

MAJOR EVENTS AND TRENDS IN INDIAN ZOO SINCE INDEPENDENCE WITH PARTICULAR REFERENCE TO THE NATIONAL ZOO POLICY, 1998

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Previous to Indian Independence in 1947, there were only 22 established and running zoos, although there is a very rich history of zoological facilities, both public and private. The factors which influenced the National Zoo Policy, however, clearly belong to the history of zoos since Independence.

It is stated in the National Zoo Policy that most zoos previous to the last two decades were set up for entertainment rather than conservation. While "conservation" may have come on paper in the last two decades, the achievements of zoos towards that objective have not come into reality -- for a variety of reasons. The contribution of Indian zoos today toward conservation lies solely in the field of education and awareness, such as it is, ... which is not very much.

Neither the National Zoo Policy nor the Zoo Act address the central problem of Indian zoos, which is the lack of professionalism in Indian zoo personnel. This is not the fault of the individual zoo directors, veterinarians, curators and keepers but of a combination of factors in the Indian administrative system which include:

- 1. a rigid hierarchy frequently dominated by individuals with old ideas and scant awareness of modern trends in man management,*
- 2. the transfer system which prevents a genuine community of zoo personnel from emerging,*
- 3. a conservative bureaucracy and policy which is parsimonious, suspicious and conservative in the extreme of foreign travel for Indian zoo personnel and international cooperation in general.*

In the meantime, other countries in East and Southeast and even South Asia are outdoing Indian zoos on almost every front.

Neither the Policy or the Act have an adequate answer to perhaps the worst problem facing Indian zoos today -- the surplus of animals which are not relevant to conservation.

These animals come from

- i.) overbreeding through lack of systematic collection and population management,*
- ii) from confiscations of animals used for wrong purposes, trade, performance, pets, etc.*
- iii.) from the closure of substandard zoos, and now*
- iv.) from circuses which are not permitted to keep certain species.*

Zoos all over the world today practice population control to prevent more animals from breeding than are required for exhibition or possible conservation. Indian zoos have not found or put into practice a population control method for their animals as yet. Consequently, the zoos are burdened with thousands of ungulates which are, even as you read, breeding and increasing. Last year there were 7000 axis deer in Indian zoos. A "solution" of release in the wild is being practised by some zoos with no genuine habitat study or systematic monitoring of the released animals.

Animals from the other sources mentioned are being dumped on some of the good zoos in India which genuinely have a chance to become conservation relevant. The distraction and disease brought by these spurious animals will prevent the zoos from carrying out genuine conservation activities. The animal welfare community in India, instead of being a friend of Indian zoos, has emerged as their worst enemy. Science has been suborned completely to sentiment, and systematic population management for long range conservation goals comes second to the welfare of individual animals. This is not good zoo or wildlife management; good zoo and wildlife management is not possible if sentiment is given precedence over science.

That the Government of India has tried sincerely to raise a zoo community on par with the rest of the world is clear from its history which is told in the following article. Zoos, however, do not "fit" into the same strategy as other disciplines and specialisations. Zoos are completely different in orientation, complexity and requirements. Unless these special needs are recognised and a special administrative methodology and strategy emerges and is implemented, no Policy or Act or Prayer is going to save Indian zoos from mediocrity.

* This paper is a segment of a longer paper written for a Central Zoo Authority Souvenir which has not materialised.

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The Indian Board for Wildlife and other early legislation

At the time of Independence there had been 22 zoos, two of which were closed down :

1. Barrackpore Park, Barrackpore --1801 (Closed 1878)
2. Marble Palace Zoo, Calcutta -- 1854
3. People's Park, Madras -- 1855
4. Lalbaug Zoo, Bangalore -- c.1855
5. Trivandrum Zoo, Trivandrum -- 1857
6. Sakkarbaug Zoo, Junagadh -- 1863
7. Kota Zoo, Kota -- 1865
8. VJB Udyan Zoo, Mumbai -- 1873
9. Alipur Zoo, Calcutta -- 1875
10. Jaipur Zoo, Jaipur -- 1877
11. Hyderabad Zoo (old) * -- 1877
12. Udaipur zoo, Udaipur -- 1878
13. Sayyajibaug Zoo, Baroda -- 1879
14. Shivaganga Gardens Mini Zoo, Tanjore--1882
15. Trichur State Museum and Zoo, Trichur--1885
16. Chamarajendra Zool. Gardens, Mysore--1892
17. M.S. Chatrapadhy Zoo, Kholapur -- 1893
18. Maharaj Baug Zoo, Nagpur -- 1894
19. Prince of Wales Zoo, Lucknow -- 1921
20. Gandhi Zoological Park, Gwalior --1922
21. Bikaner Zoo, Bikaner --
22. Jodphur Zoo, Jodphur -- 1936

Probably the first major wildlife and zoo event after Independence came a scant five years after the new nation began. In 1952, the Indian Board for Wildlife was set up.¹ Even before that, at the state level however, the Bombay Wild Animals and Birds (sic) Protection Act was passed and this Act included provision for supervision over zoos and their licenses.

