

# ZOOS IN INDIA - AN OVERVIEW

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## ABSTRACT

*The paper traces the history of zoo movement in India from the last century to the present. The various constraints and difficulties obtaining in the development and management of zoos are discussed along with the measures contemplated by the Government of India to improve the care and management of wild animals in captivity. An inventory of zoos and captive wildlife facilities existing in the country along with the respective authorities controlling these institutions has been attempted.*

Our association with animals, dates back to the advent of man on earth. Since that time when man was surrounded by animals, we have come to a stage where animals are surrounded by man. In the chronology of ascent of man as gatherer, hunter, farmer, conqueror and finally as the modifier of his environment, animals have been worshipped, domesticated, hunted and decimated. Nonetheless, they have played an important role in the history of man.

Since time immemorial animals have been kept by kings and emperors for work, warfare, food and entertainment. Thousands of years before christ, the Egyptian priests kept menageries at the temples. Cats, dogs, baboons, lions, ibises and many other animals were looked after in these collections. In 12th century B.C., the Chinese emperor Wen-Wang built a 600 - hectare Ling-U, or Garden of Intelligence to house his collection of animals. As late as thirteenth century, Marco Polo saw lions

and tigers wandering freely in the Chinese imperial palaces. However, it was in 1759, that the first animal collection that we could recognise as a zoo came to be built in Schonbrunn near Vienna by The Empress Maria Theresa and her husband Franz Stephan. Today there are 779 zoos in the world in 84 countries. The United States of America has 141 zoos, Great Britain 67, U.S.S.R. 36 and the total number of zoos in Europe is 273.

The zoo movement in our country, is 136 years old. In the last century zoos were set up in India mostly by kings and feudal lords in their states. The first zoo movement in India dates back to 1854 when the first aviary/zoo was opened by Raja Rajendra Mullick Bahadur in his private residential mansion called 'Marble Palace' in the center of Calcutta. The Marble Palace was constructed around 1840 and is one of the oldest mansions of Calcutta today. A unique collection of originals and copies of art work of

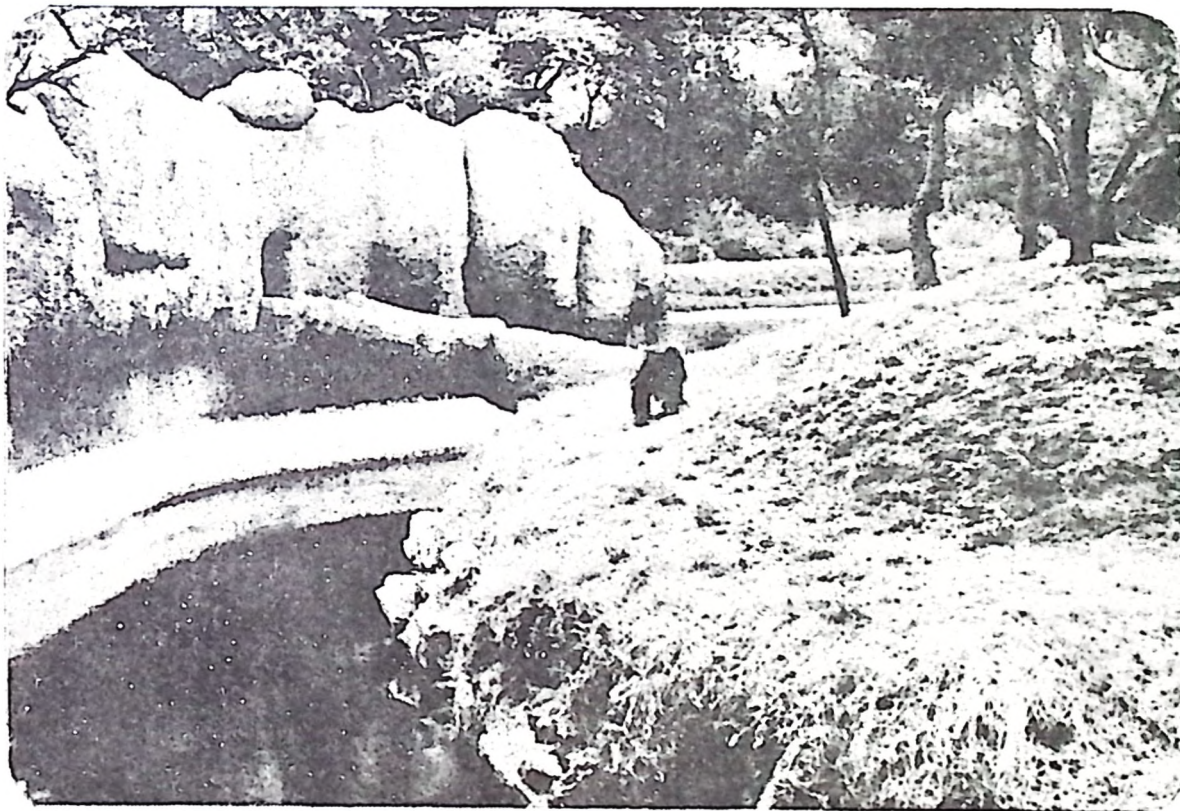
renowned sculptors and artists from all over the world are now housed in the building while rare species of parrots, macaws, and cockatoos along with a few species of mammals are exhibited within the compound of the building which is open to public free of charge.

