikar	2	Direct
27.	Cook	2	Direct
(E)	MECHANICAL SECTION		
28.	Balrail-driver-cum-mechanic	1	Promotion/Direct
29.	Jeep Driver	1	Direct
30.	Tractor Driver	1	Direct
31.	Black-smith-cum-welder		Promotion/Direct
32.	Electrician-cum-mechanic	1	Promotion/Direct

33.	Conductor Guard (balrail)	1	Promotion/Direct
34.	Cleaner	1	Direct
35.	Tube-well operator	1	Direct
<b>(F)</b>	SECURITY SECTION		
36.	Security Incharge	1	Promotion/Contract
37.	Security Guard	15	Direct/Contract
(G)	GARDEN SECTION		
38.	Head Mali	1	Promotion
39.	Senior Mali	3	Promotion
40.	Mali	7	Direct/Contract
	Present permanent Post	93	
41.	Daily wages	31	For Different Zoo work
42.	Private Security on contract	10	For Animal and
			Enclosure security
43	Curator	1	Requirement sent to the
44	Education Officer	1	higher authorities.
45	Biologist	1	
46	Lab Assistant	1	
47	Stock Man or Compounder	2	
48	Radiologist x-ray technician and		
	ultrasound technician	2	
50	Rescue van and ambulance driver	2	
51	Ward attendant	2	
52.	Safaikar	2	
	Total	14	

## Chapter -IV

#### **Disaster management:-**

#### 4.1- Fire control

Almost all the places including animal enclosures, main gate, etc should be provided with fire extinguisher as well as sand buckets for safe guarding against accidents of fire.

#### 4.2- Flood

Lucknow zoo has a huge drainage pumping system for flood control. The whole pumping house having big electric and diesel pumping sets for pump out the extra water from the zoo premises.

#### 4.3- Cyclone situation

In case of the cyclone, the inherent resilience of zoo workers persistently and assiduously put their efforts to bring the Zoo to normal condition, had succeeded to a greater extent. While in discussion with otter officials of State Disaster Mitigation Authority, We knew that Lucknow Zoo is geographically situated at a place, which is not prone to all 3 major natural disasters namely cyclone, floods and earthquake. Although it was felt necessary to equip the staff for any eventuality and upgrade mechanized support and infrastructure inside the Zoo to reduce the response time. The training on Emergency preparedness, mitigation and development of a "crack team" has been and is an attempt to keep all of us at Zoo aware of impending danger and how to face it at the time of crisis.

#### 4.4- Law and order break down:-

Wildlife laws, regulations as per the guide lines of Central Zoo Authority are being followed and implemented in the Zoological Gardens as per the Wildlife Protection Act (1972) and later amendments. The Zoo is also implementing the National Zoo Policy.

## **Chapter-V**

#### **Contingency Plan:-**

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#### CONTINGENCY PLAN FOR DISASTERS

For an Institution like the Zoological Gardens of such magnitude and reputation, a Contingency Plan and Emergency preparedness to deal with disasters need to be formulated. The Lucknow Zoological Gardens deals with large number of wild animal species with sizeable staff strength and thousands of visitors who visit the Zoo daily. Escapes of Zoo animals, natural disasters, aberrant human behaviour can create unforeseen situations. Meticulous prior planning with adequate finance is needed for preparedness to face such emergencies in the interest of the wild animals of the Zoo as well as for public safety.

Invariably, such contingency plan comes into action mostly aftermath of an emergency, however preparedness shall aid successful control and mitigation. Though the occurrence of such natural and manmade emergencies are certain, they are infrequent, and the zoo has to cope with them. For Lucknow Zoological Gardens, the Contingency Plan to be developed should be as follows : -

- Emergency preparedness handbook is required to be prepared for teams specifying the different animal upkeep facilties as well as visitor amenities. The handbook should specify.

- i) Constitution of the team.
- ii) Members of the team.
- iii) Emergency Plan should have clearly written instructions and should be applicable to each employee. The contents should also be known to each of them.
- iv) Each employee should know exactly what his/her role is during a disaster, to whom to report and work with as emergency preparedness team (EPT).
- The possibility of disaster (war with neighbouring countries, bomb threat, escaping of dangerous animals, mob fury, severe storm, heavy rains, earthquakes, fire etc) should cause EPT to come into operation in orderly, planned manner. This may include evacuation of visitors or animals, either prior or after a disaster has occurred.
- All the new construction and renovation in the Zoo should be sturdy and with ability to withstand effect of earthquakes or other major disaster.
- Alternative power and water supply should be well planned and made available. This is necessary for disaster mitigation.
- The dietary food items should be maintained in stock for at least 15 days. Other items of personal use as well as animal needs should also be kept in stock including equipments and emergency tools.
  - \* Personal needs water, food, first-aid kit, lantern, battery, torches, rain/ winter clothings, stoves.
  - \* Animal needs generator, chainsaws, plastic sheets, nets, nylon ropes, strapping, sandbags, capturing equipments, tranquilizing drugs and veterinary supplies.

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Attempts should be made to develop auxiliary voluntary teams to support during emergency and to work with EPT. Such volunteers should have an instruction handbook to function and report. Voluntary Organisations should also be involved in such contingency plan operaton. Close link should be established with district as well as state disaster management authorities. Contingency Plan for Lucknow Zoological Gardens should be specifically operated for fire, cyclones, extreme cold spells, earthquakes, diseases of epidemic proportions, as well as escape of animals and aberrant human behaviour.

#### 5.1- Animal rescued from wild:-

Fragmentation, degradation, and destruction of India's wildlife habitats have reduced the living space for wild animals. Natural calamities like forest fires, floods and cyclones have further compounded their problems, hindering their movement to safer habitats. The result of such man made pressures and natural calamities is animals getting displaced from their habitats. Necessitating human intervention. Many of them end up in captivity under human care, often spending the rest of their life in zoos or ill- equipped lifetime care centres. Poaching for illegal trade in live animals also contributes to displacement of wildlife. IUCN, 2002 guidelines for the placement of such displaced and confiscated animals recommend only three options for such animals:

- 1- Release to the wild
- 2- Lifetime care
- 3- Euthanasia

In the following section we will be dealing with the option of 'Release to the wild'. Rehabilitation as an option for displaced wildlife is still in its infancy. There are no guidelines, standards, protocols or management plans for the rehabilitation of Indian wildlife. Rehabilitators need general rehabilitation principles but also species specific guidelines. Currently rehabilitators in India rely mostly on the two time tested IUCN guidelines on reintroduction and placement of confiscated wildlife (IUCN, 1998 and 2002).

#### I. Rescue

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Not all displaced wild animals need to be rescued and brought into captivity. A lone elephant calf or jungle cat kittens or leopard cubs found alone may not be displaced at all. The elephant calf may have temporarily lagged behind the herd or the kittens and cubs may have just been alone by the mother while she is out for hinting.

The natural mother is always the best option for any neonate or young one. Therefore, if any baby animal is spotted alone in the forest, enough time and opportunity must be given for the herd or the mother to come back. However, if the animal is in distress (an elephant calf is trapped in a ditch) it mist be assisted out of the ditch and attempts be made to reunite with the herd. Similarly, cubs, pups or hare babies (leverets) seen alone in the bushes should never be picked up at the first instance. Only if the animal is wounded or in debilitated state should one interfere and take the animal into captivity for stabilization, treatment or hand raising.

#### II. Admission and stabilization

#### Quarantine

It is essential to quarantine sub adult and adult animals brought from the wild tnto captivity to prevent the risk of transmission of disease from the wild to the resident animals. However, baby animals need no special quarantine as they would anyway need a protected environment for hand raising. All neonates require intensive care and stabilization in a sterile environment when they are admitted in a rehabilitation facility, this period can be considered as quarantine.

#### Admission of the animal

When admitting the animal at the rehabilitation facility, all possible history should be recorded such as place of rescue, age, acceptance rule, sex, species etc.

#### Stabilization

Stabilization can be defined as a period in confinement in a sterile and/or secure environment that would allow wounded animals or neonates to settle down and acclimatize to their captive situation if the animals need to be hand raised for long term rehabilitation. The period of stabilization depends on the condition of the animal and age of the animal upon rescue. If the animal needs to be released immediately upon treatment then the stabilization period can be one to two days. Depending upon the species the period of stabilization can be anywhere between one to three months.

- 1- Stabilization of displaced wildlife should always be species specific. The animal should be evaluated quickly, examined for critical conditions and emergency care administered as needed.
- 2- Stabilization techniques would be different for different specially for birds and mammals. If the animal is an ungulate, handling must be as minimal as possible as they have a flight reaction and also suffer from capture myopathy. Injured animals must be handled with care so as not to cause any further damage. Birds too are easily stressed and must be handled as less as possible.

3- In the case of young ones of social animals (elephants or primates) the animals need to be comforted and made to feel safe and secure.

- 4- Stress and related conditions are the cause of more deaths in rehabilitation than any other single factor. Stress should be kept to the minimum. Unnecessary handling should be avoided and should be as gentle as possible.
- 5- Housing options: During the stabilization period different species can be housed as follows:
  - Elephant calves can be housed in permanent structures with two keepers in rotation and gradually introduced to other elephant calves depending on the physical condition.
  - Ungulate babies can be housed in confinement in closed dark rooms and subsequently introduced to paddocks.
  - Large ungulates can be placed in large paddocks or enclosures. Hoof stocks with injuries requiring constant treatment have to be maintained in crushes for some time.
  - Primate babies can be housed un small crates whereas adults can be housed in large enclosures that have confinement zones
  - Carnivore babies such as jungle cats can be housed in incubators where as adult big vats can be housed in holding cages with squeeze cage facility for treatment

Initial examination: The initial examination should include the following procedures-

- 1- Weighing the animal including morphometry
- 2- Temperature for evidence of hypo or hyperthermia
- 3- Palpation of limbs for evidence of fractures
- 4- Examination of orifices for bleeding or diarrhoea
- 5- Assessing nutritional status and condition
- 6- Hydration status by examining the coat colour, skin elasticity and skin dryness
- 7- Conducting any ancillary diagnostics (blood examination, faecal sampling, x-ray etc.)

#### Initial treatment

- 1- Fluid administration (oral or I/V) as most new animals are often dehydrated
- 2- Cleaning and treatment of wounds
- 3- Stabilization of fractures
- 4- Medication (antibiotics, steroids etc.) if necessary

#### **II. Intensive rehabilitation**

#### Hand raising of neonates

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- 1- Hand raising of neonates again is extremely species specific. Young ones of species such as the Himalayan black bear need not be hand raised intensively beyond the age of two months unlike rhino, buffalo and elephant calves which need to be nursed intensively till about two years. While some species can be hand raised with minimum human contact, others cannot be left unattended.
- 2- The intensive hand raising period involves bottle feeding, stimulating the neonates to defecate and urinate and provide them warmth, comfort and security as the mother world provide.
- 3- Colostrums is the first milk produced by the mother and is high in proteins, maternal antibodies and active phagocytes. Young ones that have not received colostrums need extra care in terms of hygiene and handling. Serum from an adult of the same species can be injected or given orally while the gut is still permeable.
- 4- Hygiene is a very important consideration not just in hand raising of neonates bur throughout the rehabilitation exercise as the immune system of neonates is not only underdeveloped but also compromised while in captivity. A strict hygiene protocol for husbandry, handling, facilities, equipments as well as personal hygiene must be followed.
- 5- Milk formulas should also be very species specific. An appropriate milk formula is one which should be as close to mother's milk as possible. The frequency and volume of milk has to be carefully calculated. The general thumb rule is 15% of the body weight over a 24 hour period but this varies depending upon species and condition of the animal. Some of the options for a milk replacement are :
  - Commercial milk replacers
  - Human baby formulas
  - Foster parents of the same species wherever possible
  - Milk from domestic animals for the corresponding taxa
- 6- Different feeding techniques are applicable for different species. The same applies to bottle and other equipment used to feed. Knowledge of the feeding posture, frequency and volume etc. would be useful in making these decisions. For example, a baby carnivore feeds pushing against the mother's belly with its head tilted upwards and am elephant calf feeds by resting

the trunk up against the mother's belly. Therefore, one needs to make the trunk of the elephant calf feel as comfortable as possible while getting the baby to suckle.

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- 7- The size of the aperture of the nipple used on the bottle is very important. The opening must be adjusted (made larger) as the animals grow. The rehabilitators should also ensure that milk is not going into the lungs. Always look put for whether the animal is getting enough milk or too much milk.
- 8- Foster mothers are a good option for hand raising orphaned animals. However, this is possible in the case of a lactating female of the same species and only if the animal is a social animal. A classic example is that of introducing elephant calves to captive female elephants.
- 9- Vitamin and mineral supplementation in the milk is essential for the growth and development of neonates as they are deprived of maternal milk in captivity.
- 10- Vaccinations: Not all hand raised animals need vaccination. Depending upon the species and disease prevalent in the area- felines can be vaccinated against feline panleukopenia, canids against canine distemper, primates against herpes simplex 1 and 2 and hepatitis A,B,C. it is advisable to always use killed vaccines when there is no prior report of the use of live- virus vaccines.
- 11- All young ones must be weaned at the same age as they would be while in the wild. Milk is an essential source of proteins and calcium. Early weaning can compromise growth and development (Robbins, 1983).

12-Once weaned off milk, the diet should be supplemented with natural foods.

13-Weaning is also the period when human contact can be gradually withdrawn and wherever possible the animal can be introduced to conspecifics. Socialization is very important for the development of social skills and natural behaviour.

#### Housing

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- 1- The natural history and behaviour of any species mist be considered in the enclosure design process. The enclosure should provide security and a habitat that would encourage the animal to exhibit behaviours specific to that species.
- 2- Housing for neonates should be different from that for adult animals. Neonates should be housed in warm and protected stabilization rooms, boxes, crates or incubators depending on the species and its condition. For example jungle cat kittens should be initially housed in small incubators whereas elephant calves in stabilization rooms.

3- In the case of outdoor cages, the commonly employed material is chainlink or weldmesh. Moats as barriers are useful for zoo exhibits and not essential in rescue centers. 

- 4- All outdoor enclosures should have a shelter against the elements. Fiber glass. GI sheets, thatch or any other local material can be used for this purpose depending on availability.
- 5- The flooring again depends on the species being housed. Larger mammals such as elephant and rhino can have concrete flooring which can be sloped for proper drainage. All outdoor enclosures should have natural flooring with a confinement zone/holding area or squeeze cage for easy handing, restraint and treatment.
- 6- All doors should be equipped with a double door system (vestibule) for the protection of both the handler and the animal.
- 7- A den or a roosting area or any other such provision should be made depending on the needs of the species.

#### **Enrichment**

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- 1- The enclosures of all wild animals in captivity require enrichment to encourage exhibition of their natural behaviour and prevent boredom and development of stereotypies.
- 2- Enrichment too is species specific. Arboreal mammals such as leopards should be provided with enough horizontal planks to climb and perch on. Animals like the gibbon which brachiate should be provided with ropes or rungs made with branches/wood.
- 3- Mega herbivores such as elephant which are active throughout the day and need to be constantly engaged. Therefore, they need long walks, open spaces plenty of opportunities to forage and explore their surroundings.

