

***Annual Report of
M.C. Zoological Park Chhatbir, Punjab
for the Year 2016-17***



Submitted By:

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Chhatbir, Punjab.**

M.C.ZOOLOGICALPARK, CHHATBIR AT A GLANCE

1.	AREA	:	202 Hectares
2.	APPROACH	:	20 Km from Chandigarh And 23 Km from Rajpura on Patiala-Chandigarh Road.
3.	MAMMALS	:	39Species:434 Numbers
4.	BIRDS	:	51 Species:764 Numbers
5.	Reptiles	:	12 Species:78 Numbers
6.	VISITORS	:	692177 visitors visited during 2016-17.
7.	TIMINGS	:	9.00 AM to 5.00 PM
8.	ZOO HOLIDAYS	:	All Mondays, 15 th August, 26 th January and 2 nd October
9.	REFRESHMENTS	:	2Kiosk inside zoo 1 Canteen outside zoo 1 Ice Cream Parlor outside zoo
10.	SPECIAL ATTRACTIONS	:	1 Lion Safari 2 Deer Safari 3 Lake View 4 Newly renovated Reptile house 5 Battery operated Golf carts

1. About the Zoo

In 1974, Shri M. M. Chaudhary, the then Governor of Punjab conceived the idea of setting up a zoo in Punjab. In a State where wildlife and wild habitat are scarce, the idea was welcomed by one and all. It was decided to establish an ultra-modern zoo which would be in tune with the habitat needs of the individuals animals. A committee of experts was constituted to plan and execute the project. The dream zoo was formally inaugurated on 13th April, 1977 by Shri M. M. Chaudhary Hon'ble Governor of Punjab, with some species brought from Guwahati Zoo Assam. As it groomed through time, Chhatbir forest, once shooting reserve of the Maharaja of Patiala, is today a wildlife conservation haven. At Chhatbir, the enclosures for animals and birds were built according to the then latest designs in such a manner that the natural look and floral richness of the forests were fully utilized.

Though so many enclosures, buildings and roads have already been constructed in the zoo premises, improvement of Chhatbir Zoo has been a never ending process. The later developments are emphasizing the enrichment of animal's enclosures, better health care through disease management and proper sanitation, and up gradation of the existing facilities so as to cater to the needs of both visitors and staff.

2. Zoo geography

The Zoological Park is situated about 20 km from Chandigarh and 50 Km from Patiala on Chandigarh-Patiala Road. Its location on the right bank of river Ghaggar with Shiwalik hills in the background and open countryside around Chhatbir provides vast opportunity to the naturalists to take a close look at nature and natural resources in original form. The place is ideally suited for the study of local fauna and flora. This Zoological Park, spread over an area of 202 ha, is the largest Zoo in Northern India.

2.1 Rock and Soil

The soil in the zoo area varies at different places; most parts are sandy whereas some are clayey. The sandy soil results in immediate drainage of water even in heavy rainfall. It is very difficult to create and maintain a water feature on this land. But the zoo has successfully maintained its two water features (artificial lakes) one of which has now become an ideal habitat of migratory birds visiting the zoo every winter; in fact some of the species have become residents of the Chhatbir zoo now.

2.2 Flora and Fauna

The place is ideally suited for the study of local fauna and flora as the area has a mixed riverine forest of tree species such as Shisham, Kikar, Jamun, mulberry, palms, figs, miscellaneous shrubs, grasses and climbers. The depiction of the existing vegetation in the zoo based on satellite imagery is shown in Sheet No. 3 of Annexure 28 of this Master Plan. The fauna includes a large number of free ranging species like Sambar, Neelgai, porcupine, python, jackal and a variety of snakes. In the year 2007, about 20 species of migratory birds totaling about 800 in number were estimated at the large artificial lake. With the upcoming barrage on the north-east corner of the zoo, there is great possibility of increase in the number of migratory bird species and their numbers. A checklist of important bird species and trees in the zoo is given in Annexure 5 and 6.

The Conceptual Plan was evolved taking into consideration that the water feature is further exploited and that the trees are cut in a planned manner so that the zoo has enough greenery and water bodies available even when the whole conceptual plan stands realized.

2.3 Climate

The climate is typical of Punjab plains *i.e.* extremely hot during summer and extremely cold during winter months. During May/June, the mercury sometimes touches 46° C whereas in December/January, the temperature reaches near freezing point.

2.4 Rainfall

Average rainfall is about 575 mm. In spite of being close to river Ghaggar, the water table is deep. The area is cut off by small gullies and nullahs.

2.5 Season

The zoo experiences the following seasons with the respective average temperatures as below:

- **Spring:** The climate remains the most enjoyable part of the year during the spring season (from February-end to early-April). Temperatures vary between (max) 13 °C to 20 °C and (min) 5 °C to 12 °C.

- **Autumn:** In autumn (from September-end to mid November.), the temperature may rise to a maximum of 30 °C. Temperatures usually remain between 10° to 22° in autumn. The minimum temperature is around 6 °C.
- **Summer:** The temperature in summer (from Mid-April to June-end) may rise to 44 °C. The temperatures might sometime rise to 44 °C in mid-June. Temperatures generally vary between 40 to 42 °C.
- **Monsoon:** During monsoon (from early-July to mid-September), Chandigarh receives moderate to heavy rainfall and sometimes heavy to very heavy rainfall (generally during the month of August or September). Usually, the rain bearing monsoon winds blow from south-west/south-east. Mostly, the city receives heavy rain from south (which is mainly a persistent rain) but it generally receives most of its rain during monsoon either from North-west or North-east. Maximum amount of rain received by the city of Chandigarh during monsoon season is 195.5 mm in a single day.
- **Winter:** Winters (November-end to February-end) are mild but it can sometimes get quite chilly in Chandigarh. Average temperatures in the winter remain at (max) 5 °C to 14 °C and (min) -1 °C to 5 °C. Rain usually comes from the west during winters and it is usually a persistent rain for 2–3 days with sometimes hailstorms. The city witnessed bone-numbing chill as the maximum temperature on Monday, 7 January 2013 plunged to a 30-year low to settle at 6.1 degrees Celsius.

2.6 Approach

Mahendra Chaudhary Zoological Park, Chhatbir is situated about 19 Km from Chandigarh on Chandigarh-Patiala road along the right bank of river Ghaggar. The area has been well protected against flooding by an embankment on three sides and a flood drain on the fourth side. The zoo is easily approachable from all sides and the nearest towns are Zirakpur, Banur, Patiala, Panchkula, Ambala and Chandigarh.

The zoo is very close to Delhi-Chandigarh-Shimla National Highway and Chandigarh-Patiala Road, and also few kilometers away from Chandigarh Airport. At the time of conception of the zoo, it was also opined that with the opening of land route with Pakistan, flow of foreign tourists will increase and the Lahore-Delhi traffic route will also contribute towards an increased number of visitors to this zoo.

The neighbourhood of the zoo has historically famous sites, and the Gurudwaras are situated at Nabha Sahib and Nadha Sahib. Besides the cantonment of Chandi Mandir, Yadvendra Gardens at Pinjore, Aam Khas Bagh at Sirhind and Gurudwara Fatehgarh Sahib are other important historical and tourist places which draw visitors and are within a radius of 30 km from the zoo. Keeping in view, the above strengths, it was thought that this zoo will become an important component of the existing socio-religious tourism of the region.

2.7 Demography of the surrounding area

Village Chhat is an ancient town and is the second village after Sanghol in Punjab, where ancient artifacts relating to the 11th and 12th centuries have been found by the Archaeology Department. These artifacts have established the relationship of this sleepy village with the civilisation of Mughal Emperor Mohamad Gauri and Prithvi Raj Chauhan. Now the village is under the tehsil of Derabassi Disst. Mohali and has a population of more than 5000. Recent urbanization of the area has induced most landlords to sell their lands to builders and developers most of whom are outsiders, selling of lands has rendered most villagers without much of work. So, as a result of this phenomenon a large work force is available in the vicinity of the zoo, some of which work for the zoo.

2.8 Legal status of Land

Mahendra Chaudhary Zoological Park, Chhatbir is legally a Protected Forest.

2.9 Sources of pollution

The major source of pollution in the zoo is the vehicular pollution. Therefore, a decision has already been taken at the highest level to deal with this by starting the battery operated vehicle service. The process has already been started and very shortly the vehicular traffic inside the zoo shall be stopped altogether. The noise pollution caused by the diverted Patiala/Rajpura/Banur bound traffic from the Ambala side that takes a detour on the road passing along the zoo is also a minor source but is not a cause of much worry as it happens very occasionally.