² The first inspections were done by Sri K.S.Dharmakumarsinhji, a passionate conservationist with an interest in zoos. It is interesting to note that this was not the first zoo legislation in 20th Century India. In 1904, the state government of Mysore passed the Bangalore Forest Act which had a zoological management provision : the zoo director was given the power to fine visitors Rs. 100 for vandalism.³

The Indian Board for Wildlife was a prestigious government committee, although the Prime Minister of India did not become the Chairman until several decades later. In the early days of the Government, it seems this was not necessary to give the Board importance. From its beginning the Indian Board for Wildlife was very supportive of zoos ; a few years after its formation, a Zoo Wing and a Bird Wing was set up and began to have regular meetings.⁴

All India Zoo Superintendents' Conference - 1955

About the same time, in 1955 the first All Indian Zoo Superintendents' Conference was held in the first week of May in Madras. The stated objectives were to discuss problems of zoo administration, find methods for improvement of existing zoos, and to assess the scientific, educational, recreational and aesthetic value of zoos in the community life of the nation. The meeting was attended by all the superintendents of the then major zoos of India. Their resolutions and recommendations included (among many others) exchange of animals between zoos, formation of an All India Zoo Association, expansion of scope of zoos to include rehabilitation of "denuded areas" by rearing important species in zoos and introducing them into these areas; recognition of zoos, a training centre for zoo

personnel in India; insectaria in zoos, etc. The need for a List of Zoo in India was quickly filled and appeared with the proceedings. At that time 20 zoos were listed in India.⁵ The "human factor", the combination of ego, envy and elitism which is responsible for the derailment of many good initiatives, projects and policies, might have reared its ugly head for the first time in connection with the Zoo Superintendent's meeting, although it is not possible now to understand precisely what happened. There is a curious note in the Minutes of the IBWL meeting that " the Indian Board for Wild Life did not participate in the Centenary Celebrations (of Madras Zoo) as no invitation was extended to the Board".⁶ That this fact was minuted indicates that it was taken somewhat seriously. Whether this was a genuine oversight, a case of petty politics, or a wise or unwise decision to avoid the central government has remained -- so far -- trapped in the ether of historical fantasy. One wonders why someone from the IBWL could not simply have advised the Madras Zoo that it would be better to extend a formal invitation to the Board. This type of communication gap occurs even today, sometimes with disastrous results.

A review of the subject matter for discussion and resolutions passed by the first meeting of zoo superintendents in India, shows that the seeds of cooperative management, biodiversity, and holistic conservation had already germinated. The Recommendations of the Zoo Superintendent's Conference had a place on the agenda of the third meeting of the Executive Committee of the IBWL which was held about three weeks later at Ooty⁷ and the Committee approved them. A review of the deliberations was also included in the Proceedings of the IVth Meeting of the Executive Committee of the IBWL held at Sasan Gir.⁸ Such was the importance of zoos then in the minds of the top foresters in the country. Zoos do not command such attention from the Board today.

Zoo Wing of the Indian Board for wildlife — 1956

In 1956 the Board had formed the aforementioned Zoo Wing of the IBWL which met separately and then reported to the regular meetings of the Board. The Zoo Wing met for the first time on 16 May 1956. The deliberations of the members of the Zoo Wing were astute and up to date with the rest of the world. They were concerned with animal welfare including size and amenities of accommodation, and even the provision of company if not mates for social animals, with prevention of inbreeding, education with labels for enclosures and educational publications, adequate representation of indigenous as opposed to exotic animals, research, nutrition, inventory and records, transport, and even breeding rare species for reintroduction.⁹

A wealth of information exists in the Minutes of the early official meetings of the Indian Board for Wildlife and its Zoo Wing. In those days, the Minutes of meetings and symposia were taken down very precisely and probably honestly. Every idea and phrase had to be expressed, and, that too, in the dignified language of the meeting. A careful reading of these Minutes provides a great deal of insight, simply expressed, into the conundrums which still plague zoo managers and their ambitions for their institutions.