#### **Observations and record keeping**

Observing the animal and record are essential components of wildlife rehabilitation programmes. For the entire duration that the animal is in captive care, it must be carefully observed and essential records must be maintained both in hard and soft copies.

- 1- Medical observation would include monitoring the animal's respiration rate, urine and faeces for colour and consistency etc.
- 2- Observing the animal's behaviour would include monitoring the animals activity pattern, whether it active or inactive.
- 3- Observations on the animals feeding habits can also be made in term of quantity of food offered and quantity consumed.
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4- All the above mentioned data mist be collected on a standard data sheet while doing the daily rounds of the facility and inspecting each individual animal.

## IV. In- situ acclimatization

1- Most animals undergoing rehabilitation need to undergo the process of in-situ acclimatization prior to a soft release programme, especially hand raised animals.

- 2- Hard release is practiced in species such as bears and in the case of animals which come into captivity for a very brief period of time.
- 3- The animals should be moved in-situ once they have reached near independence in feeding themselves and are exhibiting natural behaviour and are capable of defending themselves. Other criteria can be age, sexual maturity etc.
- 4- For carnivores such as leopards, a large at the release site is necessary before they can be released and establish a territory of their own.
- 5- For herd living social animals such as elephants, the process of return to the wild is not release but gradual re-integration into a wild herd or alternatively an already established herd/troop/pack of individuals of varying social hierarchy can be released.

## V. Selection of release or reintroduction sites

- All sites chosen for release should fall within the natural distribution range of the species. It should ideally fall within a protected area and enjoy a good level of protection.
- The area should be free from anthropogenic pressures like human encroachments, cattle grazing, history of hunting or man-wildlife conflict.
- The site should also be easily approachable by road easy release and post release monitoring.
- The project, if reinforcement in nature, the site chosen will have minimum number of resident animals in the case of bear and rhino, but a good population of animals in the case of social animals, such as the elephant and wild buffalo.
- The proposed site of release should be assessed for habitat suitability, food and water availability and other minimum requirements mentioned above, by a committee of rehabilitators, biologists and representatives from the government.

• The site thus chosen should be conveyed to the Chief Wildlife Warden of the respective state (and the Ministry of Environment and Forests for their approval in the case of species belonging to Schedule I and II of the Indian Wildlife (Protection) Act, 1972) and approval sought.

# VI. Selection of animals for release

Before the animal is considered fit for release it has to undergo a series of veterinary and behavioural screening.

Veterinary considerations: Veterinary intervention or advice is require during three stages of rehabilitation.

- (i) During quarantine and stabilization
- (ii) During the process of rehabilitation for routine veterinary procedures
- (iii) Screening and immunization procedures before considering the animal for release.
- Animal with permanent physical deformities and chronic disease should be moved to appropriate captive facilities for lifetime care.
- The health of animals at the release or (reintroduction) destination should also be assessed by consulting the local veterinarians to determine if any disease of concern are know to be endemic in the area.
- One to two months before any animal is transported to the release site, either for release or in- situ acclimatization, blood smears and whole blood should be collected for conducting basic haematology, blood chemistry (if necessary), and for conducting haemoparasitological and serological investigations against infectious diseases.
- The decision on whether to add or omit a test, treatment or vaccination shall be made by the attending veterinarian in consultation with the veterinary expertise available on the particular species.
- Animals that fail to pass through these veterinary screenings shall not be moved to the insitu acclimatization yard or considered for hard release.
- Prior to release, rehabilitated animals must no longer be in need of medical care and exhibit no signs of active disease.

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General quarantine and health screening protocols for wild animals prior to release to the wild is now available (Woodford, 2001). However, these guidelines have to be adapted to suit species and local conditions.

**Behavioural considerations :** A rehabilitated animals behaviour prior to release is an extremely important criterion.

• Animals must exhibit natural behaviour specific to that species. It must be assessed whether the animal has been brought up with minimum human contact.

• Should have the ability to catch and maneuver food or demonstrate appropriate foraging behaviour.

• Should exhibit locomotive skills required for that species to survive.

• In the case of species such as leopard, elephant or bears which can come into conflict with humans, careful judgement has to be made about the hand raised animals affinity towards human beings.

## Legal issues

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- 1- all animals will be released in the designated site with the permission of the Chief Wildlife Warden of the respective state.
- 2- Animals falling under the Schedule I and Schedule II of the Indian Wildlife (Projection) Act 1972 will be released with the written permission of Central Zoo Authority, Ministry of Environment and Forests. Government of India.

## Post release monitoring

- 1- All rehabilitated animals should ideally be monitored post release. However, it is of utmost importance that all hand raised animals be monitored upon release, especially those which have undergone long term rehabilitation.
- 2- Animals can be radio-collared for a period of 6 months upto a year depending on the conduciveness of the field situation. Detachable or drop- off collars can be used in the case of growing animals.
- 3- Monitoring the released animal not only gives the opportunity to evaluate the success of the rehabilitation exercise but also provides valuable data on home range, feeding habits, dispersal and social interaction with conspecifics at the release site.

#### <u>Euthanasia</u>

Euthanasia is defined as the induction of death with minimal pain, stress or anxiety. The euthanasia procedures should ideally ensure that there is rapid loss of consciousness and death with minimal psychological stress to the animal. The procedure should be as humane as possible (Richards, 1993 ; Miller, 2000). During the course of the rehabilitation exercise there may be cases which are non releasable and inappropriate for education, captive breeding or ant other purpose. These animals could even be suffering from disease, physical or behavioural disadvantages. Such animals should ideally have the right to euthanasia. However, wildlife ethics and laws in India are such that the option of euthanasia in even a sick animal is impracticable. Therefore, lifetime care facilities are the only option left to these animals. However, when lifetime care facilities become over crowded, the animals welfare is often compromised.

## 5.2- Escape of animals from enclosures:-

Animal escapes, escapades and bites by venomous reptiles are the two most serious zoo emergencies No matter how secure the cages are sooner or later, somehow or other an animal can escape.

While handling an animal which has escaped, the following aspects should be kept in mind.—Each animal has its own flight distance. This is the distance within which the animal will flee from a pursuer. Stay beyond the flight distance so that the animal will not flee. Most animals can be approached in a vehicle more closely than on foot. Flight distance of an escaped animals is greater than its flight distance when inside its enclosure.

Each animal also has a critical distance/ this is the distance at which the animal will attract a pursuer if it can not retreat. If an animal is cornered and you have gone inside its' flight distance, you will be approaching its critical distance.

Animals usually have a strong attachment for their home enclosures. Thus, the animal has not ventured far from its enclosure it may be possible to lure it back inside the cage. Keepers should shift cagemates out of the home enclosure so that the door or gate can be left open. Bait the enclosure with preferred food.

An escaped animal is in a strange situation and will feel frightened and desperate. This is because it is in strange surroundings, sees strange people, experiences unfamiliar loud noises and sudden movements, and may see items with which it identifies negative consequences (nets, guns, hoses). All of the above negative stimuli should be avoided as avoided as much as possible.

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Examples of positive stimuli that will calm the animal are being near a familiar area, sensing familiar people or animals, other positive things such as food or coaxing sounds the keeper normally makes.

### 5.3- Monkey and dog menace:-

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Monkeys in Zoological Parks pose a great threat not only to the visitors but also to the animal collection of the zoo. These monkeys may carry life-threatening diseases such as Tuberculosis.

Availability of abundant food in the zoological park attracts monkeys. Monkeys in Zoos may get their food from fruiting trees and sometimes from food given to the animal collections, as well as visitors.

For controlling monkey menace the following actions can be taken

- Don't allow visitors to feed the monkeys.
- Take measures for feeding the animals (esp. herbivores) strictly in the feeding cells.
- Periodically drive away the monkeys from the Zoo campus by bursting fire crackers or any other tactic that works.
- If their populations go beyond management catch them and reallocate them to a site where they can be contained without causing damage either to themselves, other animals or the forest areas.

Even though a boundary wall guards most of the zoological parks, at times dogs can enter the Zoo where they can cause havoc and death among the free-ranging animals of the zoo. If they happen to enter the enclosures of deer family it will result in heavy losses of zoo animals.

Dogs can enter the zoo from the breaches in boundary wall, sometimes from the main gate, if it is not guarded well even for a short time. Unscrupulous elements may release dogs into the Zoo.

For controlling the dog menace within the zoo the following measures can be undertaken

- Check the boundary wall periodically (may be twice in a week)
- Chowkidars should be asked to report and assist in controlling stray dogs
- Dogs that enter the Zoo should be killed at once.

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• The main gate should always be guarded by gate man.

# 5.4- Arrangement of food in case of strike (non supply by contractor):-

In case of strike the food items will be purchased from local markets by the zoo authority.

#### 5.5- Snake bite:-

Lucknow Zoo veterinary hospital having Antivenom serum for sake bite cases. Provision of anti venom injections at zoo veterinary hospital. Preparation and distribution of information on poisonous and non poisonous snakes of India. Preparation of do's and don'ts in case of snake bites. Training to impart to all staff for giving first aid in snake bites

#### 5.6- Visitors getting injured / Visitors falling inside enclosure:-

We have designed the enclosures and stand of barriers to prevent the Visitors getting injured / Visitors falling inside enclosure. Staff trained in restraint the animal in case visitor falls in enclosures in carnivores and dangerous animal. Zoo veterinary hospital having first aid box stretcher and ambulance to injured visitor to nearest hospital. Which is just 200 meters from the main entrains and for seriously injured cases zoo authority bring the victim to near by civil hospital which is about 500 meter away from the zoo premises

# 5.7- Fighting among animals:-

Lucknow Zoo administration will keep a close watch on the animals housed in every enclosure and any animal that is unduly aggressive and causing grievious injuries to other animals and its continuance at the enclosure is risky to life other animals of the enclosure shall be removed from the group/herd at the earliest to prevent fighting and taken to isolation enclosures in off the display area and kept under close observation.

Lucknow Zoo administration will ensure that the number of animals housed in every enclosure is within the carrying capacity of the enclosure. Wherever, it is found that the number of the animals in the enclosure has exceeded the carrying capacity, measures to shift the excessive animals to alternative enclosure to prevent fighting with due safeguards to ensure that the animals already breeding shall not be removed from the original enclosure. For this purpose, it is always preferable to move sub adult males and females from the group/herd.

## 5.8- Epidemics:-

In general, animal diseases, which occur in any specific country or region, fall arbitrarily into one or more of three basic categories, namely indigenous diseases, which are endemic to the country or region and are generally maintained in the livestock herds and /or free-ranging wildlife population, Alien/exotic diseases, which have been introduced into a country or region, usually from the importation of infected animals or animal products emerging, re-emerging or truly novel diseases.

Animal health is an important issue for the agricultural industries as well as wildlife conservationists. Diseases with major epizootic potential are generally the highly contagious viral diseases(e.g. foot and mouth disease (FMD), Rinderpest, Newcastle disease, and classical swine fever) and these may have a significant impact on domestic livestock populations, agricultural bases export economics and wildlife. The single most important factor responsible for causing an outbreak of any one of these diseases is probably the direct or indirect (vector) contact of infected wild hosts or populations with susceptible domestic animals at the interface of their ranges; where mixing has occurred on common rangeland, or where other resources (water) are shared. The epidemiological determinants, transmission and maintenance mechanisms of some of these diseases have been studied in depth. The some diseases are FMD, herpes virus, trypanossomosis, theileriosis, anthrax, rabies, brucellosis, rinderpest, canine distemper, canine infectious hepatitis, tuberculosis.

# 5.9- Breakdown of power supply:-

For the continuous supply of power lucknow zoo have a generator at veterinary hospital and solar power system at different location of zoo. Zoo also installing Solar photovoltaic power unit, Solar photovoltaic pump, Solar water heating Energy slip for genetic electric city, Solar cabinet drayer, Biogas plant, Wind battery charger, Power generatic drum, Solar still (on ground level), L.P.T., Solar photovoltaic street light, Solar photovoltaic domestic light and Solar photovoltaic lantern as a back up power supply. 72

# Capacity building:-

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Lucknow zoo organised various training programme for zoo officials and lower staffs time to time Forest department and Central zoo authority sponsored these training programmes.

# <u>Chapter – VII</u>

## **E-governance:-**

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Director's office, hospital and curator office have been equipped with latest computers. The inventory, the treatments and the birth and deaths records are kept in computers and shared by e mails and as soft copy. The interactive website for Lucknow zoo is under preparation and will be launched very soon. The senior Vet interacts with other experts via emails and interactive web sites for better management of zoo and wildlife. Round the clock monitoring of endangered and rare wildlife exhibits is monitored through the CCTV cameras and important behavioural incidence or aberrations are recorded for analysis and studies. The director, deputy director, Head keeper and security Incharge have been provided with wireless hand sets for better monitoring and coordination. They are also equipped with mobiles.

# Broad budget analysis for implementing the plan

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### 8.1- Construction and development:- (Annexure-8 and 9)

#### 8.2- Day to day maintenance:-

For the Management purposes, the organization of the Zoo has been divided into different wings and sections. Director's personal section is responsible for control and coordination of different wings and sections. The administration Section with 2 sub-sections namely – Account Section and Establishment Sections are responsible for accounting and general administration.

The Animal Section has been divided into different sections including the Conservation Breeding Centre. The Veterinary Section has all required facilities and is housed in the hospital building. The Zoological Gardens has fully equipped Hospital, a Post Mortem room, a wellorganized Sanitation Section, and well-trained gardeners to maintain the Garden Section. For education/ extension activities and organizing field research, the Education Section and Research Section are also added. Details of the Water supply system, Power supply system Road/ Footpath network, residential and non – residential buildings, visitor's amenities and mobility etc. are also discussed in the Part-I (Summary of Facts) of the Management Plan.

The Part II of the Management Plan deals with the proposed management. The role of Zoos in preparation of Management Plan, Plan objectives, mission statement theme, etc. are discussed in the beginning of the proposed Management Plan.

The future action plan has been discussed in detail. The Zoological Gardens will continue to have the existing organization. The Director's Personal Section will look after the control and co- ordination of the different wings and sections of the Zoological Gardens. The Section will also look after the Computer network, Telephone network, Nature Interpretation Centre, etc. The Administration Section housed in the office building, will administer its assigned jobs. Though, there will be no change in the organization of the Animal Section, modifications and improvements have been proposed in the existing animal enclosures. Disinfection schedules have also been prescribed. Some suggestions have been made for up gradation of existing Veterinary facilities. Proposals have also been given for stream lining of the functioning of the field staff Section, Sanitation Section and Garden Section. The Zoo security and maintenance have been clubbed together under Security Section for round the clock security and proper maintenance of the infrastructure Water supply network, Road/ Footpath network, Staff accommodation, Visitors amenities and mobility, etc. have been given special attention and complete over hauling have been proposed.