Besides the above two Methane released from the dung of animals is also a source of air pollution but the zoo has found out a way to deal with this source by converting all the collected dung into vermi-compost in its vermin-compost unit situated in the fodder farm.

3. Zoo Flora

This sprawling Zoological Park has a great variety of trees, shrubs, herbs and grasses. Some of the tree species occur naturally in the zoo. Giving a feel of natural forest to ecosystem the landscape.

Interspersed with the naturally growing Sheesham, Acacias, Mulberry and Jamun trees are the Cassias, Kadam and exotic Parkinsonians. Tall reeds of Saccharum have also found a niche their swaying leaves supporting perching birds, such as, an occasional sunbird. Also growing in this natural Forest are the Murrayas, Xanthiums, Cynodons and a lot more.

4. Zoo Residents

Most of the zoo animals are either acquired from other zoos or their offsprings. The objective of the zoo has not been to collect the animals from the wild except the ones which are rescued. The animals are kept as far as possible in open enclosures wherein their behavioural and physical needs can be met. The following categories of animals, birds and reptiles are displayed in the zoo.

A) Mammals

- (i) **Primates:** Rhesus macaques, Assamese macaques, Bonnet macaques, Pig tailed macaques, Lion tailed macaques, Common langur, Capped langurs and Hamadryas Baboon;
- (ii) **Cats:** Royal Bengal Tiger, Leopards, Indian lion, Jungle cat, Jaguar.
- (iii) **Civets:** Large Indian Civet.
- (iv) **Hyenas:** Striped hyena.
- (v) **Dog family:** Jackal and Indian wolf
- (vi) **Bears:** Asiatic black bear, Sloth bear.
- (vii) **Weasels:** Smooth Indian otter
- (viii) **Rodents:** Indian porcupine
- (ix) **Elephants:** Indian Elephants
- (x) **Antelopes:** Black buck, Blue bull and white buck & Chauginga
- (xi) **Gazelles:** Chinkara
- (xii) **Deer:** Sambar, Hog deer, Barking deer, spotted deer, Swamp deer, Brown antlered deer, Fellow Deer and Mouse Deer
- (xiii) **Pig:** Wild boar

- (xiv) **Exotics:**, Hippopotamus, Zebra, Fellow Deer, Black Swan, Sulphur cockatoo etc.
- B) **Aves:** The main aves exhibits are Sarus crane red jungle fowl, Kalij pheasant, aquatic ducks, peacock, partridges, quails, rose ringed parakeet, blossom headed parakeet, pelicans, cranes, storks, budgerigars, and doves. The pheasants constitute Golden pheasant, Mongolian ring pheasant, Silver Pheasant. The exotics include Ostrich, Emu, Sulphur crested cockatoo, grey cockatiel etc.
- C) **Reptiles:** Gharial, Crocodile, Tortoise, Python and snakes

5. Timing and entry for the Zoo.

M. C. Zoological Park, Chhatbir is open on all days of the week except Mondays. The timings of the zoo for visitors are 9.00 AM to 5.00 PM. The zoo remains closed on 15th August, 2nd October, 26th January. Vehicles are not allowed into the zoo. The fee structure for entry in to the Zoo is given in **Table**.

Table.

S. No.	Name of Category of Visitors	Current Rates applicable since 01.04.2016
1	For School Students:	
	(A) Primary School students (Group)	20/-
	(B) High School students (Group)	30/-
2	For Visitors:	
	(A) Adults (Above 12 years)	50/-
	(B) Children of age between 3 to 12 years	20/-
	(C) Trainees/Officers/Employees/Researcher of Forest Schools/Colleges/Wildlife Institutes/Veterinary institutes/ Forest Departments and Experts of Wildlife.	Free
	(D) For Physically Challenged persons including their vehicles	Free
3	Bicycle (upto 4 hours)	20/-
4	Commercial Videography Films	25000/-
5	Video Camera (amateur use)	150/-
6	Still Camera	100/-
7	Correspondents with/without camera	Free
8	Sponsored tours for residents of Jammu & Kashmir and Ladakh conducted by Indian Army for National Integration.	Free
9	Special concession in rates by Field Director Zoo to attract the visitors to the Chhatbir Zoo from schools/ colleges/other educational Institutions for spreading wildlife awareness.	No concession

6 Special attraction of the Zoo

Lion Safari

Lion Safari gives a thrill of life to the visitors where king of the jungle roams freely. The Lion Safari is spread over an area of 8 hectares of natural forest, having lion houses on edge. A Large number of Pea-cocks also roam freely inside the lion safari which gives an added attraction to the visitors.

7. Visitors amenities: Canteens and Restaurant

There are three canteens, one ice cream parlour and one restaurant. Snacks, cold drinks, mineral water, Ice cream and other eatables are provided at these points for visitors inside the zoo. The statement showing revenue realized for the year 2016-17 is given below in **Table**.

Table
Revenue Statement from visitor amenities

S. No	Name of the component	Revenue Realized (in Rs.)
1	Lion Safari Canteen	1843560
2	Shallow Lake Canteen	494400
3	Ice Cream	918780
4	Jasmine Restaurant	1459200
5	Lion Safari Buses	5070772
6	Battery Operated Trolleys	1460160
	Total	11246872

8. Zoo Animal Management

The animal management is looked after by the Animal Management Range which includes housing, upkeep, sanitation and animal exchange programme This Range is entrusted with the following responsibilities:

- 1) Daily maintenance of the animal's enclosures and management of human resources involved in animal management
- 2) Maintenance of moats and water pools regularly.
- 3) To maintain the enclosures disinfection as per protocol.
- 4) Feeding of zoo livestock under proper hygienic conditions.
- 5) Proper disposal of feed waste, feaces, fodder waste as per solid waste disposal protocols.
- 6) Disposal of the carcasses after postmortem examination as per the guidelines of Central Zoo Authority

8.1 Zoo Live Stock:

Total number of animals housed in M. C. Zoological Park as on 31.03.2017 are as under:

TOTAL ANIMALS - 1276

TOTAL ENDANGERED ANIMALS - 271

TOTAL INDIGENUS ANIMALS - 849

TOTAL EXOTICS AND OTHER ANIMALS – 427

S. No.	Class	Species	Total animals
1	Birds	51	764
2	Mammals	39	434
3	Reptiles	12	78
	Total	102	1276

8.2 Live stock position as on 31.03.2017 submitted to CZA is as given below

SCHEDULE 1 OF WILDLIFE (PROTECTION ACT, 1972)						
Sr. No.	Species	Scientific Name	Position as on 31.03.2017			
			M	F	U	Total
	BIRDS					
1	PEAFOWL INDIAN	<i>Pavo cristatus</i>	5	3	0	8
2	PEAFOWL WHITE	<i>Pavo cristatus</i>	2	2	0	4
3	KALEEJ PHEASANT	<i>Lophura leucomelanos</i>	2	3	0	5
4	FALCON	<i>Unknown sp.</i>	0	0	0	0
	Total Birds		9	8	0	17
	MAMMALS					
1	BLACK BUCK	<i>Antelope cervicapra</i>	12	19	3	34
2	WHITE BUCK	<i>Antelope cervicapra</i>	4	4	0	8
3	CHINKARA INDIAN GAZELLA	<i>Gazella bennetti</i>	4	2	0	6
4	DEER BROW ANTLERED	<i>Cervus eldi</i>	1	1	1	3
5	DEER SWAMP	<i>Cervus duavauceli</i>	2	2	6	10
6	ELEPHANT INDIAN	<i>Elephus maximus</i>	1	3	0	4
7	LEOPARD	<i>Panthera pardus</i>	10	4	2	16
8	LIONS INDIAN	<i>Panthera leo persica</i>	1	3	0	4
9	MACAQUE LION TAILED	<i>Macaca silenus</i>	1	0	0	1
10	TIGER BENGAL	<i>Panthera tigris tigris</i>	3	2	0	5
11	FOUR HORNED ANTELOPE	<i>Tetracerus quadricornis</i>	3	2	0	5
12	GAUR (Indian Bison)	<i>Bos gaurus</i>	4	0	0	4
13	LEOPARD CAT	<i>Felis bengalensis</i>	0	1	0	1
14	WHITE TIGER	<i>Panthera tigris tigris</i>	1	1	0	2
15	MOUSE DEER	<i>Tragulus meminna</i>	2	2	1	5
16	OTTER SMOOTH COATED	<i>Lutrogale perspicillata</i>	1	1	0	2
	Total		50	47	13	110