Some years later in 1973, the Zoo Wing was replaced by an Expert Committee which toured the zoos and made a Report which will be discussed subsequently.

A later iteration called the Expert Committee of the IBWL on Zoos met in the 1980's. All of the Minutes were not available for this paper but it is safe to say that the Expert Committee functioned almost as an early Zoo Authority, discussing matters of concern to all zoos such as exchange of animals, procurement of foreign animals, surplus populations in zoo, import of drugs, etc. It is significant that there has always been some high level body which made an attempt to contend with the problems of zoos in India.¹⁰

Introduction of Lions into Chandraprabha Sanctuary - 1957

Although this project was ill-fated and involved zoos only peripherally, it serves to demonstrate the forward thinking of the IBWL. The dangers of a single population and its implications as well as the cultural importance of the lion was discussed in full at the IVth Meeting of the Executive Board in 1956. There were members present to warn of the pitfalls of such an undertaking should it fail as well.¹¹ In 1957 an early effort to introduce a major carnivore to an alternative habitat was made by the Government of Saurashtra and of Vindhya (Uttar Pradesh). Lions were taken from Gir Forest, held for some time at Sakkarbaug Zoo and finally transported 1400 hot and arduous miles through Rajasthan and kept into a holding area in Chandraprabha. They were officially released on 2 December 1957. For some time the lions bred and thrived and their number had increased to eleven at one time. However this experiment was not to succeed; the lions disappeared one by one and were not replaced.¹²

Now, 40 years later there is again a plan for a second home for lions, this time in an area of Palpo Kuno in the state of Madhya Pradesh. Much more is known today about how to carry out such delicate wildlife operations and a very careful and conservative approach is being taken.¹³ Ironically, zoo managers have not been involved in the project. It could be argued that the lions will be translocated from one wild area to another, but this will not be without some transition period in captivity. Zoo managers know best about captivity yet they are rarely called at the appropriate time and level for such projects as have been done so far in India. There are many problems to be faced with this project and enormous expense. One of the issues to be analysed on facing the 2nd 50 years of zoo management in modern India is whether such mega-projects involving mega-vertebrates, which can be uncertain at best and disastrous at worst, are the best use of money, time, energy, public good will, etc. Although this particular project will use wild lions translocated from Gir forest, zoos are considered by some as a repository for animals which can be reintroduced back into the wild. Is this really feasible? Have we really honestly thought it through considering the current state of zoo cooperation, of knowledge of demography, population dynamics, or even animal behaviour? Or it is a handy justification for zoos? Has there been even one successful reintroduction? Successful meaning monitored and proven successful.

The National Zoo — 1958

The IBWL wanted a good zoo to be founded on modern principles with open moated enclosures and naturalistic display to serve as a model for other zoos. There were already such enclosures in Indian zoos already but so far no zoo had been planned from the beginning with only such enclosures in mind. Karl Hagenbeck was called to give the design for what was then called the "Delhi Zoological Park". What was later to become the national zoo of India was given a very typically

western zoo design, with a continental theme that made it very difficult to maintain under Indian conditions. Acquiring and maintaining a reasonable number of species from all the major continents must have been an extremely difficult proposition and could not be kept up. The name was later changed to the National Zoological Park to more correctly reflect the purpose of this institution. It was administered and financed directly by the central government. The scheme for establishing a zoo in Delhi was formulated in about 1952 and the zoo was inaugurated in 1959.¹⁴

As the years passed and the National Zoo evolved, more and more administrative duties devolved upon it. Being located in New Delhi and the child of a Ministry (first Agriculture then Environment) put additional, countless and time-consuming burdens on the zoo. Later the National Zoo was made the coordinator for all Indian Zoos. The Director of the zoo was expected to carry out this formidable task as well as serve the Ministry and run the zoo singlehandedly. Coordinating the zoos was intended to mean coordinating the exchange of animals and species breeding programmes, as well as tasks such as procuring drugs and equipment for all the zoos, organising training, initiating the association of zoos recommended by the first All Indian Zoo Superintendents meeting, and even publication of the national zoo bulletin. The National Zoo ultimately was unable to function as coordinator for all the zoos. The "human factor" had taken a solid hold by this time and some of the zoos resented the National Zoo and were suspicious of its role as coordinator.¹⁵ There was very little cooperation and an early opportunity to move from menagerie to zoological park was lost.