Three main objectives of the Lucknow Zoological Gardens i.e. ex-situ Conservation breeding, Conservation education and Research have been dealt in detail.

Zoological Gardens have to play major role in *ex-situ* conservation breeding of targeted animal species for their ultimate release in their wild habitats. The collection plan of the animals to be kept and bred in the Zoological Gardens has been finalized. Only those animal species, comfortable at this place, have been identified for the collection plan. Co-operative population management and coordination at regional and global levels are the only mode to fulfil the objectives of the Zoological Gardens. Acquisition from the wild is another possibility. Reintroduction/ restocking of Zoo bred animals after successful planned breeding has been proposed as the primary objectives of the Zoological Gardens.

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Conservation education is just as important. Nature Interpretation Centre, Display boards/ Signage's, Zoo literature, (Management Plan, Annual Reports, Booklets/leaflets, Maps, Newsletter, Souvenirs etc.) are the extension activities required to be strengthened in the Zoo. Nature trail has been developed in the Children's Park. Visitor's facilities are required to be developed in a better manner inside the Zoo premises.

Research is very important. Basic information related to the zoo management will be recorded in prescribed formats and will be updated on regular basis. Animal health care and diseases, animal food and feeding habits, behavioural studies, Breeding biology and Zoo architecture/ enclosure designing are the fields to concentrate on. Data storage system and processing can be improved by acquiring latest software for the purpose. Meteorological data collection will be another priority at the Zoological Gardens.

Training schedule, equipments, uniforms and awards etc. are also discussed under the Plan.

# Chapter - IX

# Annexure to the Master plan

9.1- Existing zoos requiring modernization:- Layout Plan Annexure No.-1

9.2- Existing animal Inventory :- Annexure No.-2

9.3- Free living species occurring in the Zoo Campus: - Annexure No.-3

9.4- Flora and Fauna: - The Zoological Gardens consists of all artificially planted trees. But still due to thickly covered trees, there are a number of peacocks, porcupines, pangolins, hares, various snakes, etc. found in the natural environment. Besides this, there are a good variety of birds that are easily sighted on the trees in this locality. The list of free and migratory birds at Lucknow zoo are enclosed. In Annexure No.-4

9.5- Present staffing pattern and position:- enclosed. In Annexure No.-5

9.6- List of buildings other than animal enclosure: - enclosed. In Annexure No.-6

9.7- Notification creation of Zoo, society, acquisition of land etc., constitution sof committees:- Annexure No.-7

The layout of the Zoo along with its buildings and cages was designed by Mr. Lintle Bogla, M.C., Chief Engineer of the Lucknow Improvement Trust. 26 buildings along with cages were constructed at a total cost of Rs. 2,08,800 during the period from 1921 to 1926. The main gate on the Narahi side known as "Sir Ludovic Porter Gate" facing west was constructed in 1936.

The Lucknow Zoological Gardens, Lucknow is headed by a full time Director who is appointed by the Govt. of Uttar Pradesh. The Director works under the administrative control of the Administrator of the Zoo who is also the Chief Wild Life Warden of the state. The overall control rests with the Government of Uttar Pradesh, headed by the Principal Secretary (Forest).

The Prince of Wales Zoological Gardens, popularly known as Lucknow Zoological Gardens, was established in the year 1921 to commemorate the visit of His Royal Highness, the

Prince of Wales to Lucknow. The idea of establishing Zoological gardens at Lucknow emanated from Sir Harcourt Butler, the then Governor of the State and it was received enthusiastically by the prominent landlords and the leading citizens of the State who donated liberally for the construction of animal houses and cages and also presented animals and birds for display from time to time.

A Committee of management was formed consisting of donors and other prominent citizens. Colonel Fanthorpe, Commissioner of Lucknow was appointed as first President and Sheikh Maqbool Husain as first Secretary of the Commission. The Committee was registered under the Societies Registration Act on the 17<sup>th</sup> August 1926.

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In the year 1950, the Managing Committee was dissolved and an Advisory Committee was formed with the Secretary to Govt., U.P., Public Health Department as its Chairman and the Director of Medical & Health Services, Uttar Pradesh as Ex-Officio Administrator. In 1966, the administrative control was transferred to the Forest Department and the Advisory Committee was also re-organised with Secretary to Govt., U.P., Forest Department as its Chairman and the Dy. Chief Conservator of Forests (Planning) as Ex-Officio Administrator. From time to time, the reorganisation of the Zoo Advisory Committee was done and presently the new Zoo Advisory Committee, constituted vide Government order No. 1652/14-4-2001-866/93 dated 04-08-2001, is under existence. The new Zoo Advisory Committee consists of the Forest Principal Secretary Forest to the Govt. of Uttar Pradesh as Chairman, Secretary Forest to the Govt. of Uttar Pradesh as senior- wise chairman Principal Chief Conservator of Forests, Uttar Pradesh as Vice Chairman and Chief Wildlife Warden, Uttar Pradesh who is the Administrator, as a member of the committee. The Director of the Zoo is the Member Secretary of the newly constituted Zoo Advisory Committee.

#### Legal status of the land:-

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Lucknow Zoological Gardens is situated in erstwhile Banarsi Bagh, within an area of 70 acres. There is the State Museum in the zoo premises itself, which comes under the Ministry of Culture, and the Director, State Museum heads it. There are several staff in the Museum too and all the staff of the Museum are allowed entry from the Zoo main gate only. The office of the Director is near the main entrance. The residences of the Director and the Deputy Director are adjacent to the Zoo.

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# LUCKNOW ZOOLOGICAL GARDENS

# ANNEXURE NO-

# Annual Inventory Report For year ( 31 March, 2009 to 31 March 2010)

# Endengered Species

S.no	Species of Mammals	Scientific Name		Ste	ock		Birth	Acquisi	Dispos	Death		Ste	ock	
	-		as on			tion	al	as on		on				
			31 march, 2009						31	Mar	<u>:h, 2</u>	010		
	CARNIVORES		M	F	U	T	M:F:U	M:F:U	M:F:U	M:F:U	M	F	U	T
1	Bengal Tiger	Panthera tigris tigris	. 2	1	0	3					2	1	0	3
2	White Tiger	Panthera tigris var Albino	1	1	0	2					1	1	0	2
3	Wolf Indian	Canis lupus	0	5	0	5		2,0,0	0,1,0		2	4	0	6
4	Leopard/Panther	Panthera pardus	5	4	0	9	0,0,2			I	5	4	2	11
5	Otter	Luthra luthra	1	2	0	3					1	2	0	3
6	Jackal	Canis aureus	1	1	0	2					1	1	0	2
7	Himalayan black bear	Selenarctos thibetanus	1	3	0	4				1,0,0	1	2	0	3
8	Sloth bear	Melursus ursinus	2	2	0	4				1,0,0	1	2	0	3
0	Albino palm civet cat	Paradoxurus hermaphroditus	1	0	0	1					1	0	0	1
	l	var albino			-									
10	Fishing Cat	Felis viverrina	0	0	0	0		0,0,3			0	0	3	3
11	Paim Civet Cat	Paradoxurus hermaphroditus	1	2	2	5					1	2	2	5
	HERBIVORES													
12	Black buck	Antilope cervicapra	7	22	6	35	0,0,3			1,0,0	6	22	9	37
13	Swamp deer	Cervus duvauceli	14	15	21	50	0,0,8			1,0,0	19	27	11	57
14	Chinkara	Gazella gazella	1	2	8	9	0,0,3			1,0,0	0	2	9	11
15	Indian Elephant	Elephas maximus	1	1	0	2					1	1	0	2
16	Indian Rhino	Rhinoceros unicornis	1	0	0	1					1	0	·0	1
	PRIMATES													
17	Hoolock Gibbon	Hylobates hoolock	1	1	0	2					1	1	0	2
18	Macaque Bonnet	Macaca radiata	3	3	1	7				1,0,0	2	3	1	6
19	Macaque Stump tailed	Macaca speciosa	2	2	0	4					2	2	0	4
20	Rhesus Monkey	Macaca mulatta	3	0	0	3				2	3	0	0	3
21	Lion tailed Monkey	Macaca silenus	1	0	0	1					1	0	0	1
	RODENTS	· ·												
22	Indian Glant Squirrel	Ratufa indica	1	2	1	4				1,0,0	1	2	0	3
	Total -		50	69	37	156					53	79	37	169

1.16<u>9</u>0

Other than Endengered Species

S.no	Species of Mammals	Scientific Name	T	St	ock		Birth	Acquisi	Dispos	Death	Stock			
		as on			tion	al	ason			on				
•			31	marc	ch, 20	909					31	Mar	ch, 2	010
	CARNIVORES		M	F	U	T	M:F:U	M:F:U	M:F:U	M:F:U	M	F	U	T
1	Hybrid Lion	Panthera leo	1	3	0	4				•	1	3	0	4
2	Hyaena	Hyaena hyaena	2	3	0	5		0,0,4			2	3	4	9
	HERBIVORES													
3	Giraffe	Giraffa camelopardalis	1	1	0	2					1	1	0	2
4	Hippopotamus	Hippopotamus amphibius	1	3	1	5					1	3	1	5
5	Zebra	Equus burchelli	1	2	0	3					1	2	0	3
6	Hog deer	Cervus porcinus	7	15	3	25	0,0,5				7	15	8	30
7	Spotted deer	Axix axis	75	98	26	199				0,1,0	75	97	26	198
8	Samber deer	Cervus unicolor	3	8	2	13	0,0,3			1,0,0	4	8	3	15
9	Barking deer	Muntiacus muntjak	8	13	2	23					8	13	2	23
	RODENTS													
10	Indian Porcupine	Hystrix indica	0	0	3	3		0,0,1			0	0	4	4
	PRIMATES													
11	Hamadryas baboon	Papio hamadryas	1	1	0	2					1	1	0	2
12	Japanese Monkey	Macaca fuscata	0	2	0	2					0	2	0	2
13	Capuchin Monkey	Cebus albitrons	2	1	0	3				1,0,0	1	1	0	2
.14	Chimpanzee	Pan troglodytes	1	1	0	2					1	1	0	2
	Total-		103	151	37	291					103	150	48	301
	Species of Birds			Stock Birth Acquisiti Disposa Deat		Death		Ste	<b>c</b> k					
				as on I				as	on					
			31	31 march, 2009			31	Marc	:h, 2	010				
			M	F	U	T	M:F:U	M:F:U	M:F:U	M:F:U	Μ	F	U	T
15	Barheaded Goose	Anser indicus	0	0	2	2				1,0,0	0	0	1	1
16	White eye pochard	Aythya nyroca	0	0	2	2			0,0,1	0,1,0	0	0	0	0
17	Lesser whistling Teal	Dendrocygna javanica	0	0	3	3			0,0,3		0	0	0	0
18	White Stork	Ciconia ciconia	1	1	2	4					1	1	2	4
19	Painted Stork	Mycteria leucocephala	0	0	16	16				Ya	0	0	16	16
20	White Necked Stork	Ciconia episcopus	0	0	3	3					0	0	3	3
21	Black Necked Stork	Ephippiorhynchus asiaticus	3	2	1	6					3	2	1	6 '
22	Stork Adjutant	Leptoptilos dubius	1	0	0	1				1,0,0	0	0	0	0
23	Grey Heron	Ardea cinerea	0	0	1	1					0	0	1	1
24	White Ibis	Threskiornis aethiopica	0	0	14	14					0	0	14	14
25	Common Crane	Grus grus	0	0	1	1					0	0	1	1

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26	Demoiselle Crane	Anthropoides virgo	0	0	3	3					0	0	3	3
27	Sarus Crane	Grus antigone	4	3	3	10			1,1,0		3	2	3	8
28	Cockateal	Nymphicus hollandicus	20	20	31	71	0,0,89				20	20	120	160
29	Blossom Headed Parakeet	Psittacula cyanocephala	0	0	3	3					0	0	3	3
30	American Parakeet		1	0	0	1				1,0,0	0	0	0	0
31	Rose ring Parakeet	Psittacula krameri	5	2	0	7					5	2	0	7
32	Large Indian Parakeet	Psittacula eupatria	8	2	0	10				1,0,0	7	2	0	9
33	Blue Yellow Macaw	Ara ararauna	1	2	4	7					1	2	4	7
34	Indian Red Brested Parakeet	Psittacula alexandri	0	0	7	7				0,0,1	0	0	6	6 :
35	Brahminy duck	Tadorna ferruginea	1	2	2	5					1	2	2	5
. 36	Coot	Fulica atra	0	0	1	1			0,0,1		0	0	0	0
37	Lesser flamingo	Phoeniconaias minor	0	0	1	1					0	0	1	1
38	Red Jungle fowl	Gallus gallus	2	6	1	9			·	2,3,0	0	3	1	4
39	Spur fowl	Galloperdix spadicea	0	0	1	1				1,0,0	0	0	0	0
40	Golden pheasant	Chrysolophus pictus	1	3	5	9					1	3	5	9
41	Green pheasant	Phasianus versicolor	1	1	0	2					1	1	0	2
42	Silver pheasant	Lophura nycthemera	6	3	0	9					6	3	0	9
43	Lady Amherst pheasant	Chrysolophus amherstiae	3	1	0	4	0,0,1				3	1	1	5
44	Edward pheasant	Lophura edwardsi	1	1	0	2				0,1,0	1	0	0	1
45	Ring necked pheasant		2	4	0	6	0,0,4			0,1,0	2	3	4	9
48	Grey partridge	Francolinus pondicerianus	2	2	9	13					2	2	9	13
47	Swamp partridge	Francolinus gularis	0	0	2	2					0	0	2	2
48	Black partridge	Francolinus francolinus	0	0	2	2					0	0	2	2
49	Emu	Dromiccius novachollandiae	2	1	2	5				0,1,0	2	0	2	4
50	Rosy pelican	Pelecanus onocrotalus	3	7	21	31					3	7	21	31
51	Purple moor hen	Porphyrio porphyrio	0	0	2	2					0	0	2	2
52	Rosy Pastor	Sturnus roseus	0	0	9	9				1,0,0	0	0	8	8
53	White dove	Sterptopelia senegalensis	0	0	23	23					0	0	23	23
54	Grey leg goose	Anser anser	1	1	0	2					1	1	0	2
55	Reaves pheasant	Symaticus reevesi	1	2	0	3					1	2	0	3
56	Barn or Screech Owl	Tyto alba	0	0	2	2					0	0	2	2
57	Eagle Owl or Great Horned		0	0	2	2		0,0,1			0	0	3	3
	Owl													
58	Mottled Wood Owl	Strix ocellata	1	1	0	2				3	1	1	0	2
59	Jungle Owl		0	0	0	0		0,0,2			0	0	2	2
60	Owlet Owl		0	0	0	0		0,0,2			0	0	2	2
61	Scoop Owl	· · ·	0	0	0	0		0,0,2			0	0	2	2
62	Green Dove		0	0	1	1					0	0	1	1
	Total-		71	67	182	320				-	65	60	273	398

