



सत्यमेव जयते

ANNUAL REPORT

2016-2017

Padmaja Naidu Himalayan Zoological Park

Darjeeling (West Bengal) India

PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK, DARJEELING, WEST BENGAL
AT A GLANCE

Year of Establishment	:	1958
Area	:	Main Zoo: - 67.56 Acres Dow Hill (Conservation Breeding centre) 4.65 hectares Topkeydara (Conservation Breeding Centre)- 5 hectares
Category of Zoo	:	Small
Altitude	:	7000 ft (2150 mts) approx
Temperature	:	20°C to 26°C highest and 1°C to 5°C lowest
Mailing Address	:	Padmaja Naidu Himalayan Zoological Park Jawahar Parbat Darjeeling 734 101
Telephone No.	:	0354 – 2254250 (O) 2253709 (O)
Fax No.	:	0354 – 2252522
E-Mail	:	pnhzip@yahoo.com
Web	:	www.pnhzip.gov.in
Zoo Timings	:	8:30 am to 4:30 p.m.
Closing Day	:	Thursday
Annual Visitors during the year 2016-17	:	6, 76, 874
No of Animal Species & Birds (as on 31 st March, 2013)	:	i) 1 Species of Amphibian ii) 12 Species of Birds iii) 21 Species of Mammals iv) 4 Species of Reptile v) 10 Species of Pheasant
Grant of Recognition by Central Zoo Authority to PNHZ Park vide their No F.No. 19-20/92-CZA (325) (Vol. IX)/367/2016 dtd 03.03.2016	:	As medium Category Zoo valid upto 20 th January 2019.
Membership granted to PNHZ Park by World Association of Zoos and Aquariums (WAZA)	:	w.e.f 14 th Sept, 2009

Entry fee for the Zoo

A. MAIN ZOO

Sl. No.	Category	Entry Fee for PNHZ Park (Rs.)
1.	Visitors from SAARC Countries	Rs 25
2.	All other foreigners	Rs 50
3.	Children below 6 years age	Free
4.	Students (in groups of 10 and above sponsored by their respective schools)	50% of Sl. no. 1 above.

Distance : Padmaja Naidu Himalayan Zoological Park is 85 Km from Bagdogra Airport which is served by daily flights from Delhi, Kolkata, Mumbai, Patna & Guwahati. The Railway Junction, New Jalpaiguri, is also of the same distance and is well connected with all Major centres of the country. Siliguri, the major developing city is 2½ hrs. drive by car and 6 hrs. by Toy Train.

Best time to visit: March to June and September to January

Climate : March – June : Pleasant Weather
July – September : Rainy Season
September – October : Fair Warm Climate
November – December : Cold
January – February : Very Cold

From pages of History

1. **1980- 81-** Granted permission by the Forest Directorate for capturing of some rare high- altitude fauna and also conducting research on them. Yak calves, Barking deer, Himalayan Black Bear, Mongoose procured from the wild. 52 white rats and 4 rabbits purchased with a view to establish an educative children's corner and also using them in the contemplated research programme. Approval of 7 collaborative research schemes submitted to the Department of Science & Technology on 16.12.80 urging financial assistance. Regular lectures by the Director of the Park for popularization of high altitude fauna and flora. Prominent trees within the park area labeled with Scientific names, to arouse interest in nature study. Construction of direct pipe- line connection from Jalaphar area under joint project of the H.M.I and the society within the zoo campus
2. **1981 – 82---** Partial success achieved in procuring some species of the hill region. Collection of the park shows steady increase in number through departmental trapping, purchase and by way of birth. Red panda, Satyr Tragopan etc are worth mentioning. Exchange programme begins. 1 pair of Silver Pheasant, 1 pair of Bantam Pheasant. From Alipore Zoological Garden, Calcutta. Negotiations with other Zoological Gardens in India and abroad are being continued for securing exhibits on exchange basis. A mini laboratory equipped with a microscope, centrifuge machine and reagents set up. Research project "Studies on the Ecology, Reproductive Biology and Conservation of the endangered Salamander of the Eastern Himalayas, *Trylotriton verrucosus*" approved by the Dept. of Science and Technology.
3. **1982 -83---** Received 1 pair of Silver Pheasant, 1 pair of Golden Pheasant from Alipore Zoological Garden
4. **1984-85----** Birth of two Ussuri tigers (*Panthera tigris altaica*). 1 male born on 31.10.73 and 1 female on 8.7.82. A pair of Ussuri (Amur) Tigers received from Helsinki Zoo as a gift on 6.2.85.
5. **1985-86----** The Snow Leopard Breeding Centre starts functioning with an initial pair. Procured one Royal Bengal Tiger (*Panthera tigris*) from the Forest Department as a gift on 9.5.85
6. **1986-87--** A pair of Snow Leopards received from Zurich Zoo, Switzerland on loan. A pair of Ussuri (Amu) tigers received from Helsinki Zoo, Finland
7. **1987- 88---** The Chairperson of International Snow leopards Trust accompanied by a team of experts visited the zoo in October 1988, after getting fully satisfied with the standards of management and upkeep of the first pair at PNHZ Park, the loan of a second pair was cleared by the trust.
8. **1989-90---** Tibetan wolf added to the stock, a pair received from Shimla zoo in exchange for a pair of Tragopan pheasants. Success in breeding the rare Tragopan pheasant and Kalij pheasant
9. **1990-91--** Received a pair of Ussuri tiger from Whipsnade Zoological Park of the London Zoological Society on 26. 2.90. Two cubs of Ussuri tiger born.
10. **1993-94---** The zoo has already started a captive breeding project on Red panda in collaboration with Rotterdam zoological and Botanical gardens, the Netherlands, with an intention to reintroduce the animal in to the wild if needed.
11. **1994-95--** Birth of first Red Panda. 20.6.94
12. **1996-97--** Received a pair of Himalayan Thar from Helsinki Zoo and donated a pair of red panda to Gangtok Zoo, Tibetan wolf (one pair), Siberian Tiger (one pair) to Nainital Zoo. Conducted a training Programme for the staff of Sikkim Zoo.

13. **1997-98-** Construction of Store kitchen.
14. **1998-99-** An audio visual Himalayan Nature's Interpretation Centre set up at the zoo depicting dioramas of different Himalayan flora and fauna and their behavior and mobility in their natural habitat. Construction of an underground water storage tank. Construction of enclosures for blue sheep and clouded leopard. One building for post moterm facilities have been built up. , enclosures modified by planting numerous types of shrubs, climbers and flowering plants thus giving the zoo more greenery and natural outlook. Numerous bamboo plants including climbers have been grown in
15. **1999-2000-** A nature Interpretation Centre was constructed for 14.50 lac and named Himalayan Nature Interpretation Centre. Old office complex was converted to a rest house of the zoo with an expenditure of 4.00 lakh. Group D staff quarter repaired. A generator of 45 kwatts purchased for supply in the zoo.
16. **2001-2002** Birth of Red Panda and Himalayan Thar. Pair of Common Leopard given to Gangtok Zoo, And another pair to Itanagar Zoo inn exchange for 2 female Black bears, a male clouded leopard and two male slow loris. Five old and aged leopards in the zoo were exchanged with same number of younger animals of the species from the Jaldapara Rescue Centre. A pair of Barking deer brought from Gangtok Zoo. The GB Meeting on 22.2.02 agreed upon restocking of wild population of red Panda in the Singhalila National Park by the Captive Red Pandas of Darjeeling Zoo. State wildlife Advisory Board in its meeting on 1.3.2002 cleared the Project. Hair follicles for DNA study of the Red pandas in the zoo sent to WII .results awaited for taking further steps like arranging radio collars. Etc. The Lebong forest of 39 acres handed over to the Forest Department for management.
17. **2002-2003** A Discovery T.V. team from U.S.A for "Jeff Corwin Experience" in Animal Planet visited the zoo to cover Red panda Breeding Programme on 16.4.2002 and similar Programmes on Snow Leopard and Red Panda shown in various National channels. The Zoological Park co-ordinated the first ever complete census of wild animals in Darjeeling Hills. Project Red Panda is on the threshold of achieving its ultimate objective of releasing Zoo bred Red Pandas in the Singhalila National Park .all preparations like identification of the animals, creation of intermediary release facility for soft release, taxonomic status and genetic variability study and pre-release monitoring of habitat completed.
18. **2003-04--** Red Panda "Mini" and "Sweety" sent to Intermediary release facility on 14th November 2003.Red Panda "Neelam" and "Dolma" sent to Intermediary release facility. At gairibas on 6th November 2003. Two Grey Peacock Pheasant acquired from Alipore Zoological Garden Kolkota in lieu of 3 Khaleej Pheasant (1:2). 3 Sambhar (1:2) received from Sanjay Gandhi Zoological Park, Patna.2 Japanese Green Pheasants (1:1) and 3 silver Pheasant (1:2) were transferred to Sanjay Gandhi Zoological Park.Post – release monitoring of the released animal by radio-collaring them.
19. **2004-2005-** A remarkable successful breeding of the Tibetan Wolves achieved with 13 births recorded. Births of four cubs of Snow leopard. Under animal exchange three Musk deer (1:2) acquired from Nainital Zoo in lieu of two Snow leopard (1:1) and five Tibetan wolves (2:3). Five Himalayan Monal (2:3) and Five Red Jungle Fowl (2:3) acquired from Shimla Zoo in exchange of two Snow leopard (1:1) and six Tibetan wolves (3:3) from PNHZ Park. One leopard cat (0:1) and four Kaleej Pheasant (2:2) received form Sikkim zoo and two snow leopard (1:1) and four Tibetan wolf (2:2) given to them.
20. **2006-2007--** Birth of one red Panda, two birth of barking deer, 2 births of Sambhar, 5 births of Golden Pheasant,8 births of lady Amherst Pheasant, 3 Births of silver Pheasant and 13 births of red Jungle fowl.2 female Royal Bengal

Tiger were acquired from Khutimari, Jalpaiguri Forest Division on 19.10.2006. 2 common langurs acquired from Kolkota, Forest Department on 7.3.07. 1 male golden Pheasant and 2 female Reeves pheasant brought from Kolkota zoo on 31.10.2006. 1 male and 1 female lady Amherst pheasant given to Coochbehar Forest Division. 1 male and 2 female Lady Amherst Pheasant given to Kolkota Zoo on 11.11.2006 1 male and 1 female of Silver Pheasant and Golden pheasant given to Gangtok Zoo. Workshop held on "Preparation of Zoo Management Plan" on 9th & 10th November 2006. Regional workshop held on developing "master Education Plan for Zoos" on 7th & 8th June 2007.

21. **2008-2009-** An area of 4.645 Ha of Dow Hill Deer park have been taken over from the Kurseong Division under Directorate of Forests, West Bengal on 25.02.2009 for establishment of Satellite Zoo under Padmaja Naidu Himalayan Zoological Park, Darjeeling, the management plan for satellite zoo is incorporated in Padmaja Naidu Himalayan Zoological Park, Darjeeling.
22. **2009-2010-** PNHZ Park was granted membership by the World Association of Zoos and Aquariums (WAZA) on 14th September, 2009 at Berne. Coming under the umbrella of "WAZA" Organisation will help and support the fulfillment of the Zoological Park's Mission and in being able to continue the Protection and Conservation of Eastern Himalayan Endangered Species. Padmaja Naidu Himalayan Zoological Park Society has been dissolved in its final Governing Body Meeting held on 3/11/2009 at Kolkata. The Park as now onwards will be registered under the Zoo Authority of West Bengal. The Bengal Natural History Museum which was under the Wildlife Division I was handed over to the Darjeeling Zoo on 7th January 2010. The construction of the museum within the zoo premises is in the process and very soon will be shifted from its original location. The museum will be further upgraded and will serve the purpose of educating and entertaining the visitors. The Zoo received three pairs of Himalayan Tahr and two pair of Blue sheep from Okinawa Kids Foundation, Okinawa Japan. This was an animal exchange after more than twenty years.
23. **2010-2011-** An international exchange programme took place between Auckland Zoo, New Zealand and PNHZ Park, Darjeeling, as one zoo born male Red Panda was sent to Auckland Zoo, New Zealand and one female Red Panda was brought to Darjeeling Zoo under the Animal Exchange Programme. The digitization of the items of Bengal Natural History Museum as handed over to PNHZ Park on 7th January, 2010 was done, by photographing each item and also providing information of the items thus making it easier to preserve, access and share in form of a book. Closed Circuit Television was installed at different locations of the park to monitor the presence and activities of people for enhanced security purposes and to keep areas under constant surveillance and also at the Conservation Breeding Centre for documenting the Snow leopards, upgradation of visitors facilities etc. Different enrichment activities for Asiatic Black bear (*Ursus thibetanus*) was done. The tree at the peripheral areas/display areas of the Park was labeled for the convenience of the visitors, students, researchers etc. with name plates which includes- scientific name, local name and family. Contouring of the Zoo and Dow Hill area has been done indicating landforms and elevation, hydrography, transportation, vegetation boundaries, urban areas, buildings and a variety of other features which represents a fantastic response for educators as well. The site consisting of 5 hectares of land at Topkedara for construction of off Display Conservation Breeding Centre for Snow leopard (*Uncia uncia*) and Red Panda (*Ailurus fulgens fulgens*) was handed over to Padmaja Naidu Himalayan Zoological Park. A visitor's survey was conducted about planning to start a special educative facility that included guided tour of the zoo by zoo volunteers.

24. **2011-2012-** Padmaja Naidu Himalayan Zoological Park received 2:3 Temminck's Tragopan (*Tragopan temminckii*) and 1:3 Satyr Tragopan (*Tragopan satyra*) On 02.08.2011 from Paradise Wildlife Par, United Kingdom. Inaguration of Satellite facility at Dow Hill, Kurseong on 07.12.2011 by Shri Hiten Barman Hon'ble Minister in charge Department of Forest, Govt. of West Bengal and Dr. Rohit Sharma Hon'ble MLA of Kurseong Constituency along with other dignitaries and Forest Officials.
25. **2012-2013** - Acquisition of Temminck's Tragopan, Satyr Tragopan, one female snow leopard (0:1), Retirement of Store Keeper Mr.Nirmal Bhujel on 28.02.2013. Genetic analysis of captive stock of Red Panda and Snow leopard. Completion of Conservation Breeding Centre for Red panda and Snow Leopard at Topkey dara. Closed Circuit television in enclosures of Temminck's Tragopan and Clouded leopard. Completion of seven unit pheasant at Dowhill Pheasant breeding center at Dowhill, Kurseong.
26. **2013-2014** – Acquisition of 0:2 Snow leopard from Lodz Zoo, Germany, Exchange programme with Pt. Govind Ballabh Pant High altitude Zoo, Nainital, Alipore Zoological Gardens, Kolkota, Rajkot Zoo, Gujarat, Himalayan Zoological Park, Sikkim, Mini Zoo, Jhargram and National Zoological park, Delhi. Completion of a Short term Research Project on “Study of Snow leopard” funded by Central Zoo Authority. A new off-display Conservation Breeding Centre for Snow leopard (*Uncia uncia*) and Red Panda (*Ailurus fulgens*) at Topkedara funded by the Govt.of West Bengal and Central Zoo Authority, MoEF was inaugurated on 08.10.2013 by the Honorable Minister in Charge (Forest) Shri. Hiten Barman along with North Bengal Development Minister Shri. Gautam Deb. The inauguration was followed up by the release of a pair of Snow leopard (*Uncia uncia*) by the two ministers.
27. **2014-2015:** Construction of 2 unit pheasantry at the Conservation Breeding Centre for Pheasants and Herbivores at Dow Hill, Kurseong, Reptile house. Facilities like water tank, Research room, quarters for the staffs with adequate facilities modification of night shelters as breeding dens, etc. Participation in the 35th Annual meeting of the Conservation Breeding Specialist Group (CBSG from 30th October-2nd November 2014) and the 69th WAZA Annual Conference and technical Congress from 2nd -6th November 2014) hosted by Central Zoo Authority. PNHZP recognized and honoured for exceptional hard work in conservation breeding of endangered Himalayan species with the Earth's Hero Award. Approval of three research projects by the West Bengal Zoo Authority. Transfer of 1:1 Red Panda to Pt. Govind Ballabh Pant High Altitude Zoo, Nainital for initiating Conservation Breeding of the species. Acquisition of 1:0 Snow leopard from Jhilava Zoo, Czech Republic. Exchange programme with Assam State Zoo cum Botanical Garden, Assam, and Pt. Govind Ballabh Pant High Altitude Zoo, Nainital.
28. **2015-2016:** The Park organized “Zoo Keeper's Training Programme”for both North and South Bengal Zoos, Rescue centers and Deer Park's under West Bengal Zoo Authority from 22nd to 26th June 2015, followed by zoo keeper's of PNHZ Park who participated the Zoo keeper's Training Programme organized by Alipore. Zoo from 21st to 23rd September 2015. New site selection and construction of two more enclosures for the snow leopard and red panda at the Conservation breeding centre for Snow leopard and Red Panda at Topkedara, 3rd Mile. Zoo Evaluation for Recognition by Central Zoo Authority, MoEF & CC, GOI. The parks along with the breeding centres were evaluated on 26th and 27th November 2015. The park was granted Recognition by Central Zoo Authority to PNHZ Park vide their No F.No. 19-20/92-CZA (325) (Vol. IX)/367/2016 dtd 03.03.2016 as **Medium Category Zoo** valid upto**20th January 2019**.

The Park completed two short term research projects “Studies on biology, breeding behavior and aviary practices for improved performance of captive Himalayan pheasants” and “Red Panda Nutrition- an Approach towards Integration” funded by Central Zoo Authority. Initiated a Research project on **“Studies on Population and Behavioural Ecology of Red Panda *Ailurus fulgens* in Singalila National Park and Neora Valley National Park, West Bengal, India with special reference to Conservation**” funded by West Bengal Zoo Authority. The Research & Education of the Park through a collaborative work with CCMB, Hyderabad published a paper on **“Molecular sex identification of Red panda (*Ailurus fulgens*) suitable for non invasive genetic studies- Arun Kumar, Bhupen Roka, Upashna Rai, P. Anuradha Reddy**. The paper has been published in the European Journal of Wildlife Research. ISSN1612-4642DOI 10.1007/s 10344-015-0928-2.

2016-17: Acquisition of two male snow leopards from Mulhouse Zoo, France and Dudley Zoo, London. A training programme on the Zoological Information Management System (ZIMS) and Zoo Keeper's Training programme organised. Approval of two research projects by West Bengal Zoo Authority titled “Status Survey of Himalayan Goral (***Nemorhaedus goral***) at Singalila National Park, Neora Valley National Park, Mahananda Wildlife Sanctuary, Senchal Wildlife Sanctuary and Kurseong Division” in reference to memo No. 558/WBZA/T-3/16-17 dated 21.11.2016. and **“Developing Ex-situ husbandry practices for Himalayan Newt”** in reference to memo No. 362/WBZA/T-3/16-17 dated 31.08.2016. Completion and submission of two short term research projects funded by Central Zoo Authority viz. **“Red Panda Nutrition- An Approach Towards Integration and “Studies on Biology, breeding behaviour and aviary practices for improved performances of captive Himalayan Pheasants”** vide this office memo No. 704/S.O.30 (PROJ-RP-N)/PNHZIP/16-17 dated 04.01.2017 and 701/S.O.30 (PROJ-HM)/PNHZIP/16-17 dated 04.01.2017 respectively. Establishment of new Taxidermy unit.