SCHEDULE 1 OF WILDLIFE (PROTECTION ACT, 1972)						
Sr. No.	Species	Scientific Name	Position as on 31.03.2017			
			M	F	U	Total
REPTILES						
1	GHARIAL	<i>Gavialis gangeticus</i>	1	3	17	21
2	CROCODILE	<i>Crocodilus palustris</i>	3	0	0	3
3	PYTHON (Indian rock)	<i>Python molurus molurus</i>	0	0	7	7
4	BENGAL MONITOR LIZARD	<i>Varanus bengalensis</i>	0	0	2	2
5	YELLOW MONITOR LIZARD	<i>Varanus flavescens</i>	0	0	1	1
6	INDIAN STAR TORTOISE	<i>Geochelone elegans</i>	0	0	8	8
7	INDIAN FLAP SHELL TURTLE	<i>Lissemys punctata</i>	0	0	19	19
8	INDIAN SOFT SHELLTURTLE	<i>Nilssonina gangetica</i>	0	0	1	1
9	INDIAN ROOFED TURTLE	<i>Pangshura tecta</i>	1	3	0	4
Total			5	6	55	66

SCHEDULE II OF WILDLIFE (PROTECTION ACT, 1972)						
Sr. No.	Species	Scientific Name	Position as on 31.03.2017			
			M	F	U	Total
MAMMALS						
1	BEAR HIMALYAN BLACK	<i>Selenarchos thibetanus</i>	1	5	0	6
2	BEAR SLOTH	<i>Melursus ursinus</i>	0	2	0	2
3	CIVET	<i>Paradoxurus hemaphroditus</i>	1	1	3	5
4	JACKAL	<i>canis aureus</i>	1	1	6	8
5	LANGUR COMMON	<i>Presbytis entellus</i>	1	1	0	2
6	MACAQUE ASSAMESE	<i>Macaca assamensis</i>	11	2	0	13
7	MACAQUE BONNET	<i>Macaca radiate</i>	6	2	0	8
8	MACAQUE RHESUS	<i>Macaca mulatto</i>	5	5	0	10
9	MACAQUE PIG TAILED	<i>Macaca enmestrina</i>	2	2	0	4
10	JUNGLE CAT	<i>Felis chaos</i>	1	1	6	8
Total			29	22	15	66
REPTILES						
1	COBRA	<i>Naja naja</i>	0	0	6	6
2	RAT SNAKE	<i>Ptyas mucosa</i>	0	0	4	4
3	CHECKERED KEELBACK	<i>Xenochrophis piscator</i>	0	0	2	2
Total			0	0	12	12

SCHEDULE III & IV OF WILDLIFE (PROTECTION ACT, 1972)						
Sr. No.	Species	Scientific Name	Position as on 31.03.2017			
			M	F	U	Total
	Birds					
1	CRANE SARUS	<i>Grus antigone</i>	7	3	2	12
2	DOVE	<i>Streptopelia chinensis</i>	0	0	40	40
3	DUCK SPOT BILL	<i>Anas poecilorhyncha</i>	0	0	9	9
4	DUCK COMBED	<i>Sarkidiornis melanotos</i>	1	2	19	22
5	FOWL RED JUNGLE	<i>Gallus gallus</i>	2	7	0	9
6	PARAKEET ROSE RINGED	<i>Psittacula krameri</i>	0	0	43	43
7	PARAKEET ALEXANDRINE	<i>Psittacula eupatria</i>	2	2	17	21
8	PARAKEET BLOSSOM HEADED	<i>Psittacula roseate</i>	2	2	1	5
9	PARTRIDGES GREY	<i>Francolinus pondicerianus</i>	0	0	3	3
10	PARTRIDGES BLACK	<i>Francolinus francolinus</i>	0	0	4	4
11	PELICANS ROSY	<i>Pelecanus philippensis</i>	0	0	3	3
12	QUAIL COMMON	<i>Coturnix coturnix</i>	1	0	8	9
13	STORK BLACK NECKED	<i>Xenorhynchus asiaticus</i>	1	0	0	1
14	STORK PAINTED	<i>Mycteria leucocephala</i>	15	15	60	90
15	STORK WHITE	<i>Ciconia ciconia</i>	1	0	0	1
16	SHIKARA	<i>Accipiter badius</i>	0	1	2	3
17	BARNOWL	<i>Tyto alba</i>	0	0	6	6
18	GREAT HORNED OWL	<i>Bubo bubo</i>	0	0	2	2
19	SPOTTED EAGLE		0	0	2	2
20	WHITE IBIS	<i>Threskiornis melanocephala</i>	0	2	6	8
21	WOOLY NECKED STORK	<i>Ciconia episcopus</i>	0	0	2	2
22	COMMON MOORHEN	<i>Gallinula chloropus</i>	0	0	2	2
23	WHITE BREASTED WATERHEN	<i>Amaurornis phoenicurus</i>	0	0	2	2
24	CATTLE EGRET	<i>Bubulcus ibis</i>	0	0	2	2
25	INDIAN POND HERON	<i>Ardeola grayii</i>	0	0	2	2
26	NIGHT HERON	<i>Nycticorax nycticorax</i>	0	0	2	2
27	LESSER CUCAL	<i>Centropus bengalensis</i>	0	0	2	2
28	COMMON MYNA	<i>Acridotheres tristis</i>	0	0	4	4
29	JUNGLE BABBLER	<i>Turdoides striatus</i>	0	0	4	4
30	WEAVER BIRD	<i>Polceus philippinus</i>	0	0	4	4
31	SPOONBILL WHITE	<i>Platalea leucorodia</i>	0	0	4	4
32	LESSER WISTLING TEAL	<i>Dendrocygna javanica</i>	0	0	3	3
33	GREY PELICAN	<i>Dendrocygna javanica</i>	0	0	6	6
	TOTAL		32	34	266	332

SCHEDULE III & IV OF WILDLIFE (PROTECTION ACT, 1972)						
Sr. No.	Species	Scientific Name	Position as on 31.03.2017			
			M	F	U	Total
MAMMALS						
1	BLUE BULL	<i>Boselaphus tragocamelus</i>	1	2	4	7
2	DEER BARKING	<i>Muntiacus muntjak</i>	10	14	2	26
3	DEER HOG	<i>Axis porcinus</i>	9	9	0	18
4	DEER SAMBAR	<i>Cervus unicolor</i>	15	27	11	53
5	DEER SPOTTED	<i>Axis axis</i>	24	42	10	76
6	HYEANA	<i>Hyaena hyaena</i>	1	1	0	2
7	PORCUPINE	<i>Hystrix indica</i>	0	0	32	32
8	GORAL	<i>Nemorhaedus goral</i>	4	5	2	11
9	WILD BOAR	<i>Sus scofa</i>	2	2	13	17
TOTAL			66	102	74	242

SCHEDULE V , VI & OTHERS OF WILDLIFE (PROTECTION ACT, 1972)						
Sr. No.	Species	Scientific Name	Position as on 31.03.2017			
			M	F	U	Total
MAMMALS						
1	FRUIT BAT	<i>Pteropus giganteus</i>	0	0	4	4
TOTAL			0	0	4	4

EXOTIC & OTHERS						
Sr. No.	Species	Scientific Name	Position as on 31.03.2017			
			M	F	U	Total
OTHER BIRDS						
1	EMU	<i>Dromiceius novahollandiae</i>	8	8	8	24
2	COCKATOO SULPHER CRESTED	<i>Kokatoe galerita</i>	0	0	2	2
3	COCKTIEL GREY	<i>Nymphicus hollandicus</i>	1	1	8	10
4	BUDGRIGAR	<i>Melopsittacus undulates</i>	100	105	0	205
5	PHEASANT MANGOLIAN RING	<i>Phasianus colchicus</i>	3	2	0	5
6	PHEASANT GOLDEN	<i>Chrysolophus pictus</i>	5	6	0	11
7	PHEASANT SILVER	<i>Lophura nycthemerus</i>	2	2	0	4
8	LADY AHMREST PHEASANT	<i>Chrysolophus amherstiae</i>	2	1	0	3
9	ZEBRA FINCHES	<i>Taeniopygia guttata</i>	1	1	28	30
10	BLACK SWAN	<i>Cygnus atratus</i>	0	1	0	1
11	LOVE BIRD	<i>Agapornis</i>	0	0	2	2
12	GEESE COMMON	<i>Anser gene</i>	0	0	57	57
13	PIGEON WHITE	<i>Columbidae</i>	0	0	31	31
14	PIGEON BLACK	<i>Columbidae</i>	0	0	17	17
15	OSTRICH	<i>Struthio camelus</i>	0	3	0	3
16	JAVA SPARROW	<i>Lonchura oryzivora</i>	0	0	10	10
TOTAL			122	130	163	415

EXOTIC & OTHERS						
Sr. No.	Species	Scientific Name	Position as on 31.03.2017			
			M	F	U	Total
OTHER MAMMALS						
1	HIPPOPOMTAMUS	<i>Hippopotamus amphibus</i>	1	3	0	4
2	ZEBRA		0	1	0	1
3	JAGUAR	<i>Panthera onca</i>	1	0	0	1
4	FELLOW DEER	<i>Dama dama</i>	1	0	0	1
5	HAMADRYES BABBOON SACRED	<i>Papio hamadryas</i>	2	3	0	5
TOTAL MAMMALS			5	7	0	12
TOTAL ANIMALS (Schdule I, II, III, IV & Others/Exotic)			318	356	602	1276

8.3 **Births:** The following births took place were born in the zoo during 2016-17.