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	Species of Reptiles			Sto	ck		Birth	Acquisiti	Disposa	Death		Ste	ock	
				as	on			on	1			as	on	
			31	marc	h, 20	09					31	Marc	:h, 20	)10
63	Snake sand	Eryx conicus	2	2	0	4		0,0,6			2	2	6	10
64	Earth Snake	Psammoplis leithi	3	2	2	7					3	2	2	7
65	Turtle	Lissemys punctata	1	1	0	2					1	1	0	2
	Total-		6	5	2	13					6	5	8	19
	Total Animals-		180	223	221	624					174	215	329	718

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## Annexure No.-3

#### LIST OF LIVING SPECIES REPORTED FROM LUCKNOW ZOO

Sl. Name Scientific name **Family PODICIPEDIDAE** 1. LITTLE GREBE Tachybaptus ruficollis Family PHALACROCORACIDAE 2. LITTLE CORMORANT Phalacrocorax niger 3. DARTER Anhinga melanogaster Family ARDEIDAE 4. GREY HERON Ardea cinerea Ardeola grayii 5. INDIAN POND HERON **Bubulcus** ibis CATTLE EGRET 6. LITTLE EGRET Egretta garzetta 7. **BLACK-CROWNED NIGHT HERON** Nycticorax nycticorax 8. Family CICONIIDAE 9. PAINTED STORK Mycteria leucocephala Family ACCIPITRIDAE 10. BLACK KITE Milvus migrans govinda 11. SHIKRA Accipiter triviragatus 12. NORTHERN SPARROW HAWK Accipiter nisus **13. EGYPTIAN VULTURE** Neophron percnopterus Family PHASIANIDAE **14. INDIAN PEAFOWL** Pavo cristatus Family RALLIDAE 15. WHITE-BREASTED WATERHEN Amaurornis phoenicurus Family CHARADRIIDAE 16. RED-WATTLED LAPWING Canellus indicus Family RECURVIROSTRIDAE 17. BLACK-WINGED STILT Himantopus himantopus **Family COLUMBIDAE** 18. YELLOW-FOOTED GREEN PIGEON Treron phoenicoptera **19. ROCK PIGEON** Columba livia 20. EURASIAN COLLARED DOVE Streptopelia decaocto 21. SPOTTED DOVE Streptopelia chinensis 22. LAUGHING DOVE Streptopelia senegalensis Family PSITTACIDAE 23. ALEXANDRINE PARAKEET Psittacula eupatria 24. ROSE-RINGED PARAKEET Psittacula krameri Psittaculcyanocephala 25. PLUM-HEADED PARAKEET Family CUCULIDAE 26. PIED CUCKOO Clamator jacobinus

27. ASIAN KOEL Eudynamys scolopacea 28. GREATER COUCAL Centropus sinensis Family STRIGIDAE Glaucidium radiatum **29. JUNGLE OWLET 30. SPOTTED OWLET** Athene brama Family APODIDAE 31. HOUSE SWIFT Apus affinis Family ALCEDINIDAE **32. PIED KINGFISHER** Ceryle rudis **33. WHITE-THROATED KINGFISHER** Halcyon smyrnensis **Family MEROPIDAE** ñ., 34. GREEN BEE-EATER Merops orientalis Family CORACIIDAE Coracias benghalensis **35. INDIAN ROLLER Family UPUPIDAE 36. COMMON HOPPOE** Upupa epops **Family BUCEROTIDAE 37. INDIAN GREY HORNBILL** Tockus birostris **Family CAPITONIDAE** Megalaima zeylanica **38. BROWN-HEADED BARBET 39. COPPERSMITH BARBET** Megalaima haemacephala **Family PICIDAE** 40. BLACK-RUMPED WOODPECKER Dinopium benghalense 41. BROWN-CAPPED PIGMY WOODPECKER Dendrocopos namus **Family ALAUDIDAE** Alauda gulgula 42. SMALL SKYLARK **Family LANIIDAE 43. LONG-TAILED SHRIKE** Lanius schach Family ORIOLIDAE 44. EURASIAN ORIOLE Oriolus oriolus **Family DICRURIDAE** 45. BLACK DRONGO Dicrurus adsimilis Family STURNIDAE 46. CHESTNUT-TAILED STARLING Sturmus malabaricus 47. BRAHMINY STARLING Sturnus pagodarum **48. ASIAN PIED STARLING** Sturmus contra Acridotheres tristis 49. INDIAN MYNA 50. BANK MYNA Acridotheres ginginianus 51. JUNGLE MYNA Acridotheres fuscus Family CORVIDAE **52. RUFOUS TREEPIE** Dendrocitta vagabunda 53. HOUSE CROW Corvus splendens 54. LARGE-BILLED CROW Corvus macrorhynchos **Family PYCNONOTIDAE** 55. RED-WHISKERED BULBUL Pycnonotus jocosus 56. RED-VENTED BULBUL Pycnonotus cafer

Family MUSCICAPIDAE, Sub family TIMALINAE Turdoides caudatus 57. COMMON BABBLER Sub family MUSCICAPINAE 58. ASIAN PARADISE FLYCATCHER Terpsiphone paradisi Sub family SYLVIINAE 59., ASHY PRINIA Prinia socialis 60. TAILOR BIRD Orthotomus sutorius Sub family TURDINAE Copsychus saularis 61. ORIENTAL MAGPIE ROBIN 62. BROWN ROCK CHAT Cercomela fusca 63. INDIAN ROBIN Saxicoloides fulicata **Family MOTACILLIDAE** ðh. 64. WHITE WAGTAIL Motacilla alba 65. WHITE-BROWED WAGTAIL Motacilla maderaspatensis Family NECTARINIIDAE 66. PURPLE SUNBIRD Nectarinia asiatica Family ZOSTEROPIDAE **67. ORIENTAL WHITE-EYE** Zosterops palpebrosa Family PLOCEIDAE, Sub family PASSERINAE 68. HOUSE SPARROW Passer domesticus Sub family PLOCEINAE 69. BAYA WEAVER Ploceus philippinus Sub family ESTRILDINAE 70. RED AVADAVAT Amandava amandava 71. GREEN AVADAVAT Amandava formosa 72. SCALY-BREASTED MUNIA Lonchura punctulata 73. BLACK-HEADED MUNIA Lonchura malacca

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# Annexure No.-4

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# 9.3- Flora and Fauna :-

Fruit bearing trees-

1.	Mahua	:	Madhuca longifolia
2.	Bael Tree	:	Aegle marmelos
3.	Mulberry	:	Morus alba
4.	Drumstick Tree	:	Moringa oleifera
5.	Indian Jujube	:	Zizyphus mauritiana
6.	Guava Tee	:	Psidium guajava
7.	Custard apple	:	Anona squamosa
8.	Wood apple	:	Feronia elephantum
9.	Mango Tree	:	Mangifera indica
10.	Tamarind	:	Tamarindus indica
11.	Jamun	:	Syzygium cumini
12.	Indian Medlar Tree	:	Mimusops elengi
13.	Badhal	:	Artocarpus lakoocha
14.	Jack Tree	:	Artocarpus heterophyllus
15.	Pomegranate	:	Punica granatum
16.	Ceylon Oak	:	Schleichera oleosa
17.	Singree	:	Pithecolobeus dulce
18.	Papaya	:	Carica papaya
19.	Banana	:	Musa sapientum
20.	Lemon	:	Citrus aurantifolia
21.	Myrobalan	:	Terminalia chebula
22.	Amla	:	Emblica officinalis

**Ornamental Trees-**

1.	Cassia Siamea	:	Cassia siamia
2.	Jacaranda	:	Jacaranda mimosaefolia
3.	Peltoforum	:	Peltoforum feruginium
4.	GulMohar	:	Delonix regia
5.	Amaltas	:	Cassia fistula
6.	Queen's Flower	:	Lagerstroemia flos-reginae
7.	Silver Oak	:	Grevillea robusta
8.	Cassia judusa	:	Cassia judusa
9.	Horse tail Tree	:	Casuarina equisetifolia
10.	Bottle Brush Tree	:	Callistemon lanceolatus
11.	Gulachin	:	Plumeria equisitefolia
12.	Sita Ashok	:	Saraca indica
13.	Ashok	: '	Polyalthia longifolia
14.	Ashok Pendula	:	Polyalthia pendula

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15.	Indian Rubber Tree	:	Ficus elastica
16.	Cycas	:	Cycas circinnalis
17.	Akahmoni	:	Acacia auriculiformis
18.	Variegated Bahunia	:	Bauhinia variegata
19.	Tree of Sorrow	:	Nyctanthes arbor-tristis

# Fodder trees-

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1.	Pakar	: Ficus rumphii	
2.	Banyan	Ficus benghalensis	
3.	Gular	: Ficus glomerata	
4.	Pipal	Ficus religiosa	
5.	Faldu	: Mitragyna parvifolia	ð.,

# Timber bearing trees-

1.	Margosa Tree		:	Azadirachta indica
2.	Eucalyptus		:	Eucalyptus hybrid
3.	Sissoo		:	Dalbergia sissoo
4.	Black Siris		:	Albizzia lebbeck (White-Albizzia
				procera)
5.	Teak		:	Tectona grandis
6.	Sandalwood Tree		:	Santalum album
7.	Chilla	1	:	Casearia tomentosa

# Large tree-

1.	Semal Tree	:	Bombax ceiba
2.	Arjun	:	Terminalia arjuna
3.	Haldu	:	Adina cordifolia
4.	Kadamb Tree	:	Anthocephalus sinensis
5.	Bakain Tree	:	Melia azedarach
6.	Bahera Tree	: '	Terminalia belerica
7.	Tendu	:	Diospyros melanoxylon
8.	Adansonia	:	Adansonia digitata
9.	Babul Tree	:	Acacia nilotica
10.	Soap Nut	:	Sapindus emarginatus
11.	Putranjiva	:	Putranjiva roxburghii
12.	Kanji	:	Pongamia pinnata
13.	Lisora	:	Cordia dichotoma
14.	Rudraksha	:	Elaeocarpus augustifolius
15.	Date Palm	:	Phoenix dactylifera
16.	Fishtail Palm	:	Caryota urens

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# Annexure No.-5

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# Present staffing pattern and position:-

	· · · · · · · · · · · · · · · · · · ·			
S.	Name of Post	No. of	Posts	No. of
no.		sanctioned	occupied	Vacancies
		Posts	- ·	
1	3	4	5	6
1.	Director	1	1	0
2.	Dy. Director	1	1	0
3.	Asstt. Doctor	1	0	1
4.	Deputy Ranger	1,	1	0
5.	Curator (Aquarium)	1	0	1
6.	Garden Supervisore	1	0	1
7.	Head Clerk	1	1	0
8.	Accountant	1	1	0
9.	Assistant Account	1	1	0
10.	Accounts Clerk	1	0	1
11.	Security Incharge	1	1	0
12.	Head Booking Clerk	1	1	0
13.	Booking Clerk	4	4	0
	(including Train)			
14.	Assistant Serpentarium	1	1	0
• …	Keeper			
15.	Electricion-cum-	1	1	0
	mechanic			
16.	Driver-cum-	1	0	1
	mach.(Balrail)			
17.	Head Keeper	11	0	1
18.	Head Mali	1	1	0
19.	Fisher- Man	2	2	0
20.	Conductor-Guard(Bal	1	1	. 0
	Train)			
21.	Senior Keeper	6	6	0
22.	Senior Mahawat	1	1	0
23.	Senior Sweeper	3	3	0
24.	Chowkidar	20	20	0
25.	Junior Keeper	8	7	1
	(including Peon-cum-			
	Keeper			
26.	Junior Sweeper	4	3	1
27.	Mali	18	18	0
28.	Coolie	3	3	0

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29.	Bhishti	1	1	0
30.	Junior Mahawat	3	3	0
31.	Temp. Mali	1	1	0
32.	Black Smith- cum- welder	1 · · ·	1	0
	Total Posts-	93	85	8

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Annexure No.-6

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# List of buildings other than animal enclosure:-

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- 1. Director Office
- 2. Zoo Veterinary Hospital
- 3. Kitchen
- 4. Interpretation Centre
- 5. Clock room
- 6. Security room
- 7. Workshop

# OFFICE OF THE REGISTRAR

JOINT STOCK COMPANIES, UNITED PROVINCES, LUCKNOW.

Ne. 589 ľ 662

Dated June 6, 1927

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Τ. .

The Superintendent, Prince of Wales Zaelegical Garden, Lucknew.

With reference to his letter no.647 dated the 18th May, 1927, has the honeur to forward a copy of the Memorandum of Association and Rules and Regulations of the Association of the Prince of Wales Zeological Gardon:, Lucknow, registered on the 17th August, 1926, as desired by him.

> Sd/- lliigible Assistant Registrar, for Registrar,

> > Sc/- illigibio.

Sd/- 111 igible 2.6.27

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Sd/- Ishtiaq All 8.6.24 EIGHT ANNAS

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C spy of the Memorandum and Rules and

Regulations of the Association of the Princemon Wales Zoological Gardon, Lucknow registered on

the 17th August, 1926.

REGISTRAR OF JOINT STOCK COMPANIES

SEAL

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U.P. AGRA & OUDH

Sd/- illigible.

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Ι.

The	name of the	Seciety is	a " The Assec	:1at	cien et	' the
Prin	nco ef Welos	Zeelegice	Gardons, Lu	JCKr	າະພູ	
The	•bjects far	which the	Association	is	ost⊋b]	lishad
<b>319</b>	as follows:	-				

- (1)Te maintain a Zeelegical Garden in Lucknew."
- (2)Te previde recreation, instruction and amusement te all classes of the community subject to any limitation and restrictions that the Asseciation may impese.
- (3)To provide facilities for observation of habits of animals.
- (4)Te breed, acclimatize and demosticate animals.
- (5)Te premeto the Science of Zeelegy.
- (6)To de all things that are incidental or conductive to for the attainment of objects mentioned above.

EGISTRAR OF JOINT TOCK COMPABIES.

List of Members of the Gaverning bady to whom by the

Rules of the Aspeciation the management is entrusted:-

SEAL

1.

- Commissioner, Lucknew Division, Lucknew.
- P. AGRA & OUDH
- 2. Raja Muhammad Ejaz Ragul Khan C.I.E, Prosident. Johangirabad, District Barabanki.
- Chaudhari Mujtaba Husain, Bar-at-Law, Huny.Socrotar 3. Lucknew.
- 4. Khan Bahadur Shaikh Makbul Hessain, C.I.E., Magistrate & Collector, Jaunpur.
- 5. Rei Bahadur Kunwar Bem Behadur Sah, Singahi, District Khori.
- Hen'ble 2nd Lieut, Newab Muhammad Ahmad Said Khan 6. C.I.E., M'.B.E., Chittari, District Bulandshahr.
- Raja Suraj Buksh Singh, O.B.E., Kasmanda, District 7. Sitapur.
- W.E. Betting Esgr., Lucknew. 8.
- 9. Chairman, Imprevement Trust, Lucknew.
- 10. Chairman, Municipal'Beard, Lucknew.