In time, the difficult theme, increased duties, cumbersome procedures for getting repairs done as per dependence on PWD, administrative difficulties, etc., took a great toll on the zoo and it began to deteriorate despite herculean efforts by various directors. Once the process of decline set in it seemed there was no way to turn it around except to change the administration from the Ministry, which is a beastly bureaucracy unsuitable for managing live animals, to a private company with freedom to act as required for the good of the institution and its denizens. A proposal of this type was put up by the Central Zoo Authority¹⁶ but it could not make its way through the molasses of the "human factor" which took issue with the implication that government can't run a zoo.

The Indian Wildlife Protection Act, 1972

The passage of the Indian Wildlife Protection Act in 1972 was the next significant event in wildlife and zoo history after Independence. The Act made some provisions for zoos and museums, capture of animals for zoos and keeping of skins and trophies for museums.³⁹ Between the passage of the Wildlife Protection Act and the present, more than 300 zoos were set up of which there is available record. On an average this is about 12 zoos per year. Even for a country the size of India, this is a formidable number for 24 states. These zoos were under many different administrative heads — state forest departments, municipal corporation, private, industry, trust, society, and central government.

The reasons for this phenomenal growth perhaps deserves a depth of analysis which is not possible here, but a few factors in the administration of wildlife or in Indian life can be mentioned which had an impact on the founding of zoos. One may begin with the supposition that public interest in wildlife increased naturally with the passage of strong wildlife legislation. There were other reasons as well.

Some zoos were outgrowths of animal holding centres constructed to keep the animals which were rescued or trapped for different reasons, or confiscated from persons holding them illegally. These holding areas naturally attracted the public and the step towards making them a "zoo" was short. Many other facilities were started simply because a politician or public servant such as a minister, a forest officer or district collector wanted to do something for the public or politician he served.

A number of the now listed zoos are privately run "travelling zoos" which go from village to village and earn a meagre living for their owners – these might have been in existence for decades or even centuries as the family trade, along with animal trapping.

A few zoos were founded to replace old zoos or make use of royal collections. Some "specialist collections" such as snake parks were founded by individuals particularly interested in reptiles. Deer parks were started sometimes to "save" areas of land from other uses.

Finally, a few good zoos were initiated with foresight and care, out of a genuine conviction that zoos were a part of the conservation process and have been looked after very well by their state governments. In general, however, it is safe to say that most of the 300 odd zoos were set up for the wrong reasons. Time has proved this to be the case as most of them deteriorated without the personal interest of the individual who set them up and being totally dependent on the interest and financial position of the agency responsible.

Report of the Expert Committee : Management of Zoos in India — 1975

In 1973, there was great concern over the proliferation and quality of zoos in India. An expert committee was formed¹⁸ and toured the major zoos in India and came out with a comprehensive Report and recommendations.¹⁹ This Report was truly excellent. The Committee pinpointed all of the major problems facing Indian zoos and suggested reasonable and effective solutions for these problems. As is the case when there is a special committee or task force, some of the suggestions were implemented straightaway, such as the resuscitation of the Indian Zoo Bulletin but unfortunately this energy could not be sustained at that time. Some of the more powerful suggestions languished on file for a long time, such as the National Zoo Policy and Central Coordinating Body for zoos, but could be implemented finally in the last 8 years. One truly convenient feature of strong bureaucracies is that, once something goes on record under the auspices of government, it is as if cast in stone. Bureaucrats in years to come can uncover these reports and files and use them to implement many projects which otherwise might never be achieved.

Official Visit of American Zoo Experts — 1980

It is not the intention here to give undue importance to a visit from American zoo experts in 1980 to evaluate the zoos of India and suggest methods for improvement, but it was an initiative of the Government of India that it was done and thereby deserves a place in this history. The visit was sponsored by the US Fish and Wildlife Service on the invitation of the Department of Environment. Several ranking zoo directors of the American Zoo Association were invited by the Government of India to come and give their comments on the state of Indian zoos. What is significant is that the experts were very impressed with the outer appearance – design and

upkeep — of most of the zoos they visited and with the dedication and knowledge of the directors they interviewed. It is interesting to note that many of their suggestions were precisely the same as the early meeting and expert report had made. They complimented the Expert Report lavishly. The visit is also significant in that the expert visitors put great emphasis on the need for coordination and cooperation between zoos and the development of a professional community.²⁰ It is possible that their recommendation led to the meeting of zoo directors held at Delhi in 1983 which was a very well conceived and significant meeting.