The following year, in 1855, the Madras municipality established a zoo in an area of 20 acres/8 hectares, behind the Moor market, near the Madras railway station.

The zoo was closed down in 1980 and shifted to a new site in an area of 510 hectares. The new Zoological Park known as the Arignar Anna Zoological

established, Nagpur (1905) Lucknow, Gwalior (1921), Udaipur (1935), Bikaner and Jodhpur (1936).

The zoo movement received an impetus again after independence and a number of major zoos were set up, such as the Kamla Nehru Zoological Garden at Ahmedabad (1951), Smt. Padmaja Naidu Himalyan Zoological Park, Darjeeling (1958), Assam State Zoo-cum-Botanical Garden, Gauhati (1958), Delhi Zoological Park (1959), Nandankanan Biological Park, Bhubneswar (1960), Nehru Zoological Park, Hyderabad (1963), Kanpur Zoological Park (1968), M.C. Zoological Park at Chhatbir, Chandigarh



Park, is being built at Vandalur near Madras on modern concept of zoo design and is one of the finest zoos in the .mb7 country. The zoo at Trivandrum was established in 1857 and was followed by zoos at Bombay (1863) and Junagadh (1863) and later by Jaipur, Calcutta (1875), Baroda (1879) and Mysore (1892). During the first half of the present century only six zoos were

(1977) and Arignar Anna Zoological Park at Vandalur, Madras in 1985. In addition to these, a large number of minor zoos were set up by various state authorities during the post-independence period. Since the zoos were established at different times, beginning from the last century to the present, their objectives reflect the philosophy prevalent at the time of their establishment. Zoos set up

in the last century were meant, mainly to exhibit different types of animals. The accent was on amusement and entertainment rather than conservation or education. After independence, the zoos have become aware of their important role in conservation, breeding and education. In the absence of any accepted norms or standards for the zoos in the country, the quality of management of captive animals differ very widely from institution to institution. Their performance and development suffer from various constraints such as paucity of financial resources, dearth of adequate and qualified staff, lack of proper coordination, cooperation and communication between them, difficulties and procedural delay involved in procurement of animals, vaccines, drugs, equipment etc., multiplicity of authorities controlling various zoos and consequent absence of any clear cut policy, objectives, standards and guidelines.