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		11.	Babu Bishen Narain Bhargava, Lucknew.	
		12.	Superintendent, Herticulturel Gardens, Lucknew.	
		13.	Dr K.N. Bahl, M.Sc., D. Phil., D.Sc., Prefesser, Lucknew University, Lucknew.	
		14.	Curater, Lucknew Museum, Lucknew.	
		15.	Raja Indrajit Prateb Bahadur Sahi, Tamkehi, <sup>D</sup> istrict Gerakhpur.	
	· ·	16.	Naweb Ghulem Husein, Gelaganj, Lucknew. 💩	
			We the undersigned wish to form surselves into a	
		Saci	ty to be registered under the Secieties Registration	
•		Act	Act XXI of 1860) in pursuance of the above Memerandum	
• .		ef J	seciatien.	
-		1.	Sd/- W.S. Cassols, Cemmissienor. 4.8.26.	
5		2.	" Trilek Nath Bhargevo, Chairman, Municipal Beard.	
2		3.	" Bishan Narain Bhargava.	
•		4.	" Nawab Ghulam Husain, Gelaganj, Lucknew.	
		5.	" W.E. Betting.	
	··· ·	6.	" Prayag Dayal, Curator, Provincial Museum.	
		7.	" Mujtaba Husain.	
			Witness te the above signatures:-	
			Sd/~ Ishtiaq Ali	
			2, Mall Read,	
			Lucknew.	
١		X		
			Bogistrar of Joint Steck Companies	
			SEAL	
			U.P. AGRA & CUDH	

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Sd/- liligible.

## INTRODUCTION

HIS Excellency Sir Harcourt Butler, G.C.I.E., K.C.S.I. the then Geverner of the United Previnces convened a meeting at Gevernment House, Lucknew, on the 20th Nevember, 1921 of the previnces of Agra and Oudh to consider the proposal for commemorating the visit of His Reyal Highness the Arince of Wales to these Previnces. Since the need for a Zoo for the Prevince had been long folt, His Exaplency's suggestion to establish a Zeological Gardon in Lucknew as memerial of the Reyal visit was unanimously and most enthusiastically accepted. Subscription amounting to &.7,30,357/- were promised at the meeting and Eel. J.C. Faunthreps, C.I.E. OB.E., Commissionsr, Lucknew Division and Shaikh Makbul Hespin, C.I. Registrar of Cooperative Societies were appointed by His Excellency as President and Secretary of the Mevement Committee of management was formed consisting of deners and others.

The original site selected for the location of the large portion of the Zee was the low lying land on the east of the Wingfield Park, but it had to be discarded as unsuitable for the purpose, after the experience of the flood of 1923 and only small portion of it has been retained for water fowl and acquatic exhibits. The Zee has therefore been located in the Wingfield Park area, the whole of which will be conver ad into the Zeelagical Garden subject to the condition that the Baradari and the ernament garden and park found it are maintained as at present. It is intended that the admission to the Park will for the present be free. Since the ground is the property of Gevernment, it has been placed at the dispesal of the Prince of Wales Zeelegical Garden Exemittee for the purpose of extension and development of the Zee.

The chief features of the Scheme of Management

ISTRAR DF IT STOCK PANIES

SEAL AGRA &

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institution of memorial of His Royal Highness und

Prince of Wales are:-

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17:00

- 1. To provide recreation, instruction and amusement for all classes of the community.
- 2. To facilitate scientific ebservations of the habits of the animals.
  - To encourage the acclimatisation, demesticate and breeding of enimals.
  - 4. To improve the science on Zoology by adopting suitable means.

The Gardens Committee have already fulfilled some of its obligations by collecting a large variety of animals both by means of purchase and as presents from generous denors. They have erected paddocks for deer and antelepes aviaries for birds and houses for carnivora, where the exhibits are on view. The designe of the structures and buildings of the Zee are unique in many ways and the crowds which are attracted to the place bear ample evidence of the interest shown in it by the public. The success of the establishment of the Zee as an attractive place for the recreation, instruction and amusement fer all classes of the community is no longer in doubt. It is an established fact and no further justification is necessary for its existence. It does provide the greatest pleasure to the greatest number.

Sd/- illigible

REGISTRAR OF JOINI STOCK COMPANIES

# SEAL

#### U.P. AGRA & OUDH

## RULES

Constitution of the Prince of Wales' Zoological Garden Association.

#### MEMBERS

A. Extraordinary members.

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## PATRON

President of the Association

One or more Vice Aresidents

## DONORS

## Life Governors:

Life Governors are denors of Rs.10,000/- and upwards and also other persons who by their special interest and influence have assisted in the development and success of the Zoo.

## 2. Life member:

Life members are denors of N.5,000/- and upward. They shall have their names inscribed on a tablet to be put up at a conspicuous place in the Zoo.

# 3. Honerary membars:

Honerary mombers are donors of R.1,000/- and upwards. They shall have their names ontered on a list which will be placed inside the Zoro at a frequented place.

# 4. Ordinary members:

Ordinary members are donors of 2.250/- and upwards and others whe may be their special fitness be selected as member and who otherwise would not become member of their own accord.

The number of members of the Association will be unlimited.

Sd/- illigible

REGISTRAR OF JOINT SIDCK CUMPANIES

SEAL

U.P. AGRA & OUDH

This committee is the chief administrative body for the management of the Zeo. It consists of a Ghairman and an Honorary Secretary both appointed by Local Gevernment and twolve members, six of whom elected by the Association, -the Chairman of the Improvement Trust, Lucknew, the Chairman of the Lucknew Municipal Board and one member to be elected by the Executive Council of the Lucknew University. The remaining three to be coepted by the Committee of management by reason of their usefulness for the Committee of Management.

The Prince of Wales Zoological Gardens has been instituted. It is maintained at the cost of the members of the Association aided by Government.

1. This Association shall meet once a year on a date to be fixed by order of the President or oftener if the President desires.

## Sd/- iligible.

2. The Henerary Secretary of the Association will ordinarily be the Chairman of the Committee of Management unless the President may appoint some other person.

3. At its annual meeting the Association will (a) consider the annual report of the committee of management.

(b) Pass the Budget and the annual account submitted by the Committee of Management and (c) Frame prepesals for the development and extension of the Gardens and the efficiency of its management.

Any member of the Association shall be entitled to receive at the meeting any information which he may require respective the management and the affairs of the Garden.
The information shall so far as possible be furnish provided a requisition in writing is made by the member at

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sent to the Secretary of the have-

before the date of the meeting specifying clearly the information required.

6. Notice of the date, time and place of the meeting will be issued to the members by the Secretary atleast thirty days before the date of the meeting.

7. Eleven members shall form a quorum. Ne quorum will be required for on adjourned meeting.

8. The minutes of the meeting shall be recorded by the main special book and will be signed by the Presiden

# " COMMITTEE OF MANAGEMENT"

The members of this Committee shall be elected for a period of three years and will be eligible for re-election.
 The time of the sitting members will expire at the end of the current year. Fresh election of the members of this committee will be made before the end of the current year for the period beginning from the year 1927.

3. This committee will ordinarily hold its meetings quarterly.

4. The date of the meeting will be fixed by order of the Chairman and the Honerary Secretary shall cause the notice of the date, time and place of the meeting issued to the member:

5. Five members including the Chairman and Honorary Secretary shall form a quorum. For an adjourned meeting quo um will not be required.

At its meeting the Committee will dispess all busine: concerned with the duties devolving on this executive body.

ISTRAR OF INI STOCK IPANIES

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P. AGRA . OUDH the Garden will be managed by the Committee of Management through its Chairman and Henorary Secretary with a paid establishment.

#### The ordinary duties of the Committee are:-

The custedy and disposal of the funds of the Zeo.
 io determine the cost and number of paid establishment.
 To fix the standard of food of animals and its cost.
 To make the alignment of roads, paths, and sites and to propare the structures for the receiption of animals.
 To make rules and byelaws for the preservation of order.

- To make rules and byelaws for the preservation of order for the custody and disbursement of funds and for other matters connected with the administration of the Zoo.
- 6. To accept contributions and tecallect subscriptions and donations.
- 7. To purchase, exchange and dispose of the stock.
- 8. To control and supervise the income and expenditure of the funds.
- To propare the annual budget of the income and expenditure of the Gardens.
- 10. To lease or acquire land for the purpose of the Zop.
- 11. To do all other acts compatible with the internal economy and improvement and extension of the Gardens.

The Chairman of the Committee of Management will exer-

cise all or any of the powers which the Committee may deleoate to him.

The Chairman shall have emergency powers which he may exercise subject to the approval of the Committee.

The Honoary Socretary shall be Chiaf Executive Office in-Charge of the Gardens under the control of the Chairman.

The paid establishment of the Garden will be under

orders of the Honorary Secretary.

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The Superintendent of the Los will be primarily responsible paid staff of the Gardens and will be primarily responsible for every. detail of Management of the Gardens.

The appointment, dismissal and punishment of the employees of the Zoo will be made by the Chairman and the Secretary in the following manner:-

The Chairman will deal with cases of employees of the Gardens drawing a salary of above rupees fifty while the Henorary Secretary will exercise the same power in case of servants of the Gardens on a salary bolow rupees fifty.

The Henorary Secretary shall be in-charge of the Gardens' Office and shall carry en all correspondence except when Gevernment is to be addressed. The Chairman will correspend with the Gevernment.

The Committee of Management shall freme Regulations from time to time for the preservation of orders in the Zoo and for the protection of animals and Gardens.

We the undersigned certify that it is a correct copy of the original rules of the Association.

1. 90/- W.S. Cassels, President, 4.8.26

2. " - Bishen Narain Bhargava.

3. " Mujtaba Husain, Assistant Secretary.

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Assistant Registrar, Joint Stock Companies, UNITED PROVINCES.

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#### PUDLIC HLAUTH DEPARTMENT MISCELLANCOUS

#### January 20. 1950.

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IN THE MATTER OF THE PRINCE OF WALES ZOOLOGICAL GARDENS\_\_TRUST,\_\_LUCKROW.\_\_\_\_

No. 7803/XV1(P.H)-PPS-49:- In exercise of the powers conferred by section 5(1) of the Charitable Endowments Act, 1890 (V1 of 1890) and in continuation of notification no.7803/XV1-(P.H.-899-49, dates Ducumber 28,1949, the Governor is pleased to settle the scheme hereinafter appearing for the management of the Trust neme-d above and under section 5(3) of the said Act is further pleased to appoint february 1,1950 as the date on which the said scheme will come into operation.

DRAFT OF THE SCHEED OF MANAGEMENT.

 The Director of Medical and Health Service, United-Provinces, will be the <u>ex official</u> Administrator of the Trust property but Covernment may at any time appoint any other Head of a Dupartment as its Administrator.

2... The Provincial Government may appoint such honorary nor paid staff for the management of the Zoo, as they may a "consider necessary, and the Administrator may submit his proposals in the matter to Government from time to time. 1.3. The object of the Trust is to maintain, improve and lexpand the Prince of Wales Zoological Gardens, Lucknow.

A. The Zoo & all be run on the present links and no
 material charge shall be made without the previous approval
 of Covt..

.5. (1)The Treasurer of Charitable Endowments, United
Provinces, shall rumit the interest on the vested funds
belonging to the Trust to the Administrator of the Trust who enall deposit the same in the news of the Trust in post office savings bank and shall draw the mency therefore to give

The Administrator may with the provious approval 11. of covernment utilise the invested funds of the Truct for the purpose of improvement and excension of the Zoo (vide Government NotiFication No.3295/XV1(P.H.)-899-49, dated 20.9.51).

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The Administrator of the Zoo chell have the power to 6. incur an expanditure not exceeding &.100/- for any purpose of the Trust over and above the budget allotment for the year. Power to sanction expanditure above &.100 shall vest an Government.

? This savings from whitever cause arising shall, when the amount is deemed sufficient, be vosted in the Tressurer cf Charitable Endowments and the interest on the amount so vested shall be expended on the purposes of the Trust. 8.

The Administrator of the Trust Shall:-

(a) in books to be kept by him, enter or couse to be full entered and true accounts of all money received and poid respectively on account of the Trust, and

(b) Cause the books so kept to be audited annually by the Local Fund auditors, no few being charged for such widit.

. A reserve balance of fs.5,000 shall be maintained by 9. Administrator for the purposes of the loo , and will not the be utilised except with the previous approval of Gevernment.

The Administrator shall fix the standars of food 10. for enimels and its costs and may , with the previous approval of the Government kade rules and by-laws for the custody and disburgement of funcs and fur other matters connected with Administration of the Loo. the

(a) The Administrator may appeint, punish or dis-11. miss, without any reference to Government menial cervants of the Zoo drawing a monthly salary upto k.50/-...

(b) Other servants of the loo shall also be under the administrative control of the Aeministrator, but the punish or dismiss them without first obtaining the canotich of the provincial Government.

(c) Any servant of the Trest apprieved by an order the Appinistrator under sections (a) and (b) day appeal to the Government.

12. The Administrator shall be assisted by a Superin<sup>®</sup> tendent of Gardens. The United Provinces Government may from time to time appoint by name a member of the staff of Zoological Department, Lucknow University, for technical advise to the Administrator.

-3.

13. The Provincial Government shall have power to call for all such information and eccounts as may in their opicien be necessary, for reasonably satisfying themselves that the Zoo is properly maintained, the Edowments thereof are properly administered and their funds duly appropriated to the purposes for which they were founded or exist and the Trust shall, on such requisition, furnish forthwith such information and accounts to the Provincial Government. The Provincial Government may issue such directions to the Trust es they may duem fit, and the Administrator shall carry them out.

> By order, S.P.PKNDE, Socretary.

Urtar Products, Uttar Products,

The ministratori Prince of Unios-Zoological Cardons Trust, Lucinow.

Daved Lucimon, May 15, 1953.

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I an directed to say that the Covernor has been leased to constitute an Advisory Counittee to advise the Austrogarding future improvements in the Zoologic - Gardens and hat appointed the following as members of the said Counitted for a period of one year:-

> (1) S cretary to Doyomment, Utthr Pradesh in Hedical and Public Mealth Departments-Chairman.

(2) Director of Rediced and dealth Services (Ex-officio administrator of the Trust

(3) Sri B.D. Snnal, I.C.S., administrator Hunicipal Board Ducknow,

(1,) Dr. M.B.Lal; Roader in Zoology, Lucknow University

(5) Sri Kallash Harain Kaul, H.Sc., D.Sc., Director Hational Botanical Bardens, Sikandarbugh Lucknow,

(6) Sri Kishori Lalingarmal B. LL.B., and Lucknow,

(7) The Executive Officer, Inprovement Trust, Lucknow.

(3) Sri Ren Harain Pandey, K.L., LL.B., L.F.Son Hoad, Lucknow.

(9) Rari Ran Lunar Bhargava Hazratmini, Lucknow. (10)Sri ? rakach Karain Hathur, Director Social

Services 67, Balyasiya Barket, Luchnow.,

to nonbers.