Wildlife Action Plan — 1983

The Wildlife Action Plan was brought out in 1983 as a 12 point plan for addressing various wildlife issues in the country. The Wildlife Action Plan included several items pertinent to zoos, e.g. captive breeding, rehabilitation of endangered and threatened species, wildlife education and interpretation, research and monitoring, and collaboration with voluntary bodies.²¹ At the same time a scheme for captive breeding in sanctuary areas under departmental protection was set up on a 50% matching grant with the state governments. The maximum grant from the Government of India share was Rs. 50,000 which, even when matched with an equal amount from the state did not cover the cost of a captive breeding programme. Several species programmes were begun but languished a few months or a couple of years after their inception. There was also a scheme for selected zoos for conservation items on the same 50% matching grant. The Wildlife Action Plan was considered a very progressive programme for wildlife conservation at that time.

Meeting of Zoo Directors at Delhi - 1983

The National Zoological Park with the backing of the Department of Environment, Wildlife Wing, called a meeting of Directors of Indian Zoos on 24th and 25th May, 1983 at the National Zoo.²²

This was the first time an All-India zoo directors meeting had been held since 1955 (more than 3 decades) at least according to available published records. In this meeting, important Agenda items were assigned to different working groups who formulated recommendations which were passed by the entire meeting. This meeting was of a very high level and could be considered an early Species Coordinators meeting. One of the very significant working groups concerned captive breeding of rare and threatened species. This group assigned different zoos to be responsible for certain rare species and these would be considered as "approved" breeding programmes to be implemented with 100 per cent funding from the central government. Other important items were creation of a Zoo Service and conduct of workshops and seminars on important themes, etc.

One of the Agenda items dealt with the formation of an Association of Indian Zoo Directors which seems to have become combined with the concept of a central coordinating body which was described in some detail. It is clear from this discussion that the main purpose behind an Association and the distinction between an association and an authority was not given due weightage. The purpose of forming a professional association is far more profound than carrying out inspections and making decisions about animals – a professional association promotes a sort of "old boy network" through which much activity can take place in an informal way. Activities are carried out officially but the old boy network

provides a sort of lubricant which eases the way. It also promotes the right sort of competition through peer pressure and as a result upgrades the professional standing of all members. Peer pressure -- obtaining the approval or disapproval of our friends or persons we consider our equals - is a very strong tool, far stronger than rules and regulations even of government. Professional associations should be completely autonomous, however. Also, professional associations rely heavily on long-term membership, experience and expertise which - as a result of the Indian transfer system - is in short supply. Only a few Indian zoo directors have been in place for more than five years.

With regard to the idea of forming a central coordinating body, it was noted that Indian zoos were managed by six different agencies such as central government, forest department, education and tourism departments of states, trusts and municipal corporations. It was decided that this body should be called the Zoo Authority of India and decide norms for important issues affecting zoos in India. It is interesting to note that when the Central Zoo Authority was formed some years later, the number of agencies running zoos in India was fourteen!²³

In the same year (1982) the Department of Environment, Government of India brought a list of 44 zoos in India.²⁴ This was far less than actually existed. The official reply to queries about the rest of the zoos was that they were not "official" zoos, but as can be seen in a list of zoos and their founding dates published by the Central Zoo Authority, by 1982, about 172 zoos had been founded, most of them by government agencies. It is another example of the growing tendency of government to provide a sort of "window dressing" which was not the same thing as genuine attention to zoos

Zoo Consultancy Project - 1988-91

In 1988, a Zoo Consultancy Project was initiated at the Wildlife Institute of India, the premier wildlife training and research institute in India. This Project was multifaceted and generally aimed to do all the tasks which had been set by the Zoo Superintendents meeting in 1955, the Report of the Expert Committee of 1975 and the resolutions of the several meetings of zoo directors held from 1982 until date. The former Director of the National Zoological Park was the author and Principle Investigator of the Project. The Zoo Consultancy Project was to have a profound influence on the pace and direction of the zoo movement in India. Under the project, a comprehensive Report on the status of zoos in India was to be prepared, standards and guidelines for management were to be evolved along with health care and disease control, master plans and management plans, education and interpretation programmes and research. The project was also to make recommendations for achieving the objectives of conservation breeding programmes and to suggest the structure, role and function of the proposed central coordinating body for zoos, the Zoo Authority of India. Finally the project was to develop and conduct training programmes for professional and technical levels. Zoo directors with expertise in a particular area were called from time to time to discuss the various topics and help prepare the guidelines. Zoos were contacted and visited and data collected.²⁵

No time was wasted in developing a Training Course for Zoo Personnel, the first of which was held at Nandankanan Biological Park in 1990.²⁶ Every year since that year a course for Directors or Supervisory and Technical Level zoo personnel

has been conducted first by Wildlife Institute of India under the Zoo Consultancy Project and later by the Central Zoo Authority with assistance from the Wildlife Institute of India. Subsequently zookeeper training in local language was organised annually on a regional basis at different zoos funded by the Central Zoo Authority. This training is ongoing and is the only systematic and regular, fully indigenous zoo management training course of any tropical country in the world.