NAME OF THE DIRECTORS HOLDING CHARGE OF PNHZ PARK

SI	NAME	FROM	TO
1	Sri D K Dey	14/08/1958	01/08/1978
2	Sri J Sammaddar	02/08/1978	15/10/1978
3	Dr A K Putatunda	16/10/1978	09/01/1980
4	Dr R K Lahiri	10/01/1980	08/07/1984
5	Sri A B Chowdhury IFS	09/07/984	10/09/1984
6	Sri C Chatterjee IAS	11/09/1984	07/11/1984
7	Sri G Balagopal IAS	08/11/1984	01/02/1985
8	Dr R K Lahiri	01/02/1985	25/06/1987
9	Sri D P Patra IAS	25/06/1987	07/12/1987
10	Sri V Rishi IFS	07/12/1987	27/04/1992
11	Sri N C Bahuguna IFS	27/04/1992	25/07/1994
12	Sri Gopal Krishna IAS	25/07/1994	02/09/1994
13	Sri N C Bahuguna IFS	02/09/1994	19/12/1995
14	Sri S Dhaundyal IFS	19/12/1995	07/02/1996
15	Sri N C Bahuguna IFS	07/02/1996	16/08/1998
16	Sri D Biswas IFS	17/08/1998	03/08/2000
17	Dr B R Sharma IFS	10/08/2000	06/04/2004
18	Sri S Dhaundyal IFS	06/04/2004	20/02/2006
19	Sri B R Shewa WBFS	10/02/2006	13/02/2006
20	Sri A K Jha IFS	13/02/2006	30/07/2010
21	Sri J.B. Chettri WBFS	30/07/2010	31/08/2010
22	Sri A.K. Jha IFS	31/08/2010	15/01/2015
23	Sri. P. Chand IFS	15/01/2015	Till Date

CHAPTER - 1

1.1. INTRODUCTION

The Padmaja Naidu Himalayan Zoological Park Darjeeling formerly known as Himalayan Zoological Park, Darjeeling was established on 14th August, 1958. The Park is located at an altitude of 7000 ft (2150m) in Jawahar Parbat (Birch Hill), Darjeeling (West Bengal), India. In 1975 Late Smt. Indira Gandhi, then the Prime Minister of India, dedicated the Himalayan Zoological Park in memory of Late Smt. Padmaja Naidu, Ex-Governor of West Bengal and the Park was renamed Padmaja Naidu Himalayan Zoological Park. The land on which the Zoological Park is standing was acquired by the British Govt. in the late 19th Century and developed as a Public Park known as Birch Hill Park. After Independence the Govt. of India and the Govt. of West Bengal decided to develop the Birch Hill Park as Zoological Park for Conservation of Eastern Himalayan ecosystem. The Zoological Park is eminently suitable for housing and breeding of the animals from foot hills to the alpine zone as this is the optimal altitudinal zone for the purpose.

Though categorized as a small Zoo, it is one of the leading zoos of the world in terms of the objectives and its conservation vision. Padmaja Naidu Himalayan Zoological Park, (P.N.H.Z.P) also popularly known as Darjeeling Zoo, can also rightfully boast of being the only Zoo in South East Asia with one of the most successful conservation breeding programme of highly endangered Snow Leopard and Red Panda. This is the only Zoo in the world to breed the endangered Himalayan Wolf in captivity.

This report further elaborates upon all the events of the zoo carried out in an effort to implement its objectives during the year 2016-17.

1.1.2 MISSION STATEMENT

“Assisting the National efforts for conservation of the Eastern Himalayan Ecosystem by ex-situ conservation breeding of its endangered fauna, conservation education and research to augment these conservation initiatives”.

1.2. OBJECTIVES

The Zoological Park is striving for the maintenance of ecological balance in the Eastern Himalayas with the following objectives:

- 1) Ex-situ Conservation & Captive breeding of endangered Himalayan animal species.
- 2) Educating, motivating and initiating awareness campaign among the local people as well as the visitors on the importance of conservation of Himalayan ecosystem.
- 3) Initiating applied research on animal biology, behaviour and health care.

1.3. THE GOVERNING BODY

The Padmaja Naidu Himalayan Zoological Park, Darjeeling, was under the administrative control of the Department of Forests, Govt. of West Bengal and was converted into a Registered Society in January 1972 under the West Bengal Societies Registration Act. The Memorandum of Association and Regulations of the Society were altered during the year 2002-2003 which the Registrar, Firm Societies and Non-trading Corporation, West Bengal gave its acceptance to the same on 09.08.2002 vide his No. S/482 dated 09.8.2002. Again later on the Park was handed over to the West Bengal Zoo Authority a Society under administrative control of the Department of Forests, Govt. of West Bengal Order No. 3842/1(13)-For/FR/O/11M-7/2002 dated 14th Sept, 2010 vide Department of Forests Govt. of West Bengal Order No. 3841/1(13)-For/FR/O/11M-27/2002 dated 14th Sept., 2010. Under the West Bengal Zoo Authority, the Governing Body, consist of the following members -

- | | |
|---|---------------|
| 1. The Chief Secretary to the Govt. of West Bengal | Chairman |
| 2. Addl. Chief Secretary to the Govt. of West Bengal Dept. of Forest | Vice-Chairman |
| 3. Secretary to the Govt. of West Bengal, Dept of Finance | Member |
| 4. The Principal Chief Conservator of Forests, West Bengal | Member |
| 5. The Principal Chief Conservator of Forests
(Wildlife & Biodiversity) and CWLW, W.B. | Member |
| 6. Member Secretary, Central Zoo Authority | Member |
| 7. Member Secretary, Zoo Authority West Bengal | Member |
| 8. Director, Animal Husbandary & Vet, Services, W.B. | Member |
| 9. Director, Padmaja Naidu Himalayan Zoological Park | Member |
| 10. Director, Zoological Gardens, Alipore, Kolkata | Member |
| 11. Chairman, Sri Sankar Dhar, People's for Animals, Alipurduar | Member |
| 12. Chairman, Sri Nantu Paul, Siliguri Municipal Corporation | Member |
| 13. President, Sri Mihir Chakraborty,
All Backward Class Relief & Development Mission | Member |

The establishment of the Zoological Park is headed by one full time Director in the rank of Conservator of Forests. The Director, as the Principal Executive Officer of the Park is responsible for the day to day management and administration of the affairs of the Park under the general direction and guidance of the Governing Body and the Chairman. For the better control and co-ordination among different sections and works in the Zoological Park a separate section known as "Director's Personal Section" has been created and housed in the main administrative building. The Section is headed by the PA to the Director and assisted by one driver and one orderly peon. Management of the conference room/auditorium, visitor's rooms, rest house, zoo vehicle, telephones, mobile printer, scanner, Laptop, digital camera, video camera, still camera, LCD projector, Slide projector, Overhead projector, TV/VCR, Fax machine and Photo copier, computer networks etc. are other responsibilities of the sections.

CHAPTER – 2

2.1. ADMINISTRATIVE SECTION

It is housed on the top floor of the administrative building next to the Director's Personal Section and is headed by the Head Clerk. The section has been further divided into two sections namely Account Section with one Accountant, one Clerk Typist, one Ticket Clerk and one Office Peon and the Establishment Section with one UDC and one LDC. The entire establishment section of the Zoological Park of 58 personnel is organized into 5 different wings and ten different sections. The total staff strength as on 31.3.2016 is stated below.

ESTABLISHMENT (As on 31.3.2017)

Sl. No.	Designation	Sanctioned Strength	Existing Strength	Vacancy	
1.	Director	1	1	0	
2.	Dy. Director	1	1	0	
3.	Asst. Director-Cum-Veterinary Officer	1	1	0	
4.	Zoo Biologist	1	1	0	outsourcing
5.	Education Asst.	1	1	0	outsourcing
5.	Head Clerk	1	1	0	
6.	Accountant	1	1	0	
7.	PA to Director	1	1	0	
8.	Store keeper	1	1	0	
9.	UDC	2	1	1	
10.	LDC	4	4	0	
11.	Ticket Clerk	2	1	1	
12.	Zoo Supervisor	2	1	1	
13.	Museum Supervisor	1	1	0	outsourcing
14.	Estate Supervisor	1	1	0	
15.	Research Assistant	1	1	0	outsourcing

Sl. No.	Designation	Sanctioned Strength	Existing Strength	Vacancy	
16.	Education Assistant	1	1	0	outsourcing
17.	Library Assistant	1	1	0	outsourcing
18.	Taxidermist	1	1	0	outsourcing
19.	Laboratory Assistant	1	1	0	
20.	Veterinary Assistant	2	1	1	
21.	Asst. Zoo Supervisor	2	1	1	
22.	Asst. Estate Supervisor	2	0	2	
23.	Gate keeper	2	1	1	
24.	Driver	2	0	2	
25.	Zoo Keeper	16	9	7	
26.	Cook	2	0	2	
27.	Animal Attendant	16	13	3	
28.	Garden Attendant	14	5	9	
29.	Sanitary Attendant	10	5	5	
30.	Security Personnel	13	9	21	
31	Black Smith cum carpenter	1	1	0	
32	Forester	1	0	1	Dying post
33	Veterinary Compounder	1	1	0	Dying post
34	Clerk Typist	1	1	0	Dying post
35	Forest Guard	4	2	2	Dying post
36	Mali	4	2	2	Dying post
37	Darwan	2	1	1	Dying post
38	Office peon	1	1	0	Dying post
39	Orderly peon	2	1	1	Dying post
9	Sweeper	5	5	0	Dying post

STAFF RETIREMENT

Sl. No.	Name	Designation	Date of Joining	Date of Retirement
1	Shri. Pradeep Pradhan	Zoo Keeper		30.11.2016
2	Shri. Sang Dorjey Tamang	Head Clerk	01.02.1983	31.03.2016

ACCOUNTS

This subsection is responsible for all matters pertaining to revenue and expenditure. As the Zoological Park is a joint venture of Govt. of India Zoo Authority of West Bengal under under Admn Control of Deptt. of Forests, Govt. of West Bengal, the Park is receiving maintenance budget from the and Department of Forests, Govt. of West Bengal. The Park is still receiving some maintenance funds from the D of School Education, Govt. of West Bengal, though the same has been very irregular.

Receipts & Expenditure of the Zoological Park (Society) during the Year 2016-17

	Source of Fund	Receipts in Rs		Expenditure in Rs	
		Non-plan	Plan	Non-plan	Plan
1	Deptt. of Forests Govt. of West Bengal	8,21,72,000		8,21,72,000	
2	Zoo Authority of West Bengal under Admn Control of Deptt. of Forests, GOWB	6,42,29,368	99,59,805	6,42,29,368	99,59,805
3	Gate fee Collection a. Zoo Ticket b. Zoo Camera c. Animal Adoption d. Guest House e. Souvenir Shop f. Fees from rental stalls	1,65,52,820(Indian) 5,87,350.00(Foreigner) 5,36,790.00 2,49,950 6,600 2,29,820.00 (NTFP Div) 32,609.00 (WBZA) 1,31,400.00		1,65,52,820(Indian) 5,87,350.00(Foreigner) 5,36,790.00 2,49,950 6,600 2,29,820.00 (NTFP Div) 32,609.00 (WBZA) 1,31,400.00	

ANIMAL SECTION:

Ex-situ conservation breeding of targeted endangered animal species is the primary objective of the Padmaja Naidu Himalayan Zoological Park. The Zoo has done excellent works with planned conservation breeding of some of the highly endangered animal species of the Himalayas like Red Panda and Himalayan Wolf.

Breeding was observed in the year 2016-17 in respect of Grey Peacock Pheasant, Kalij Pheasant, Temminck's Tragopan, Red Jungle Fowl, etc, Markhor, Blue Sheep, Himalayan Tahr, Himalayan goral and Barking deer

Death was also not uncommon. In the year 2016-17, **deaths** recorded were as 16 Nos. in mammals 21 Nos. in pheasants and 3 Nos. in Reptiles. There has been considerable improvement in infant mortality of both mammals and pheasants due to constant medical supervision and Zoo keeper alertness.

2.3 DETAILS OF BIRTHS, DEATHS, ADDITION & DEDUCTION OF ANIMAL THROUGH EXCHANGE PROGRAMME.

BIRTHS OF MAMMALS/PHEASANTS AT PNHZ PARK, DARJEELING

SI No.	Name of the Animal	Male	Female	Unknown
Mammals				
	Common Grey Langur	2	0	0
	Markhor	0	0	1
	Blue Sheep	1	2	0
	Himalayan Tahr	2	0	1
	Barking Deer	1	3	1
	Himalayan Goral	1	1	0
Pheasants				
	Grey Peacock Pheasant	0	0	2
	Kalij Pheasant	0	0	3
	Temminck's Tragopan	0	0	2
	Silver Pheasant	0	0	8
	Reeve's Pheasant	0	0	5
	Red Jungle Fowl	0	0	4

DEATH OF MAMMALS/PHEASANTS/REPTILES AT PNHZ PARK, DARJEELING

	Animals	Sex	Number	Cause of Death	Date
Mammals					
	Sheep Blue	M	1	Death may be due to heavy internal bleeding in the cranial cavity as well as in the thoracic cavity due to injury to the head and chest region because of heavy collision.	24.04.2016
	Cat Leopard	M	1	Death may be due to old age. Cataract observed and major organs like liver, lungs, spleen were not normal. Could be reason of multi organ failure.	12.05.2016
	Markhor	F	1	Death may be due to difficulty in parturition due to old age and formation of gas leading to extra pressure in thoracic region leading to cardiac arrest.	16.05.2016
	Red Panda	F	1	Accidental	23.05.2016
	Tahr Himalayan	M (infant)	1	Death may be due to ill nursing and both the lungs and heart were affected.	01.06.2016
	Deer Barking	M	1	Death may be due to severe injury in the thorax region or chest region leading to internal bleeding in the lungs resulting to death.	14.07.2016
	Markhor	U (infant)	1	Death may be due to lung congestion as seen by the condition of the lungs. Acute pneumonia condition seen.	08.08.2016
	Red Panda	F	1	Death may be due to multi organ failure due to old age.	16.09.2016
	Tahr Himalayan	M	1	Death may be due to accident as profuse bleeding seen in the thoracic region with	08.10.2016

				heavy injury to the lungs and liver.	
	Cat leopard	F	1	Death may be due to infighting as wound bite marks in the neck region seen.	09.10.2016
	Langur common	F	1	Death may be due to old age and multi organ failure	20.11.2016
	Deer Barking	F	1	Death may be due to Hypothermia due to ill nursing by the mother. Showed severe signs of congestion of the lungs.	07.12.2016
	Sheep Blue	M	1	Death may be due to old age and multi organ failure.	17.12.2016
	Deer Barking	F	1	Death may be due to heavy injury to the thoracic region. Heavy internal bleeding in the abdominal region.	08.01.2017
	Goral Himalayan	M	1	Death may be due to acute gastritis	12.03.2017
	Goral Himalayan	F	1	Injury	25.03.2017
			16		
Pheasants					
	Pheasant Reeves	M	1	Dashing	15.04.2016
	Pheasant Kalij	F	1	Infighting	15.05.2016
	Red Jungle Fowl	U	1	Predation	31.05.2016
	Pheasant Grey Peacock	U	1	Predation	03.06.2016
	Red Jungle Fowl	U	1	Predation	09.06.2016
	Pheasant Grey Peacock	U	1	Predation	25.06.2016
	Pheasant Silver	U	2	Predation	26.06.2016
	Red Jungle Fowl	U	2	Predation	26.06.2016
	Pheasant Grey Peacock	F	1	Predation	05.07.2016
	Pheasant Grey Peacock	M	1	Predation	05.07.2016
	Pheasant Golden	M	1	Injury	07.07.2016
	Pheasant Golden	M	1	Predation	09.07.2016
	Pheasant Golden	M	1	Predation	11.07.2016
	Pheasant	F	1	Predation	11.07.2016

	Golden				
	Pheasant Lady Amherst	F	1	Old age	09.08.2016
	Pheasant Reeves	F	1	Abnormal lungs and liver condition.	18.08.2016
	Pheasant Monal/Impeyan	M	1	Old age	05.09.2016
	Temminck's Tragopan	M	1	Dashing	12.01.2017
	Pheasant Reeve's	M	1	Dashing	11.02.2017
			21		
REPTILES					
	Sand Boa Red	M	1	Death may be due to Multi organ failure	14.05.2016
	Sand Boa Red	F	1	Death may be due to Multi organ failure	12.06.2016
	Viper Russell's	F	1	Death may be due to multi organ failure	21.10.2016
			3		
			Total= 16+21+3= 40		

VETERINARY SECTION

The veterinary hospital is housed in the ground floor of the hospital building. The hospital is equipped with almost all the equipments required for the up keeping of the health and maintenance of the animals in the zoo. The section is headed by Veterinary Officer who is assisted by a Compounder and a laboratory technician. . The treatment cards, outpatient register, In patient register, Post mortem register and report, Laboratory analysis register, Stock register of medicines/instrument etc. are maintained and updated.

Animal health care receives utmost attention in the zoo. The Veterinary Doctor assisted by one Compounder and Laboratory technician carries out day to day checkups and treatments of the animals. The section

Daily diet of meat like beef, mutton, chicken along with dry ration etc. is inspected by the Veterinary Officer for their quality and quantity on daily basis.

All the enclosures, cages are thoroughly washed with disinfectants early in the morning before the zoo is opened for the day to the visitors. Filtered water and blowers are provided to every animal. As part of the animal health care, deworming, testing of stool, urine and blood samples of all the animals are done on regular basis

No major illness or outbreaks witnessed by the park during this annual. Regular deworming and vaccination was done. The section also assisted the Forest Department in conducting post moterm of Common Leopard and Barking Deer.

During these annual following treatments were successfully done.

SI No.	Species	Sex	Ailments	Remark
1	Snow leopard (<i>Uncia uncia</i>)	F	Uterine bleeding	Animal treated for ten days Animal recovered.
2	Snow leopard (<i>Uncia uncia</i>)	F	Wound and bleeding from the paw and nail region	Animal treated for seven days. Animal recovered.
3	Himalayan Wolf (<i>Canis lupus himalayensis</i>)	F	Injury at the paw region with severe limping	Animal treated. Recovered.
4	Barking deer (<i>Muntiacus muntjak</i>)	M	Infighting injury, several lacerated wounds	After treatment animal recovered.
5	Red Panda (<i>Ailurus fulgens fulgens</i>)	M	Showed symptoms of debility, cataract due to old age.	Animal under treatment and kept away from the display area.
6	Royal Bengal Tiger (<i>Panthera tigris tigris</i>)	F	Showed symptoms of debility, severity of uterine bleeding occasionally.	Animal under treatment nearing almost two years now.
7	Snow leopard (<i>Uncia uncia</i>)	F	Diarrhoea as well as respiratory infection seen.	Animal treated for ten days after which the animal recovered.
8	Snow leopard (<i>Uncia uncia</i>)	F	Diarrhoea as well as respiratory infection seen.	Animal treated for seven days. Animal recovered.
9	Common leopard (<i>Panthera pardus</i>)	M	Showed signs of convulsion.	Animal treated for seven days. Animal recovered and shifted away from the display facility.
10	Common leopard (<i>Panthera pardus</i>)	F	Showed signs of chronic fungal infection	Animal treated, partially recovered and shifted away from the display facility.
11	Common leopard (<i>Panthera pardus</i>)	M	Wound in the forepaw region with infection.	Treated intermittently for four to five months. Animal recovered and fine.
12	Snow leopard (<i>Uncia uncia</i>)	M	Bleeding from the injury wound in the forehead	Successfully treated.
13	Snow leopard (<i>Uncia uncia</i>)	F	Respiratory infection seen with whitish diarrhoea	Animal treated for seven days. Animal recovered.
14	Snow leopard (<i>Uncia uncia</i>)	M	Whitish loose stool, blood seen in the stool in the later stage.	Animal treated for about fifteen days. Animal recovered.
15	Barking deer (<i>Muntiacus muntjak</i>)	M	Broken right fore-limb, multiple major fractures seen with multiple bone fragments seen.	Limb amputated.

16	Common leopard (<i>Panthera pardus</i>)	M	Limping due to wound in the fore paw region.	Animal tranquilised the wound was cleaned and treated. Animal recovered.
17	Snow leopard (<i>Uncia uncia</i>)	M	Eye infection with cataract seen.	Animal treated and recovered.
18	Royal Bengal Tiger (<i>Panthera tigris tigris</i>)	F	Limping, debility, anorexia seen.	Animal treated for seven days. Animal recovered.
19	Asiatic Black bear (<i>Ursus thibetanus</i>)	M	Relapse of skin disease.	Animal kept under treatment for about a month. Animal recovered.

Animals Rescued

Sl. No.	Species	Sex	Date of Rescue	Rescue Area
1	Flying Squirrel	U	22.08.2016	Senchal beat
2	Leopard Cat	F	05.07.2016	Zoo forest
3	Leopard cat	M	10.02.2017	3 rd Mile

Equipments purchased.

Skin stapler-1

Manual drill Machine- 1 pc

2.6.1. Dis-infection programme

- 1) As a part of daily programme, the concrete and the wooden floor are cleaned with Savlon. Feeding and watering trough are cleaned with KmnO₄ @ 2gm/ltr. Water. The drains are cleaned thoroughly by the Zoo Keepers. The daily Dis-infection works are completed before the Zoo opens for the public in the morning.
- 2) As annual programme the floors, rods and wires were sterilized with blow torch, once during rainy season. The walls of the cages were white washed and the rods, wires were painted.