2. The Superintendent Zee will set up the carry of the s Constitute.

3. The first meeting of the Counities will be held on

Ĝ C Ċ (2)С May 18, 1953 at 4130 P.H. in Room No. 80 of the Council (House at Hoalth will incustorito ( ( tho pr Yours faithfully. 1 m (T.L.MANENDRA) SECRET ARY. Į: No.3028/XVI-950/19 Copy Corfardod all the Membors docailed above for information. By order, CRET.MY. LS/ 15/5 

## SARVAJANIK SWASTHA VIBHAG

# The Prince of Wales Zoological Fardens Trust Employees (Conditions

IISOFILANEQU

No. 269(1)/XVI-II-935 52 In pursuance of the provision of para 10 of the Scheme of Management of the Prince of Wales Zoological Gardons Trust. Lucknew, ironest under section 5 of the Charitable Endowments, Acts, 1890 (Act. VI of 1890), published with notification no., 7803/XVI(PH) 899 49, dated January 20, 1950, the Administrator of the Prince of Wales Zoological Gardons Trust, Lucknew, hereby makes, with the prior approval of the Government of Uttar Pradesh, the following rules for regulating the conditions of service of the omployees of the Prince of Wales. Zoological Gardens Trust, Lucknew.

#### CHAPTER I

#### PRELIMINARY

1. Short title and commencement-(1) These rules may be called the Prince of Wales Zoological Gardens Trust Employees (Condition of Service) Rules, 1959.

(2) They shall come into force on April 1, 1959.

2. Definition—In these rules unless there is anything repugnant in the subject or context—

> (a) 'Administrator'mouns Administrator of the Prince of Wales Zoological Gardens Trust, Lucknew, appointed under para 1 of the Scheme of Management;

(b) 'Bank' moans the State Bank of India, Lucknow;

(c) Board of Soloction' means the Board of Soloction consisting of Socretary to Government Medical and Public Health Departments, Administrator, and the Commissioner Animul Husbandry Department;

(d) 'State Government' means Government of Uttar Pradesh;

(c) Para' means para. of the Scheme of Management ;

(f) "Schome of Management" means the Schome of Management of the Prince of Wales Zoological Garden's Trust, Lucknow, published with rotification no. 7808/XVI(PH)-899-49, dated January 20, 1950;

(g) 'Superintendent' means the Superintendent of the Prince of Wales Zoological Gardons Trust, Lucknew

(A) "Treasurer' means the Treasurer, Charitable Endownents. Uttar Pradesh, Allahabad :

(f) Zou mon in the Prince of Wales Zoulogical Gardens Lucknow, comprising of the atreas on which the Ziegas structure and the gardens attached ziones.

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## CHAPTER II

#### SUPERINTENDENT AND ASSISTANT SUPERINTENDENT

3. Source of Recruitment—The recruitment to the post of Superintendent and the Assistant Superintendent of the Zoo shall subject to the provisions of para. 2 he made by the State Government by obtaining on lean the services of suitable employees of the Animal Husbandry Department or by direct recruitment in consultation with the Board of Selection after inviting applications therefor.

4. Qualifications—(a) No person shall be appended as Superintendent unless he-

(i) holds a degree in Zoology or degree/diploma in Veterinary Science of a recognized University/Institute established by law and recognized as such by the State Covernment and can read and write fluently Hindi written in Devalagri Script;

(ii) is modically fit for outdoor duty ;

(iii) is a citizon of India ;

(iv) is bolow 40 years of age on July 1 of the year in which the recruitment is to be made hand

(v) possesses wide experience and knowledge of wild life, their habits, diototics, etc. Preference may be given to candidates having experience of dealing with wild animals and birds in captivity and Zoo administration.

(b) No person shall be appointed as Assistant Superintendent unloss he is-

(i) a qualified Assistant Veterinary Surgeon or having equivalent qualification of a University established by law and recognized as such by the State Government;

(ii) medically fit for outdoor duty ;

(iii) a citizon of India;

(iv) bolow 30 years of age on July of the year in which the recruitment is to be made :

Provided that the State Government may, where it considers it expedient so to do, exempt a candidate from possessing any of the qualifications prescribed under this rule.

5. Scale of Fay-The rate of monthly pay admissible to persona appointed whether in a substantive or officiating capacity or as a temporary measure shall be as follows:

Superintendent: Rs. 250-25-400-1.B.-30-700-E.B.-850 per monsem.

Ascislant Superintendent-Rs. 210-15-

Ascislant Superintendent-Rs. 200-15-350 per mensen: 6. Charactor-Candidates for diama appointmenta sSuperintendent or Assistant Superintendent must submit salony swith their application for appointmont :: 2004

(1) a certificate from a responsible member of the staff, proforably the Principal or .! Head of the College or School in which he was last educated to the offect that he has not taken any part in, or associated with, an association of a character subversive of law and order and that he has not boon found guilty of acts of indiscipline.

(2) an affidavit that ho-

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(a) is not a dismissed employee of the Indian Unioneer of a State or of any local body

, (b) has not undergone a contence of imprisonment for a criminal offence involving moral turpitude.

Disqualification-A person shall be disqualified for appoint. 7. mont as Superintendent or Assistant Superintendent if he or any of his relations by himself or partner has any interest directly or indiroctly in any contract with the Trust.

Explanation-Forthe purposes of these rules, relation means fathor, grand fathor, fathor-in-law, paternal or maternal unch son, grand-son, son-in-law, brother, brother's son, first coasin patornal or maternal, wife's brother or sister's husband.

8. Promotion-(1) Every candidate for substantive appendiment to the post of Superintendent or assistant Superintendent shall be placed on one year's probation. The period of probation may in suitable cases be extended by the Coverament from time to time.

(2) The service of a probationer may be dispensed with by the State Government at any time during the period of probation or at, its ord without assigning any rossons therefor.

9. Confirmation -- On completion of the prescribed period of probation; a probationer shall-

(a) if his work and conduct has been found satisfactory ; and

(b) his integrity is certified by the Administrator be confirmed in his substantive appointment.

10. Punishment-The State Government shall have the power to inflict the following punishments on the Superintenden. or the Assistant Superintendent, viz.

(a) Consure;

(b) Reduction in pay ;

(c) Withholding of increments;

(d) Suspension ;

(c) Removal from service ; and

(f) Recovery from pay of the whole or part of any recuniary loss caused to the Trustilly the negligence priles choforders. 11 Age for instrument - Die go off reliminant of the Superintendent and the Assistant Supermindent will be 58 years.

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#### CHAPIBRIL

12. (a) Il no Administrator may appoint such ministorial and other staff the miximum of the scale of pay of which is not more than Rs.50 per month on posts sanctioned by the State Government.

(b) In cases where the maximum of the scale of pay exceeds that amount, appointment shall be made with the previous approval of the State Government.

18. Subject to the provisions of para. 11(b), recruitment 10 the posts referred to in the said para, be made after inviting applications through the District Employment Exchange or advertisement in the Press.

14. Qualification-No person shall be appointed to any of the posts referred to in para, 11(b) unless ho-

(a) has passed the High School Examination of the Board of High School and Intermediate Education, Uttar Pradosh, or such other qualifications as may be prescribed by the Administrator for each of the posts :

(b) possesses a working knowledge of Hindi written in Devanagri script;

(c) is less than 30 years of age on the date of his first appointmont in the office of the True ;

(d) is medically fit to perform his duty ;

(c) is a citizon of India.

15. Rule nos. 7-11 in Chaptor II shall mutatic mutandie apply to posts referred to in chuse 12(a) accept that for the word 'State Government' where it occurs in Rules 7-11 will be read as 'Administrator'.

16. Appeal-Appeal to be preferred under para. 11(c) shall-

(a) contain all materials, statements and arguments relied on by the appellant;

(o) be submitted through the Administrator ;

(c) be filed within thirty days of the communication to the appellant of the order appealed against.

#### CHAPTER IV

Menial staff the meximum of the scale of pay of which is up to Bs 50 per mensem.

17. Sources of Recruitment-Recruitment to the posts referred to in pars. 11(a) shall be made after inviting applications through the District Employment Exchange and advertisement in the Press. 18. Qualifications-No person shall be appointed to any of the posts referred to in para. 11 (a) unless he-

(a) is loss than 30 yours of ego on the date of his first appointment in the office of the Trust ;

(b) is modically fit to perform his duties ;

(c) is a citizen of India ;

(d) Litoracy will be z special qualification.

19. Rules 7-11 of Chapter II will be equally applicable to the "staff referred to in Rules.

20. Punishment, loave procedure, suspension, travelling allowance and provident fund. etc.—In all other matters relating to the con-ma ditions of service of the employees of the Trust, the corresponding rules on the subject relating to employees of Municipal Boards in this State, whall mulatic mutandis be followed.

But the bonus facilities available to the employees of Municipal Boards will not be applicable in the case of employees of the Trust.

> By order, B. S. SETH, Sachiv.

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א-- לאלות, מתותה כי בוא כולל פ, לשלפטוסי, סהלן אַ-אָרָאוֹג אוו מתאו אי כֿפּ-לָפּ כֿ לאס טארכוט: עַזְּחִי - כּןְ בַחַוּקּא כָּ אַיּבּיֹכִי אַ לשלקַקוּטי פֿי דעווות ה אַיּמּוּא לפּינטי פֿי לאַט יָּכָכָ כּקוּפֿיו ו

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א מנ ואמיה אלו והיםו אווניוו שב אה מצ ---ידאלאד-הול בעלוא, ע ניו (אד) ע ואלרכ להרי:

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। ग्रिकड्री देकि में १-३ אואדול עוצעל ל מוא להא מאברה אבט אואדול ארו איד אידיטא जन्मद या एका में राज्यता कियो जेमद जीव माहि जेमर ая экногі р ру э навар нас п трібіль אידור אלא שוא אמונוג אנושר המורוג

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า 3 ถ้องการเว็กรักษากัศ ธรรม วิกษยาบบทห אמו נשאו ביול ביונים אוש, לונטוריאמום בארוא וביוו

· · I man यपाषित कर दो जाय, उसके योतिक पर पर स्वायी कर दिया राठानेकम निमंह 1713 महोती मार्ग्स राहा हो एक एक महा -рбын руких убарна нану уль в колов колов - जेर को विदित बर्ग समाल ता कि को कि (मिंग)

-न्तर्ण्य कांग्र मार्ग्स हिंग सुलग ник » (1)е пр й чели иски-ник-а.

ו זא דער ענואר אין איז र (क) में समसे सामयो, विवरन, वर होये नित्र वर

איז אוה האובו א לוא אסו אבותיא ואי וסורוטע , गर हा लोग राग्र हे जिनदे जिन्द्र अवील मी लाग गिण्यार कि स्ट्राय में मण्याम के अभगवा बरिडमी ( ह)

## דוה-ובפדע

1 2 32 सामग्रेम मध्य अद १ 1 דובד מקום בדבו לאדבי בוחם בידו

עד שע א אודעושו ב ואמואא גו א יו אושיו ו FIL REPUR FORSER TAS FORED PLED-TISIET rise a mora is unions recipel, include to the שוואיז הגוו שידע-רוש ואיוהד-יו

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trator. (ii) The State Government shall appoint a Deputy Conservator of Forests on deputation, to the Trust as Director of Prince of Wales Zoological Gardens Trust who shall be the Chief Executive Officer of the Trust under the control of the Administrator.

(iii) The Administrator shall have all the financial powers as are delegate to a llead of the Department in the Forest Department from time to time. Similarly, the Director shall have all the Imancial power as are delegated to a Deputy Conservator of Forests in the Forest Department. The Administrator shall have such special powers also as may be delegated to him in that capacity by the State Government.

(iv) The State Government shall appoint an officer of the Animal Husbandry Department, not below the rank of a Distant Livestock Officer, on deputation, to the Trust as its Deputy Director.

2. (i) The number of posts of various citegories sanctioned for the Trust, and their scales of pay are given in Schedule 1. Such other new posts may, on the recommendation of the Administrator, be created by the State Goyernment as it may consider necessary for proper and smooth working of the activities of the Trust.

(ii) The State Government may on the recommendation of the Administrato, abolish any of the posts given in Schedule 1 or create after the issue of this notification.

1 3. The object of the Trust is to maintain, Honorove and expand the Prince of Wales Zoolobe est Gredens Luchnow

4. (i) The Treasurer of Charitable Endowments, Utar Preseth shall remit the interest on the vesses belonging to the Trust to the Administration of the Trust who shall deposit the same in the name of the Trust in the State Bank of India and shall draw the money there from to give effect to the purposes of the Trust.

(ii) The Administrator may with the previous approval of State Government milise the vested mads of the Trust for the purpose of improvement and expension, of the Zzzz (*side* Government notification no. 3295/XIV(PN)-899-19, dated September 20, 1951).

5. Saving from whatever cause arising, may, when the amount is deemed sufficient, be vested in the Transmer of Charitable Endowments Uttar Pradesh, and the interest on the amount so vested shall be expanded for the purposes of the Trust.

6. (a) The Administrator/Director of the light shall in books to be kept by him, effect or cause to be entered full and true accounts of account of the Trust and the function of the Trust and the books so kept to be audited annuality by the Local Fund auditors no fee

being charged for such audit.

7. A reserve balance of Rs.5,000.00 shall be maintained by the Administrator for the purposes of the Zoo and will not be utilised except with the previous approval of the State Govern-

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2. The Director under the guidance of the Evaluation shall be responsible for the up keep of the Zoo, its premisses and animals. He shall, with the approval of the Administrator. make rules for matters connected with the administration of the Zoo.

a. (a) The Administrator shall be the appointing authority to the posts carrying pay scales the maximum of which exceeds Rs.250.00 but does not exceeds Rs.500.00 and shall have powers to punish and dismiss such employees. He shall also be the appellate authority in aspect of the staff for which Director will be the appointing authority. The Director shall be appointing authority to the posts carrying pay scale, the maximum of which does not exceed Rs.2 jour and shall have powers to punish and dismiss such employees. The rules for minimients, confirmation etc. of ministerial and lower stall are given in Scheduler II and III, respectively.

(b) The officers and staff of the Zoo on deputation from Government Departments shall also be ander the administrative control of the Administrator as per terms and conditions of deputation.

(c) Any employee of the Trust aggrieved by an order of the Administrator/Director under tub-paras (a) and (3) may appeal to the next higher authority i.e. Administrator or the State Government, as the case may be

1.1. The State Government shall have power to call for all such information and accounts as may in its opinion, benecessary for reasonably satisfying it that the Zoo is properly maintained the Endowments there of are properly administered and their funds duly appropriated for the purposes for which they were founded or exist and the Trust shall, on such requisition; furnish forthwith such information and accountseto the State Government. The State Government may issue such directions to the Trust as it may deem fit and the Administrator/Director shall carry them out. बत्तर प्रवेश श्रत्र, ४ :मान,

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Schedule I post and their pay sector of the Prince of Wales Zoological Garden's Trust. Luckam

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# Schedule II

Ministerial Staff.