Jt. Director for Zoo Affairs - 1988

A major catalytic event for Indian zoos was the creation of an additional post of Jt. Director in the Ministry of Environment and Forests especially to look after zoo affairs. From this time, regular progress could be noted on behalf of the zoos in India. The combination of the Zoo Consultancy Project at Wildlife Institute providing hard information and an officer in the Ministry responsible for pushing ahead for high level changes was powerful and much was achieved as a result.

The Indian Zoo Directors' Association - 1989

As previously mentioned, the recommendation for an Indian Zoo Association was mooted as early as 1955 at the First All India Zoo Superintendent's Meeting and this was approved by the Executive Committee of IBWL and the Zoo Wing of IBWL. The Association was again recommended in the Report of the Expert Committee in 1972 and discussed further in the meeting of zoo directors in 1983. Over the next few years and several meetings Objectives and By-laws were put up and modified as different persons came and went as Director of the National Zoological Park. Finally, at a meeting of Zoo Directors held in association with a Symposium on the Role of Zoos in Wildlife Management at Sakkarbaug Zoo, a set of by-laws were approved. A President elected who would also be responsible for registering the Association which was completed about a year later.²⁷ The Indian Zoo Directors Association was duly registered and has met almost every year since either on its own or in association with the Central Zoo Authority since.

The Indian Zoo Director's Association brings out a quarterly newsletter, an annual volume called the Indian Zoo Yearbook and is in the process of bringing out a series of compendiums of research articles published by Indians from different journals throughout the years. Normally the Association is not represented at International Zoo meetings which is a great pity.

It may be very significant that the Indian Zoo Directors meetings organised by the directors themselves or, when it was formed, by the Indian Zoo Director's Association did not get the same level of attention as meetings organised in association with the Department of Environment earlier and the Central Zoo Authority more recently, and this despite the fact of those being excellent meetings. Gatherings organised in association with a central body and which include very senior officers have a different atmosphere altogether. This is worthwhile to note because in evaluating the performance of Indian zoos and the Indian zoo community at this 50 year interval, it may be useful to question whether a surfeit of centralisation and bureaucracy is the best way to build up a professional community. There are multiple areas which can be handled only by the central government as represented by the Ministry and the Central Zoo Authority, and there are areas which may be best addressed by the people actually on the job of running a zoo; there is a possibility of a loss of both professionalism and fellowship if the Directors of Zoos are unable to have a genuine voice or to speak freely. There is no attempt at the joint meetings to

control discussion; quite the opposite in fact. However, it is a fact of administrative life that senior officers, particularly in the services where there is a hierarchical organisational structure, have an inhibiting effect on free discussion.

National Zoo Policy

In the Expert Report of 1972, one of the recommendations was that India have a National Zoo Policy. In 1987, then Director of National Zoo, pushed for the idea and approached the Joint Secretary in the Ministry for Environment who, together with the NZP Director, drafted a Policy. The Policy Draft was controversial; it contained strictures such as that no zoo should be founded within 100 km of a national park and on an area less than 500 acres, etc.²⁸ It was circulated to zoo directors and Chief Wildlife Wardens in all the states for comments and, finally, a meeting was convened of zoo directors, Chief Wildlife Wardens and non-governmental organisations so that a consensus could be reached on the Policy.²⁹ A Committee was formed to re-draft the National Zoo Policy on the basis of the meeting. The Committee brought out a Draft in just a week after the meeting, which was submitted to the Ministry³⁰ where it remained on file for quite some time. An enthusiastic Minister for Environment called for the file which was again reviewed by officials in the Ministry. Officials at this time felt that a Policy without legislation would not have any effect, so the Draft Policy was used as a basis for drafting a legislation to set up the central coordinating and monitoring body for zoos recommended so many years ago. Part of the structure proposed as part of the Zoo Consultancy Project was also incorporated. This had been approved by Zoo Directors at the Sakkarbaug meeting³¹ and submitted to the Ministry in 1990. By this time, the Wildlife Protection Act required amendments which were about to be put before Parliament as the Wildlife Protection Amendments Act. The Zoo Act was incorporated into the to Amendments Act at this stage which saved many years of red tape as it was passed in the same year, 1991.