Sr.No	Animal Name	Scientific Name	No.	Event	Date
1	Wild Boar	<i>Sus scrofa</i>	9	Birth	01.04.2016
2	Spotted deer	<i>Axis axis</i>	4	Birth	17.04.2016
3	Chinkara	<i>Gazzel bennati</i>	1	Birth	23.04.2016
4	Painted stork	<i>Mycteria leucocephala</i>	6	Birth	05.05.2016
5	Dove	<i>Streptopelia chinensis</i>	4	Birth	09.05.2016
6	Porcupine	<i>Hystrix indica</i>	4	Birth	19.05.2016
7	Barking deer	<i>Muntiacus muntjak</i>	2	Birth	25.05.2016
8	Hog deer	<i>Axis porcinus</i>	2	Birth	03.06.2016
9	Sambar	<i>Cervus unicolor</i>	2	Birth	30.06.2016
10	Swamp Deer	<i>Cervus duvaceli</i>	2	Birth	01.07.2016
11	Goral	<i>Nemorehades goral</i>	2	Birth	01.07.2016
12	Mouse Deer	<i>Tragulus meminna</i>	1	Birth	04.07.2016
13	Chinkara	<i>Gazella bennetti</i>	1	Birth	04.07.2016
14	White ibis	<i>Threskiornis melanocephala</i>	1	Birth	09.07.2016
15	Spotbill Duck	<i>Anas poecilorhyncha</i>	4	Birth	09.07.2016
16	Bengal Tiger	<i>Panthera tigris tigris</i>	3	Birth	16.08.2016
17	Asiatic Lion	<i>Panthera leo persica</i>	4	Birth	30.08.2016
18	Mouse deer	<i>Tragulus meminna</i>	1	Birth	01.11.2016
19	Black buck	<i>Antelope cervicapera</i>	1	Birth	14.11.2016
20	Black buck	<i>Antelope cervicapera</i>	1	Birth	15.11.2016
21	Sambar	<i>Cervus unicolor</i>	1	Birth	16.11.2016
22	Sambar	<i>Cervus unicolor</i>	1	Birth	17.11.2016
23	Swamp deer	<i>Cervus duvacelli</i>	1	Birth	17.11.2016
24	Hog deer	<i>Axis porsinus</i>	1	Birth	18.11.2016
25	Black buck	<i>Antelope cervicapera</i>	1	Birth	02.12.2016
26	Sambar	<i>Cervus unicolor</i>	1	Birth	04.12.2016
27	Manipur deer	<i>Cervus eldi thamin</i>	1	Birth	04.12.2016
28	Porcupine	<i>Hystrix indica</i>	1	Birth	06.12.2016
29	Porcupine	<i>Hystrix indica</i>	1	Birth	08.12.2016
30	Swamp deer	<i>Cervus duvacelli</i>	1	Birth	24.02.2017
31	Mouse Deer	<i>Tragulus meminna</i>	1	Birth	25.02.2017
32	Chinkara	<i>Gazzel bennati</i>	1	Birth	27.02.2017
33	Sambar	<i>Cervus unicolor</i>	4	Birth	28.02.2017
34	Spotted deer	<i>Axis axis</i>	4	Birth	28.02.2017
35	Wooly Necked Stork	<i>Ciconia episcopus</i>	1	Birth	28.02.2017
36	Spotted deer	<i>Axis axis</i>	1	Birth	01.03.2017
37	Spotted deer	<i>Axis axis</i>	1	Birth	03.03.2017
38	Sambar	<i>Cervus unicolor</i>	1	Birth	11.03.2017
39	Sambar	<i>Cervus unicolor</i>	1	Birth	19.03.2017
		Total	80		

8.4 Acquisition: The following animals/birds were acquired by the zoo during 2016-17

Sr. No	Species	Scientific name	Count	Event	Date	Remarks
1	Manipur brow antler deer	<i>Cervus eldi thamin</i>	1:2	Acquired	17.03.2016	Acquired from Delhi Zoo vide CZA letter no. F.No. 23-1/2014-CZA(Pt.)(NS)/379/2016 dated 04.03.2016. Field Director Letter end. No. 531-32 dated 05.03.2016
2	Silver Pheasant		0:1	Acquisition	04.10.2016	Mr. Rajpal Singh Nagra N.R.I of Dist. Patiala donated to zoo with written requested on 04.10.2016
3	Silver Pheasant	<i>Lophura nycthemerus</i>	2:1	Acquisition	20.11.2016	Mr. Mewa Singh Kahlon N.R.I of Dist. Jalandhar donated to zoo with written requested on 20.11.2016
4	Ring Necked Pheasant	<i>Phasianus colchicus</i>	2:2	Acquisition	20.11.2016	
5	Lady Ahmerest Pheasant	<i>Chrysolophus amherstiae</i>	1:1	Acquisition	20.11.2016	
6	Java Sparrow	<i>Lonchura oryzivora</i>	10	Acquisition	20.11.2016	
7	Smooth Indian Otter		1:1	Acquisition	03.10.2016	Acquired from Surat Zoo Gujarat vide CZA Letter no. 23-1/2016-CZA/826/2016 Dated 30.06.2016 of CZA. Field Director Letter end. No. 531-32 dated 05.03.2016
8	Four horned antelope	<i>Tetracerus quadricornis</i>	1:2	Acquisition	03.10.2016	
9	White peacopck	<i>Pavo cristatus</i>	1:1	Acquisition	03.10.2016	

8.5 Transfer: The following animals/birds were transferred to other zoos during 2016-17

1	Chinkara	<i>Gazzel bennati</i>	1:1	Transfer	05.05.2016	Transfer to Delhi Zoo vide CZA letter no. F.No. 23-1/2014-CZA(Pt.)(NS)/379/2016 dated 04.03.2016. Field Director Letter end. No. 531-32 dated 05.03.2016
2	Asiatic black bear	<i>Selenarchos thibetanus</i>	1:1	Transfer	27.09.2016	Transfer to Surat Zoo Gujarat vide CZA Letter no. 23-1/2016-CZA/826/2016 Dated 30.06.2016 of CZA. Field Director Letter end. No. 531-32 dated 05.03.2016
3	Barking deer	<i>Muntiacus muntjak</i>	1:2	Transfer	27.09.2016	
4	Golden pheasant	<i>Chrysolophus pictus</i>	1:1	Transfer	27.09.2016	
5	Common Geese	<i>Anser gene</i>	15	Release	30.12.2016	Release to a aqua farmer Sh. Bhag Singh of Village Khanpur on his request
6	Barking Deer	<i>Muntiacus muntjak</i>	1:1	Transfer	27.02.2017	Transfer to Ludhiana Zoo Ludhiana wide CWLW's orders