Due attention is also given for ensuring a good health care to the Zoo staffs. All the Zoo keepers and other field staffs who are in direct and indirect contact with the zoo animals are vaccinated against Rabies and Tetanus to control communicable diseases.

2.7. OTHER IMPORTANT SECTIONS

2.7.1. COMMISSARY SECTION

The Zoological Park has a well established Commissary section with dry ration store, meat house, modern Kitchen using LPG. The Commissary Section weighs all diet materials they receive in the weighing machine. Meat and fruits if required early the next day are kept in deep freezer. All dry rations are stored in polydrums. All the animal diets are acquired by annual tenders. All the diet items are checked for quality and quantity by the Veterinary Officer before issuing the same to the animal section on proper challan. One full time storekeeper and one trained cook constitute the establishment of the Commissary section.

2.7.2 Education

The Education Section is headed by the Education Assistant. The section is in-charge of regular school visits, visit by the college and university students including forest officials. The section is in-charge of publication of pamphlets and books concerning zoo issues and also updating the signages of different kinds.

As a part of the education, Padmaja Naidu Himalayan Zoological Park, Darjeeling organised International Biodiversity Day on 22nd of May 2016. The Chief guest of the event was Mr. Pradip Vyaas, IFS, PCCF/CWLW, Govt. of West Bengal. An extempore competition involving the students of different Madhyamik Schools of Darjeeling was organised at the zoo auditorium. Twelve students from six different schools participated in the event. The extempore competition was judged by Mr. Deepen Sunar, Project Head, WWF, Darjeeling and Mr. Sapan Pradhan, Asst. Professor, St. Joshep's College, Darjeeling. ***Ram Krishna Siksha Parishad Higher Secondary School was declared as the best team while Miss Nikita Rai of Bloomfield High School and Miss Chandani Limbu of Sardeshwari Government High School were declared as 1st and 2nd best speaker respectively.*** Mr. Palden Tamang a student of St. Joshep's College, Darjeeling and Mr. Kapil Chettri from Asutosh College, Kolkata also participated and presented their views on biodiversity issues.

Based on the theme "**Zero Tolerance to Wildlife Trade**" the Park celebrated World Environment Day on 5th June 2016. 71 students and 13 teachers of Lower Aloobari Primary School, Darjeeling participated in the programme. The students were taken for a zoo visit that focussed on issues leading to how zoos are working towards animals whose population is dwindling rapidly due to various factors (deforestation, habitat degradation and shrinkage, wildlife trade etc).

During April- June 2016 a Cleanliness drive "**Mission Swachh Bharat Abhiyan**" was organised by the Park authorities along with the shop owners of the shops within the vicinity of the Park. The days programme involved cleaning the areas of the zoo and the surrounding compound.

The Indian Board of Wildlife (IBWL) celebrates the wildlife week in India between October 2nd -8th as an initiative towards creating awareness on wildlife. The Park celebrates Wildlife week every year in association with the Forest Department inviting local schools and people to commemorate the week through various activities and campaigns focused on promoting wildlife conservation.

In this annual, the **Wildlife Week was celebrated on 4th October 2016**, at Padmaja Naidu Himalayan Zoological Park in association with ATREE. The programme aimed at increasing awareness and disseminating information on the importance of wildlife conservation. The celebration included a day long programme for school students at the Park. A total of nine schools with a total of 47 students and thirteen faculty members participated in the event. The one day programme included activities such as short presentation on wildlife of India and the Darjeeling region, an educational tour for students of the park, screening of the movie “Cherub of the Mist” and poster presentation by the students. Educational materials – pamphlets, animal information booklets etc were distributed followed by refreshments.

This annual’s educational programme included **fifty eight** institutions that provided a platform towards imparting knowledge about conservation education. The programme included a tour of the park’s exhibit area followed by an interactive session where issues such as role and function of the modern zoo, conservation breeding programmes, environmental issues etc are discussed. Below provided list are the details of the visits-

Date	Name of School/Training Institutes/Colleges/Universities	Number of Students	Number of Teachers	Educational Incentives
06.04.2016	Municipal Boys High School, Darjeeling	42	03	Educational materials, visit to Zoo and interaction.
08.04.2016	Netaji Higher Secondary School, Ghayabari	25	12	Educational materials, visit to Zoo, interaction and refreshments provided.
08.04.2016	Mountain Heritage School, Ghoom, Darjeeling	70	05	Educational materials, visit to Zoo and interaction.
09.04.2016	Sholom English School, Rimbik	16	08	Educational materials, visit to Zoo, interaction and refreshments provided.
20.04.2016	Assembly of God Church, Darjeeling	100	03	Educational materials, visit to Zoo and interaction.
22.04.2016	Relling English School, Darjeeling	20	06	Educational materials, visit to Zoo and interaction.
23.04.2016	Risheehat Higher Secondary School, Darjeeling	45	06	Educational materials, visit to Zoo and

				interaction.
30.04.2016	Dr. Grahaum Homes, Kalimpong	27	03	Educational materials, visit to Zoo and interaction.
06.05.2016	Chongtong Higher Secondary School, Darjeeling	46	05	Educational materials, visit to Zoo, interaction and refreshments provided.
08.05.2016	Xavier's International College, Nepal	14	02	Educational materials, visit to Zoo and interaction.
11.05.2016	Goke High school, Darjeeling	22	02	Educational materials, visit to Zoo and interaction.
27.05.2016	St. Xavier's School, Alipurduar	25	04	Educational materials, visit to Zoo and interaction.
31.05.2016	Mount Hermon School, Darjeeling	35	04	Educational materials, visit to Zoo and interaction.
31.05.2016	Eastern Command Army Adventure cantt. Lebong	69	04	Educational materials, visit to Zoo and interaction.
05.06.2016	Lower Aloorbari School, Darjeeling	60	15	Educational materials, visit to Zoo, interaction and refreshments provided.
27.08.2016	West Bengal Forest School, Dow hill 106 th Batch DR/FR Trainees	26	3	Educational materials, visit to Zoo and interaction.
30.08.2016	Simkuna Sai High School	45	2	Educational materials, visit to Zoo and interaction.
10.09.2016	St. Edmins English Institute	25	8	Educational materials, visit to Zoo, interaction and refreshments provided.
18.09.2016	Forestry Training centre, Rajabhat Khawa	50	3	Educational materials, visit to Zoo and interaction.
24.09.2016	Greenhill English School, Sonada	100	8	Educational materials, visit to Zoo and interaction.
30.09.2016	State Forest Training, Hijili	34	2	Educational materials, visit to Zoo and interaction.
07.10.2016	NERIST, Itanagar	20	02	Educational materials, visit to Zoo and interaction.
19.10.2016	Gyanoday Niketan, Darjeeling	75	06	Educational materials, visit to Zoo and

				interaction.
21.10.2016	Army Public School, Darjeeling	72	06	Educational materials, visit to Zoo, interaction and refreshments provided.
22.10.2016	Notre Dame School, Kainjalia	40	06	Educational materials, visit to Zoo and interaction.
23.10.2016	Himalayan Run and Trek	27	01	Educational materials, visit to Zoo and interaction.
31.10.2016	Anju SUMI Nimbong	17	02	Educational materials, visit to Zoo and interaction.
04.11.2016	Missionaries of Charity, Darjeeling	43	12	Educational materials, visit to Zoo and interaction.
05.11.2016	North Point Academy	20	02	Educational materials, visit to Zoo and interaction.
06.11.2016	Snowdrops School, Mirik	37	05	Educational materials, visit to Zoo and interaction.
12.11.2016	Bal Narayan Memorial School, Kaijalia	40	05	Educational materials, visit to Zoo and interaction.
14.11.2016	Ferrando Preparatory School, Darjeeling, Dhajea Busty	20	05	Educational materials, visit to Zoo and interaction.
14.11.2016	Mangalpuri Primary School, Darjeeling	20	08	Educational materials, visit to Zoo and interaction.
14.11.2016	Sardeswari Girls High School, Darjeeling	142	10	Educational materials, visit to Zoo and interaction.
14.11.2016	Holy Angels School, Darjeeling	70	05	Educational materials, visit to Zoo and interaction.
16.11.2016	Crayons Preparatory School, Darjeeling	47	08	Educational materials, visit to Zoo and interaction.
22.11.2016	Divya Jyoti School, Piabong Tea Estate	14	07	Educational materials, visit to Zoo and interaction.
25.11.2016	Shahid Krishna Primary School, Soom Tea Estate	18	07	Educational materials, visit to Zoo and interaction.
26.11.2016	Rabridranath Higher Secondary School, Mirik	26	07	Educational materials, visit to Zoo and interaction.
29.11.2016	Nawayug primary School, Lepcha Busty	21	08	Educational materials, visit to Zoo and interaction.

02.12.2016	Mount kanchan Valley Secondary English School, Mechi, Nepal	24	03	Educational materials, visit to Zoo and interaction.
03.12.2016	Dr/Fr Training , West Bengal Forest School, Dow Hill	19	05	Educational materials, visit to Zoo and interaction.
05.12.2016	Future Star Academy, Singtom Tea Estate	10	05	Educational materials, visit to Zoo and interaction.
07.12.2016	58 th Batch Forest Guard Training , State Forest Training Institute, Hiji	43	01	Educational materials, visit to Zoo and interaction.
08.12.2016	Sittong Tribal M.S.K. Sittong	33	06	Educational materials, visit to Zoo and interaction.
11.12.2016	Tashiding Junior Basic School, kalimpong	22	07	Educational materials, visit to Zoo and interaction.
12.12.2016	Siksha Sang Primary School, Ging	28	08	Educational materials, visit to Zoo and interaction.
12.12.2016	Madhymik Siksha Kendra, Ringtong	20	02	Educational materials, visit to Zoo and interaction.
18.01.2017	St. Joshep's Winter School for Under privileged children	160	13	Educational materials, visit to Zoo and interaction.
18.01.2017	Jubliant Elite Academy, Ilam, Nepal	30	6	Educational materials, visit to Zoo, interaction and refreshments provided.
20.01.2017	St. Joshep's Winter School for Under privileged children	160	13	Educational materials, visit to Zoo and interaction.
20.01.2017	Wildlife Management Tour of Officer's Trainees of XXXII certificate Course. Wildlife Institute of India, Dehradun	15	02	Educational materials, visit to Zoo, interaction
08.02.2017	EWSCT, Darjeeling	50	06	Educational materials, visit to Zoo, interaction and refreshments provided.
13.02.2017	Central Academy for State Forest Service (CASFOS), Dehradun	34	01	Educational materials, visit to Zoo, interaction
13.03.2017	Central Academy for State Forest Service (CASFOS), Coimbatore	38	01	Educational materials, visit to Zoo, interaction
21.03.2017	St. Thomas High School, Odisha	72	07	Educational materials, visit to Zoo, interaction and refreshments

				provided.
28.03.2017	Dr. Grahams Homes, Kalimpong	23	03	Educational materials, visit to Zoo, interaction and refreshments provided.
31.03.2017	St. Mary's Girls High School, Odisha	70	07	Educational materials, visit to Zoo, interaction
		2507	316	

2.7.4 **Research**

(A) Trainings & Workshop

i) Zoological Information Management Training (ZIMS) 2016 16th September 2016-20th September 2017.

The ZIMS training workshop, an interactive session organized by the Central Zoo Authority was held at Padmaja Naidu Himalayan Zoological Park, Darjeeling from 16th September 2016 to 20th September 2016. The training workshop was inaugurated by Dr. D.N. Singh, IFS, (Member Secretary, Central Zoo Authority, MoEF & CC, Govt. of India) and Shri. V.K. Yadav, IFS (Member Secretary, West Bengal Zoo Authority, Govt. of West Bengal). Shri. Piar Chand IFS (Director, PNHZ Park) welcomed the dignitaries and the participants at the training programme and expressed gratitude to both the member Secretaries for gracing the occasion and organising the training that shall give in greater inputs about the information system generating relevant records of the animals for zoo management. The training was conducted by Shri. Moin Ahmed, Regional Coordinator, ZIMS (Species 360). All the nominated zoos except Sepahijala Zoological Park, Tripura participated in the training. Dr. Joy Krishna Dey, Scientific Officer, WBZA and Mrs. Bithi, including Shri..Arun Mukhopadhyay IFS, Director, and Mr. Aditya Mitra, Zoo Biologist, North Bengal Wildlife Animal Park, Salugara also participated in the training programme. Mr. Moin Ahmed guided the participants with their ***data entry and updates including introduction to medical ZIMS.***

Padmaja Naidu Himalayan Zoological Park worked on animal transaction and event details. Assam State Zoo cum Botanical Garden, Himalayan Zoological park, Gangtok and Biological park, Itanagar worked opening individual history sheets into ZIMS. All the four zoos updated the animal inventory of different species. Individual ids were created for local and medical administrators. An overview of the medical ZIMS was presented by Mr. Ahmed and access was given to zoos for initiating medical ZIMS. The entries of medical records of animals were also initiated. Presentations regarding using various aspects of ZIMS and user manual of PM 2000 including software for update and maintenance of Stud book for endangered animals for conservation breeding were provided.

ii) **Zoo Keepers Training Programme 2017 15th February to 19th February 2017.**

The Zoo Keepers Training Workshop was held from 15th to 19th February 2017 at Padmaja Naidu Himalayan Zoological Park, Darjeeling. The said Training Workshop was approved in the 14th Technical Committee Meeting of West Bengal Zoo Authority held on 11th May 2016 as Agenda No. 11.

The training workshop was attended by twenty six Zoo Keepers from various zoos, rescue centres and parks under West Bengal Zoo Authority, Govt. of West Bengal.

No.	Name of the Zoo/Parks/Rescue Centres	No. Of Candidates
1	Zoological Garden Alipore, Kolkata	3
2	Sundarban Wild Animal Park	3
3	Bardhaman Zoological Garden, Burdwan	3
4	Padmaja Naidu Himalayan Zoological Park, Darjeeling	3
5	South Khairbari Rescue Center, Alipurduar	2
6	Adina Deer Park	3
7	Garchmuk Deer Park	2
8	Junglemahal Zoological Park, Jhargram	2
9	North Bengal Wild Animal Park	2
10	Rasikbeel Mini Zoo	1
11	Surulia Mini Zoo	2
	TOTAL	26

The Training programme was initiated at 9:00 a.m. for the participants to get themselves registered for the workshop. After an hour at 10:00 a.m. the inaugural session conducted by Ms. Upashna Rai, Zoo Biologist of the Park began by welcoming all the participants of various zoos, deer parks and rescue centers by offering khadas. The Director in his welcome address once again warmly welcomed everyone and highlighted the importance and the need of such a training programme. The director's address was followed by a word or two from the senior officers of the Park regarding the training programme. The participants were then asked to introduce themselves. After the inaugural function everyone gathered for a photo session followed by tea.

The plenary session began at 12:00 noon where Ms Upashana Rai, Zoo Biologist of the Park in her presentation "*Introduction to Zoo's in India; History of Zoo's, Zoo's in India, Categories of Zoo's, Role in Conservation*" gave an overview of Number of Zoos in India, how zoos are categorized, how Central Zoo Authority and the state zoos authorities are guiding different zoos in ex-situ management of captive animals and how zoos have become important ex-situ centres for Conservation Breeding Programme. The participants were then taken for a visit to the display area of the Park and the Conservation Breeding centre. The participants during the visit were shown various species of high altitude animals and were made aware as to how a collection plan of a zoo should be planned. The other important facilities like signage's (animal and directional) drinking water, resting areas, toilets, guides etc. were also made aware to the participants. In the breeding centre the participants were given information about the oldest Conservation Breeding Centre of Snow leopard. The participants were taken around the Centre and all the existing facilities were shown to them including the housed individuals of snow leopard and red panda. The participants were given a brief lecture as to how the breeding programme of snow leopard was initiated and how this

park has been successful in breeding snow leopards since 1986. The two adjacent open enclosures of the Red Panda were also shown to the participants. . The day ended with a discussion with the participants regarding the day's event and also allowing the participants to have their say on the day's event.

The second day started at 9: 30 a.m. with the presentation by the Director on ***“Padmaja Naidu Himalayan Zoological Park and its Conservation Breeding Programme”***. The Director in his lecture highlighted about the details of the Park – establishment, infrastructures its objectives and vision, animal collection plan, facilities in the Park and the two important Conservation breeding programmes. The director's lecture was followed up by a presentation from Dr. Joy Krishna Dey, Scientific Officer, West Bengal Zoo Authority. Dr. Dey highlighted the basic of Zoo keeping, their basic daily duties and more importantly about how zoo keepers should maintain records of the animals that they are working for in his presentation ***“Role of Zoo Keeper in Record Keeping”***. After the two morning lectures a tea break was taken after which everyone was taken to the field once again by Mr. Purna Ghishing, Animal Supervisor for a ***“Talk on the duties of the Keeper, seasonal responsibilities, how things are managed and coordinated whom does the keeper approach etc or report”***. The keepers were also shown different types of animal feed in the store provided to the animals at the Park, how the animals are fed, feed quantity, hygiene etc. The participants were also exposed to the different aviaries and were shown how they have been made predator proof, the chick rearing house, the different substrate materials that is required, their feeding, various enrichments etc. Mr. Ghishing in his lecture also made the participants aware about their day to day duties in the Park- what they should do once they are in their duties in the morning, the entire day and before they leave their duty in the afternoon. At 12:00 noon the participants were back in the lecture room where a presentation on ***“Environmental Enrichment and Enrichment technique for Captive Breeding”***. The lecture mainly focused on what is enrichment, why is it necessary for captive animals, types of enrichments, different types of enrichment for various animal species, its pitfalls etc. During the lecture Ms. Rai also mentioned that enrichments are cost effective and can be done in any ex-situ facilities. She further mentioned that the Zoo keepers can design enrichments on their own but they have to keep in account that it needs to be species specific. Dr. Dey after the presentation further added about enrichment and its significance. The lecture was followed by a lunch break till 2:00 p.m. After lunch everyone gathered once again and the day ended with yet again another presentation on “Disaster Management in Zoos” by Ms Rai. The deliberation highlighted various kinds of Disasters that can occur in zoos like – fire outbreaks, civil disturbance, escape of animals, erratic visitor's behaviour etc and how as a zoo keeper they should be prepared to avoid and control the situations if it ever occurs. The lecture session was followed up by a practical demonstration by Mr. Vikash Chettri, laboratory technician on artificial incubation. The Participants were shown various incubator models in the veterinary hospital, incubation methods were demonstrated and were made to record including how chicks hatched through artificial incubation should be reared.

On the third day of training the trainees were taken for a visit to the two Conservation Breeding Centers at Topkedara, 3rd mile and Dow Hill Kurseong. At the facilities the trainees were given a lecture on why a conservation breeding center is required, what are the aspects that needs to be considered while developing a breeding center and the modern facilities to be made available for better captive management of the species concerned. In

the pheasant and herbivore breeding center a practical demonstration was given on herbivore and pheasant capture, proper handling of pheasant, ringing and ways to assess the status of pheasant. The seven and the two unit aviaries, egg incubation, chick rearing and medical treatment attached to these aviaries were shown to the trainees and the significance of having such compact facilities was also explained.

The fourth day began with the participants going out for a local tour to Tiger Hill and Batasia loop. Lecture. The session began from 11:45 a.m. onward where Mr Sujoy Kumar Dutta, Assistant Veterinary officer, North Bengal Wild Life Animal Park, Siliguri delivered a lecture on *“Handling of Diseased Animals and Responsibility of Zoo Keepers”*. Mr. Sujoy gave an overview on the different kinds of diseases that commonly occur in different wild animals. In this context he said that the zookeepers should maintain personal hygiene while interacting with animals directly or indirectly as diseases can be transmitted from animals to humans and humans to animals. He further elaborated that annual health camps should be held in every ex-situ facilities. He further emphasized that while handling animals they should always take basic precautionary measures like- wearing gloves and mask while removing faeces from the enclosures, have a separate uniform and boots while working inside any animal enclosures and aviaries and report any kind of changes seen in case of animals. After lunch Mr. Pradeep Singh, Veterinary Compounder of the Park in his deliberation on *“Practical observation of restraint of any one animals species, care and precaution”* exhibited various equipments required for the chemical restraint of the animal. The chemical restraint as shown to the participants required CO2 gun, blow pipe, darts, drugs etc. He taught the participants how the doses are prepared depending on the body weight of the animals and how to have accuracy while darting animals. After the demonstration Mr. Aditya Mitra, **Zoo Biologist of North Bengal Wild Life Animal Park, Siliguri** in his presentation gave a lecture on ***“General Biology care and Management for Pheasants and Carnivores in Captivity”***. The lecture highlighted all the ex-situ husbandry practices that should be adopted for the pheasants and carnivores in captivity for their well-being.