The Government of India and the Indian Board for Wildlife have been duly concerned about the status of management and the condition of wild animals in captivity in the country. In order to suggest ways and means to mitigate the various handicaps in the management and development of zoos in the country the Government of India has entrusted the Wildlife Institute of India to take up a consultancy project. The main objectives of the project are:

1) To prepare a report on the status of zoos in the country with regard to their resources, constraints and requirements for the management. This information would be maintained as part of the computerised data base at the Wildlife Institute of India. The information should therefore be as quantitative and

factual as possible to act as baseline data.

- 2) To evolve a set of standards and guidelines laying down management criteria for the maintenance of wild animals in captivity.
- 3) To evaluate the facilities available for health care, disease control and treatment of wild animals in captivity and propose a model veterinary facility for zoos.
- 4) To develop guidelines for the preparation of master/management plans and conceptual plans for zoos.
- 5) To make recommendations for achieving the objectives of captive breeding programmes as outlined in the National Wildlife Action Plan.
- 6) To develop guidelines for interpretative and educational programmes within the zoos.
- 7) To develop special training programmes each for professional and technical levels of staff in the management of wild animals in captivity in general and captive breeding and interpretation in particular, and assist WII in the conduct of at least one training course in each of the two categories.
- 8) To evolve guidelines for conducting research on wild animals in captivity.
- 9) To suggest the structure, role and function of the proposed central unit under the Government of India as a nodal agency for better management and development of zoos in the country.

The work on the project was taken up from 15th November, 1988. The proposed time frame for the study is three years.

Time and again attempts have been made to prepare an inventory of zoos and similar facilities in the country. The first such effort was made in 1961 when the first issue of Indian Zoo Bulletin was published as an official organ of the Zoo wing of the Indian Board for wildlife in January, 1961 to serve as a contact media between zoos to exchange information and stimulate mutual contact.

The report published in 1975 enlisted and classified 47 zoos on the basis of area, administrative pattern, number of visitors, number of species, method of display, amenities to public, educational programmes, research facilities, other special features. In 1982, The Department of Environment Govt. of India prepared a list of National Parks, Sanctuaries, Botanical Gardens and Zoological Parks in India wherein 44 zoos were mentioned.

Since a number of new facilities have been established during the last 10-15



A total of 20 zoos alongwith their dates of establishment were mentioned in this issue. The second issue of the Bulletin published in January, 1974 listed 21 zoos. In 1973, the Government of India constituted a committee to prepare a comprehensive report on the zoos in the country and make recommendations for their management and improvement.

years, Shri S.K.Patnaik, Director, Nandanakanan Biological Park compiled information on 21 zoos /13 mini zoos, 10 deer parks and 5 snake parks/reptile parks/aquariums and brought out a 'Directory of Indian zoos' in January, 1989. The 'Zoos Print' Vol.II, No. 4 & 5 and 6 published in April-May, 1987 by the Zoo Outreach Organisation mention-

ed 122 facilities including zoos, deer parks, snake parks, and aquariums. An updated version of the list received in September, 1989 from the Zoo Outreach Organisation described 151 facilities in the country including 107 zoos and mini zoos, 24 deer parks and 3 aquariums. However, some factual errors and repetitions were noted in the list. The International Zoo Year Book, published by the Zoological Society of London every year mentions only 15 zoos in India.

The prevailing uncertainty, therefore, necessitated preparation of a fresh inventory and survey of zoos and other captive wildlife facilities in the country.

For preparing a fresh inventory of zoos, deer parks, safari parks, snake parks, nature/education/breeding centers and aquariums in 27 states and union territories, the Chief Wildlife Wardens of different states and Uts were addressed to send information on zoos and similar facilities in their respective states. The Chief Wildlife Wardens of thirteen states and Uts. responded to the query and sent details of zoos and other facilities. On the basis of information available from old issues of Indian Zoo Bulletin, Zoo Print, The Expert Committee Report (1975) and records of The National Zoological Park, a tentative list of zoos and similar facilities were prepared and cross-checked with the replies received from the Chief Wildlife Wardens of states and Uts. Further verification was done through discussions with state officials, members of voluntary organisations/and zoo staff during visits to different states.