1) The Administrator may appoint such similaterial and other stall; to the posts carrying scale of pay the maximum of which ex-

(u) the Director shall have the power to appoint staff to the posts carrying scale of pay the maximum of which does not exceed Rs.250.0".

23 Subject to the provisions of para 1, recruitment to the posts referred to in the said paratic made after inviting applications through the district Employment Exchange or advertiseincriting the Press. The posts may also be filled by deputation of stall from U. P. Fish-rice and Deputation of stall from U. P. Fish-rice and Deputation of term of deputation to La Scilled in zavance

pointed to any of the posts referred to 20-111

of the Board of High School and Intermediate Iduellion al thar Bordesh or such other quali-ICAUON ax may be presented by the Adminis-1000 ach of the posts (For Accountant Band SAccounts Clerks

b possesses a working knowledge of written in Devanagri Script, 

(c) is less than 27 years of age, on of his first appointment in the office of bthe Trust. This does not apply to the persons on deputation), (d) is medically fit to perform his dung ుగ

is a citizen of India.

() For Garden Supervisor the minimum ed cational qualification is B.Sc. (Agriculture;

Disqualification - A person shall be disqualified for appointment as Accountant, Assistant accountant, Accounts Clerk or Garden Super if any of his relations by hiniself or his partin has any interest directly or indirectly fin an contract with the Trust 

Explanation - For the purposes of these rule relations means father, grand father. "father in law, paternal or maternal uncle. son the grand son son-in-law, brother, brother's son; first cousin parenal or maternal, wife's brothering sister's husband.

- Confirmation-ii) Lyon candidates substantive appointment deall be placed one First prototion. The period of maxim ides up cases be extended it

pointing authority litera time to time subject to the majorium of 12 years.

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(ii) The service of probationer may be ispensed with by the appointing authority at any time during the period of probation or at its end without assigning any reasons therefor.

(iii) On completion of the prescribed period of probation a probationer shall-

(a) if his work and conduct has been found satisfactory and his integrity is certified by the Administrator/Director be confirmed in his substantive appointment.

6. Appeal — Appeal to be preferred under para 9. (c), of scheme of management shall—

Arguments to be relied on by the appel-Lint }

(b) be submitted through the Director/ Administrator;

(c) be filed within thirty days of the communication to the appellant of the order appealed against.

#### Schedule III

Lower staff the maximum of the scale of pay which is up to Rs.250.00 per month.

t. Sources of recruitment--Recruitment to the posts referred to in para 2 of scheme of management shall be made after inviting applications through the District Employment Exchange and advertisement in the Press and from amongst daily avages employed in the Zoo at least for the last one year.

2. Qualifications--No person shall be oppointed to any of the posts referred to in para 2. OT scheme of annument unless he-

(a) is less than 27 years of age on the date of his first appointment in the office of the trast.

(b) is medically fit to perform his duties.

(d) Educational qualification should be as under :

Mali-Princip Passed preferable

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heeper-Printary Passed.

Chauding -Middle VIII class passed. Booking - Iligh School passed. W. Electrician-cum Afechanic - Certificate of training as mechanic electrician.

Driver-cum-Mechnic-Ceruficate of training in mechanics, driving.

3. Rules 4-6 of Schedule 11 will be metalis

avelling allowance and provident fund

Acres - Frank Station

the corresponding rules on the subject relating E RO 44 to employees of the Forest Deptr 11 P shall रत वरिक mulates mustandis be followed, ); (कन्दोन्न· माता से, पन्त्र हास सिंह, ٩ संयुक्त सचिव । 197 उत्तर प्रदेश सर हार के मख्य सचित्र/सचिव की आज्ञाय 1---[ पह (पुन्ति )/विभाग] in) (\*\*\* 26 जनवरो. 1978 **द्**ष. (<ı , R 6219-070 to, x12- t-1 574 1978 to R 2-उत्तर प्रदेश तनिवतजय के प्रदर थगं सहायक यो पन ग्रेषर बोझो R, 19; को भी संग्वेद दता हतन के स्यान पूर जिनको छट्वी रो परि मायरिक गुरक्षा अन्तरेगण में अस्यायों गुरुप्रान आफिसर नियक्त किया जाता हूँ । 1-• ृत्पा नारायण, तती की, म स्य सचिष**ा** तीय कर

In all other matters relating to the conde-

tions of Service of the employees of the Trusty

[ उत्रोग विभाग ]

करवरी, 1978 हैं।

सं 0371-1-1; 16-3-8-अधि 0-78--1 फरवरी, 1978 ते उत्तर प्रदेन सचिषालेग के प्रवर वर्ग सहायक, भी बसन्त इत्सम विष्ट, धो अदधग्रितरी काल के रपान पर, जिनको छुट्टी वी पयी, ation)

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गये। सं 07764-1 18-3 192-अपि 0-77---दिन्तरे किरवरी, 1978 में उत्तर प्रदेश तथिए स्था के प्रवर वर्ष सहायक, धी बिदान सिंह, थो भोला नाप नुद्र से स्थान गर, जिनको छुट्टी दी पयी, उद्योग अनुभाग- १ में अध्यायों सेक्शन शाफिसर नियुक्त किये गये।

उपोग अन्मण-1 में श्रेरपायी संरक्षन आफिसर निपुर्शत किये

## [ वित (सेपाय) विभाग ]

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सं० ए२० ६०-८६३, दस- २८-६०-२९९ ()--दिनांक २ जनवरी, 1978 ६० से उत्तर प्रदेश सचिदास्प दे प्रवर दुगं सहायरु धो कतान चन्द्र धोबास्तव को बो चाल्ल्य धोबास्तव के स्पान पर, तो वेजान अधकारो के पर पर दियुरत के स्पान विरो (त्यय-निवंत्रण) अनुभाग--12 में अस्पायी कर से अन-भाग अधिकारो नियुत्त किया गया।

हितोप कुन्तर अट्टाचार,

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#### [ जिला बिभाग ] 29 दिसम्बर, 1977 ई0

रां० 7724(2)/15-4-77-6(22) -77-भी मुरारी मोहन बन्जों दारा कार्यभार ते मुक्त होने पर सिया समित दे बाह्य में उत्तर प्रदेश सरकार के अस्पायी अनुभाष मणिकारी भी प्रिमुदन नाप पान्ट्रेय दिनांद 26 अस्तूबर, 1977 से असर प्रदेश सदियाहर में प्रदर की नट्रायस के अपने मोलिक पर पर मैत्यापतित

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## Annexure No.-8

# Management Plan Existing zoos requiring modernization

## STATEMENT OF PROPOSED ITEMS SCHEDULE OF MODERNIZATION

S.No.	Item of Work	Quantum	Totat	Source of
		of work	Cost (In	🏝 funds
			lakhs)	
1.	1- Toilet block		50.00	State Govt.
	2- Visitors shed			
	3- Panther cage/cave			
	4- Birds cage		•	
	5- External site development			
	6- Tree guard			,
	7- Jhoola (Swings)			
	8- Benches			
	9- Repair and renovation of Staff quarter			
	10- Painting/ white washing of cage &			
	cave			
2.	1- Painting & renovation of zoo		25.00	State Govt.
	enclosures			
	2- New enclosure for Macaw			
	3- Renovation of chain link in White			
	tiger enclosure & new pond			
	4- Renovation of old Lion Safari			
	Enclosure		12120	
3.	1- Pond repair and renovation of chain		124.00	CZA
	A Most type and sure of Hypen			
	2 - Moat type enclosure of Tryena			
	A. Partisan of the sambar cane			
	5- Visitor shed			
	6- Construction of Giraffe House			
	7- New bird house			
	8- Construction of R.C.C. water tank for			
	Hippopotamus in existing enclosure			
	9- Chain link partisan at deer safari			
	10- Drainage of the Campus			
	11- Dalibagh gate to tiger house			
	12- Chain link partisan at deer park cage			
	13- Construction strengthening of			
	Boundary wall temple to bear house			

#### (a) Year: 2008-09

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4.	1- Renovation of Rhino house walls		86.83	CZA
	and room.		•	
	2- Enclosure of Chinkara with stand			
	of barrier.		• •-	
	3-3 Moated enclosure of Monkeys.			
	4- Extra rooms & portions of Giraffe			
	encl.			
5.	1- Solar photovoltaic power unit	L.S.		NEDA/State
	2- Solar photovoltaic pump			Govt./Centra
	3- Solar water heating			l Govt.
	4- Battery operated three wheeler			
	5- Solar community cooker			<i>ا</i> ;بړو،
	6- Energy slip for genetic electricity			
	7- Solar power car			
	8- Solar cabinet drayer			
	9- Biogas plant			
	10- Wind battery charger	· · · · ·		
	11- Power generatic drum		-	
	12- Solar still (on ground level) 25			
	L.P.T.			
	13- Solar photovoltaic street light			
	14- Solar photovoltaic domestic light			
	15- Solar photovoltaic lantern			
	16- Water power exits			
	17- Chulha		-	
	18- Bio fuel energy			
	19-Indoor exhibit			
	Construction Work-			
	A- Reception and ticket window near			
	Park road gate.		_	
	B- Toilet-02- One toilet near White			
	Tiger Enclosure and one toilet near of			
	Bird section.			
	C- Garage- Near Sulabh complex.			
	D- Benches- Near parrot line.			

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## (b) <u>Year : 2009-2010</u>

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S.No.	Item of Work	Quantum of	Totat Cost	Source of funds
		work	(In lakhs)	
1.	Modifecation and Enrichment of	1	6.00	CZA
	one enclosure			
	(white tiger)			
	having worn out			
	rusty chain link			
2.	Modifecation and	1	2.00	Zoo
	Enrichment of			
	Nature			
	Interpretation			
	centre.		-	
3.	Painting &	· 1	3.00	State Govt.
	cleaning of zoo			
	enclosures			
4.	Construction of	1	3.50	CZA
	Visitor shed at			
	Vanar Vatika			
5.	Construction of	1	50.00	CZA
	Swamp deer			
	(Conservation			
	Breeding centre)			
6.	Modification and	1	2.00	State Govt.
	Renovation of	х.		
	Children Park			•
7.	Construction of	1	2.00	CZA
	cc road in place			
	of brick roads.			
8.	Hippo house	1	7.50	CZA
	Pond RCC			
9.	New Bird House	6	15.00	CZA
	opposite			
	Pheasantry			
10.	Maintenance of	1	2.00	State Govt.
	Baradari lawns			
11.	Cages or squeeze	6	4.50	CZA
	cages			
12.	Modification and	1	5.50	State Govt./Zoo
	Renovation of			
	Ostrich enclosure			

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13.	Construction of toilets at Balda	2	2.50	State Govt.
	Colony		0.25	State Cost
14.	1- VISITOF Shade	L.S.	9.33	State Govt.
	2-washroom			
	(Men/Omen)			
	3- Benches $-10$			
	sets			
15.	1- Visitor shade	L.S.	42.75	State Govt./ LDA
	2-Benches			
	3-Water cooler			
	4- Boundary	1		1944 - Aliana
	wall, road and			
	lawns of new			
	Veterinary			
	Hospital.			
	5- Plantation			
	6- Sinages			
	7- Dustbins			
16.	E- Governess &		58-00	State Govt.
	Furniture of New			
	Veterinary	1		
	Hospital			

# (b) <u>Year : 2010-2011</u>

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S.No.	Item of Work	Quantum of work	Totat Cost (In lakhs)	Source of funds
1.	Modification and	1	20.00	CZA
	Strengthen of			
	security system and			
	boundary wall and			
	gates			
2.	Strengthening of	1	10.00	CZA
	drainage systems of			
	the zoo (I)			
3.	Construction of	1	3.00	Zoo/State Govt.
	refreshment corner			
	near Turtle			
	enclosure .			
4.	Modification of pipe	1	3.00	CZA
	lines and drinking			
	water facilities for			
	animals and visitors			

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5.	Painting & cleaning of zoo enclosures	1	2.00	Zoo/State Govt.	
6.	Modification of Visitor shed at main gate	1	3.00	CZA	
7.	Modification of Canteen	1	5.00	Zoo/State Govt.	1
8.	Construction of cc road in place of brick roads.	1	2.00	Zoo/State Govt.	
9.	Hippo house Pond RCC	. 1	7.50	Zoo/State Govt.	
10.	Modification and enrichment of moated Wolf/Hyena enclosure	1	35.00	CZA	
11.	Making of Lucknow Zoo web site	1	1.00	CZA	
12.	Modification and Enrichment of Tiger House	2	30.00	CZA	
13.	Modification of Elephant Enclosure to other species	1	30.00	CZA	~
14.	New Staff Quarters out side the Zoo premises	50	127.00	State Govt.	
15.	Renovation of signages	1	47.00	CZA	
16.	Strengthen of Animal hospital and kitchen	1	20.00	CZA	
17-	Development of Stgrage and	ଥେ	27 81	(17.)	
	Enrichmentof Zoo enclosures	03	2.2.9.9.6		
18-	Construction of Fishing Cat Enclosure	01	10 <i>-0</i> 0	C·Z·A	~

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(c) <u>Year : 2011-2012</u>

S.No.	Item of Work	Quantum of	Totat Cost	Source of funds
		work	(In lakhs)	
1.	Modification of	1	10.00	CZA
	security system and			
	boundary wall and			
	gates			
2. ·	Modification and	1	5.00	CZA
	enrichment of			
	Hoolock Gibbon			ai.
	enclosure			KD1
3.	Strengthen of	1	10.00	· CZA
	drainage system of			
	the zoo(II)			
4.	Modification of	1	2.00	CZA
	Nature Interpretation			
	centre.			7 10 0
5.	Painting & cleaning	1	2.00	Zoo/State Govt.
	of zoo enclosures			7 10 0
6.	Modification and	. 1	1.00	Zoo/State Govt.
	Renovation of			
	Visitor shed near			
	Sloth bear enclosure	1	2.00	ZaalState Court
7.	Reportion and		2.00	200/State Govt.
	Children Park			
8	Construction of cc	1	2.00	Zoo/State Govt
0.	road in place of	1	2.00	200/State Covt.
	brick roads.		•.	
9.	Maintenance of	1	2.00	Zoo/State Govt
	Baradari lawns	_		
10.	Modification and	1	35.00	CZA
	Enrichment of Deer			
	Line( Black buck,			
	Hog deer, Swamp			
	deer, Samber,			
	Barking deer)			
11.	Modification and	, 1	5.00	CZA
	Enrichment of			
	Nocturnal House			

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(d) <u>Year : 2012-2013</u>

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S.No.	Modifecation and	Quantum of	Totat Cost	Source of funds
	Inrichment	work	(In lakhs)	
1.	Modification and	1	50.00	CZA
	Enrichment of Duck		hore and the state of the state	a farme low the second
	Pond			
2.	Painting & cleaning	1	3.00	Zoo/State Govt.
	of zoo enclosures			
3.	Construction of cc	1	3.00	Zoo/State Govt.
	road in place of brick			jin., .
	roads.			
4.	Hippo house Pond	1	8.50	Zoo/State Govt.
	RCC			
5.	Modification and	1	5.00	Zoo/State Govt.
	Enrichment of			
	Aquarium			
6.	Electric body	1	60.00	CZA
	incinerator(With			
	building)			

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## (e) Year : 2013-2014

S.no.	Modifecation and Inrichment	Quantum of work	Totat Cost (In lakhs)	Source of funds
1.	Modifecation and Strengthen of security system and boundary wall and gates	1	15.00	CZA
2.	Modification and Enrichment of Lion house enclosure (Lion house-I)	1	5.00	CZA
3.	Modification of Nature Interpretation centre.	1	3.00	Zoo/State Govt.
4.	Painting & cleaning of zoo enclosures	1	3.00	Zoo/State Govt.
5.	Renovation of fountains at Hippo Park	2	3.00	Zoo/State Govt.
6.	Modification and Renovation of Children Park	1	2.00	Zoo/State Govt.
7.	Construction of cc road in place of brick roads.	1	2.00	Zoo/State Govt.
8.	Maintenance of	1	2.00	Zoo/State Govt.