On the final day Ms. Pranita Gupta, Education Assistant, PNHZ Park delivered a lecture on ***“Feeding of Animals in Captivity”*** which highlighted about the importance of food and water and zoo nutrition for captive animals, guidelines for feeding captive animals, feeding chart, food preparation and handling including maintenance of hygiene. The final lecture of the training session was delivered by Ms Upashna Rai Zoo Biologist on ***“Record Keeping of animals in Captivity”***. The lecture deliberated on the importance of record keeping by zoo keepers, what data to be record, software used for record keeping, and format for maintaining individual records. After that there was a interaction session where the Zoo Director participated. During the interaction the participants opined that the training has been of immense help and that they shall practice what they had learned during the training. The interaction session was followed up by a valedictory session. Certificates and mementos were distributed to the participants. The feedback forms received from the participants were analyzed. Maximum of the participants were of the opinion that the training programme have been very useful for them.

(iii) **In-house Training on Reptiles -09.09.2016**

Mr. Arub Ghosh from North Bengal Wildlife Animal Park, Salugara, Siliguri conducted an in-house training for the zoo keepers of the Park on 09.09.2016. Mr. Ghosh during his deliberation explained and the basic techniques for snake identification, snake behaviour, how to safely work with a snake, how to safely approach, capture and relocate venomous and non venomous snakes and proper first aid for snake bite. Mr. Ghosh in his demonstration showed how to capture a snake using proper equipments and handling them properly for manage- mental issues or relocation.

(B) Publications:-

- i) Arum Kumar¹, Upashna Rai², Bhupen Roka², Alankar K. Jha², Anuradha Reddy^{1*}. **Genetic Assessment of captive Red Pandas (*Ailurus fulgens*) population.** Springer Plus (2016) 5:1750.
- ii) Arum Kumar¹, Upashna Rai², Bhupen Roka², Alankar K. Jha², Anuradha Reddy^{1*}. **Molecular sex identification of Red Pandas (*Ailurus fulgens*) suitable for non invasive genetic studies.** European Journal of Wildlife Research. ISSN 1612-4642.
- iii) Neema Raja Beaulah Budithi^a, Vinod Kumar^b, Suneel Kumar Yalla^a, Upashna Rai^b, Govindswamy Umapathy^{a*}. **Non invasive monitoring of reproductive and stress hormones in the endangered Red Panda (*Ailurus fulgens*).** Animal Reproduction Science (2016) pp 173-181.

(C) Zoo Volunteers

Sl. No.	Name	Institute	Tenure	Area of Work
1	Nisam Mang Luxom	3 rd Year Zoology (Hons). Hans Raj College, New Delhi	13/06/2016-18.06.2016	Status Survey of Himalayan Goral (<i>Nemorhaedus goral</i>) and its Breeding Programme at Padmaja Naidu Himalayan Zoological Park.
2	Sangay Wangdi Bhutia	Doon (P.G.) College of Agriculture Science and Technology, Uttarakhand	21/07/2016-05/09/2016	General Survey on Tigers.
3	Mr. Norbu Sherpa	1 st year M.Sc. (Botany), Darjeeling Government College.	July 2016-December 2016	A case study of Pteridophytes in Padmaja Naidu Himalayan Zoological Park.
4	Chetna Rai	1 st year M.Sc. Zoology, Darjeeling Government College.	24/11/2016	Behavioral observation of Red Panda at Padmaja Naidu Himalayan

				Zoological Park.
5	Mr. Rounak Lama	1 st year B.Sc. (Microbiology), Joshep's College, Darjeeling	01/12/2016	Study of soil micro flora at Padmaja Naidu Himalayan Zoological Park.
6	Mr. Imran Samad	Final Year, (Applied Electronics), Netaji Subash Engineering College, Kolkata.	06/02/2017-22/02/2017	The free ranging avifauna of Darjeeling Zoo

(D) Approval of two New Research projects

In Reference to Memo Number 558/WBZA/T-3/16-17 dated 21.11.2016, a research project titled “**Status Survey of Himalayan Goral (*Nemorhaedus goral*) at Singalila National Park, Neora Valley National Park, Mahananda Wildlife Sanctuary, Senchal wildlife Sanctuary and Kurseong Division**” has been approved by the West Bengal Zoo Authority (WBZA). The project aims towards studying the population and ecology of the species in the concerned protected areas of North Bengal.

In Reference to Memo Number 362/WBZA/T-3/16-17 dated 31.08.2016, another research project titled “**Developing Ex-situ husbandry practices for Himalayan Newt**”, has been approved by the West Bengal Zoo Authority (WBZA). The project aims towards studying the status and distribution of the Himalayan Newt in West Bengal and to determine the cause for the decline in population.

(D) Training Programmes attended by Staffs of PNHZ Park

Name of the Workshop/Training Programme	Name of the Person who attended	Venue	Duration
Forest Biodiversity and Plant Science	Mr. Bhupen Roka, Education Asstiant.	Sikkim Central University, Gangtok	05.05.2016

2.7.5. GARDEN SECTION

The Garden Section under the supervision of the Estate Officer was given proper attention. For proper care of the orchids, succulent and ornamental plants, glass house was constructed which housed a store room at the ground floor. Proper storage room has also been created for storing of manure throughout the year in the Zoological Park. Nursery has been made for seasonal flowering plants. All the peasantries, lesser cats enclosures and Red Panda enclosures have been carpeted with grass to give a natural look. Regular infilling and new plantation is done to provide suitable habitat for the zoo animals. The work has been outsourced by way of tender, to technical persons. This was warranted by old age and death of Malis.

The trees at the peripheral areas/display areas of the park were labelled for the convenience of the visitors, students, researcher's etc with name plates which includes scientific name, local name and family.

2.7.6.SANITATION SECTION

Sanitation in the Zoological Park has been given due importance. On one hand enclosures are being cleaned with disinfectants every morning and on the other hand cleaning of the debris as well as remains of the animal waste and left over of animal feeds are done every day. In the mean time, all the left out bones of the animal's feeds, excreta, of the animals is being burnt regularly in the burning shades using diesel and fire wood. A new electric incinerator has been installed at this park with the Central Zoo Authority funding in the last year for safe disposal of carcass and other waste.

2.7.7. SECURITY SECTION

The section under the supervision of the Estate Officer looks after the security of the Zoological Park both day & night. The main area of the Zoological Park has been encircled by 7 feet high concrete boundary wall with coiled concertina wire on top. This has stopped the fear of encroachment. Private security personnel have been engaged in addition to the regular forest guards and they have also been provided with Khukuri/lathis and torches.

During the annual following works were done

SI No.	Quarter	Work done
1	April- June 2016	i) Protection wall near the HMI entrance and behind the Yak enclosure. ii) Modification of animal carcass and waste burning sheds. iii) Broad and permanent stairways leading to the newt enclosure.
2	July- September 2016	i) Modification of the Pheasantry in the display area- predator proof substrate, slant roofing, keeper's pathway, breeding and rearing houses. ii) Electric fencing in the two new open topped enclosures of the snow leopard at CBC, Topkedara, 3 rd Mile.
3	October- December 2016	i) Construction of new hospital building initiated.
4	January- March 2017	i) Painting of Bengal natural History Museum ii) Barriers in front of the dioramas iii) Construction of truss at BNHM. iv) Carpeting the zoo compound road. v) Construction of new hospital building in progress.

Staff strength: permanent: 11/ Outsourcing: 47

CHAPTER – 3

3.1. PROJECT SNOW LEOPARD

- Extremely threatened due to hunting, killing, IUCN (2006) lists as endangered (EN-C2a (i)) on the IUCN Red List and IWPA lists it as a Schedule I species. CITES includes it as an Appendix I species. Population estimated below 2500.
- Snow leopard is an extremely beautiful animal distributed along the habitat scattered throughout a vast region surrounding the Central Asian deserts and plateaus ranging from Afghanistan to Uzbekistan. Throughout most of its range, snow leopards are associated with arid and semi arid shrub-land, grassland or steppe. The species is generally found at elevation between 3000m -4600m, although they are known to go above 5500 m in the Himalayas. Steep terrain broken by cliffs, ridges, gullies and rocky outcrops is preferred, although in certain parts like Mongolia and Tibet plateau they can be found in relatively flat country. In India, snow leopard is distributed in the Himalayan chain from Kashmir to Sikkim, northwards their territory extends into Tibet, Central Asia and the Altias in the region of stupendous rock and cliff above the tree- line some 12,000 -13,000ft (3660-3965m) above sea level.
- Hunting of the Snow leopard is one of the major threats to the species. Snow leopards have been hunted out of many of the areas of the high Central Asian Mountain. There is a demand for snow leopard bone from the Chinese medicine trade. Garments of Snow leopard fur were once highly priced in fashion world and although no longer in International trade, fur coats and novelty furs have seen for sale in shops throughout China, Taiwan and Mongolia.
- The species have become extremely rare in many parts of its native habitat. In India, where snow leopards occur on the southern slopes of the Himalayas. The species is listed as endangered under the Wildlife Protection Act (1972). In this respect PROJECT SNOW LEOPARD (PSL), a flagship species programme to strengthen wildlife conservation in the Himalayan high altitude was launched.
- PNHZ Park started work on captive breeding project of this rare species in the year 1983. Apart from a number of *insitu conservation efforts*, a **global captive breeding programme** is in place. Darjeeling zoo has been a part of this initiative since 1986.
- Experts Dr. Ingo Rieger and D. Walzthoeny from USA inspected the site in July 1983 and gave their approval.
- Site selection for off- display conservation breeding centre for snow leopard is the North- Western corner of Jawahar Parbat (Birch Hill) at an altitude of 27 degree and longitude 88 degree East. Altitude is 6900ft.
- Founder stock of snow leopard at PNHZ Park (1986- 2015)

SI No.	Name of the animal	Sex	International Stud book Number	Acquired from
1	Kashi	F	1005	Zurich
2	Vishna	M	620	Helsinki
3	Persia	F	697	Toledo Zoo
4	Hank	M	1059	Litterock
5	Quizil	M	1472	Zurich
6	Quilla	F	1473	Zurich
7	Quetta	F	1474	Zurich
8	Tyson	M	1850	Hubstrand . Sweden
9	Neeta	F	2228	Leh
10	Meeta	F	-	Srinagar

- A total of fifty six snow leopard births have been recorded in the park. The table below depicts the birth at an interval of every five years and their survivality.

YEAR	SEX RATIO/TOTAL BIRTH						
	M	F	U	Total birth	M	F	Total survivality
1986-1991	0	2	2	4	0	0	0
1992-1996	6	3	1	10	1	2	3
1997-2001	8	5	0	13	1	2	3
2002-2006	11	7	1	19	5	4	9
2007-2013	6	4	0	10	0	1	1
	31	21	4	56	7	9	16

* Wild caught founder ("Meeta" 227) did not make any contribution to the breeding programme.

- Padmaja Naidu Himalayan Zoological Park in 2003 had 18 Snow leopards (9:9), one of the largest captive population, in a single zoo, in the world.
- Next step was to have at least 4-5 stable captive population of snow leopards at different high altitude zoos in the country, before any release/restocking in the wild can be contemplated. In 2004, a pair each of snow leopard was sent from Darjeeling zoo to Himalayan Zoological Park, Gangtok, Pandit Govind Ballabh Pant High Altitude Zoo, Nainital and Himalayan Nature Park, Kufri, Shimla to start subsidiary snow leopard breeding centers in these Himalayan zoos.
- In between 2004-2013 three individuals died with one cub survival that skewed the option for breeding leaving the captive stock with ten individuals and with limited breeding pairs. The analysis done so far regarding the population management of snow leopard in the facility came up with the following recommendations:
 - Scientific management of the Breeding programme including development of husbandry protocols.
 - In order to maintain the genetic variability and to provide with larger breeding options animal exchange should be made regularly in consultation

with the International Stud book keeper. Individuals > 16 years should not be considered for breeding.

- Demographic and genetic analysis mandatory of captive stock.
- Newer breeding facilities to be established.
- Based on the recommendations

A short term research on the “**Study of Snow leopards**” funded by Central Zoo Authority looked into developing ex-situ husbandry aspects particularly to look into persistent problems that existed in the breeding programme majorly **cub mortality** and **brittle bone diseases**. The research work proved to be beneficial and provided recommendations for creating appropriate facilities for breeding, cub care and their survivality. Adopting these methods the 3 cubs born in 2012 and 2014 survived. Besides this the research work helped in giving inputs during the establishment of the new breeding centre for the snow leopards where the night shelters, breeding dens, enclosures, veterinary facilities have been developed based on the recommendations of the findings.

Genetic study of the captive stock was done by LaCONES, CCMB. Reports concluded that 1:1 out of the total captive stock are genetically more vibrant when compared with other samples and the two individuals can be used for conservation breeding.

Studbook analysis: **inbreeding- not advisable Low coefficient- advisable**. Demographic analysis suggested that new founders be added to the captive population and the population size be increased to at least 100 individuals with equal sex ratio in the period of next ten years. The population projection for both actual and modeled population suggest that the goal of maintaining at least 100 genetically viable and demographically stable individuals in captivity in India cannot be achieved without the addition of fresh founders and utilizing the reproduction potential of the captive population to the maximum.

Based on the genetic and demographic analysis of the captive stock 2:2 individuals was included in the captive. The captive stock in June 2014 is as follows:

SL.no.	Name	Stud #	Sex	Birth Date	Sire	Dam	Location	Transponder
1	Karan	1897	M	23.10.1995	1059	1474	Darj	981098102057256
2	Tista	2399	F	29.03.2002	1897	2228	Darj	00-0611-4DB1
3	Budha	2401	M	19.06.2002	1850	1797	Darj	00-061-FA9B
4	Prabhat	2405	M	8.07.2002	1850	1899	Darj	00-0618-24E0
5	Ritu	2538	F	11.03.2004	1897	2228	Darj	981098102056547
6	Yasmin	2540	F	25.05.2004	1850	1797	Darj	ID-00-00F6-8A38
7	Rare	2994	F	19.06.2012	2405	2538	Darj	956000002158446
8	Kim	2846	F	29.05.2012	2566	2430	Nurnberg, Darj	396800000554817 7
9	Subash	2402	M	08.07.2002	1850	1899	Darj	00-0617-C8C5
10	Lavani	2861	F	06.05.2010	2469	2274	Lodz,Darj	968000005545293
11	Zima	2862	F	06.05.2010	2469	2274	Lodz,Darj	968000005542846
12	Sici		M	22.05.2011			Jhilava zoo, Czech Republic	956000001977872
13	Unname d		U	02.05.2014	2401	2861	Darj	
14	Unname d		U	02.05.2014	2401	2861	Darj	

Total population and their sex ratio: 14 (5:7:2)

- Death of one male in 2014, death of 2 males in 2015 and 1 male in 2016 skewed the breeding options leaving the Park with 1 male and 8 female.
- In consultation with the International Stud book keeper an animal exchange programme has been proposed with Dudley zoo and Mulhouse zoo.

Current stock of the species at the park as on 31.03.2017

FUTURE WORKS:

- 1) Regular genetic demographic and hormonal analysis of the captive stock to ensure maximum genetic variability.
- 2) Behavioural study in captivity.
- 3) Research on the health issues of the species in young, adults and old individuals. Frequent occurrence of pneumonia, brittle bone disease, what leads to the occurrence of such diseases in higher frequency in captivity? Its preventive measures etc.
- 4) More exchange programmes.
- 5) Linkage of the ex-situ conservation with in-situ conservation.

Project Red Panda

- Red panda *Ailurus fulgens* is a small mammal of the Himalayas, almost of the size of the jungle cat with chestnut coat and ringed tail. It is distributed in the Himalayas from Central Nepal through northern Burma in the mountains of southwestern China at altitudes between 900-13,000 feet. In India, red panda is distributed in Sikkim, Darjeeling Hills and Arunachal Pradesh.
- Red panda is threatened by habitat loss and fragmentation. Red panda was also hunted and trapped in large number to be kept as pets and for supply to zoos all over the world. The species is enlisted as Endangered by the IUCN (2006) with a declining population in its distribution range. The species is a protected species in all its range countries (Nepal, Bhutan, India, Burma and China). In India the species receives protection under the Indian Wildlife Protection Act (1972). The species is also under the CITES I Appendix. Population estimated below 2500.
- In captivity, a global captive breeding program is in place something which started in the early 1990s in Europe. Padmaja Naidu Himalayan Zoological Park, Darjeeling which at present has 17 (10:7) red pandas is also a part of this breeding program for the red panda. The zoo was able to restock four red pandas back to the wild as a conservation initiative.
- A planned conservation Breeding Project as a part of the Global Captive Breeding Project as a part of the Global Captive Breeding Master Plan was initiated in early nineties in the Zoological Park in response to the International Conservation efforts, through initiation of the project and improvement/modification of existing housing facilities which already existed.
- Zoological Park had one male (Basant) and three females (Amita, Chanda and Divya) all of wild origin in the stock at the beginning of the Project in 1990. Hence one male "Oscar" (d.o.b June 29, 1992) was brought from Rotterdam Zoo in April 1, 1993 to augment the existing population of 4 red Pandas in the zoological Park.
- The first successful planned breeding of red Panda occurred on 20.06.1994 when two cubs "Ekta" and "Friend" were born to "Basant" and "Amita"
- Hari (d.o.b – June 30, 1993, Rotterdam), Gora (male, d.o.b-June 25, 1993, Koln) and Indira (female d.o.b.-June 26, 1993, Madrid) arrived in Darjeeling on November 10, 1994 to induce new blood and to continue the planned breeding programme.

- PNHZ Park in 2003 had a stable and genetically healthy population of 21 red pandas in captivity. Pair at Gangtok (Sikkim) Zoo (a subsidiary breeding center established in the region) has also started breeding.
- The zoological park was in a position of realizing the ultimate objective of the project of releasing zoo bred red pandas in the wild in the Singalila national park , to begin with
- Guidelines stipulated by the IUCN for re-introduction/re-stocking of captive born wild animals were followed in totality for the programme. All necessary clearances from Govt. of India and Govt. of West Bengal were obtained for the purpose.
- Pre-release monitoring of the red panda population and habitat in the Gairibans area of the Singalila National Park was organized during November/December, 2002.
- DNA based analysis was conducted in collaboration with Centre for cellular and Molecular Biology, Hyderabad for taxonomic status and genetic variability studies.
- An Intermediary release facility (50 sq m) for soft release o the animals were created near Gairibans Beat office (around 8500ft) of South Singalila Range in the Singalila national Park. The construction cost was fully funded by the Central Zoo Authority, Govt. of India.
- Both the animals were shifted to the intermediary release facility at Gairibans for acclimatization and kept there for 3-4 months. Though they were in the wild , they were still under the supervision and observation of some of the zoo staffs posted there. When the animals were thought to have acclimatized well to the environment, they were finally released into the wild.
- Radio collars of appropriate size and weight were fitted on the animals for their post-release monitoring for at least 12 months (or till batteries of the collars were functional).
- Out of the two female red pandas (Mini and Sweetie) released in 2003, sweetie gave birth to a cub in July 2004 in a hollow of an oak tree in Gairibans (SNP, Darjeeling).
- In 2007 and 2008 two wild caught males were added to the captive stock including one female from Auckland zoo to increase the breeding potential.
- In 2010 one captive born female was brought from Auckland Zoo, New Zealand to add variability to the existing population.
- In 2012 Red Panda census was carried out in two phases the objective of the census was to -Conduct meetings and train locals for the census, Assess the population number -*Assess the habitat, Further verification of the population status by genetic analysis through fecal samples, Other existing animals in the Red Panda habitat, Threat analysis, GIS Mapping of both the National Parks.*

- 31 Red Pandas through direct sighting in both National parks. Through genetic analysis 38 in SNP (17:4:17) and 32 (12:13:7) in NVNP.
- A short term research Project was also initiated from March 2012-2014 funded by Central Zoo Authority on “**Study of Red Panda (*Ailurus fulgens*) in ex-situ facilities in co-relation with in-situ facilities for conservation breeding** funded by Central Zoo Authority.
- The genetic analysis of blood and faecal samples observed showed that captive Red Panda at PNHZP, Darjeeling are genetically vibrant and can be used selectively for Conservation breeding (CCMB) in 2013.
- A collaborative work on the Red Panda Stress level-hormonal analysis with LaCONES, CCMB completed, results indicates cyclicity of all female individuals in 2013-2014.
- A Research project “Study on housing, enclosure enrichment, evaluation of existing housing and enrichment practices” also funded by Central Zoo Authority conducted by Wildlife Institute of India also includes the species Red Panda.
- New breeding facility at Topkedara for the Red Pandas.
- A short term research Project was also initiated from March 2013-2015 funded by Central Zoo Authority on “**Red Panda Nutrition-Towards an Integrated Approach**”.
- Population Habitat Viability Analysis for Red Panda done on November 2014.
- Pt. Govind Ballabh Pand High Altitude Zoo, Nainital approved as participating Zoo by Central Zoo Authority vide letter F.N.O 24-7/2007-CZA(Vol.II)(A)/3613 dated 25.9.2013.
- A pair of Red Panda was transferred to Nainital Zoo on 25.11.14. The pair gave birth to two cubs in 2015, thus ensuring a captive population that shall later assist the breeding programme at Darjeeling Zoo.
- One captive female added to the captive stock from Sikkim Zoo for further breeding.