8.6 Death: The death of zoo animals were reported during the year 2016-17

Sr. No.	Animal Name	Scientific name	Sex	No.	Date	Cause of Death
1	Golden Pheasant	<i>Chrysolophus pictus</i>	Female	1	01.04.2016	Haemorrhagic lesions
2	Star tortoise	<i>Geochelone elegans</i>	Unk	1	05.04.2016	Chronic degenerative lesions
3	Falcon	<i>Peregrene</i>	Unk	1	08.04.2016	Chronic degenerative haemorrhagic lesions
4	Chinkara	<i>Gazella bennetti</i>	Female	1	11.04.2016	Myocardial collapse
5	Silver pheasant	<i>Lophura nycthemerus</i>	Male	1	17.04.2016	Haemorrhagic pulmonary lesions
6	Hyena	<i>Hyena hyena</i>	Female	1	18.04.2016	Chronic degenerative senile lesions
7	Yellow Monitor	<i>Varanus</i>	Unk	1	18.04.2016	Progressive senile lesions
8	Gaur (Bison)	<i>Bos gaurs</i>	Female	1	20.04.2016	Pulmonary collapse
9	Chinkara	<i>Gazella bennetti</i>	Female	1	23.04.2016	Septicaemic lesions
10	Emu	<i>Dromiceius novahollandiae</i>	Unk	2	09.05.2016	Infighting induced haemorrhagic lesions
11	Grey Partridge		Female	1	09.05.2016	Myocardial shock
12	Chinkara	<i>Gazella bennetti</i>	Female	1	15.05.2016	Degenerative senile lesions
13	Golden Pheasant	<i>Chrysolophus pictus</i>	Female	1	19.05.2016	Haemorrhagic lesions
14	Chinkara	<i>Gazella bennetti</i>	Male	1	25.05.2016	Cardiac arrest and shock
15	Golden Pheasant	<i>Chrysolophus pictus</i>	Male	1	31.05.2016	Shock
16	Ring necked pheasant	<i>Phasianus colchicus</i>	Male	1	03.06.2016	Hit injury induced haemorrhagic lesions
17	Chinkara Fawn	<i>Gazella bennetti</i>	Male	1	05.06.2016	Haemorrhagic lesions and Aspiratory Pneumonia
18	Red jungle Fowl	<i>Gallus gallus</i>	Male	1	06.06.2016	Senile lesions
19	Star tortoise	<i>Geochelone elegans</i>	Unk	1	30.06.2016	Shock
20	Hog deer	<i>Axis porcinus</i>	Female	1	16.07.2016	Septiceamic lesions and internal bleeding
21	Spotted deer	<i>Axis axis</i>	Male	1	18.07.2016	Infighting induced acute hemorrhagic lesions
22	Spotted deer	<i>Axis axis</i>	Female	1	20.07.2016	chronic infighting induced hemorrhagic lesions and Septiceamic lesions
23	Golden Pheasant	<i>Lophura nycthemerus</i>	Female	1	23.07.2016	Anorectic shock

24	Tiger cub-1	<i>Panthera tigris tigris</i>	Male	1	16.08.2016	Still birth
25	Tiger cub-2	<i>Panthera tigris tigris</i>	Female	1	16.08.2016	Still birth
26	Tiger cub-3	<i>Panthera tigris tigris</i>	Female	1	16.08.2016	Still birth
27	Manipur deer	<i>Cervus eldi thamin</i>	Female	1	24.08.2016	Degenerative senile lesions
28	Lion cub-1	<i>Panthera leo persica</i>	Male	1	30.08.2016	External and internal hemorrhagic lesions
29	Lion cub-2	<i>Panthera leo persica</i>	Male	1	31.08.2016	External and internal hemorrhagic lesions
30	Lion cub-3	<i>Panthera leo persica</i>	Male	1	31.08.2016	External and internal hemorrhagic lesions
31	Lion cub-4	<i>Panthera leo persica</i>	Female	1	31.08.2016	External and internal hemorrhagic lesions
32	Ostrich	<i>Hyena hyena</i>	Male	1	10.09.2016	Hit injury
33	White buck	<i>Antelope cervicapera</i>	Female	1	19.09.2016	Generative senile lesions
34	Blue bull	<i>Boselaphus tragocamelus</i>	Female	1	27.09.2016	Myocardial infarction
35	Sloth Bear	<i>Melursus ursinus</i>	Male	1	01.10.2016	Chronic tuberculosis
36	Silver pheasant	<i>Lophura nycthemerus</i>	Female	1	05.10.2016	Pulmonary insufficiency
37	Pig tailed macaque	<i>Macaca enestrina</i>	Female	1	24.10.2016	Brain hemorrhage
38	Blue bull	<i>Boselaphus tragocamelus</i>	Male	1	29.10.2016	Myocardial infarction
39	Jungle cat	<i>Felis chaos</i>	Female	1	01.11.2016	Septicemic shock
40	Wolly Necked Stork	<i>Ciconia episcopus</i>	Unk	1	02.11.2016	Infighting
41	Lady ahmerest pheasant	<i>Chrysolophus amherstiae</i>	Female	1	04.11.2016	Pneumonitis
42	Mouse deer	<i>Tragulus meminna</i>	Female	1	12.11.2016	Pneumonitis lesion
43	Ostrich	<i>Struthio camelus</i>	Male	1	13.11.2016	Haemorrhagic enteritis
44	Grey pelican	<i>Dendrocygna javanica</i>	Unk	1	13.11.2016	Pneumonitis
45	Manipur Deer	<i>Cervus eldi thamin</i>	Female	1	06.12.2016	Internal haemorrhage
46	White Tiger lucky	<i>Panthera tigris tigris</i>	Male	1	19.12.2016	Severe chronic membranous glomerulopathy
47	Hog deer	<i>Axis porcinus</i>	Female	1	10.01.2017	Pneumonitis
48	Lion	<i>Panthera leopersica</i>	Male	1	15.01.2017	Chronic renal failure and Pneumonitis
49	Four horned antelope	<i>Tetracerus quadricornis</i>	Female	1	17.01.2017	Pneumonitis
50	Civet	<i>Paradoxurus hemaphroditus</i>	Female	1	30.01.2017	Hypovolumic shock
51	Leopard cat	<i>Felis bangalensis</i>	Male	1	09.02.2017	Septicemic shock
			Total	52		

9. Zoo Veterinary Services:

The health care of zoo animals in the zoo is one of the important and difficult such as careful handling, the detection of illness, diagnosis, restraint and treatment of zoo animals and works with animal management and other ranges of the zoo. The veterinary section one of the most important sections in the zoo. This section is entrusted with the responsibility of running a complete health care of the zoo animals. During the year under report the zoo veterinary wing performed the followings duties.

- 1) Daily inspection of feed fodder and meat procured for zoo livestock.
- 2) Periodical collection and analysis of faecal samples for the detection of intestinal parasites.
- 3) De-worming of animals.
- 4) Vaccination of Zoo Livestock as per schedule
- 5) Treatment of sick affected animals in the zoo.
- 6) Chemical restraining of wild animals for treatment & shifting purposes.
- 7) Rescue operations if any as per requirement of the department.

The vaccination schedule of zoo animals is given a Table as under

Sr. No.	Date of vaccine	Animal Name	Male	Female	Wasted	Total
1	25.11.2016	Lion Safari Complex	2	3	-	5 doses
2	25.11.2016	Tiger Complex	4	4	-	8 doses
3	28.11.2016	Leopard Complex	12	5	-	17 doses

With Nobivac-R vaccine

Table
De-worming Schedule for the year 2016-17

S. No.	Name of animal	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
1	All primates	-	-	-	5	-	-	-	-	-	3	-
2	Aviary Birds	-	-	-	2	3	-	-	-	-	5	-
3	Black Buck	-	-	-	2	-	-	-	-	-	-	3
4	Blue Bull	-	-	-	2	-	-	-	-	-	-	3
5	Bears	-	-	-	3	-	-	-	-	-	-	3
6	Elephant	-	-	-	3	-	-	-	-	-	3	-
7	Emu	-	-	-	3	2	-	-	-	-	5	-
8	Hippopotamus	-	-	-	3	-	-	-	-	-	-	3
9	Hog Deer	-	-	-	2	1	-	-	-	-	-	3
11	Lion	-	-	-	3	-	-	-	3	-	2	-
12	Lion Tailed Monkey	-	-	-	3	2	-	-	-	-	2	-
13	Bison	-	-	-	3	-	-	-	-	-	3	-
14	Panther	-	-	-	3	-	-	-	-	-	2	-
15	Pheasant section	-	-	-	-	3	-	-	-	-	-	5
16	Common Birds	-	-	-	2	3	-	-	-	-	-	5
18	Tiger	-	-	-	3	-	-	-	-	-	3	-
19	White Peacock	-	-	-	3	2	-	-	-	-	-	5
20	Zebra	-	-	-	3	-	-	-	-	-	-	3

Table
Parasitic and Protozoan Infestation

Sr. No.	Name of Animal	Parasitic/Protozoan worms	Treatment
1	Elephant	Strongylus spp.	Albendazole
2	Lion, Tiger, Panther	Toxocara cati, Hook worm	Albendazole, Fenbendazole
3	Python	Trichurius	Albendazole
4	Monkey (All spp.)	Trichurius	Albendazole
5	Buffalo	Round worm	Albendazole/ Fenbendazole
6	Chinkara Deer	Trichurius	Albendazole

10. Zoo Accounts

During the year under report, plan allocation was 8.00 lacs and non-plan allocation was 37989982/-. The expenditure incurred was 38052128/- under non-plan and Rs. 8.00 lacs under plan scheme. The detail breakup of allocation and expenditure is given in **Table**

Table – Budget allocation for the year 2016-17

2016-17			
Sr. No.	Name of Scheme/Source	Budget Allotted	Expenditure
1	Non Plan	891.9	833.01
2	Plan FT-21	325.2	229.7
3	PUNCAMPA	168	133.7
4	PZDS	223.65	193.31
5	CZA	-	-
	Grand Total	1608.75	1389.72

11. Zoo visitation

A total of 692177 visitors visited the zoo this year of which 376654 were adults and 315523 were children during the year under report. An amount of Rs. 24549330/- was realized as from visitors in form of entry tickets. The month-wise statement of visitors is given in **Table**.