For collection of data on individual zoos, a broad based questionnaire covering 25 different parameters was prepared and

sent to 45 zoos in the country. The initial response was very poor, but gradually data were sent by several zoos. Information/data were also collected from zoos through personal visits. Till date data on 30 zoos have been collected/received.

Additional information regarding diet, health care, veterinary facility, breeding of rare/endangered species, special features, constraints about staff, finance, equipment, educational and research activities was collected through personal discussions with staff members of the different zoo during visits. Notes on these aspects have been kept with regard to different zoos.

According to the survey conducted, under the present study, there are at present 189 facilities/institutions keeping wild animals in captivity in the country. These include 103 zoos (98 established and 5 planned/under construction), 47 deer parks, 12 safari parks, 4 snake parks and 5 aquariums. As many as 14 different authorities/agencies control and manage these institutions. The state forest departments control 136 (72%) of these facilities, while trusts and municipal corporations manage 11 and 12 facilities each (6.4%). The rest are managed by educational institutions (5) State department of environment (2) Public sector undertakings (6), Private sectors (3), State fisheries departments (3), State cultural affairs departments (2), State animal husbandry dept., horticulture dept., and Central Govt., control one each. Four zoos are under city municipality while one deer park is privately owned by the Maharaja of Vansda, Gujarat.

The highest number 28 (14.9%) of facilities are located in the state of

**Table 1**  
Number of Zoos and Captive Wildlife Facilities  
in States and Union Territories of India

State/ UTs	Zoos	Dear Parks	Safari Parks	Snake Parks	Nature/ Educa- tion/Br- eeding Centre	Aquar- iums	Total
Andaman & Nicobar Islands	1	-	-	-	-	-	1
Andhra Pradesh	3	13	3	-	1	-	20
Arunachal Pradesh	3	-	-	-	1	-	4
Assam	1	-	-	-	1	-	2
Bihar	5	1	-	-	-	-	6
Delhi	1	1	-	-	-	-	2
Goa	1	-	-	-	-	-	1
Dada & Nagar Haveli	1	2	-	-	-	-	3
Gujarat	8	4	-	-	2	1	15
Haryana	5	2	-	-	1	0	8
Himachal Pradesh	4	-	1	-	1	-	6
Jammu & Kashmir	2	1	-	-	-	-	3
Karnataka	20	3	4	1	-	-	28
Kerala	2	1	1	1	1	-	6
Madhya Pradesh	4	-	-	-	1	-	5
Maharashtra	10	1	-	1	1	1	14
Manipur	1	-	-	-	-	-	1
Meghalaya	2	-	-	-	-	-	2
Mizoram	1	-	-	-	-	-	1
Nagaland	1	-	-	-	-	-	1
Orissa	2	7	3	-	1	-	13
Pondicherry	1	-	-	-	-	-	1
Punjab	4	3	-	-	-	-	7
Rajasthan	6	1	-	-	1	-	8
Tamil Nadu	6	1	-	1	1	2	11
Tripura	1	-	-	-	-	-	1
Sikkim	1	1	-	-	-	-	2
Uttar Pradesh	3	5	-	-	5	-	13
West Bengal	3	-	-	-	-	1	4
<b>Total</b>	<b>103</b>	<b>47</b>	<b>12</b>	<b>4</b>	<b>18</b>	<b>5</b>	<b>189</b>

Karnataka, followed by the state of Andhra Pradesh which has 20 (10.6%)

captive wild animal facilities. Gujarat, Maharashtra, Orissa, Uttar Pradesh and Tamil Nadu share 5.8% to 7.9% each. Out of 103 zoos, Karnataka has 20 (10.6%) zoos while Maharashtra has half that number (Table 1).

On the basis of criteria developed by the Expert Committee (1975 Report) for classification of zoos, the 98 existing zoos can be categorised as follows:

Class	Number	Percent
A	10	10.20
B	7	7.14
C	16	16.32
D	65	66.32
	98	100.00

The largest component (65/98; 66.32%) comprise of isolated units of mini zoos, children's park, small collections of a few species and number of animals which only serve the purpose of recreation as picnic spots and tourist complexes.