SL NO	NAME	STUD BOOK NO.	SEX	SIRE	DAM	DT OF ACQ	DOB	TRANSPONDER NO	REMARKS
1	Shakya	01127	M	Gora	Ekta	-	18.6.01	ID-00-0611-3083	
2	Sheetal	0356	F	Omin	Kalita	-	02.07.03	981-0981-02055661	

3	Samridhi	0886	F	John	Sheetal	-	06.07.08	9810-9810-205573	
4	Pokhraj	01128	M	Gora	Ekta	-	18.6.01	ID-00-061-FD19	
5	Ram	1088	M	John	Sheetal	-	22.06.10	0006B82659	Topkey data
6	Janaki	1089	F	John	Sheetal	-	22.06.10	0006B7428B	Topkey data
7	Rigsel	0789	F	Rahul	Lucky	31.10.11	28.05.07	0006B7107E	
8	Smile	12123	F	Kaijalay	Samridhi	-	19.06.2012	956000002159372	
9	Shifu	13175	M	Kaijalay	Risgel		27-6-2013	956000002147924	Shifted to Topkey data on 7.12.2015
10	Kitchi	13176	F	Kaijalay	Risgel		27-6-2013	956000002145534	Topkey data
11	Shova	11116	F	Ram	Lucky	22.02.2014 from Sikkim Zoo		956000002158277	Topkey data
12	Shine	-	F	kaijalee	sambidhi		04.07.2014	-	
13	Balam	15117	M	Kaijalee	Janaki		07.6.2015	-	
14	Prashana	15118	F	Ram	Shova		16.6.2015	-	
15	Noel	15119	M	Shifu	Sheetal		14.07.2015	-	
16	Joel	15120	M	Shifu	Sheetal		14.07.2015	-	
17	Karma	10118	F	Ram	Lucky	23.11.2015 from Sikkim Zoo	3.6.2010	956000002158469	Shifted to Topkey data on 7.12.2015

- The current population of Red Panda at Darjeeling Zoo stands as 7:10

Total : 7:10

Ongoing Work in the Red Panda Project:

- Research work being conducted on ***“Population & behavioural Ecology of Red Panda at Singalila national Park and Neora Valley National Park, West Bengal, India with special reference to conservation*** funded by West Bengal Zoo Authority.

Future Work:

Ex-situ:

- Encourage exchange of Red panda among zoos at national and international level.
- Scope to include Himalayan Nature Park, Kufri and Itanagar Zoo, Arunachal Pradesh to be participating zoos in the Red panda Conservation Breeding Programme.
- Compilation of husbandry guidelines for red Panda.
- Formulate Population Management Plan/Species Survival Plan.
- Basic behavioural study on the captive red pandas.
- Restocking of captive red pandas.
- Take up advance studies with the research organizations – Genetic studies/Germplasm banking/disease screening/hormonal and behavioural studies.
- Better awareness and knowledge dissemination.
- Participation in the GSMP's.
- Opportunities for Zoo/Wildlife Veterinarians, Biologists, Technicians, Animal Supervisors and Zoo Keepers.

In-situ:

- Zoos and other organization routinely conduct surveys of one or more PA's (population/genetics).
 - Intensive management of protected areas – SNP and NVNP.
 - Routine threat assessment.
 -
-

CHAPTER : 5


5.1. ANIMAL INVENTORY 2016-2017 (1st April 2016- 31st March 2017)

Annual Inventory Report Submitted to CZA. Click below to save the file as PDF. Take a printout, sign and sent the same to CZA .
Click to save as PDF

Padmaja Naidu Himalayan Zoological Park	West Bengal							
ANIMAL NAME	SCIENTIFIC NAME	OPENING STOCK M F U T	BIRTHS M F U	ACQUISITIONS M F U	DISPOSALS M F U	DEATHS M F U	CLOSING STOCK M F U T	YEAR
0								
Viper Russells	Daboia russellii	1 1 0 2	0 0 0	0 0 0	0 0 0	0 1 0	1 0 0 1	2016-2017
Python Indian - Rock	Python molurus	1 1 0 2	0 0 0	0 0 0	0 0 0	0 0 0	1 1 0 2	2016-2017
Tortoise Indian Star	Geochelone elegans	1 1 0 2	0 0 0	0 0 0	0 0 0	0 0 0	1 1 0 2	2016-2017
Sand Boa Red	Eryx johnii	2 1 0 3	0 0 0	0 0 1	0 0 0	1 1 0	1 0 1 2	2016-2017
Loris Slow	Nycticebus bengalensis	0 1 0 1	0 0 0	0 0 0	0 0 0	0 0 0	0 1 0 1	2016-2017
Tiger Bengal	Panthera tigris tigris	1 2 0 3	0 0 0	0 0 0	0 0 0	0 0 0	1 2 0 3	2016-2017
Leopard (Panther)	Panthera pardus	2 2 0 4	0 0 0	0 0 0	0 0 0	0 0 0	2 2 0 4	2016-2017
Leopard Snow	Uncia uncia	1 8 0 9	0 0 0	2 0 0	0 0 0	0 0 0	3 8 0 11	2016-2017
Leopard Clouded	Neofelis nebulosa	1 0 0 1	0 0 0	0 0 0	0 0 0	0 0 0	1 0 0 1	2016-2017
Cat Leopard	Prionailurus bengalensis	2 0 0 2	0 0 0	1 1 0	0 0 0	1 1 0	2 0 0 2	2016-2017
Civet Himalayan Palm / Masked	Paguma larvata	1 1 0 2	0 0 0	0 0 0	0 0 0	0 0 0	1 1 0 2	2016-2017
Markhor	Capra falconeri	2 3 0 5	0 0 1	0 0 0	0 0 0	0 1 1	2 2 0 4	2016-2017
Langur Common	Semnopithecus entellus	1 3 0 4	2 0 0	0 0 0	0 0 0	0 1 0	3 2 0 5	2016-2017
Goral	Naemorhedus goral	6 2 0 8	1 1 0	1 2 0	1 0 0	1 1 0	6 4 0 10	2016-2017
Deer Sambar	Rusa unicolor	1 2 0 3	0 0 0	0 0 0	0 0 0	0 0 0	1 2 0 3	2016-2017
Deer Barking (Kakar)	Muntiacus muntjak	4 6 0 10	1 3 1	2 0 0	2 0 0	1 2 0	4 7 1 12	2016-2017
Civet Common Palm - Cat Toddy	Paradoxurus hermaphroditus	5 3 0 8	0 0 0	0 0 0	0 0 0	0 0 0	5 3 0 8	2016-2017
Sheep Blue	Pseudois nayaur	8 3 0 11	0 2 1	0 0 0	0 0 0	2 0 0	6 5 1 12	2016-2017

Signature
Director
Padmaja Naidu Himalayan
Zoological Park
Darjeeling

(Bharal)									
Wolf Tibetan	Canis lupus chanco	1 5 0 6	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	1 5 0 6	2016-2017
Cat Jungle	Felis chaus	1 0 0 1	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	1 0 0 1	2016-2017
Jackal	Canis aureus	1 0 0 1	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	1 0 0 1	2016-2017
Bear									
Himalayan Black	Ursus thibetanus	2 2 0 4	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	2 2 0 4	2016-2017
Panda Red / Lesser	Ailurus fulgens fulgens	7 10 0 17	0 0 0	0 0 0	0 0 0	0 2 0	7 8 0 15	2016-2017	
ak Wild	Bos grunniens	2 0 0 2	0 0 0	0 0 0	0 0 0	0 0 0	2 0 0 2	2016-2017	
Tahr	Hemitragus jemlahicus	4 4 0 8	2 0 1	0 0 0	1 1 0	2 0 0	3 3 1 7	2016-2017	
Himalayan Parakeet Rose Ring	Psittacula krameri	0 1 4 5	0 0 0	0 0 0	0 0 0	0 0 0	0 1 4 5	2016-2017	
Parakeet Alexandrine	Psittacula eupatria	1 0 0 1	0 0 0	0 0 0	0 0 0	0 0 0	1 0 0 1	2016-2017	
Cockatiel	Nymphicus hollandicus	0 0 28 28	0 0 0	0 0 0	0 0 0	0 0 0	0 0 28 28	2016-2017	
Pheasant Kalij	Lophura leucomelanos	13 4 0 17	0 0 3	0 2 0	1 2 0	0 1 0	12 3 3 18	2016-2017	
Pheasant Silver	Lophura nycthemera	6 11 0 17	0 0 8	0 0 0	1 1 0	0 0 2	5 10 6 21	2016-2017	
Pheasant Cheer	Catreus wallichii	2 2 0 4	0 0 0	0 0 0	0 0 0	0 0 0	2 2 0 4	2016-2017	
Tragopan Temmincks	Tragopan temminckii	8 5 0 13	0 0 2	0 0 0	0 0 0	1 0 0	7 5 2 14	2016-2017	
Cockatoo									
Lesser Sulphur Cestered	Cacatua sulphurea	1 1 0 2	0 0 0	0 0 0	0 0 0	0 0 0	1 1 0 2	2016-2017	
Pheasant Reeves	Syrmaticus reevesii	3 5 0 8	0 0 5	0 0 0	0 0 0	2 1 0	1 4 5 10	2016-2017	
Parakeet American Green		1 1 0 2	0 0 0	0 0 0	0 0 0	0 0 0	1 1 0 2	2016-2017	
Parakeet African Grey	Psittacus erithacus	2 1 0 3	0 0 0	0 0 0	0 0 0	0 0 0	2 1 0 3	2016-2017	
Parakeet Eclectus	Eclectus roratus	1 0 0 1	0 0 0	0 0 0	0 0 0	0 0 0	1 0 0 1	2016-2017	
Macaw Blue & Yellow	Ara ararauna	1 1 0 2	0 0 0	0 0 0	0 0 0	0 0 0	1 1 0 2	2016-2017	
Macaw Red & Blue		1 1 0 2	0 0 0	0 0 0	0 0 0	0 0 0	1 1 0 2	2016-2017	
Turaco	Tauraco	1 1 0 2	0 0 0	0 0 0	0 0 0	0 0 0	1 1 0 2	2016-2017	


 Director
 Padmaja Naidu Himalayan
 Zoological Park
 Darjeeling

(121)

(Various sps)								
Pheasant Monal / Impeyan	Lophophorus impejanus	2 2 0 4	0 0 0	0 0 0	0 0 0	1 0 0	1 2 0 3	2016-2017
Pheasant Golden	Chrysolophus pictus	13 19 0 32	0 0 0	0 0 0	1 1 0	3 1 0	9 17 0 26	2016-2017
Fowl Jungle Red	Gallus gallus	8 5 16 29	0 0 4	2 3 0	3 4 0	0 0 4	7 4 16 27	2016-2017
Pheasant Grey Peacock	Polyplectron bicalcaratum	3 2 1 6	0 0 2	0 0 0	1 1 0	1 1 2	1 0 1 2	2016-2017
Pheasant Lady Amherst	Chrysolophus amherstiae	1 8 0 9	0 0 0	0 0 0	0 2 0	0 1 0	1 5 0 6	2016-2017
Cockatoo Bare Eyed	Cacatua sanguinea	1 1 0 2	0 0 0	0 0 0	0 0 0	0 0 0	1 1 0 2	2016-2017
Himalayan Newt	Tylotriton verrucosus	6 7 16 29	0 0 0	0 0 0	0 0 0	0 0 0	6 7 16 29	2016-2017
End of Report								


 Director
 Padma Naidu Himalayan
 Zoological Park
 Darjeeling

S.No.	Animal Name	Sex	Date of Death	Reason of Death
1	Goral	F	25-Mar-2017	Injury
2	Goral	M	12-Mar-2017	Death may be due to acute gastritis.
3	Pheasant Reeves	M	11-Feb-2017	Dashing
4	Tragopan Temmincks	M	12-Jan-2017	dashing
5	Deer Barking (Kakar)	F	08-Jan-2017	Death may be due to heavy injury to the thoracic region. Heavy internal bleeding in the abdominal region.
6	Sheep Blue (Bharal)	M	17-Dec-2016	Death may be due to old age and multiorgan failure.
7	Deer Barking (Kakar)	F	07-Dec-2016	Death may be due to hypothermia due to ill nursing by the mother. Showed severe signs of congestion of the lungs.
8	Langur Common	F	20-Nov-2016	Death may be due to old age and multiorgan failure.
9	Viper Russells	F	21-Oct-2016	Death may be due to multi organ failure.
10	Cat Leopard	F	09-Oct-2016	Death may be due to infighting as wound bite marks in the neck region seen
11	Tahr Himalayan	M	08-Oct-2016	Death may be due to accident as profuse bleeding seen in the thoracic region with heavy injury to the lungs and liver.
12	Panda Red / Lesser	F	16-Sep-2016	Death may be due to multi organ failure due to old age.
13	Pheasant Monal / Impeyan	M	05-Sep-2016	Old age.
14	Pheasant Reeves	F	18-Aug-2016	Abnormal lungs and liver condition
15	Pheasant Lady Amherst	F	09-Aug-2016	old age
16	Markhor	U	08-Aug-2016	Death may be due to lung congestion as seen by the condition of the lungs. Acute pneumonial condition seen.
17	Deer Barking (Kakar)	M	14-Jul-2016	Death may be due to severe injury in the thorax region or chest region leading to internal bleeding in the lungs resulting in death.
18	Pheasant Golden	M	11-Jul-2016	Predation
19	Pheasant Golden	F	11-Jul-2016	Predation
20	Pheasant Golden	M	09-Jul-2016	Predation
21	Pheasant Golden	M	07-Jul-2016	Injury .
22	Pheasant Grey	M	05-Jul-2016	Predation

(125)

	Peacock			
23	Pheasant Grey Peacock	F	05-Jul-2016	Predation
24	F o w l Jungle Red	U	26-Jun-2016	Predation
25	F o w l Jungle Red	U	26-Jun-2016	Predation
26	Pheasant Silver	U	26-Jun-2016	Predation
27	Pheasant Silver	U	26-Jun-2016	Predation
28	Pheasant Grey Peacock	U	25-Jun-2016	Predation
29	Sand Boa Red	F	12-Jun-2016	Multi organ failure
30	F o w l Jungle Red	U	09-Jun-2016	Predation
31	Pheasant Grey Peacock	U	03-Jun-2016	Predation
32	T a h r Himalayan	M	01-Jun-2016	Death may be due to ill nursing and both the lungs and heart were affected.
33	F o w l Jungle Red	U	31-May-2016	Predation
34	Panda Red / Lesser	F	23-May-2016	Accidental
35	Markhor	F	16-May-2016	Death may be due to difficulty in parturition due to old age and formation of gas leading to extra pressure in thoracic region leading to cardiac arrest.
36	Pheasant Kalij	F	15-May-2016	Infighting
37	Sand Boa Red	M	14-May-2016	Multi organ failure
38	C a t Leopard	M	12-May-2016	Death may be due to old age. Cataract observed and major organs like liver, lungs, spleen were not normal. Could be result of multiorgan failure.
39	Sheep Blue (Bharal)	M	24-Apr-2016	Death may be due to heavy internal bleeding in the cranial cavity as well as in the thoracic cavity due to injury to the head and chest region because of heavy collision.
40	Pheasant Reeves	M	15-Apr-2016	Dashing

o/c

Upradha
24/12
A. D. V O.
Padmaji Nandi
Zoologica

PHEASANTS AND ANIMALS IN THE ZOO AS ON 31ST MARCH, 2017- AN ABSTRACT

AMPHIBIAN	
HIMALAYAN NEWT (<i>Tylototriton verrucosus</i>)	29
TOTAL AMBHIIBIAN	29
PHEASANTS & BIRDS	
PHEASANT GREY PEACOCK (<i>Polypectron bicalcaratum</i>)	2
PHEASANT IMPEYAN MONAL (<i>Lophophorus impejanus</i>)	3
RED JUNGLE FOWL (<i>Gallus gallus</i>)	27
PHEASANT KALEEJ (<i>Lophura leucomelanos</i>)	18
PHEASANT CHEER (<i>Catreus wallichii</i>)	4
TEMMINCK'S TRAGOPAN (<i>Tragopan temminckii</i>)	14
LADY AMHERST (<i>Chrysolophus amherstiae</i>)	6
PHEASANT SILVER (<i>Lophura nycthemera</i>)	21
PHEASANT GOLDEN (<i>Chrysolophus pictus</i>)	26
REEVE'S PHEASANT (<i>Syrmaticus reevesii</i>)	10
ROSE RINGED PARAKEET (<i>Psittacula krameri</i>)	5
PARAKEET ALEXENDRINE (<i>Psittacula</i>)	1
RED AND BLUE MACAW (<i>Ara chloroptera</i>)	2
BLUE AND GOLD MACAW (<i>Ara ararauna</i>)	2
GREY TORRACO (<i>Corythaixoides concolor</i>)	2
ORANGE WINGED AMAZON (<i>Amazona amazonica</i>)	2
AFRICAN GREY PARROT (<i>Psittacus erithacus</i>)	3
BARE EYED COKATOO (<i>Cocatue sanguine</i>)	2
SULPHUR CRESTED COCKATOO (<i>Cocatua galerita</i>)	2
ROSEATE COCKATOO (<i>Eolophus roseicapilla</i>)	2
ECLECTUS PARROT (<i>Eclectus roratus</i>)	1
COCKATAILS (<i>Nymphicus hollandicus</i>)	28
TOTAL BIRDS & PHEASANTS	183
MAMMALS	
INDIAN TIGER (<i>Panthera tigris</i>)	3
CLOUDED LEOPARD (<i>Neofelis nebulosa</i>)	1
COMMON LEOPARD (<i>Panthera pardus</i>)	4
SNOW LEOPARD (<i>Panthera uncia</i>)	11
HIMALAYAN WOLF (<i>Canis lupus himalayensis</i>)	6
JACKAL (<i>Canis aures</i>)	1
ASIATIC BLACK BEAR (<i>Ursus thibetanus</i>)	4
RED PANDA (<i>Ailurus fulgens fulgens</i>)	15
LEOPARD CAT (<i>Prilonarius bengalensis</i>)	2
JUNGLE CAT (<i>Chaus chaus</i>)	1
HIMALAYAN PALM CIVET (<i>Pamuga larvata</i>)	2
COMMON GREY LANGUR (<i>Seminopithecus entellus</i>)	5
ASIAN PALM CIVET (<i>Paradoxurus hermaphroditus</i>)	8
SLOW LORIS (<i>Nycticebus coucang</i>)	1
HIMALAYAN GORAL (<i>Nemorhaedus goral</i>)	10
HIMALAYAN THAR (<i>Hemitragus jemlahicus</i>)	7
BLUE SHEEP (<i>Pseudois nayaur</i>)	12
SAMBAR DEER (<i>Cervus unicolor</i>)	3
BARKING DEER (<i>Muntiacus muntjac</i>)	12
MARKHOR (<i>Capra falconeri</i>)	4
YAK (<i>Bos grueins</i>)	2

TOTAL MAMMALS	114
REPTILES	
STAR TORTOISE (<i>Geochelone elegans</i>)	2
INDIAN ROCK PYTHON (<i>Python molours</i>)	2
RUSSELL'S VIPER (<i>Daboia russelii</i>)	1
INDIAN SAND BOA(<i>Eryx johnii</i>)	2
TOTAL REPTILES	7
TOTAL ANIMALS	333

a) Amphibian	: 29
b) Pheasants/Birds	: 183
c) Mammals	: 114
d) Reptiles	: 7

TOTAL ANIMALS	: 333

HISTORY SHEET OF ENDANGERED ZOO ANIMALS FOR THE YEAR 2016-2017

Blue Sheep (*Pseudois nayaur*)

House Name	Sex	Int. Stud Book No.	Transponder No.	Sire	Dam	Date of Birth	Place of Birth
Sita	F	-	-	Moon	Venus	21.04.2016	CBC, Dow Hill, Kurseong.
Gita	F	-	-	Sunny	Angelina	29.05.2016	CBC, Dow Hill, Kurseong.
Rishab	M	-	-	Neel	Bubbly	23.05.2016	PNHZ Park

Himalayan Tahr(*Hemitragus jemlahicus*)

House Name	Sex	Int. Stud Book No.	Transponder No.	Sire	Dam	Date of Birth	Place of Birth
Unnamed	U			Sushil	Sania	23.04.2016	PNHZP Park.
Saroj	M			Sachin	Bachendri	17.06.2016	CBC, Dow Hill, Kurseong.