TABLE-
Month-wise statement of visitors

Sr. No.	Month	Adults	Children	Total
1	4/2016	22624	17673	40297
2	5/2016	21257	20022	41279
3	6/2016	62046	33509	95555
4	7/2016	44312	18632	62944
5	8/2016	27463	18452	45915
6	9/2016	20927	22828	43755
7	10/2016	26475	41657	68132
8	11/2016	18676	33453	52129
9	12/2016	27590	30470	58060
10	1/2017	39214	31940	71154
11	2/2017	31507	23608	55115
12	3/2017	34563	23279	57842
	Total	376654	315523	692177

12. Zoo Administration

During the year under report, the Zoological Park remained under the administrative control of Field Director (DCF level). The Deputy Director and Range Officers assisted Field Director in the working of the zoo. The Senior Veterinary officer of Chhatbir Zoo provided veterinary services to zoo during the year under report. The total sanctioned strength of the zoo is 146 against which 121 are working. the cadre position of M.C.Zoological Park, Chhat Bir, Punjab during the year is appended as Annexure- I.

(i) Deaths of Employees in Service :

The following staff members expired while in service during the year:

- a) Sh. Nippan Basmutari, Beldar on 06-10-2016
- b) Sh Kuldip singh, Multipurpose Worker 18-10-2016

(ii) Retirements of Employees

The following staff retired from service on attaining superannuation during the year.

- a) Shri Kaka Singh, Multipurpose worker on 30-04-2016
- b) Shri Bisakhi singh, Multipurpose Worker on 30-04-2016.
- c) Shri. Bhupinder Singh, Multipurpose Worker on 30.06.2016
- d) Shri, Mohan Singh, Sewadaar on 31.07.2016
- e) Shri, Surjit Singh, Zoo Keeper on 30.09.2016
- f) Shri, Jagdish kumar, Vet. Attendant 31.10.2016
- g) Smt. Bimla, Hygiene Workder on 30.11.2016
- h) Shri. Lajja Ram, Zoo Keeper on 31.01.2017
- i) Shri. Razaak, Multipurpose worker on 31.03.2017
- j) Shri. Puran Singh, Multipurpose Worker on 31.03.2017

ANNEXURE-I

**Cadre position of M.C. Zoological Park, Chhatbir, Punjab during the year 2016-17
(as on 31.03.2017)**

Sr.No.	Name of the Post	Sanctioned Cadre	Working Position	Vacant Post	Remarks
1.	IFS (Senior Duty Posts)	1	1	^	
2.	EACF	2	^	2	
3.	Senior Veterinary Officer (Zoo)	1	1	^	
4.	Superintendent	1	1	^	
5.	Senior Assistant	2	^	2	
6.	Clerk/Jr Assistant	7	3	4	
7.	Stenotypist	^	1	^	
8.	Technical Assistant	2	0	2	
9.	Range Officer	4	2	2	
10.	Deputy Ranger	6	1	5	
11.	Forester	4	4	-	
12.	Forest Guard	10	12		
13.	Junior Engineer	1	1	-	
14.	Mechanic	7	1	6	
15.	Veterinary Compounder	3	2	1	
16.	Zoo Security Supervisor	2	^	2	
17.	Sanitary Inspector	2	1	1	
18.	Mahavat	4	1	3	
19.	Drivers	4	4	^	
20.	Head Cook	2	1	1	
21.	Cook	2	-	2	
22.	Zoo Lab Technician	2	2	^	
23.	PRO Forests and Wildlife	1	0	1	
24.	Veterinary Attendant	3	1	2	
25.	Hygiene Worker/Head Hygiene worker	23	5	18	
26.	Head Zoo Keeper	4	^	4	
27.	Zoo Keeper	27	17	10	
28.	Multipurpose Workers	30	57		
29.	Peon	3	6		
30.	Beldaar	^	3		
	Total	146	121	60	

13. Feed section: Following feed chart is being followed to feed the animals

FEED CHART CHHATBIR ZOO	
Monkeys All Species	
Particulars	Qty. of Feed in K.g.
Banana	2 no.
Papaya	0.2
Sweet Lime/Orange	0.5
Onion	0.02
Garlic	0.01
Carrot	0.05
Cucumber	0.05
Roasted G.Nut	0.05
Roasted B.Gram	0.05
Palak	0.05
Apple	0.25
Turnip	0.05
Bread	0.05
Potato	0.05
Cabbage	0.05
Peas Green	0.05

Tiger/ Lion	
Buffalo Meat for sub adult . tiger	5 to 8
Buffalo Meat for full grown	10

Hippo	
Green Fodder	100
Mix Crushed for animal	3
Mix Crushed for animal	3
Moong	0.5
Patato	1
Gur	0.5
Banana	5 no.
Papaya	0.5
Sweet Carrot	0.8
Bread	0.8
Cabbage	1

Sloth Bear	
Roti of Maize Crushed	0.25
Milk	0.25
Bread	0.4

Apple	0.3
Banana	3 no.
Papaya	0.3
Sweet Carrot	0.1
Khichri	1

Himalyan Black Bear	
Roti of Maize Crushed	0.25
Milk	0.5
Bread	0.2
Apple	0.3
Banana	3 no.
Papaya	0.3
Sweet Carrot	0.1
Khichri	1

Chinkara	
Particulars	Qty. of Feed
Black Gram	0.25
Gur	0.1
Green fodder	5

Emu	
Black Gram	0.3
Onion	0.1
Garlic	0.04
Palak	0.2
Egg (Boild)	2 no.
Banana	20 no.
Papaya	2
Cabbage	0.2
Apple	0.6
Peas Green	0.4
Mixed Crushed for birds	0.4

Elephant	
Mix Crushed Roti	2
Gur	1
Black Gram	2
Banana	6 no.
Papaya	0.6
Green Fodder	250
Mix crushed roti	1
Gur	0.5

Black Gram	1
Banana	3 no.
Papaya	0.3
Green Fodder	50

Leopard/ Jaguar	
Buffalo Meat	4

Civet/ Cat all species	
Buffalo Meat	0.5
Egg (Boiled)	1no.
Banana	1 no.
Milk	0.25
Papaya	0.1

Hog Deer	
Black Gram	0.1
Gur	0.1
Green Fodder	15
Cattle Feed	0.15

Jackal	
Buff.Meat	3

Chimpanzee	
Sugar	0.1
Banana	10 no.
Apple	0.75
Palak	0.2
Carrot	0.25
Egg (Boild)	1no.
Onion	0.1
Milk	0.5
Bread	0.2
Cucumbar	0.25
Cabbage	0.2

Birds	
White peacock/ Normal Peacock	
Particulars	Qty. of Feed
Mix Sabat Dana	0.1
Palak	0.05
Garlic	0.05

Carrot	0.01
Apple	0.01
Peas Green	0.05
Cabbage	0.05
cucumber	0.01

Sarus Crane	
Mix Sabat Dana	0.2
Fish	0.2
Paddy	0.2

Pheasants all species	
Mix Crushed for Birds	0.1
Palak	0.05
Garlic	0.01
Onion	0.025
Banana	1no.
Peas Green	0.05
Papaya	0.1
Cabbage	0.05

Kalij pheasant	
Mix Crushed for Birds	0.1
Palak	0.05
Wheat	0.05
Soyabean Crushed	0.05
Cabbage	0.05

Porcupine	
Carrot	0.1
Potato	0.1
G.Nut	0.1
Palak	0.2
Onion	0.025
Bread	0.1
Apple	0.1
Turnip	0.1
Sweet Carrot	0.1
Peas Green	0.1
Cucumber	0.1
Cabbage	0.2