The Zoo Policy was examined and revised by the members of Central Zoo Authority and some changes were made to reflect important issues included in the World Zoo Conservation Strategy. It was then sent to Cabinet where it was approved this year, 24 years after it was proposed and 12 years after it was officially forwarded.

The Zoo Act and Central Zoo Authority

The Indian Zoo Act may be the strongest piece of zoo legislation in the world to date. It provides for an autonomous Central Zoo Authority with a membership of 12 persons (half official and half non-official) chaired by the Minister for Environment. The objectives of the Authority concerned the following aspects of zoos 1) Minimum standards, 2) Evaluation and recognition, 3) Captive breeding management, 4) Training, professional development and research and 5) Public education.³² The Central Zoo Authority has a generous budget the major portion of which it distributes to zoos to improve their facilities for animals and for visitors. An example of a priority project would be any proposal which involved setting right some aspect of the zoo that did not come up to standard during inspection.

Soon after the first Zoo Authority members were selected and the Authority set up, a committee was appointed to formulate the Recognition of Zoos Rules,³³ which laid down norms and standards by which zoos should be assessed. An Inspection Committee consisting of a minimum group of a manager, a veterinarian, and an educationist was set up and directed to

systematically inspect the zoos of India. The zoo would be thoroughly inspected and assessed according to the legal norms and standards and recommendations given for bringing the zoo into line with the norms. The zoo, presuming it fell within a reasonable standard, would be given provisional recognition, time and funds as mentioned above to carry out the recommendations of the inspection committee. Then the institution would be re-inspected and full recognition for a three-year period granted. Zoos which were clearly unable to achieve any proximity to a decent standard, perhaps lacking a mechanism for improvement or administrative structure for acceptance and matching of funds, could be requested to close without provisional recognition. In this instant, the zoo would be given six months to "show cause" why it should not be closed. The zoo would be given time to sell off the animals and some funds to compensate their workers. If the zoo could not dispose the animals, the Central Zoo Authority would find another zoo which would take them and also support them for their entire lifespan.

Much of India's zoo culture is governed by the country's religious, social and even political mores. The Hindu religion as well as some other sects honor life in such a way that precludes the taking of any life for any reason, even — except in very extreme cases — to end suffering. Therefore, the management practice of euthanasia or culling surplus animals is not an option. Moreover, most of the zoos do not want to take animals from the kind of zoos that have to be closed, as they are likely to be unfit, or at best very common species which any zoo has in plenty. Consequently, closing zoos cannot be undertaken lightly for many reasons, not the least of which is disposal of the animals. Yet, there were plenty of zoos which were a disgrace to the Indian zoo community. It had to be done.

The Minister for Environment at the formation of the Zoo Authority suggested a methodology or philosophy for inspection of the zoos which was very wise. He said that the zoos should be evaluated not against an "ideal" standard but according to one which would make it possible for them to improve. In the second and subsequent phases of inspection they could be given a more rigorous scrutiny until a ideal appropriate for tropical conditions was reached. This way of thinking was followed to the extent possible during inspections.

In the Zoo Act the definition of "zoo" was deliberately contrived so that it would include practically any animal facility for the public, even (one could say, especially) travelling menageries, the tiny zoos in travelling cages which move from village to village with no respite from the tiny cage or proximity to visitors for the animals. In several other countries, zoo is defined as a "stationary" institution. In the case of the Indian Zoo Act however, it was desirable to insure that the Act could be applied to all substandard facilities which, if the definition excluded movable zoos, it could not.³⁴ Now even the travelling menageries, which number in dozens, can be inspected, found wanting and requested to close. In practice, this has proved to be very complicated due to a variety of social, economic and political factors but it has been done.

Now, virtually all the zoos have been inspected and given an improvement programme. Most of them have been given financial assistance as well as extensive technical advice. In the process numerous lessons have been learned

Many of the zoos have carried out some of the improvements

and brought their institution up to a better standard but some have been unable to do so. In some cases this inability has been due to the "human factor" by which interference from the centre may have been resented, or obstruction has been practiced for its own sake or out of inertia, or simply conclusions not agreed. In other instances, it seems simply beyond the administrative capacity of the zoo and their government to coordinate the work appropriately and in time. It may be that in some situations the old bugger-bear of Indian zoo administration, transfer of officials, might have delayed, diverted or destructed the process.