Himalayan Goral (*Nemorhaedus goral*)

House Name	Sex	Int. Stud Book No.	Transponder No.	Sire	Dam	Date of Birth	Place of Birth
Suravhi	F			Simba	Kunju	01.06.2016	PNHZ Park
Ashish	M			unknown	unknown	05.03.2017	CBC, Dow Hill, Kurseong.
Zoe	F			Simba	Kunju	17.03.2017	CBC, Dow Hill, Kurseong.

Markhor (*Capra falconeri*)

House Name	Sex	Int. Stud Book No.	Transponder No.	Sire	Dam	Date of Birth	Place of Birth
Aditi	F			Arbind	Vinita	14.05.2016 died on 08.08.2016	PNHZ Park

CHAPTER 6

6.1. VISITORS STATISTICS

The visitor flow for last six years was as below---

MONTH	2009-10	2010-11	2011-12	2012-13	2013-14	2014-2015	2015-2016	2016-2017
April 2016	28187	52834	35788		50308	56,464	58834	62130
May 2016	49775	55587	61977	83161	73933	95,663	79190	111528
June 2016	47202	30112	60810	67198	95371	74,188	60651	87775
July 2016	7779	12267	19119	18120	13825	25,290	18628	29928
August 2016	8646	8133	14191	15208	476	18,514	17514	22601
September 2016	20723	13584	17862	16251	6465	20,515	24536	29919
October 2016	42257	39869	63237	48415	32512	67,441	56990	71873
November 2016	25644	31386	35463	43510	25589	42,119	45223	52763
December 2016	19703	27950	35503	40474	34069	46,993	46270	59355
January 2017	15716	12321	25599	26011	23406	29,550	37795	48168
February 2017	16027	5680	20574	19443	19494	26,344	31113	38779
March 2017	26458	20615	36545	41814	47256	48,738	64635	62055

Visitors Data from 1st April 2016-31st March 2017

MONTH	NO.OF INDIAN VISITORS	NO.OF FOREIGN VISITORS	TOTAL VISITORS (Indian & Foreigners)
April 2016	60 794	1336	62130
May 2016	110845	683	111528
June 2016	87480	295	87775
July 2016	29617	311	29928
August 2016	22071	530	22601
September 2016	29292	627	29919
October 2016	69930	1943	71873
November 2016	51011	1752	52763
December 2016	58605	750	59355
January 2017	47378	790	48168
February 2017	37697	1082	38779
March 2017	60407	1648	62055
	665127	11747	6,76,874

6.2 What the visiting Dignitaries had to say:-

Date of Visit	Name of the Visitor and Designation	Remarks
03.04.2016	Mr. V.K Yadav, IFS Addl. PCCF & Member Secretary, West Bengal Zoo Authority.	Visit to Zoo and Conservation Breeding Centre at Dow hill and Topkey Dara. Interaction with Director and his team. Thanks for the good work.
19.04.2016	Dr. G. Umapathy Principal Scientist, CSIR LaCONES, Center for Cellular and Molecular Biology. Hyderabad.	It is an excellent visit to the zoo. Well maintained and clean. Understand many breeding programmes and successful breeding. The proposed museum also add to the value, it is well thought and planned one. I would wish many more success to the various conservation breeding programme at the zoo.
16.05.2016	Shri. H.K. Diwedi Principal Secretary (Finance), Govt. of West Bengal.	It was indeed a pleasure and a great learning experience. An excellent work being done by the zoo authority especially breeding programme. The researcher are really great and doing a splendid job. The efforts need to be supported by all nature lovers. Keep up the good job.
21.05.2016	Shri. Jagmohan Sharma Addl. PCCF (Water Resource Deptt.), Govt. of Karnataka.	Stayed at the GH and visited zoo. Zoo is clean and has good signages. Hospital would improve by better attendance w.r.t. upkeep. It was useful to visit your zoo dear Director. All the best.
23.05.2016	Shri. Pradeep Vyas, IFS PCCF (Wildlife) &(CWLW), Govt. of West Bengal.	A very well maintained zoo specially for high altitude species. Could sense its utility in many more ventures for conservation of wildlife of Darjeeling Himalayas. Thanks to everyone.
25. 05.2016	Shri. S.S. Negi D.G. (Forest) and Special Secretary, Govt. of India, new Delhi	An excellent zoo which I visited after over thirty years. The staff is also well versed in zoo management. Keep it up.
01.07.2016	Shri. Prasanta Saha Secretary General, AIDA & Secretary, Anti-Pollution Society & Chief Coordinator Tata Steel, Kolkata.	It was really educative as well as interesting to know about so many rare animals. I would also like to associate with the animal adoption plan.
27.07.2016	Brigadier General Shahriar Ahmed Choudhury, NDC, PSC. Additional Director Genral Commander, North West Region. Bangladesh Border Guard.	Wonderful Museum. We had the opportunity to visit Bengal Natural History Museum. The authority was very kind to allow us to visit and see the rare species of the world. A special thanks to Director of the museum. Wish you all the best.
06.08.2017	Shri V.K. Yadav, IFS Addl. PCCF & Member Secretary, West Bengal Zoo Authority.	Attended the Workshop.
15.09.2016	Dr. D.N. Singh, IFS	Excellent management, praiseworthy

	Member Secretary, Central Zoo Authority, Ministry of Environment Forest & Climate Change, Govt. of India.	conservation breeding, nice arrangement, warm hospitality, cozy environment. Keep it up.
09.11.2016	Lt. General Amrik Singh Chief of Staff, Eastern Command.	A very well maintained environment for our nature companions. The staff is doing a humane service. Our gratitude and best wishes for the future. Compliments for the museum too. A great learning place. A very courteous and knowledgeable teaching staff. Best wishes.
25.11.2016	Shri. Sankar Dhar G.B. Member, WBZA& HWLW BTR. Alipurduar	Visited PNHZP & breeding centre. Excellent management. Thanks to the Director and his team for good behaviour. Keep it up. Visited CBC Topkedara. The staffs are working very well. The breeding centre is running smoothly with the assistance of the Director, PNHZP and other staffs. Zoo Keepers are doing good job and they should also be sent to other zoos to gather more information to keep the zoo better. Very well, keep it up.
11.12.2016	Shri. Amitabh Agnihotri, IFS Director, National Zoological Park, New Delhi.	Impressive overall management of the zoo. Maintenance of the rest house one of the finest. Great experience with Mr. Chand, Director and his team. Congratulations and keep it up.
16.12.2016	Shri V.K. Yadav, IFS Addl. PCCF & Member Secretary, West Bengal Zoo Authority.	Herbivore enclosures and pheasant enclosures have improved. Work of animal hospital is in progress.
29.12.2016	Dr. Sidhananda Kukrety, IFS CCF, Hyderabad	Ineffable experience. Very well maintained zoo, very aesthetically displayed information and highly educative. The commitment and the enthusiasm of the staff add value to the overall experience. The stay in the forest bungalow was delightful and memorable, compliment to the Director and his team Visited the Topkedara CBC. I am told that this is the only one breeding centre for the snow leopard in the S.E. Asia. The Red panda breeding is already well and I am sure the commitment of the CBC will keep it going. The CBC is in pristine condition and needs officers for working towards the success of the programme. I compliment the staffs and wish the best for its success.

CHAPTER – 7

A Brief History of Dowhill and Topkedara

Dowhill Satellite Park, Kurseong.

Dowhill Deer Park, Kurseong is located at uphill of Kurseong town, 4 km away amidst hilly forested tracts under Kurseong Forest Division. It was established in 1980 over 5.2 hectares of land. The Deer Park before housed Yak, Barking Deer, Mountain Goat, Rabbit. There is one abandoned Interpretation Center 8m x 8m. At present 2 CDL Quarter and a Rest Shed is on the other side of the Park. There is one shed near the gate. Before the Deer Park was managed by a Beat Officer assisted by two Group 'D' Staff and 3 daily wage worker. Most of the area of the existing deer park is mainly covered with thick wood having steep slope.

NEED TO DEVELOP THE DEER PARK, DOWHILL, KURSEONG AS SATELLITE ZOO.

Eastern Himalayan Zone, notably, Sikkim & Darjeeling forest are rich in biodiversity. Some herbivore species are rare and endemic and in the wild, their population is in dwindling state. A huge and partial infrastructural facility for creation of pheasantry and other breeding projects, so with the renovation of existing infrastructure conservation breeding of different herbivore and pheasants species can be done.

PLANNING FOR EXTENSION ACTIVITY OF PROPOSED SATELLITE ZOO, DOWHILL, KURSEONG.

In XXVIII Annual General Body Meeting and XXXIII Governing Body Meeting, the animal collection plan of this zoo was reviewed for inclusion in animal and birds collection plan of the zoo which may be kept in the proposed Satellite Zoo, Dowhill, Kurseong.

With reference to the Principal Conservator of Forests, West Bengal vide Letter No. 4428/CS/2M - 379/08 dated 29/09/08, and area of 4.65 hectares and 1.28 hectares of forest land under Kurseong Forest Division has been handed over for construction of Satellite Zoo and staff quarters respectively to Padmaja Naidu Himalayan Zoological Park, Darjeeling to develop it into a satellite zoo for the purpose of pheasantry as well as conservation breeding projects as dated 25/02/09.

After the handing of the Deer Park, Kurseong to PNHZ Park following work has been initiated.

1. Area Survey of Dowhill Eco Park.
2. Contouring of the Dowhill area has been done indicating landforms and elevations, hydrography, transportation, vegetation boundaries, urban areas, buildings and a variety of other features.
3. Construction of aviary, herbivore enclosures, staff quarters, Dy. Directors residential quarter, construction of suspension bridge.
4. Transfer of animals –Himalayan Monal, Golden Pheasant, Lady Amherst Pheasant, Satyr tragopan, Silver pheasant, Temminck's tragopan, Kaleej pheasant, Blue sheep, Himalayan Thar, Barking Deer, Himalayan goral.
5. The breeding centre has been doing remarkably well with successful births of endangered high altitude herbivores.
6. Births of exotic and indigenous pheasants have also taken place

7. Taking a step further ahead in the Conservation Breeding of pheasants, the Park has come up with a 2-unit pheasantry at the Pheasants and Herbivores Breeding Centre, Satellite Facility, Dow Hill, Kurseong adjacent to the previously constructed 7-unit pheasantry, complete with chick rearing and artificial incubation rooms, covering an approximate area of 426.43 sq. m.
8. Electrification of the chick rearing house complete and made functional.

CONSERVATION BREEDING CENTRE FOR SNOW LEOPARD AND RED PANDA AT TOPKEDARA

5 hctrs of land in Topkedara block under Senchal Wildlife Sanctuary has been handed over to Padmaja Naidu Himalayan Zoological Park for the construction of the off- display Conservation Breeding Centre for Snow leopard and Red Panda. The area was inspected by the Chief Conservator of the Forests/Wildlife (North and Director/PNHZ Park on 30 November 2010. Survey of the area has been completed and contouring of the area is in process.

The new off-display Conservation Breeding Centre for Snow leopard (*Uncia uncia*) and Red Panda (*Ailurus fulgens*) at Topkedara funded by the Govt.of West Bengal and Central Zoo Authority, MoEF was inaugurated on 08.10.2013 by the Honorable Minister in Charge (Forest) Shri. Hiten Barman along with North Bengal Development Minister Shri. Gautam Deb. The inauguration was followed up by the release of a pair of Snow leopard (*Uncia uncia*) by the two ministers.


Two new enclosures each have been constructed at Topkedara for the Red Panda and Snow leopard. The two new enclosures for Red panda is 210 sq meters each and that for the snow leopard is 680 sq m each. After the completion of the two red panda enclosures appropriate enrichments like aerial walkways, breeding boxes, resting shades were put up in both the enclosures. Two pairs of red pandas have been shifted on **07.12.2015** in the enclosures.

BENGAL NATURAL HISTORY MUSEUM

With the establishment of the Northern Bengal State Railway in 1878 and connection with Darjeeling in 1881 with the name Darjeeling Himalayan Railway the popularity of Darjeeling as Hill Station spread eventually and visitors began thronging the Hill Station, many were amazed by the faunal diversity of this place. As recorded during that period the mammalian species comprised between 80-90 species including some of the rarer cats, pandas and the Himalayan flying squirrel. About 450 species of birds- nearly one- fifth of the total species found in the Indian sub- continent, 100 species of Snakes, exceedingly rich in insects and butterflies.

With this richness in 1903 the Lt. Governor of Bengal intimated the Govt. of India of his idea of starting a small Museum at Darjeeling allowing the visitors to the hill station an opportunity to obtain information about Birds and Butterflies of the district.

A suitable site was chosen in the Lloyd's Botanical Garden and a building was constructed for the purpose. The Museum was looked after by the committee comprising the Dy. Commissioner, Tea Planter, a vice Chairman of Darjeeling Municipality, Dy. Conservator of Forest and Executive Engineer. This arrangement proved unsatisfactory and in 1915 Lord Carmichael, Governor of Bengal took an interest in the Museum and the present building was completed in 1915. The maintenance was still a problem and in spite of approaching the Indian Museum, Calcutta and the Zoological Survey of India the offer was turned down for the upkeep of the Museum. It was finally decided that the Bengal PWD would be responsible for the building; the committee for arrangement directly saw the requirement of a Curator. In 1922 it was proposed that a Natural History Society should be established to take over the Museum and be responsible for its maintenance and the publication of small quarterly periodicals. Thus Darjeeling Natural History Society was accordingly formed which took over the management of the Museum in 1923 with the aims and objectives as follows:

 To promote the study of Natural History of Northern Bengal and Eastern Himalayas and to get together a representative collection of the fauna of North Bengal and the adjoining

Sl no.	Items	Species
1	Skull	Ibex, Blue sheep, Great Tibetan sheep, Marcopolo sheep, Takin, Serow, Goral, Shapu, Black buck, Tibetan Antelope, Shou, Shamber Deer, Spotted Deer, Indian Gaur
2	Anklers	Barasingha, Shou, Barking Deer, Hog Deer, Kashmir stag, Sambhar Deer, Spotted Deer,
3	Horns	Goral, Black buck, Indian Gazella, Nilgiri Thar,
4	Head mount	Nilgiri Thar, Indian Gazella, Black buck, Barasingha, Barking deer, Hog deer, Kashmir stag, Shamber Deer, Spotted Deer, Indian gaur, Wild Buffalo, Indian Wild Boar, Tiger, Asiatic Black Bear, Snow Leopard, Yak,

5	Full body mount	Clouded Leopard, Royal Bengal tiger, Common Leopard, Spotted Deer Calf, Yellow Throated Martin, Asiatic Black Bear, Red Panda, Common Indian Mongoose, Eastern Pangolin, Estuarine Crocodile,
6	Skin	Monitor Lizard, Royal Bengal Tiger, Snow Leopard, Otter, common Leopard, Asiatic Black Bear, Shamber, Spotted Deer, Himalayan Palm Civet, Martin, Yak, Goral, Leopard Cat, Flying Squirrel, etc.
7	Tusk & Feet	Elephant.
8	Birds	Mynas , Night jar, Thrush, Warblers, Flycatchers ,Kingfisher, Snipe, Wood peckers, Birds of prey, Swifts, Niltava, Water birds, Barbets, Hornbills, Cuckoos, parrots & Parakeets, Owls , Minivets, Fantails, Chats, Robin , Buntings, Sunbirds , Broadbills , Finches, Nutcrackers, Suthora, Jay, Weaver birds, Munia, Sparrows, Swallows, Shrikes, Leothrix, Cutia, Barbing, Bablers,Larks, Vulture, Bustards, etc.
9	Pheasants	Koklas, Satyr Tragopon, Red Jungle Fowl, Himalayan Monal, Indian Peacock, Mrs. Hume Barred Backed, Cheer,
10	Nest	Warblers, Flycatcher, Thrush, Tit, Bablers, Chat, Flowerpeckers, Bulbul, Finch, Swift,
11	Eggs	Thrush , Jacana, Kingfisher, Mynas, Bushchat, warbler, Plover, Curlews, Weaver, Partidge, Robins, Cracke, Baye, Kite, Koel, Pheasant, Owl, White eye,
12	Dragon, Flies & Insects	Cicadidae, Fulgidae, Pentatoenidae, Cosmomcorta, Longicora, Coleoptera, Elatridae, Chycomellidae, Curculionidae,
13	Grasshoppers	-
14	Moths	-
15	Beetles	-
16	Butterflies	Lime Butterfly, Western Courtier, Autumn Leaf, Blue Admiral, Plain Tiger, Blue Bottle, Red Helen, Paris Peacock etc.
17	Snakes	Vipers, Krait, whip Snake, Rat Snake, Cat Snake, Cobra, Coral Snake etc.
18	Fishes	Katla, Bagha, Chega, Pabda, Singhi, Magur, Tengra, Katile,etc.
19	Others	Green Turtle Star Fish, Giant Leech, Indian Salamander etc.

parts of Sikkim, Nepal and Bhutan.

✍ Maintaining the Natural History Museum

✍ To engage in such other acts as are incidental or conducive to the attainment of the above objects.

Mr. Charles M. Inglis, an amateur ornithologist was persuaded to accept the post of the curator. He served the Museum for 26 years from 1923- 1948 and built up the Museum by also adding his own private collection.

HANDING OVER OF BENGAL NATURAL HISTORY MUSEUM TO PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK

On the keen interest of the Ex- Governor of West Bengal Mr. Gopal Krishna Gandhi who wanted the museum to be shifted to Padmaja Naidu Himalayan Zoological Park, the museum was Officially handed over to the Park on 07.01.2010 till date which was directly under the control of the Wildlife Division I for its upkeep and maintenance and further upliftment of the museum in the near future Bengal Natural History Museum, Darjeeling, provides the keen visitors with precious knowledge on the natural world and resources, significant enough to generate the commoner's awareness about natural environ. Bengal Natural History Museum, Darjeeling, enchants visitors with a fascinating presentation of diverse nature, full of flora and fauna , the museum is not only important form the archaeological point of view , but also focuses on the process of natural evolution.

There are a wide variety of items in the exhibit area at present. An inventory of all the items on display including the stock has been prepared. Later these items have been digitized by photographing each items and also providing information's of the items thus making it easier to preserve, access, and share in the form of a book. The items at the museum includes Skull, Antlers, Horns, Head mounts, Full body mounts, Skin of different animals, Tusk & feet of Elephant, Birds, Pheasants, Nests and Eggs of various birds and Pheasants, Dragonflies, Insects, Grasshoppers, Moths, Beetles, butterflies, snakes, fishes etc. details as below.

During this annual the exhibit area was completed in the new building. The exhibit area was developed with the concept of showing the faunal diversity of eastern Himalayas including the lower plains. The exhibit begins with the history of the Bengal Natural History Museum, exhibits of the old stuffed specimens of birds, old publications, different types of ecosystems of West Bengal, Entomology section, bird section, Mountain ecosystem, display of mammals, skin, head mounts, skulls etc. the new museum also houses an auditorium for educational purposes. The exhibit items are being maintained with regular cleaning and frequent changing of the preservatives.