Stork all species	
Fish	0.3

Common Crane	
Mix Sabat Dana	0.5
Palak	0.05
Cabbage	0.05

Duck all species	
Mix Crushed for Birds	0.2
Palak	0.05
Cabbage	0.05

Barking Deer	
Particulars	Qty. of Feed
Black Gram	0.1
Gur	0.1
Green Fodder	15
Cattle Feed	0.15

Chousinga	
Black Gram	0.1
Gur	0.1
Green Fodder	15
Cattle Feed	0.15

Black buck	
Black Gram	0.1
Gur	0.1
Green Fodder	15
Cattle Feed	0.15

Dove/ Pegions	
Mix Crushed for Birds	0.05
Palak	0.01
Cabbage	0.01

Sambar/ Blue bull	
Black Gram	0.2
Gur	0.2
Green Fodder	25
Cattle Feed	0.3

Parrots	
Apple	0.01
Carrot	0.01
G.Nut	0.01
Green Chilly	0.01
Paddy	0.01
Peas Green	0.01
Cucumber	0.01

Budgrigars/ Love birds	
Particulars	Qty. of Feed
Kangani	0.015
Bajra	0.005
Apple	0.002
Palak	0.005
Carrot	0.002
Cabbage	0.05
Cucumber	0.002

Kokatto	
Banana	1no.
G.Nut	0.1
Apple	0.1
Palak	0.1
Carrot	0.1
Cabbage	0.1
Cucumber	0.1

Owl/Shikara/Eagles	
Buffalo Meat or live day old chicken	0.2

Partridge/Quales	
Mix Crushed for Birds	0.1
Palak	0.05
Cabbage	0.05

Munia/Finches	
Kangnai	0.015
Bajra	0.005
Palak	0.005
Cabbage	0.005

Zebra	
Wheat Daliya	1
Choker	1
Black Gram	0.5
Grass	5

Bison/ Gaur	
Black Gram	0.5
Wheat Straw	2
Green Fodder	10
G.Cake	0.25
Rice Bran	0.25
Choker	2

Affrican cape Buffalo	
Black Gram	0.5
Gur	0.5
Green Fodder	50
Cattle Feed	0.5

Goral	
Black Gram	0.3
Gur	0.1
Green Fodder	5
Maize Crushed	0.25

Swamp Dear	
Black Gram	0.1
Gur	0.1
Green Fodder	15
Cattle Feed	0.15

Crocodile/ Gharial/Rosy pelican	
Particulars	Qty. of Feed
Fish	2

Indian Smooth Coated Otter	
Fish	1

Tortoise all species	
Sattu	0.2
Banana	2 no.

Papaya	0.2
Palak	0.1
Carrot	0.1
Cabbage	0.1
Cucumber	0.1

Extra Diet/Remarks	
Ice for Beer	100
Water Mellon (apx)~	On Vet's recommendation
Chicken/mutton on	On Vet's recommendation
in case of sick, oldage	On Vet's recommendation

Preparations	
Mix crushed for Birds	Wheat 20%
	Maize 20%
	Jawar 20%
	Black gram 20%
	Rice Kani 20%
Sabat dana For Birds	Wheat 25%
	Barley 25%
	Paddy 20%
	Bajra 25%
Mix crushed for Mammals	Black gram 50%
	Maize 25%
	Barley 25%

13.1 Annual Consumption of Feed

Total consumption of feed during 2016-17 is given as under

Feed & Fodder Detail 2016-17						
Sr.No	Particular's of Item	Yearly consumption	Qty in K.g/No	Rate	Qty in K.g/No	Annul Expenditure
1	Banana	12989.88	Dz.	71.99	Dz.	935141
2	Papaya	216.00	Kg	68.00	Kg	14688
3	Sweet Lime/Orange/Mausami	864.00	No.	13.99	No.	12087
4	Onion	1956.60	Kg	27.95	Kg	54687
5	Garlic	1033.20	Kg	118.00	Kg	121918
6	Carrot (Nov. to Mar.)	1886.70	Kg	28.00	Kg	52828
7	Cucumber (Apr. to Oct.)	2641.38	Kg	28.00	Kg	73959
8	Palak (Apr. to Oct.)	6605.55	Kg	23.95	Kg	158203
9	Apple	11962.08	Kg	119.95	Kg	1434851

10	Turnip (Nov. to Mar.)	1110.00	Kg	24.50	Kg	27195
11	Whole Wheat Bread(0.400gm)	4392.00	No.	26.70	No.	117266
12	Potato	11304.00	Kg	14.87	Kg	168090
13	Cabbage (Nov. to Mar.)	5318.25	Kg	24.00	Kg	127638
14	Peas Green (Nov. to Mar.)	2817.00	Kg	68.00	Kg	191556
15	Egg	20160.00	No.	4.99	No.	100598
16	Dabur Honey (Nov. to Feb.)	193.20	Kg	325.00	Kg	62790
17	Water Mellon (May to July)	3825.00	Kg	24.00	Kg	91800
18	Guava/Peach/Chiku	756.00	Kg	68.00	Kg	51408
19	Milk	2250.00	Kg	55.90	Kg	125775
20	Green Chilly	244.80	Kg	88.00	Kg	21542
21	Sweet Carrot (Nov. to Mar.)	2040.00	Kg	44.50	Kg	90780
22	Green Fodder	20556.00	Qtl	168.00	Qtl	3453408
23	Suger Cane (Nov. to Feb.)	480.00	Qtl	314.00	Qtl	150720
24	Fish Big Sige	11916.00	Kg	119.00	Kg	1418004
25	Fish Small Sige	11484.00	Kg	119.00	Kg	1366596
26	Chiken Meat	4950.00	Kg	167.86	Kg	830907
27	Mutton Meat	0.00	Kg	0.00	Kg	0
28	Buffalo Meat(B.Meat)	51792.00	Kg	109.00	Kg	5645328
29	Ice (Mar. to July)	2400.00	Qtl	189.99	Qtl	455976
30	Dry Ambla	720.00	Kg	88.00	Kg	63360
31	Rice Bran	3654.00	Kg	19.25	Kg	70340
32	Rice	1260.00	Kg	24.87	Kg	31336
33	whole moongi	1980.00	Kg	65.00	Kg	128700
34	Wheat Straw (s{Vh)	10800.00	Kg	9.90	Kg	106920
35	Soyabean	108.00	Kg	60.00	Kg	6480
36	Cattle Feed	16470.00	Kg	19.60	Kg	322812
37	Kangani	1333.80	Kg	34.00	Kg	45349
38	Cotton Seed Cake (yZb)	270.00	Kg	35.90	Kg	9693
39	Ground Nut	2980.80	Kg	68.00	Kg	202694
40	Paddy	3169.80	Kg	17.90	Kg	56739
41	Black Gram	32247.00	kg	69.20	kg	2231492
42	Bajra	2558.52	Kg	18.45	Kg	47205
43	Maize	8064.00	Kg	19.00	Kg	153216
44	Barlay	5733.00	Kg	19.40	Kg	111220
45	Jawar	3384.00	Kg	24.00	Kg	81216
46	Choker	2160.00	Kg	20.50	Kg	44280
47	Jaggery/Gur (Monthly)	2400.00	Kg	38.00	Kg	91200
48	Wheat (Monthly)	5625.00	Kg	17.88	Kg	100575
49	Lin Seed	444.60	Kg	120.00	Kg	53352
50	Haldi	1346.40	Kg	210.00	Kg	282744
51	Glucon-D(Mar. to July)	1371.60	Kg	145.00	Kg	198882
51	Live Chicks (as per Need Base)	0.00	No.	26.00	No.	0
52	Poultry Broiler Live (as per Need Base)	0.00	No.	155.00	No.	0
				G.Total		21795547