Whatever the rate or degree of consumation of improvements of zoos, one major achievement outshines any lacunae, and that is the fact of having a clear picture or inventory of the state of all the zoos in India. Before the Central Zoo Authority, there was almost total darkness about more than ¾ of the country's zoos. It was not even known how many zoos there were, much less what their condition. Now there is a list of zoos with all their features, the species, sex and number of animals, staff pattern, visitation and so on. A wealth of information now exists in the Central Zoo Authority data base from which researchers and analysts can pull a great variety of useful conclusions. This achievement alone puts India ahead of many countries.

One of the major reasons for formation of a central coordinating body given in the past such as the 1975 Expert report was the concept of creating a separate Zoo Service so that the transfer of officials would be from zoo to zoo and a professional community could build up. However, as a result of the diversity of organisational patterns and the complications arising from this, no one so far has been able to think of a way this could be done. Some of the State Forest Departments have evolved a policy of allowing individuals trained and experienced in wildlife or zoo management to stay in these fields. This is not an ideal or final solution but if the state government is truly interested in their zoos and maintains the policy, it is far better than haphazard transfer of officials. In the opinion of this discussant, it is this factor, more than any other, that has prevented the growth of a genuine professional community and excellence in zoological institutions in India. It is not, however, the only factor as there are plenty of zoos with directors in place for decades which are no better off, and often much worse off, than zoos with many directors.

State of the animals

The animals in the zoos of India consist of both indigenous as well as exotic species. For the most part the exotic species are not rare and endangered and India is not a participant in any international species breeding programme involving exotic species. It has been the policy of the Government of India for some years to focus on indigenous species and this is an appropriate policy. In fact it should probably be more rigorously until breeding programmes for Indian animals are established and well organised.

Unfortunately, India is not a participant in any international species breeding programme involving Indian animals either! There is a Red panda breeding programme in which animals have been sent from European zoos to the Himalayan Zoological Park which coordinates the Red panda programme,³⁵ but so far it is only one way. A great many zoos in the world hold endangered Indian animals which they have bred with careful attention to genetic and demographic principles. They are willing and even anxious to part with animals for the sake

of conservation programmes but this aspect of zoo conservation is moving very slowly in India. The reasons are many – communication difficulties, legal and administrative constraints, policy and philosophical differences ... and probably the ubiquitous "human factor".

Even within India it has been almost impossible to move animals. The Indian Tiger Breeding Programme languished for more than a year before even one animal was moved to the designated zoo. It is possible the peculiarities of the Indian administrative system, perhaps especially the hierarchy of officialdom and its constraints and penalties, combined with the human factor which is at fault here.

The state of the animal collections and populations in Indian zoos is full of irony and anomaly. A biodiversity workshop held in 1997 assessed all of the Indian mammals using the IUCN Red List Criteria. The list of threatened species was compared with the list of animals in Indian zoos according to the 1997 Central Zoo Authority inventory. The comparison revealed that a very small percentage of the mammals in captivity belonged to threatened categories, as compared to animals which fell in non-threatened categories of "least concern." The percentages are in inverse proportion to what they need to be for strengthening conservation efforts or providing a back up in case of disaster. What can be done about this. Again sentiment and selfishness dominate. Culling is not permitted due to culture and religion. Animal welfare agencies, which might be of genuine assistance in this regard by providing alternative facilities for surplus animals, not only will not do so but want to keep putting more and more animals into already overcrowded zoos.

Unless some of these problems are rectified, it is difficult to see how there can be a coordinated breeding programme for any animals in the Indian zoo scenario. Without scientific management and coordinated breeding programmes, both of which have not materialised in Indian zoos with respect to this aspect of animal management, the *ex situ* conservation in zoos in India -- has no meaning at all.

There are many individuals and institutions of good will and knowledge in India which -- if they pooled their knowledge and energy in a genuinely cooperative spirit -- could get zoos on the right track. It seems that this never quite comes together, however. Good ideas which could transform the zoo scenario often cannot be implemented for the intervention of a single politician who wants to grandstand, a single bureaucrat who can't tolerate a lessening of government power, a single expert who wants it his way or no way or a single NGO/NGI which had rather subvert than submit.

The result is that meetings which might have begun with a simple and clear objective and a scientific pathway, end up like patchwork quilts of ideas, no one of which will bring about any improvement but, on the contrary, create confusion. The interests of the animals and of conservation are sidelined for the interests of personalities, and the "human factor" continues to subvert the best ideals and principles of the same species.

There is only one way to set this right -- personal honesty ... rigorous self-honesty and a willingness to sacrifice something of one's own for the common good. Perhaps this is an impossible dream. History has proven it so, so far.

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