The Bengal natural History Museum was officially opened up for the visitors on **23rd August 2016**. At present the exhibit area has displayed **Birds: 378; mounted mammals: 41; Roll birds: 34; Bottled specimen: Fish: 22/Reptiles: 39/Amphibian: 1Head mount: 19/Skull and Antler: 14/Skin:5 / 3 with head mount/ Elephant tusk: 3 pairs/ Elephant feet: 2 pairs/ Elephant molar teeth: 1 pairs/Rhinoceros feet: 1 pair/ Eggs: 85 / Nest: 28/ Insects: Butterflies, Moths, Bees and wasps, Grasshoppers, Dragon flies and Beetles.**

Work done during this annual

Quarter	Work Done
April- June 2016	Animal Mounting Work: 1 No. Of Red Panda
July- September 2016	
October- December 2016	Animal Mounting Work: temminck's tragopan, Lady Amherst, Green Pigeon, Himalayan Monal, Barbet, Red Panda, Markhor, Leopard cat, Weasel, Flying squirrel. Bottled specimen: Mammalian foetus: Royal Bengal tiger, Common leopard, Snow leopard, Barking deer, rabbit, Himalayan Palm Civet, Yellow throated marten.
January- March 2017	Animal Mounting Work: <i>Munia, parakeet, reeves Pheasant, large Indian Civet.</i>

OUTREACH PROGRAMMES



Notre Dame School, Kainjalay Bazar



Rabindranath Higher Secondary School



Anuj SUMI School



Bal Narayan Memorial School



Greenhill English School



Ferrando Preparatory School

Shahid Krishna School



East Indian Tour of Officer Trainees of 15-17 SFS Batch, Dehradun



106th Batch of Deputy Rangers, State Forest training Institute, Hijli



Wildlife Management tour of officer trainees of XXXIICC, (Assam) Wildlife Institute of India. Dehradun.



N.E.R.I.S.T, Itanagar, Arunachal Pradesh



Central Zoo, Kathmandu, Nepal

VIP VISITS



Lt General Amrik Singh



**Shri Gautam Deb, North Bengal
Development Minister**



**Shri Shankar Dhar, People's for Animals, Alipurdura and Member of
West Bengal Zoo Authority**



Shri Amitabh Agnihotri IFS, Director National Zoological Park, New Delhi



DEVELOPMENT



Installation of barriers at Bengal Natural History Museum



Construction of new Veterinary Hospital at PNHZ Park



Construction of New Taxidermy Unit at Bengal Natural History Museum

WORKSHOPS AND TRAININGS

ZOO KEEPER'S TRAINING PROGRAMME (15th – 19th February 2017)



Shri D.K De, Scientific Officer, WBZA



Shri Bhupen Roka, Zoo Ranger, National Zoological Park, New Delhi



Shri Sujoy Kumar Dutta, Veterinary Assistant, North Bengal Wild Animal Park, Siliguri



Shri Aditya Mitra, Zoo Biologist, North Bengal Wild Animal Park, Siliguri



Miss Upashna Rai, Zoo Biologist, PNHZP



Miss Pranita Gupta, Education Assistant, PNHZP



Zoological Information Management System (ZIMS) TRAINING 16th-20th September 2017



RETIREMENT OF ZOO STAFFS



Shri Sang Dorjey Tamang, Head Clerk, PNHZP



Shri Pradeep Pradhan, Zoo Keeper, PNHZP



P. DHAR & ASSOCIATES

Chartered Accountants

Head Office :

22/1, Matri Mandir Lane, Kolkata - 700 035

☎ : (033) 6520-3466

Branch Office :

274/1, Mahatma Gandhi Road, Khadina More

Chinsurah, Hooghly - 712 101, ☎ : 98319921

E-mail : pinaki_dhar@rediffmail.com

INDEPENDENT AUDITORS' REPORT

**Padma Naidu Himalayan
Zoological Park Society
DARJEELING**

The Member Secretary, West Bengal Zoo Authority

BL No. 247

We have audited the accompanying financial statements of Padma Naidu Himalayan Zoological Park, Darjeeling, ("the Park") which comprise the Balance Sheet as at March 31, 2017, and the Income & Expenditure Account for the year ended on that date, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation of these financial statements that give a true and fair view of the financial position and financial performance of the Park in accordance with the accounting principles generally accepted in India along with the Accounting Standards issued by the Institute of Chartered Accountants of India. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Standards on Auditing issued by the Institute of Chartered Accountants of India. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Park's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our *qualified audit opinion*.

Basis for Qualified Opinion

non-ascertainment of financial impact due to change in Accounting Policy (refer to Para 1 in Annexure to Audit Report)

non-ascertainment and non-provision of accumulated gratuity and leave encashment liability at the year-end on actuarial basis and its consequential impact of the statement of profit or loss for the year (Para 2 in Annexure to Audit Report);



- non-capitalisation of outstanding advances and its consequential impact on the state of affairs (Para 4 in Annexure to Audit Report) ;
- non-adherence to the Accounting Standard – 12 on Government Grants, particularly with respect to the grant against capital expenditure and its consequential impact on financial statements. (Para 6 in Annexure to Audit Report)
- non-updation of Fixed Assets Register and non-verification of Fixed Assets acquired prior to 2015-16 and its consequential impact on the affairs of the Park (Para 3 in Annexure to the Audit Report)
- non-accounting of refundable Earnest Money received from unsuccessful tender bidders (Para 10 in Annexure to the Audit Report)
- non-accounting of refundable Security Deposit Money received from tender awarded party (Para 11 in Annexure to the Audit Report)
- non-provision of depreciation on Fixed Assets and its consequential impact on the affairs of the year (Pt No 8 in Annexure to the Audit Report).

Opinion

In our opinion and to the best of our information and according to the explanations given to us, except for the effects of the matter described in the Basis for Qualified Opinion paragraph, the financial statements give a true and fair view in conformity with the accounting principles generally accepted in India:

- (a) in the case of the Balance Sheet, of the state of affairs of the Padmaja Naidu Himalayan Zoological Park, Darjeeling as at March 31, 2017; and
- (b) in the case of the Income and Expenditure Account of the Padmaja Naidu Himalayan Zoological Park, Darjeeling, of the statement of affairs for the year ended on that date;

Further to our comments in Annexure to the Audit Report, we also report that:

- We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit;
- In our opinion proper books of account have been kept by the PNHZ Park so far as appears from our examination of the books;
- The Balance Sheet, the Income and Expenditure Account and the Receipts and Payments Account dealt with by this report, read with the Annexure to the Audit Report and Notes on Accounts, are in agreement with the books of account;



P DHAR, Partner
Membership No. 059194
P DHAR & ASSOCIATES
CHARTERED ACCOUNTANTS
FRN - 325149F

Padmaja Naidu Himalayan Zoological Park, Darjeeling

ANNEXURE TO AUDIT REPORT FOR THE YEAR ENDED 31ST MARCH, 2017

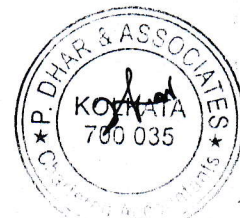
- According to the changed Accounting Policies, as resolved in the 14th Governing Body Meeting held on 16th May, 2017, liabilities and receivables at the year end were not considered in the accounts under audit. Accounts have been prepared on cash basis for the current year. The policy, however, in the preceding year was followed on Marchentile system. The net financial impact for the change of policy is not readily ascertainable (refer to Para 1 and 2 in Notes on Accounts in Note H).
- The actuarial liability towards gratuity and leave encashment, in accordance with Accounting Standard (AS-15) on Employee Benefits, as on 31st March, 2017 remains unascertained and hence unaccounted for. We have been informed that since the PNHZ Park, being a part of West Bengal Zoo Authority, the same would be provided for at their end.
- The fixed assets purchased during 2016-17 & 2015-16 have been physically verified, as informed by the management, during the year under audit. Assets acquired prior to 2015-16 were not verified as observed. The Fixed Assets Register as maintained by the Park was informed to be updated as on date.
- In the absence of the completion as well as handing over of certificates the following advances against capital nature of expenditure have not been capitalized since long:

a) Advance to Executive Engineer, P.W.D.	Rs. 9.27 Lakhs
b) Advance to Hill Development Work, P.W.D.	Rs. 9.84 Lakhs
c) Advance to Electric Dvn. Siliguri, P.W.D.	Rs. 0.64 Lakhs
d) Advance to Executive Engineer, PHE	Rs. 4.05 Lakhs

Immediate steps should be taken to adjust/settle/reconcile the above advances, which are lying unadjusted for more than a decade.

- Reconciliation of Advance to Staff, with respect to the very old outstanding amounting to Rs. 55,906.50, remaining unadjusted / unrealized since considerable period, has not been made in view of the absence of any documentation/ records etc. Further, no provision has been in accounts in respect of the said amount.

An advance of Rs. 3,92,272.00 receivable from Mr. A. K. Jha, Ex-Director of the Park is lying unadjusted since long.





P. DHAR & ASSOCIATES

Chartered Accountants

-2-

Head Office :
22/1, Matri Mandir Lane, Kolkata - 700 035
☎ : (033) 6520-3466
Branch Office :
274/1, Mahatma Gandhi Road, Khadina More
Chinsurah, Hooghly - 712 101, ☎ : 9831992146
E-mail : pinaki_dhar@rediffmail.com

- The Park does not maintain separate bank accounts for plan funds as well as non plan funds as received from WBZA, both the funds are transferred by WBZA in one bank account i.e SBI, Darjeeling (A/c No 010833265682) as maintained by the Park. Expenditure are met from the said account.
- The forest land as transferred to the park includes some parts in the possession of the fixed demand holders from which the park has not collected any rent nor renewed their licenses since 2000 subsequent to the direction of the Forest Department, West Bengal under Forest Conservation Act, 1980. In our opinion, steps should be taken to regularize the same.
- In accordance with the resolution passed in the said Governing Body Meeting, no depreciation on Fixed Assets was provided during the year. As a result, the value of the Fixed Assets was overstated by Rs. 1,52,14,380/- as on 31.03.2017 (refer to Para 10 in Notes on Accounts in Note H).
- No Internal Audit was undertaken for the year. Considering the volume and nature of transactions, an in-depth internal audit is very much required to have proper internal control.
- Earnest Money received from Tender Bidders for Rs. 2.70 lakhs lying with PNHZP Authority as on 31.03.2017 (refundable to the unsuccessful bidders), was neither deposited into bank nor accounted for.
- Security Deposit for an amount of Rs. 2.50 lakhs received from Economic Hardware was neither deposited into bank nor accounted for.



P DHAR, Partner

Membership No. 059194

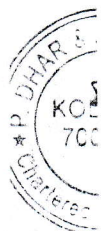
P DHAR & ASSOCIATES

CHARTERED ACCOUNTANTS

FRN : 325149E

Place: Kolkata

Date : 17.11.2017



129

PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK, DARJEELING

NOTE - H

NOTES FORMING INTEGRAL PART OF ACCOUNTS FOR THE YEAR ENDED 31.03.2017

1. Significant Accounting Policies

- The financial statements of the year have been generally prepared on cash basis departing from the mercantile system as followed in the preceding year as resolved in the Governing Body Meeting held on 16th May, 2017.
- Grants in Aid from Government or any other sources, Gate collection money and income from any sources, not recognised as "Income" at Unit level but recognised at Head Quarter, are deposited with WBZA. Expenditure are met from the Fund received from WBZA.
However, Funds, as transferred from WBZA, not utilized at the year-end are shown under PNHZP Development Fund – Note A.
- Fixed assets are stated at cost, which is inclusive of all incidental expenses incurred at the time of acquisition/installation/commissioning less depreciation upto 31st March, 2016 which was provided for on written down value of the assets at the rates considered appropriate by the WBZA Management. However, depreciation on assets for the year has not been provided as per the decision taken in the Governing Body Meeting as referred to above.
- The valuation of animals and birds has been made at the cost of acquisition. The loss of animals/birds due to casualty is charged to revenue. However no value is put against addition by way of gift/ exchange or birth of the animals/birds.
- The stock of consumable stores (Medicine and Stock at Souvenir Shop) is valued at cost while consumable stores (including stationery items and publication on zoo) are directly charged to revenue.
- Gratuity and Leave Encashment payable to the employees is accounted for on cash basis.

2. According to the changed Accounting Policies as referred to above, liabilities and receivables at the year end were not considered in the accounts under audit (as referred to in Para 1 above).



Contd.....2

3. The management and the running of the Padmaja Naidu Himalayan Zoological Park has been handed over to the West Bengal Zoo Authority (a society under West Bengal Societies Registration Act XXXVI of 1961) vide Notification No 3841-For/FR/O/11M-27/2002 dated 14th September, 2010 issued by Department of Forests, Govt. of West Bengal.
4. PNHZP Development Fund includes the value of land of approximately 27 hector which the society is holding on 31st March, 2017.
5. The forest land as transferred to PNHZP includes some parts in the possession of the fixed demand holders from which the park has not collected any rent nor renewed their licenses since 2000 subsequent to the direction of the Forest Department, West Bengal under Forest Conservation Act, 1980.
6. Consequent upon the Resolution passed at the Annual General Meeting held on 23rd August, 1997 no adjustments towards additions in value on account of birth/gift/exchange of animals and birds are being made in the accounts as per continuing practice.
7. The PNHZP management has been given permissive possession of 7 hector land for the purpose of development of Satellite Zoo Park and pheasant breeding centre at Dowhill, Kurseong by the Directorate of Forests, Govt. of West Bengal vide letter Ref No 4428/CS/2M-379/08 dated 29/09/2008. However the ownership of the aforesaid land and property handed over by the Directorate of Forest will remain with Forest Directorate.
8. The PNHZP management has been given permissive possession of 5 hectare land for the purpose of Off Display Conservation Breeding Centre at Topkeydara Block under Senchal Wild Life Sanctuary, Darjeeling by the Directorate of Forests, Govt. of West Bengal vide letter Ref No 11613/CS/2M-379/08 dated 18.03.2011. However the ownership of the aforesaid land and property handed over by the Directorate of Forest will remain with Forest Directorate.
9. Advance to Staff includes

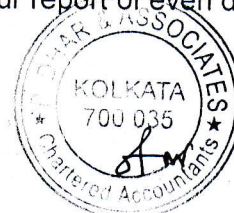
Particulars	Opening Balance As on 01.04.2016	Advance given	Advance refunded/ Adjusted	Closing Balance as on 31.03.2017
Mr. A. K. Jha, Ex-Director	3,92,272.00	0	0	3,92,272.00
Old Unreconciled advances	65,531.50	0	9,625.00	55,906.50



10. In accordance with the resolution passed in the said Governing Body Meeting held on 16th May, 2017 no depreciation on Fixed Assets was provided during the year. Had it been provided, the value of the Fixed Assets would have been less by Rs. 1,52,14,380/- as on 31.03.2017.
11. Fixed Assets purchased during the year were physically verified by the Management.
12. All personal account ledger balances, whether debit or credit are subject to confirmation.
13. Steps are being taken to regularise income tax and secretarial matters.
14. Previous year's figures have been regrouped and re-arranged, wherever necessary.


Director

Per our report of even date



P.DHAR, PARTNER
Membership No. 059194
P.DHAR & ASSOCIATES
CHARTERED ACCOUNTANTS
FRN: 325149E

Place: Kolkata
Date: 17.11.2017

PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK
WEST BENGAL ZOO AUTHORITY

Balance Sheet As At 31st March, 2017

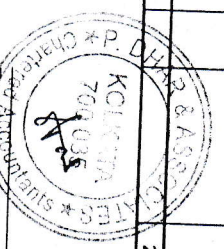
Previous Year	Liabilities	NOTE	Amount (Rs.)	Amount (Rs.)	Previous Year	Assets	NOTE	Amount (Rs.)	Amount (Rs.)
25,27,25,212.05 1,23,20,206.00	CORPUS FUND:- PNHNP Development Fund Plan Fund West Bengal Forest Directorate	A B		24,13,28,014.33 2,22,80,011.00	23,44,82,610.57	Fixed Assets:- Fixed Assets	E	24,68,50,190.57	
-1,91,67,138.82	OTHER FUND:- PNHNP Society Fund	C		32,50,163.90	32,50,163.90	Animals & Birds (Live Stock)	F	32,50,163.90	
10,17,885.00	Current Liabilities:- Duties & Taxes STDs			33,55,179.50		Current Assets, Loans & Advances:- Advances	G	33,40,179.50	
11,66,101.00 1,62,499.00 13,28,600.00	Earnest Money As per Last Accounts Add:- Received During Year Less:- Refunded During The Year		6,000.00 6,000.00		2,39,834.70 1,55,783.00	Closing Stock Medicine Souvenir Shop		2,15,722.80 3,14,647.00	5,30,369.80
46,38,779.00 26,19,201.00 56,39,509.00	Security Money As per Last Accounts Add:- Received During Year Less:- Refunded During The Year		16,18,471.00 45,28,783.00 20,80,287.00	40,66,967.00	76,667.00 8,02,198.99 1,09,16,507.05 20,87,366.00	Closing Balance:- Cash in Hand Axis Bank A/C No:- 914010000771745 State Bank of India A/C No:- 010833265482 Treasury Account		1,06,742.00 18,56,948.99 1,14,52,627.05 22,79,569.00	1,56,95,887.04
27,59,276.48 40,92,459.00	Gate Collection Remittance Outstanding Liabilities for Expenses	D		19,86,463.48 5,335.00					
0	Notes on Accounts	H							
25,53,66,310.71				26,96,66,790.81	25,53,66,310.71			26,96,66,790.81	

Director
[Signature]

[Signature]

Padmaja Naidu Himalayan Zoological Park

Member Secretary
West Bengal Zoo Authority
Member Secretary
West Bengal Zoo Authority



For: P. Bharti & Associates
Chartered Accountants
Membership No. 059194

Note-A

Padmaja Naidu Himalayan Zoological Park
Schedule of PNHZP Development Fund as on 31.03.2017

Particulars	Amount (in Rs)	Amount (in Rs)
OPENING BALANCE		25,27,25,212.05
Add:- Non Plan Grant form WBFD During the Year	4,50,62,169.18	
Less:- Utilized During the year	5,64,59,366.90	
Less:- Depreciation of Fixed Assets	-	(1,13,97,197.72)
Closing Balance		24,13,28,014.33

Note-B

Padmaja Naidu Himalayan Zoological Park
Schedule of Plan Fund West Bengal Forest Directorate as on 31.03.2017

Particulars	Amount (in Rs)	Amount (in Rs)
OPENING BALANCE		1,23,20,206.00
Add:- During the Year Plan Grant form WBFD	99,59,805.00	99,59,805.00
Closing Balance		2,22,80,011.00

Note-C

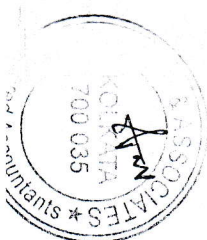
Padmaja Naidu Himalayan Zoological Park
Schedule of PNHZP Society Fund as on 31.03.2017

Particulars	Amount (in Rs)	Amount (in Rs)
OPENING BALANCE		-1,91,67,198.82
Add:- During the Year Non-Plan Grant form WBFD	1,91,67,198.82	1,91,67,198.82
Closing Balance		-

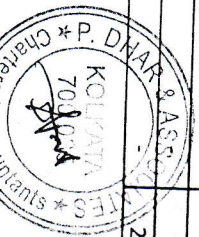
Note-D

Padmaja Naidu Himalayan Zoological Park
Schedule of Outstanding Liabilities for Expenses as on 31.03.2017

Particulars	Amount (in Rs)	Amount (in Rs)
Fees for professional Service CL	5,335.00	5,335.00
Closing Balance		5,335.00