A break down of various facilities vis-a-vis controlling agencies is given in Table 2. The list is tentative and subject to modification/alteration.

To day there is a popular interest in the living world. Zoos attract more visitors than many other recreational activities combined. Millions of people keep plants and animals in their home for utilitarian and non-utilitarian reasons. Wildlife programmes are very popular on television and together all these factors suggest that the animal world has a lasting fascination for man. There can be little doubt that the zoos could capitallize on this fascination to enhance our concern for the conservation of our natural heritage.

Table 2

Controlling Authorities	Zoos	Deer Parks	Safari Parks	Snake Parks	Nature/Education/ Breeding Centres	Aqua- riums	Total No. of Facilities Controlled (Legend)
1. Ministry of Environment & Forests, Dept. of Forest and Wildlife, Govt. of India	1	-	-	-	-	-	1 (Min. E & F)
2. State/UT Forest Depts.	69	39	12	2	15	-	137 (S.F.)
3. State/UT Dept. of Cultural Affairs	2	-	-	-	-	-	2 (S.C.A)
4. State/UT Dept. of Environment	1	-	-	-	-	1	2 (S.ENV. D.)
5. State/UT Dept. of Fisheries	1	-	-	-	-	-	1 (S.F.D.)
6. State/UT Dept. of Animals Husbandry	-	1	-	-	-	-	- 1 (S.A.H.)
7. State/UT Dept. of Horticulture	-	-	1	-	-	-	- 1 (S.Hort. D.)
8. Municipal Corporation	8	1	-	1	-	1	11 (M.C.)
9. Municipality	4	-	-	-	-	-	4 (M)
10. Public Sector Undertakings/Autonomous Bodies	3	3	-	-	-	-	6 (P.S.U.)
11. Trusts	10	-	-	1	1	-	12 (T)
12. Private Sectors	2	-	-	-	1	-	3 (P.S.)
13. Privately Owned	-	1	-	-	-	-	1 (P)
14. Educational Institutions	2	2	-	-	1	-	5 (E.I.)
<b>Total</b>	<b>103</b>	<b>47</b>	<b>12</b>	<b>4</b>	<b>18</b>	<b>5</b>	<b>189</b>

Even though the history of zoos in India dates back to over a 100 years, they have, with few exceptions, not been able to make any appreciable impact so far. The reasons are not far to seek. The zoos differ to a great extent in their objectives, administrative pattern and management practices. The ninety eight zoos range from isolated collections of a few species to modern zoological parks of more than hundred hectares and maintain over two thousand animals in large open enclosures. As many as fourteen different authorities control these zoos. In most of the zoos visitor education programme, animal breeding programmes and research activities are either non-existent or sporadic. Lack of motivation, resources and infrastructure to conduct these activities are the bane of the zoos in India.

The growing concern for the improvement of care and management of Wild animals in captivity in the country is reflected by the various measures under consideration of the government of India. These include the National Zoo Policy, establishment of a Central Authority for zoos and special proviso for zoos in the Wildlife Protection Act. At a time when some two thousand species of vertebrates are in danger of extinction, the zoos have

to fulfill an important role in their conservation and in this context, the zoos in India have to be better organised to accept the challenge and responsibilities in the coming decades.

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## ARTICLES INVITED!

*As we have widened our coverage and circulation, articles are invited for publication in the WII Newsletter. Kindly, see our previous issues for the pattern of write-ups and areas of coverage. Issues concerning wildlife management, biology, extension, interpretation, education, law etc. are welcome. We also cover the management of people-park interface and ecodevelopment around protected areas. Zoo management and animal health are the other topics covered in our Newsletter. Please do not forget to send maps, pictures, illustrations along with your contributions to the Editor, WII Newsletter.*