13.2 Annual Tender detail of Successful bidder is given as under

Sr. No.	Name of Lease	Name Of The Successful Bidder	Amount (Rs)	Period /Qty 2016-17
I Meat And Ration				
1	Buffalo Meat	Sh.M.Akillu Rehman	99.90 Per Kg	14.05.16 to 31.03.2017
2	Fish	Sh.M.Asif	117.70 Per Kg	27.04.16 to 31.03.2017
3	Green Fodder	Sh.Kulwant Singh	188 Per Qtl	01.04.16 to 31.03.2017
4	Ice	Sh.Arun Kumar Kansal	205.88 Per Qtl	24.04.16 to 31.03.2017
5	Milk	Sh.Chanan Singh	54.20 Per Kg	01.04.16 to 31.03.2017
II Fruit and Vegetable				
1	Apple	Sh.Ashwak	109 Per Kg	06.05.16 to 31.03.2017
2	Onion	Sh.Kulwant Singh	25 Per Kg	01.04.16 to 31.03.2017
3	Carrot	Sh.Ashwak	28 Per Kg	01.04.16 to 31.03.2017
4	Sweet Bread	Sh.Chanan Singh	24.95 Per Pkt.	01.04.16 to 31.03.2017
5	Mausami/Orange	Sh.Ashwak	10.98 Per No.	01.04.16 to 31.03.2017
6	Banana	Sh.Ashwak	59.50 Per Dz	06.05.16 to 31.03.2017
7	Cucumber	Sh.Ashwak	30 Per Kg	01.04.16 to 31.10.2016
8	Green Chilly	Sh.Sanjeev Kumar	98 Per Kg	06.05.16 to 31.03.2017
9	Sweet Carrot	Sh.Ashwak	38 Per Kg	01.11.16 to 31.03.2017
10	Water Melon	Sh.Ashwak	24 Per Kg	01.05.16 to 30.06.2016
11	Potato	Sh.Kulwant Singh	18 Per Kg	01.04.16 to 31.10.2016
12	Pappaya	Sh.Ashwak	70 Per Kg	01.04.16 to 31.03.2017
13	Green Peas	Sh.Ashwak	64 Per Kg	01.11.16 to 31.03.2017
14	Peach/Guava	Sh.Ashwak	70 Per Kg	01.04.16 to 31.03.2017
17	Turnip	Sh.Ashwak	24 Per Kg	01.11.16 to 31.03.2017
19	Cabbage	Sh.Ashwak	23.50 Per Kg	01.11.16 to 31.03.2017
20	Garlic	Sh.Ashwak	108 Per Kg	06.05.16 to 31.03.2017
III Dry Ration				
1	Jawar	Sh.Kulwant Singh	38 Per Kg	01.04.16 to 31.03.2017
2	Sopyabean	Sh.Rattan Mohan Kapoor	58 Per Kg	01.04.16 to 31.03.2017
3	Honey	Sh.Kulwant Singh	355 Per Kg	01.04.16 to 31.03.2017
4	Barley	Sh.Kulwant Singh	18.40 Per Kg	01.04.16 to 31.03.2017
5	Black Gram	Sh. Luxmi Narayan Trading Co.	89 Per Kg	01.04.16 to 31.03.2017
6	Kangani	Sh.Rattan Mohan Kapoor	42.70 Per Kg	01.04.16 to 31.03.2017
7	Wheat	Sh.Kulwant Singh	18.45 Per Kg	01.04.16 to 31.03.2017
8	Cattle Feed	Sh.Kulwant Singh	16.16 Per Kg	01.04.16 to 31.03.2017
9	Bajra	Sh.Kulwant Singh	17.90 Per Kg	01.04.16 to 31.03.2017
10	Rice	Sh.Kulwant Singh	25.45 Per Kg	01.04.16 to 31.03.2017
11	Dry Amla	Sh. Luxmi Narayan Trading Co.	80 Per Kg	01.04.16 to 31.03.2017
12	Maize(Makki)	Sh.Kulwant Singh	18.25 Per Kg	01.04.16 to 31.03.2017
13	Gur	Sh.Kulwant Singh	40 Per Kg	01.04.16 to 31.03.2017
14	Rice Kani	Sh.Jaspreet Singh	20.50 Per Kg	01.04.16 to 31.03.2017
15	Ground Nut	Sh.Kulwant Singh	72 Per Kg	01.04.16 to 31.03.2017

16	Whole Moong	Sh.Kulwant Singh	98.20 Per Kg	01.04.16 to 31.03.2017
17	Paddy	Sh.Kulwant Singh	17.80 Per Kg	01.04.16 to 31.03.2017
18	Choker	Sh.Rattan Mohan Kapoor	17.50 Per Kg	01.04.16 to 31.03.2017

Major activities and achievements of Chhatbir Zoo in 2016-17

World Environment Day 2016

World Environment Day is celebrated all over the world every year on June 5 every year. The United Nations Environment Programme (UNEP) fixes the theme and a city hosts every year for the celebration.



The theme for 2016 was sustainable development. It may be noted that India has been selected as a host nation for the first time in 2011 since the worldwide celebration started in 1973. MC Zoological Park, Chhatbir also celebrated World Environment day in a unique way. Every visitor was presented with a gift/Prasad in the form of a plant, free of cost. The idea is that they may go home, plant a tree and be a part of rebuilding our environment. The response was very positive from all the visitors. Many plants were planted by the visitors in the zoo campus also



Celebration of International Tiger Day-2016

On 29th July 2016, Chhatbir Zoo celebrated International Tiger day by organizing a campaign on Tiger awareness among zoo visitors. It was specifically organized at the Tiger enclosures of the zoo, so as to give realistic touch of the issue.



International Tiger Day is held annually on July 29 to give worldwide attention to the reservation of tigers. It is both an awareness day as a celebration. It was founded at the Saint Petersburg Tiger Summit in 2010. This was done because at that moment wild tigers were too close to extinction. Many animal welfare organizations pledged to help these wonderful creatures and are still helping to raise funds to reach this goal. The goal of Tiger Day is to promote the protection and expansion of the wild tiger's habitats and to gain support through awareness for tiger conservation.



So it is high time for the mankind to understand the plight of Tigers in country and do their bit in the noble cause of Tiger conservation. The zoo plays a pivotal role as far as awareness generation of wildlife in the general and Tigers in particulars are concerned.



It becomes more relevant in the area of country where Tiger population does not exist in natural areas like Punjab, Haryana, H.P. etc. So people in this area need to be specifically made aware about the issue and importance of Tiger conservation and thus zoos role becomes all the more important. Celebration of International Tiger day in Chhatbir zoo has played a significant role in creation of awareness about Tiger conservation where school children of various schools apart from common visitor's were enlightened about the subject.

Wildlife Week 2016

M.C. Zoological Park, Chhatbir celebrated Wildlife Week 2016 from 3rd October to 8th October 2016. During the Wildlife Week, various events related to Wildlife awareness were being organized for the zoo visitors. The entry of visitor was free during wildlife week. The main function of Wildlife Week celebration 2016 was held on 07.10.2016 Worthy Principal Chief Conservator of Forests (HoFF), Punjab was the Chief Guest of the function. The function was also attended by Sh. Dharendra Singh, IFS, Addl. Principal Chief Conservator of Forests (Wildlife) and Chief Wildlife Warden, Punjab, Smt. Nidhi Srivastava, IFS, Conservator of Forests (Wildlife), Parks and Protected Areas Circle, Punjab, Dr. B K Gupta from Central Zoo Authority and other officials of Forest Department. The following events were organized during this week :

Date	Events
03.10.2016(Monday)	Zoo Keepers Talk on Tigers and Elephants
04.10.2016(Tuesday)	Zoo Keepers Talk on Lions
	Nature awareness campaign
05.10.2016(Wednesday)	Zoo Keepers Talk on Leopards and Bears
	Essay Writing Competition Middle Category Class 6 th to 8 th
	Essay Writing Competition Senior Category Class 9 th to 10 th
	Painting Competition Junior Category Class 1 st to 5 th
	Painting Competition Middle Category Class 6 th to 8 th
06.10.2016 (Thursday)	Experts talk on reptiles
	Zoo Cleanliness drive
07.10.2016 (Friday)	<ul style="list-style-type: none"> · Flagging-off Environment Awareness Rally of students. · Photography competition for amateur photographers based on theme · Launching of Chhatbir Zoo's Website · Release of newly acquired Smooth Indian Otters for general Public. · Inspection of Reptile Awareness Show at Shallow Lake.

Total No. of Visitors & Students during Wildlife week 2016

Date	Visitor	Students	Total
03.10.2016 (Monday)	918	424	1342
04.10.2016 (Tuesday)	1762	2120	3882
05.10.2016(Wednesday)	2404	2639	5043
06.10.2016 (Thursday)	2488	4021	6509
07.10.2016 (Friday)	3431	4425	7856

Picture gallery of Wildlife week 2016 is given below.







Scientific modernization of Reptile house

The reptile house was renovated and modernized during 2016-2017 based on scientific concepts. The new reptile friendly as well as the visitor friendly reptile house was dedicated to the visitors during 2016-17. Earlier, availability of sunlight inside houses was an issue. By adding a movable dome cover on roof and water recycling system in the houses, the reptiles got a new lease of life . The environmental enrichment was provided to the reptiles and the visitor gallery of the visitor was also renovated smartly to reduce the reflection of the glass.