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	Baradari lawns			
9.	Modification and	]	10.00	State Govt.
	Enrichment of			
	Chimpanzee			
10.	Modification and	1	5.00	CZA
	Enrichment of Lion			
	tailed Monkey			
11.	Modification and	1	20.00	Zoo/State Govt.
	Enrichment of Giraffe			
	Enclosure			

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# (f) Year: 2014-2015

S. No.	Item of Work	Quantum of work	Totat Cost (In lakhs)	Source of funds
1.	Modification and Strengthen of security system and boundary wall and gates	1	15.00	CZA
2.	Drinking water for animals and visitors	1	3.00	CZA
3.	Construction of Baboon moated Enclosure	1	20.00	Zoo/State Govt.
4.	Painting & cleaning of zoo enclosures	1	2.00	Zoo/State Govt.
5.	Modification and Enrichment of Sarus Enclosure	1 .	35.00	CZA
6.	Well equiped Small Auditorium	1 •	50,00	Zoo/State Govt.

# (g) <u>Year : 2015-2016</u>

S. No.	Item of Work	Quantum of work	Totat Cost (In lakhs)	Source of funds
1.	Modification and Enrichment of Panther house	1	35.50	CZA
2.	Modification and Enrichment of Black necked stork	1	7.00	CZA/Zoo/State Govt.

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	enclosures.			
3.	Painting & cleaning	1	3.00	Zoo/State Govt.
	of zoo enclosures			
4.	Maintenance of	· 1	3.00	Zoo/State Govt.
	nature trail in			
	Children Park			•
5.	Modification of	1	6.00	CZA
	boundary wall			
6.	Maintenance of	1	2.00	Zoo/State Govt.
	Baradari lawns			
7.	Modification and	1	10.00	Zoo/State Govt.
	Enrichment of Emu			$V_{ijm} \mathcal{I}_{ij}^{\mu}$
	Enclosure			
8.	Modification and	2	30.00	CZA
	Enrichment of Sloth			
	bear house			

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(h) Year : 2016-2017

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	S.No.	Item of Work	Quantum of work	Totat Cost (In lakhs)	Source of funds	
	1.	Renovation and modification of Director Office	1	50.00	Zoo/State Govt.	
	2.	Strengthenofdrinkingwaterfacilitiesforanimals and visitors	1	5.00	CZA	Sion
	3.	Renovation of old Toilet at Baradari	3	5.00	Zoo/State Govt.	
	4.	Construction of new Monkey houses near Hoolock Gibbon enclosure	(3)	25.00	CZA	125
	5.	Painting & cleaning of zoo enclosures	1	2.00	Zoo/State Govt.	<b>%</b> -
	6.	Modification of Animal food Store	1	15.00	CZA v	15
Lese	7.	Modification and Enrichment of White Peacock Enclosure	1	(20.00)	CZA	
-	8.	Modification and Enrichment of Zebra Enclosure	1	(10.00)	Zoo/State Govt.	XI
5	9.	Modification and Enrichment of Rhino House	1	10.00	CZA	1
	10.	Modification and Enrichment of Otter Enclosure	1	10.00	CZA	1

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\$ +2 \$ + 15 + 20+10+10+10 + 25 +10 = 130 + 43 Repair duck pord +

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Net demand.

(i) <u>Year : 2017-2018</u>

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S. No.	Item of Work	Quantum of work	Totat Cost (In lakhs)	Source of funds	
1. '	Modification and Enrichment of Lion house-II	1	25.00	CZA	V 25
2.	Painting & cleaning of zoo enclosures	1	2.50	Zoo/State Govt.	
3.	Renovation of Visitor shed near wolf enclosure	1	2.00	Zoo/State Govt.	
4.	Maintenance of Baradari lawns	1	2.00	Zoo/State Govt.	
5.	Construction of Panther House	1	49.00	CZA	$ \times $
6.	Strengthen of Animal hospital and kitchen	1	10.00	CZA	V 10

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# (j) <u>Year : 2018-2019</u>

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S. No.	Item of Work	Quantum of work	Totat Cost (In lakhs)	Source of funds
1.	Strengthen of pipe lines drinking water facilities for animals and visitors	1	6.00	CZA
2.	Painting & cleaning of zoo enclosures	1	7.00	Zoo/State Govt.
3.	Modification and Enrichment of Wolf enclosure	1	8.00	CZA
4.	Renovation of old Toilet complex at Hippo house	1	5.00	Zoo/State Govt.
5.	Renovation of Visitor shed at Children park	1	4.00	Zoo/State Govt.
6.	Modification and Enrichment of Old Bird Section	1	10.00	CZA
7.	Modification and Enrichment of Ghariyal, Magger	1	20.00	CZA

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Revised concept plan dated 08.10.2009

S.No.		1					
1.	Name of the Zoo	Lucknow Zoo, Lucknow, Uttar Pradesh					
2.	Category of the Zoo	Large Zoo					
3.	Area of the Zoo	24.00 ha					
4.	Objective	(i) Conservation education and awareness					
		(ii) Research for conservation					
5.	Theme of display	Broad taxonomical display of wild animal species of					
		national importance with special emphasis on					
		fauna of Himalayan tarai.					
6.	Animal Collection Plan	Tiger, Lion, Leopard, Hyena, Wolf, Sloth bear,					
		Himalayan black bear, One horned Rhinoceros,					
		Elephant, Blackbucks, Swamp deer, Thamin deer,					
		Spotted deer, Samber, Barking deer, Hog deer,					
		Mugger, Gharial, Turtles, Tortoises, Peafowl etc.					
7.	Master (Layout) Plan	To be prepared accordingly.					
8.	Manpower	(i) CF/DCF level full time Officer-in-charge as					
		Director					
		(ii) DCF/ACF level full time Curator (animals) – 1					
		No. for the present Zoo					
		(iii) Veterinary Officers – 2 Nos.					
		(iv) Education Officer – 1 No.					
		(v) Biologist – 1 No.					
		(vi) Support staff as per needs					

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णार (हेर्वांग) उत्तर महानीर हुए हही।तरा कि 01-2005 मेर 1156 (0हेररार) उत्तर हांसीरेन्य कि 20-2005 मेर के रत्तरहात लाउट लिए

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	अंगीकरण से आय	1,230,000.00	2,266,603.00	811,397.00	3,078,000.00	1,685,000.00
	लघु स्रोतो से आय	222,000.00	59,162.00	14,838.00	74,000.00	81,400.00
	अनंस्ट / सिक्योरिटी मनी से	87,000.00	446,500.00	35,500.00	482,000.00	503,800.00
	अन्य से		399,632.50	50,367.50	450,000.00	5,376,300.00.
	योग-	1,567,000.00	3,195,259.50	913,740.50	4,109,000.00	7,674,000.00
7	आवर्तक अनुदान से प्राप्त आय	5,000,000.00	2,500,000.00	2,500,000.00	5,000,000.00	6,000,000.00
		23,346,583.00	22,460,850_30	5,829,149.70	28,290,000.00	36,000,000.00

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क्र०संव	व्यय का सेवा शीर्ष	वर्ष 2008–09 का प्रस्तावित बजट(पी0ई0)	01.04.08 से 31.01.09 तक का वास्तविक व्यय	01.02.09 से 31.03. 09 तक सम्मावित व्यय	वर्ष 2008–09 का पुनरीक्षित बजट (आर0ई0)	वर्ष 2009—10 का प्रस्तावित बजट(पी0ई0)
1	2	3	4	5	6	.7
1	वेतन एव एरियर	8,795,000.00	7,081,527.00	1,821,473.00	8,903,000.00	14,720,500.00
2	पेंशन/ग्रेच्युटी/राशिकरण	1,446,000.00	1,391,332.00	508,668.00	1,900,000.00	2,290,000.00
7	कार्यालय व्यय स्टेशनरी/ डाक टिकट/ टाईप मशीन/मरम्मत/वर्दी	85,000.00	259,609.52	140,390.48	400,000.00	120.000.00
8	टेलीफोन	48,000.00	26,533.00	23,467.00	50,000.00	55,000.00
9	यात्रा व्यय	112,000.00	18,569.00	81,431.00	100,000.00	110,000.00
10	मोटर गाड़ियों का अनुरक्षण एवं पेट्रोल	224,000.00	178,812.16	71,187.84	250,000.00	275.000.00
11	किराया / उपशुत्क / कर	69.000.00	24,696.00	55,304.00	80,000.00	88,000.00
12	बच्चों का पार्क एवं उद्यान	641,000.00	461,788.50	238,211.50	700,000.00	770,000.00
13	सांपघर / मछलीघर	134,000.00	244,222.60	55,777.40	300,000.00	330,000.00
14	बालरेल गाड़ी	130,000.00	447,362.77	139,637.23	587,000.00	645,700.00
15	भवन अनुरक्षण	817,000.00	446,592.52	553,407.48	1,000,000.00	1,453,800.00
16	वन्य जीव बाड़े का अनुरक्षण	1,079,000.00	1,363,145.03	436,854.97	1,800.000.00	1,840,000:00
17	विद्युत चार्जेस का भुगतान एवं विद्युत कार्य	997,000,00	956.958.00	393.042.00	1,350,000,00	1,485,000.00
18	वन्य जीव क्रय एवं परिवहन⁄बास– खस टट्टी एवं चटाईया	240.000.00	32,212.00	77,096.75	109,308.75	+20,239,50
19	औषधि / अस्पताल	278,000.00	169,479.69	210,520,31	380,000.00	418,000.00
20	दैनिक श्रमिकों पर	1.213.000.00	1.322.819.25	427,180,75	1,750,000.00	1,925,000.00
21	मास की खरीद पर	1,646,583.00	1,523,136.20	376.863.80	1,900,000.00	2,090,000.00
22	मछली खरीद पर	732.000.00	749,460.00	210,540.00	960.000.00	1,056,000.00
23	दाना/अनाज खरीद पर	1,614,000.00	1,370,804.80	429,195:20	1.800,000.00	1,880,000.09
24	फल सब्जी खरीद पर	i,008,000.00	852,990.00	347,010,00	1,200,000.00	1,250,000.00
25	हरा चारा खरीद पर	549,000.00	395,094.00	504,906.00	900,000.00	1,090,000.00
26	गन्ना/ दूध अन्य पर	110,000.00	86,116.75	23.883.25	110,000.00	121,000.00
27	अन्य प्रकीर्ण व्यय/ प्रचार प्रसार/विज्ञापन/ फोटो पर	525,000.00	378,926.80	321.073.20	. 700,000.00	700,000.00
28	मशीन, साज–सज्जा	174.000.00	132,022.00	77.978.00	210,000.00	231,000.00
29	नक्शे / किताबे / छपायी	182,000.00	117.466.30	82.533.70	200,000.00	220,000.00
30	पारितोषिक पर	41,000.00	5,960.00	24,040,00	30,000.00	33,000.00
31	सिक्योरिटी	404,000.00	229,900.00	310,791.25	540,691.25	594,760.50
32	अन्य पर व्यय	53,000.00	, 60,114.30	19,885.70	80,000.00	88,000,00
	योग	23,346,583.00	20,327,650.19	7,962,349.81	28,290,000.00	36,000,000.00

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GOVERNMENT OF INDIA

MINISTRY OF ENVIRONMENT & FORESTS

**Central Zoo Authority** 

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### F. No. 19-39/92-CZA(298)(IV)(M)

#### DATE: 13.10.2009

Shri B. K. Patnaik Principal Chief Conservator of Forests (WL) Government of Uttar Pradesh, Lucknow.

Sub:- Development of Lucknow Zoological Garden, Lucknow – Regarding.

Ref:-	(i)	Your office letter No. 393/CZA/Zoo dated 10.09.2009.
	(11)	Your office letter No. 736/7-4(CZA) dated 11.09.1009.

Sir,

To

Reference is invited to the correspondence cited above.

In this context it is stated that the proposal for development of the Lucknow Zoological Garden would be considered only after approval of its master (layout) plan by the Central Zoo Authority. Hence action may be taken to send master plan at the earliest for needful action from this end.

Further a revised copy of the recommended concept plan (excluding the offexhibit facilities) proposed at Kukrail is enclosed for your perusal. As the conservation breeding centre at Kukrail does not come under the definition of a 'zoo', a master plan for the said facility is not required at this stage. I wish to add that the Central Zoo Authority does not provide funding support for creating display facilities for exotic

J. Shuke .

Yours faithfully,

(Dr. Rajesh Gopal) Member Secretary

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Bikaner House, Annexe VI, Shahjahan Road, New Delhi-110011 Phone : 011-23381585, 23073072, 23070375 (EPABX), Fax: +91-11-23386012 E-mail: cza@nic.in Website : http://www.cza.nic.in

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## Revised concept plan dated 08.10.2009

S.No.		
1.	Name of the Zoo	Lucknow Zoo, Lucknow, Uttar Pradesh
2.	Category of the Zoo	Large Zoo
3.	Area of the Zoo	24.00 ha
4.	Objective	(i) Conservation education and awareness
, . 		(ii) Research for conservation
5.	Theme of display	Broad taxonomical display of wild animal species of
		national importance with special emphasis on
· .		fauna of Himalayan tarai.
6.	Animal Collection Plan	Tiger, Lion, Leopard, Hyena, Wolf, Sloth bear,
		Himalayan black bear, One horned Rhinoceros,
:		Elephant, Blackbucks, Swamp deer, Thamin deer,
	· · ·	Spotted deer, Samber, Barking deer, Hog deer,
		Mugger, Gharial, Turties, Tortoises, Peafowl etc.
7.	Master (Layout) Plan	To be prepared accordingly.
8.	Manpower	(i) CF/DCF level full time Officer-in-charge as
		Director
1		(ii) DCF/ACF level full time Curator (animals) - 1
		No. for the present Zoo and RFO level Curator
		(animals) – 1 No. for Kukrail facility.
	Ì	(iii) Veterinary Officers – 2 Nos.
		(iv) Education Officer – 1 No.
		(v) Biologist - 1 No.
1		(vi) Support staff as per needs