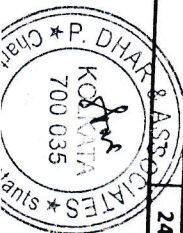
DESCRIPTION OF ASSETS	RATE	W.D.V. AS		ADDITION		ADDITION		TOTAL		DEPRECIATION		W.D.V. VALUE	
		ON	UP TO	AFTER	AMOUNT	DURING	AS ON						
								01.04.2016	30.09.2016	30.09.2016		THE YEAR	31.03.2017
PAGE-1													
Air Conditioner	0%	7,59,375.00	-	-	-	7,59,375.00	-	-	7,59,375.00				
Animal & Birds Enclosure	0%	2,70,47,260.51	-	-	-	2,70,47,260.51	-	-	2,70,47,260.51				
Audio Visual / Music System	0%	9,86,115.15	-	-	-	9,86,115.15	-	-	9,86,115.15				
Binocular	0%	6,24,913.20	-	-	-	6,24,913.20	-	-	6,24,913.20				
Boundary	0%	2,87,14,143.74	-	-	-	2,87,14,143.74	-	-	2,87,14,143.74				
Building & Sheds	0%	6,67,33,627.11	-	90,64,162.00	-	7,57,97,789.11	-	-	7,57,97,789.11				
Careless Digital Phone	0%	12,069.00	-	-	-	12,069.00	-	-	12,069.00				
Carpets	0%	691.13	-	-	-	691.13	-	-	691.13				
CCTV System & Networking	0%	1,00,41,025.38	-	1,91,805.00	-	1,02,32,830.38	-	-	1,02,32,830.38				
Coffee Machine	0%	14,773.10	-	-	-	14,773.10	-	-	14,773.10				
Computer System	0%	13,90,365.25	1,59,575.00	-	76,850.00	16,26,790.25	-	-	16,26,790.25				
Dehumidifier	0%	16,24,230.50	-	-	-	16,24,230.50	-	-	16,24,230.50				
Digital Camera	0%	10,57,317.26	-	-	-	10,57,317.26	-	-	10,57,317.26				
Electric Installation	0%	1,50,38,816.73	-	-	-	1,50,38,816.73	-	-	1,50,38,816.73				
Endoscope & Endovision System	0%	84,417.02	-	-	-	84,417.02	-	-	84,417.02				
ET / Intercom Telephone	0%	1,43,385.00	-	-	-	1,43,385.00	-	-	1,43,385.00				
False Ceiling	0%	-	-	-	-	-	-	-	-				
Fax Machine and Phone	0%	51,448.68	-	-	-	51,448.68	-	-	51,448.68				
Fire Extinguisher	0%	3,29,391.53	-	-	-	3,29,391.53	-	-	3,29,391.53				
Fish Aquarium	0%	1,70,168.36	-	-	-	1,70,168.36	-	-	1,70,168.36				
Fitness Equipments	0%	67,755.95	-	-	-	67,755.95	-	-	67,755.95				
Furniture	0%	37,07,078.71	19,494.00	3,32,735.00	-	40,59,307.71	-	-	40,59,307.71				
Generator	0%	24,60,305.33	-	-	-	24,60,305.33	-	-	24,60,305.33				
Geyser	0%	1,44,680.35	-	-	-	1,44,680.35	-	-	1,44,680.35				
Heater	0%	15,949.73	-	-	-	15,949.73	-	-	15,949.73				
Himalayan Nature Intp Center	0%	4,56,991.73	-	-	-	4,56,991.73	-	-	4,56,991.73				
Hybride Solar Light	0%	27,41,756.50	-	-	-	27,41,756.50	-	-	27,41,756.50				
Incinerator Machine	0%	5,09,794.88	-	-	-	5,09,794.88	-	-	5,09,794.88				
Inverter	0%	43,375.00	-	-	-	43,375.00	-	-	43,375.00				
Kitchen Appliances	0%	1,65,844.00	-	-	-	1,65,844.00	-	-	1,65,844.00				
Label Printer	0%	2,56,806.00	-	-	-	2,56,806.00	-	-	2,56,806.00				
Laboratory Equipments	0%	4,31,215.70	-	-	-	4,31,215.70	-	-	4,31,215.70				
Land & Land Development / Enrichment	0%	2,20,18,612.45	-	-	-	2,20,18,612.45	-	-	2,20,18,612.45				



Note-E

Padmaja Naidu Himalayan Zoological Park
Schedule of Fixed Assets as on 31.03.2017

DESCRIPTION OF ASSETS	RATE	W.D.V. AS		ADDITION	ADDITION	TOTAL	DEPRECIATION	W.D.V. VALUE
		ON	UP TO	AFTER	AMOUNT	DURING	AS ON	
		01.04.2016	30.09.2016	30.09.2016		THE YEAR	31.03.2017	
PAGE-2								
Library Books	0%	-	-	-	-	-	-	-
Machinery & Equipments	0%	12,24,992.00	-	-	-	12,29,792.00	-	12,29,792.00
Metal Detector	0%	1,84,967.95	-	4,800.00	-	1,84,967.95	-	1,84,967.95
Motor Car & Trailer	0%	2,28,573.02	-	-	-	2,28,573.02	-	2,28,573.02
Projector	0%	1,58,597.93	-	-	-	1,58,597.93	-	1,58,597.93
Public Address System	0%	5,83,200.00	-	1,84,585.00	-	7,67,785.00	-	7,67,785.00
Publication & Signage	0%	91,08,179.10	-	-	-	91,08,179.10	-	91,08,179.10
Refrigerator	0%	2,59,333.16	-	4,42,530.00	-	7,01,863.16	-	7,01,863.16
Road & Fencing	0%	1,36,94,920.68	-	-	-	1,36,94,920.68	-	1,36,94,920.68
Sanitation Sys. For Animal Enclosure	0%	97,95,048.12	-	17,93,094.00	-	1,15,88,142.12	-	1,15,88,142.12
Showcase	0%	33,60,763.00	-	-	-	33,60,763.00	-	33,60,763.00
Stabilizer	0%	7,429.56	-	-	-	7,429.56	-	7,429.56
Suspension Bridge	0%	19,14,616.30	-	-	-	19,14,616.30	-	19,14,616.30
Television	0%	13,68,876.53	53,900.00	-	29,500.00	14,52,276.53	-	14,52,276.53
Thermohygrographs	0%	1,488.30	-	-	-	1,488.30	-	1,488.30
Type Writer	0%	1,198.09	-	-	-	1,198.09	-	1,198.09
Vacuum Cleaner	0%	7,555.15	-	-	-	7,555.15	-	7,555.15
Vet Hospital Equipments	0%	23,27,883.90	-	-	-	23,27,883.90	-	23,27,883.90
Video Camera (Sony)	0%	23,009.08	-	-	-	23,009.08	-	23,009.08
Washing Machine	0%	48,263.70	-	-	-	48,263.70	-	48,263.70
Water Filter	0%	25,897.23	-	-	-	25,897.23	-	25,897.23
Water Purifier	0%	45,598.43	-	-	-	45,598.43	-	45,598.43
Water Purifier / Hot Blower	0%	6,777.24	-	-	-	6,777.24	-	6,777.24
Water Works	0%	20,16,585.09	-	-	-	20,16,585.09	-	20,16,585.09
Weighing Scale	0%	48,964.85	14,550.00	-	-	63,514.85	-	63,514.85
Xerox/Copier Machine	0%	1,82,227.18	-	-	-	1,82,227.18	-	1,82,227.18
Grand Total (A)		23,44,82,610.57	2,47,519.00	1,21,20,061.00	-	24,66,50,190.57	-	24,66,50,190.57



143

Padmaia Naidu Himalayan Zoological Park

INVENTORY OF ANIMALS & BIRDS AS ON 31ST MARCH, 2017 AND THEIR VALUE

NOTE - F

Sl. No.	Name	OPENING BALANCE AS			ADDITION BY						TOTAL		DECREASE BY CASUALTY			CLOSING BALANCE AS		
		ON 01.04.2016			Gift	Birth	Exchange	Purchase	Amount		Qty.	Amt.	Casualty	ON EXCHANGE		Qty.	Rate	Amount
		Qty.	Rate	Amount										Exchange	Amount			
	ANIMALS																	
1	Snow Leopard	9	-	-			2				11	-				11	-	-
2	Indian Tiger	3	-	-							3	-				3	-	-
3	Clouded Leopard	1	-	-							1	-				1	-	-
4	Himalayan Wolf	6	-	-							6	-				6	-	-
5	Bear Himalayan	4	-	-							4	-				4	-	-
6	Red Panda	17	-	-							17	-				15	-	-
7	Yak	2	-	-							2	-				2	-	-
8	Langur Common	4	-	-		2					6	-				5	-	-
9	Leopard	4	1,000.00	4,000.00							4	4,000.00				4	1,000.00	4,000.00
10	Himalayan Thar	8	-	-							11	-				7	-	-
11	Himalayan Newt (Blue Sheep)	11	-	-		3					14	-				12	-	-
12	Himalayan Palm Civet	29	-	-							29	-				29	-	-
13	Himalayan Palm Civet	2	-	-							2	-				2	-	-
14	Asian Palm Civet	8	-	-							8	-				8	-	-
15	Leopard Cat	2	-	-			2				4	-				2	-	-
16	Jungle Cat	1	-	-							1	-				1	-	-
17	Jackal	1	-	-							1	-				1	-	-
18	Snow Lor's	1	-	-							1	-				1	-	-
19	Markhor	5	-	-		1					6	-				4	-	-
20	Himalayan Goral	8	-	-		2	3				13	-				10	-	-
21	Barking Deer	10	-	-		5	2				17	-				12	-	-
22	Sambar Deer	3	-	-							3	-				3	-	-
23	Star Tortoise	2	-	-							2	-				2	-	-
24	Indian Sand Boa	3	-	-			1				4	-				2	-	-
25	Python	2	-	-							2	-				2	-	-
26	Russet Viper	2	-	-							2	-				2	-	-
	TOTAL	148	1,000.00	4,000.00	0	16	10	0	0		174	4,000.00	18	5	-	151	1,000.00	4,000.00



Padmaia Naidu Himalayan Zoological Park
INVENTORY OF ANIMALS & BIRDS AS ON 31ST MARCH 2017 AND THEIR VALUE

Page-2

Sl. No.	Name	OPENING BALANCE AS			ADDITION BY					TOTAL		DECREASE BY CASUALTY			CLOSING BALANCE AS		
		ON 01.04.2016			Qty.	Rate	Amount	Gift	Birth	Exchange	Purchase	Amount	Qty.	Amt.	ON 31.03.2017		
		Qty.	Rate	Amount											Qty.	Rate	Amount
	BIRDS																
27	Himalayan (Impeyan) Monal Pheasant	4															
28	Rose Ring Parakeet	6		5,07,071.00									4				
29	Kaleel Pheasant	17											6	5,07,071.00			3
30	Bhutan Grey Peacock Pheasant	6							3	2			22				5
31	Cheer Pheasant	4							2				8				18
32	Green Pheasant	1											4				4
	Chinese Silver Pheasant	17											1				4
	Golden Pheasant	32							8				25				0
	Red Jungle Fowl	29								5			32				21
36	Lady Amherst Pheasant	9							4				38				26
37	Reeve's Pheasant	8										0	9				27
38	Torraco	2		96,092.90					5				13				6
39	Macao Blue & Gold	2		2,00,000.00									2	96,092.90			10
40	Macao Red and Blue	2		3,00,000.00									2	2,00,000.00			2
41	African Grey Parrot	2		50,000.00									2	3,00,000.00			2
42	Amazon Orange Winged Pheasant	2		1,50,000.00									2	50,000.00			2
43	Terminick Tragopan	13											2	1,50,000.00			2
44	Sulphur Crested Cockatoo	2		1,70,000.00					2				15				14
45	Electus Parrot	1		84,480.00									2	1,70,000.00			2
46	Bare Eyed Cockatoo	2		1,70,000.00									1	84,480.00			1
47	Roseat Cockatoo	2		1,70,000.00									2	1,70,000.00			2
48	Cockiels	28		13,48,520.00									2	1,70,000.00			2
	TOTAL	187		32,46,163.90				0	24	7	0	0	28	13,48,520.00			28
	GRAND TOTAL	335		32,50,163.90				0	40	17		0	392	32,46,163.90			180
															27	16	0
															21	0	331
																	32,50,163.90



174

Note-G Padmaja Naidu Himalayan Zoological Park
Schedule of Advances as on 31.03.2017

Particulars	Amount (in Rs)	Amount (in Rs)
Advance to Executive Engineer PHE	4,04,593.00	
Advance to Executive Engineer, PWD	9,27,150.00	
Advance to PWD for Hill Development Work	9,84,150.00	
Advance to Staff	55,906.50	48281.50
Deposit with P & T for Telephone	10,000.00	
Advance to Ex Director A K Jha	3,92,272.00	
Electrical Division Siliguri	64,516.00	505940.50
Electricity Deposit	4,85,192.00	15000
Festival Advance to staff	10,000.00	
Permanent Advance (Mir Tshering Tamang)	3,000.00	
Security Deposit for Gas (Roshni)	3,400.00	
		33,40,179.50
Closing Balance		33,40,179.50



PADMA NAIDU HIMALAYAN ZOOLOGICAL PARK
WEST BENGAL ZOO AUTHORITY
Income & Expenditure Accounts for The Year Ended 31st March, 2017

Previous Year	Expenditure	Amount (Rs.)	Amount (Rs.)	Previous Year	Income	Amount (Rs.)	Amount (Rs.)
3,72,526.00	Advertisement & Publication	42,194.00		6,32,61,108.78	Transferred to PNHZP Development Fund		5,64,59,160.00
70,239.00	Traning Expenses	3,79,230.00					
3,85,704.00	Membership & Regist Chrg of National & Internal	1,90,384.00					
1,23,230.00	Telephone Charges	1,09,971.00					
6,54,717.00	Car Hiring Charges	8,31,288.00					
17,07,983.00	Printing & Stationery	1,61,438.00					
11,277.00	Postage & Telegram	9,235.00					
3,191.00	Bank Charges	4,118.00					
78,316.00	Misc Expenses for Administrative	3,58,559.00					
2,90,023.00	Workshop & Seminar	12,200.00					
1,76,691.00	Interest on TDS & Late Filing Fee(Old)						
-	Pension Contribution						
2,77,909.00	Municipality Darjeeling	1,88,297.00					
1,73,63,652.00	Pay & Salaries	83,817.00					
6,69,962.00	Leave Salary Contribution	1,71,00,705.00					
1,28,000.00	Ex-Gartia / Bonus	4,27,437.00					
10,60,076.00	Gratuity	1,15,600.00					
25,728.00	Staff Medical Expenses	10,08,012.00					
1,16,102.78	Medicine	88,644.00					
-	Arrear Pay & Allowances	4,00,446.00					
5,66,610.00	Over Times Allowances	4,78,796.00					
2,89,769.00	Uniform Of Staff	1,99,062.00					
42,31,232.00	Wages of Contract Employees	4,24,860.00					
49,48,124.00	Payment to Manpower Agencies	50,95,067.00					
3,77,216.00	Travelling Expenses	3,89,992.00					
92,726.00	Misc Expenses for Establishment	39,049.00					
1,02,500.00	Winter Allowance	1,00,000.00					
1,64,094.00	Administrative Charges EPF/EDLI	90,532.00					
1,16,47,229.00	Food for Animals	91,41,326.00					
8,14,121.00	Health Care Expenses of Animals	7,75,706.90					
1,470.00	Veterinary Charges	12,000.00					
1,000.00	Procurement of Animals & Birds	8,64,578.00					
19,549.00	Animal Traning Expenses						
8,31,988.00	Maintenance of Enclosure	36,06,403.00					
1,78,200.00	Wages for Casual Daily Labour						
24,64,674.00	Wages for Contractual Labour	55,71,971.00					
8,79,797.00	Research & Education	4,12,547.00					
3,33,898.00	P.O.L. Vehicles	2,83,203.00					
1,97,039.00	P.O.L. Generator	1,66,601.00					
20,62,509.00	Repair & Maint. Of Building	13,19,865.00					
-	Repair & Maint. Of Garden	38,250.00					
5,54,054.00	Repair & Maint. Of Electrical	13,240.00					



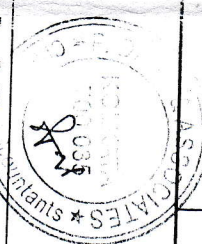
PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK
WEST BENGAL ZOO AUTHORITY
Income & Expenditure Accounts for The Year Ended 31st March, 2017

Previous Year	Expenditure	Amount (Rs.)	Amount (Rs.)	Previous Year	Income	Amount (Rs.)	Amount (Rs.)
58,799.00	Repair & Maint. Of Furniture & Fixtures	33,811.00					
-	Insurance	21,814.00					
5,53,816.00	Misc Expenses for Operational & Maintenance	5,23,567.00					
64,671.00	Computer Expenses	2,14,910.00					
-	Signage	2,62,330.00					
2,43,990.00	Souvenir	-					
89,153.00	Repair & Maint of Vehicle	2,06,437.00					
1,15,587.00	Garbage Clearing	58,330.00					
500.00	Repair & Maint. of Signage	-					
6,54,328.00	Repair & Maint. of Roads & Culverts	11,08,310.00					
6,000.00	Repair & Maint. of Water Line	1,000.00					
16,28,301.00	Repair & Maint. of Machine & Tools & Plants	4,14,120.00					
31,57,754.00	Repair & Maintenance (Hardware)	13,90,132.00					
4,41,735.00	Fees of Professional Services	2,45,465.00					
19,73,349.00	Electricity Charges	14,44,517.00					
			5,64,59,366.90				
6,32,61,108.78			5,64,59,366.90	6,32,61,108.78			1,44,00,000


Director
[Signature]
 Padmaja Naidu Himalayan Zoological Park

Member Secretary
[Signature]
 West Bengal Zoo Authority
Member Secretary
West Bengal Zoo Authority

For, P. Dhar & Associates
 Chartered Accountants
 Membership No. 059194
 FRN No. 325149E



164

Receipts & Payments Accounts For The Year Ended 31st March, 2017

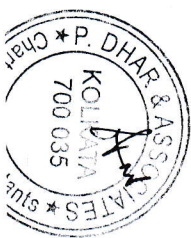
PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK
WEST BENGAL ZOO AUTHORITY
Receipts & Payments Accounts For The Year Ended 31st March, 2017

Dr.		Cr.	
Receipts	Amount (Rs.)	Payments	Amount (Rs.)
		By, Health Care Expenses of Animals	7,51,595.00
		By, Procurement of Animals & Birds	8,64,578.00
		By, Maintenance of Enclosure	33,13,156.00
		By, Wages for Contractual Labour	52,41,993.00
		By, Research & Education	3,92,947.00
		By, P.O.L. Vehicles	2,76,903.00
		By, P.O.L. Generator	1,65,201.00
		By, Repair & Maint. Of Building	11,69,238.00
		By, Insurance	21,814.00
		By, Misc Expenses for Operational & Maintenance	34,211.00
		By, Computer Expenses	2,11,910.00
		By, Signage	2,61,830.00
		By, Repair & Maint. of Vehicle	2,01,612.00
		By, Garbage Clearing	58,330.00
		By, Repair & Maint. of Roads & Culverts	11,08,310.00
		By, Repair & Maint. of Machine & Tools & Plants	3,92,740.00
		By, Repair & Maintenance (Hardware)	15,10,266.00
		By, Fees of Professional Services	2,39,065.00
		By, Electricity Charges	14,42,756.00
		By, Building & Shed Plan fund WBFD	90,64,162.00
		By, CCTV System & Networking Plan fund WBFD	1,91,805.00
		By, Projector Plan fund WBFD	1,84,585.00
		By, Signage Plan fund WBFD	4,42,530.00
		By, Machinery & Equipment Plan fund WBFD	4,800.00
		By, Road & Fencing Plan fund WBFD	17,93,094.00
		By, Weighting Scale Plan fund WBFD	14,550.00
		By, Television Plan fund WBFD	83,400.00
		By, Computer Plan fund WBFD	2,36,425.00
		By, Furniture & Fixture Plan fund WBFD	3,52,229.00
		By, Axis Bank A/C No:- 914010000771745	18,56,948.99
		By, State Bank of India A/C No:- 010833265682	1,14,52,627.05
		By, Treasury Account	22,79,569.00
		By, Cash-In-Hand	1,06,742.00
			1,56,95,887.04
			1,23,67,580.00
Total	19,91,44,515.04	Total	19,91,44,515.04

Director
 Padmaja Naidu Himalayan Zoological Park

Member Secretary
 West Bengal Zoo Authority

Member Secretary
 West Bengal Zoo Authority



For P. Dhar & Associates
 Chartered Accountants
 Membership No. 059194
 FRN No. 325149E

166