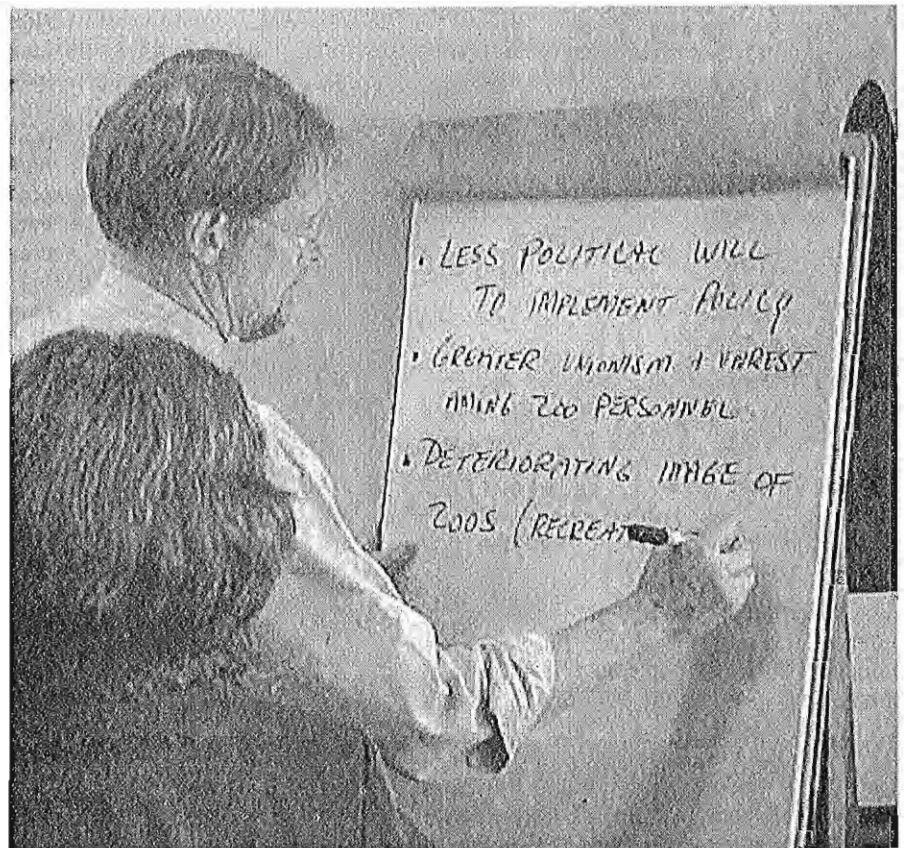
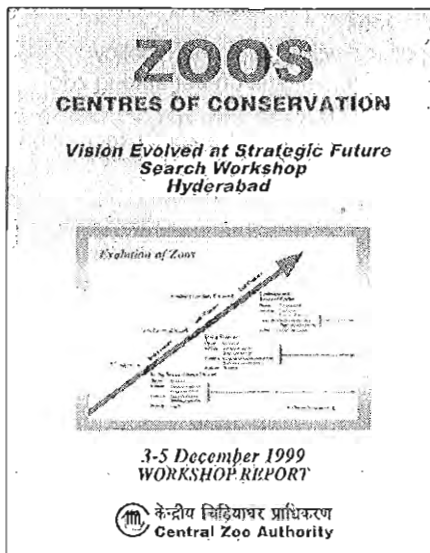


# Workshop Report : Zoos Centres of Conservation, a Vision Evolved at Strategic Future Search Workshop, Hyderabad, 3-5 December 1999 \*

*This is a summary of the Strategic Futures Workshop Report which was released by CZA recently. The unique features of such a workshop are the carefully planned structure (from invitation to implementation), the expert facilitation, and the long-range vision which emerges, which includes individual commitments from participants who pledged to do their part from their personal interest and not just as their professional duty.*



Facilitators Dr. Harry Vredenburg and Dr. Francis Westley record participants view on external and internal forces shaping the Zoos

## INTRODUCTION:

A Strategic Future Search workshop was convened by the Central Zoo Authority at the campus of MANAGE, Rajendra nagar, Hyderabad from 3rd - 5th December 1999. The theme was "Visioning the ideal Zoo of the future a new role for education and conservation". This was to sub-serve the main objectives of Zoos laid down in the National Zoo Policy in 1998 i.e., complementing and strengthening national efforts in conservation of the rich biodiversity of the country, particularly wild fauna. On the 9th November 1999 the Central Zoo Authority invited 43 persons drawn from various fields in service Zoo Directors, Veterinarians, Retd. Zoo Vets, Wildlifers, Animal Welfare People, Press, Non Governmental Organizations, Industries and others linked with Wildlife Conservation in the country, a total of 41 persons.

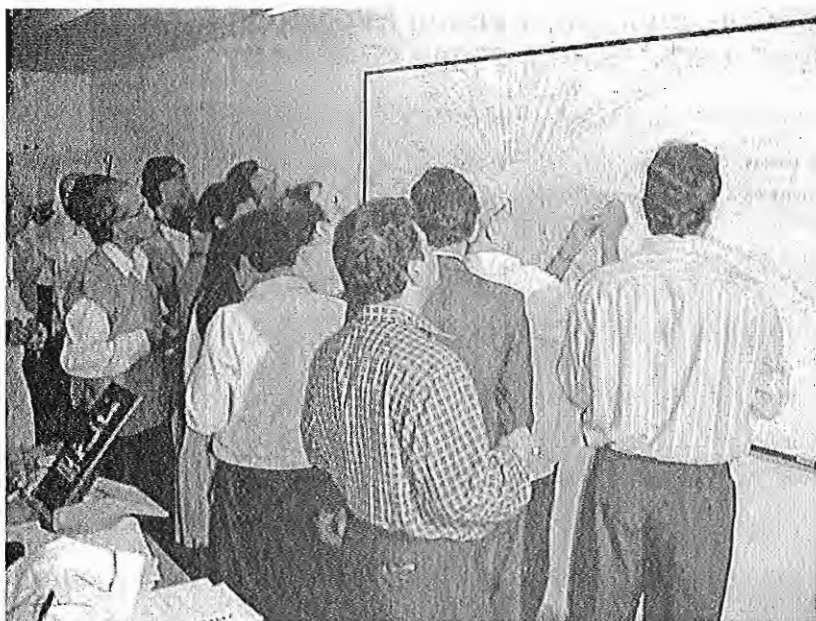
The Conference began with an introduction by Shri S. C. Sharma, Addl. Director General of Forests (Wildlife) Government of India, who referred to the various developments in conservation and education through zoos in India. He emphasized the need for looking at the future; setting priorities and milestones, which will help the Wildlife Wing of the Ministry of the Environment and Forests, Central Zoo Authority, individual zoo authorities, state governments and experts, etc. A vision on this could be developed in a workshop of this kind, where experienced professionals stay closely together away from their routine chores and exchange experiences of the past and vision of the future, thereafter evolve a long-term plan relating to the role zoos would play in conservation of the wild fauna and as education awareness centers.

Shri S.C. Sharma introduced the Facilitators Dr. Francis Westley, Prof. of Strategy at McGill University in

Montreal, Canada and Dr. Harry Vredenburg, Director of Environmental Management and Sustainable development programme at University of Calgary, Canada who have a vast experience in conducting and facilitating such kind of Workshops for the Conservation Breeding Specialist Group (CBSG) and International Union of Directors of Zoological Gardens (IUDZG).

After the brief introduction of Shri Sharma, the two facilitators explained the manner in which the workshop would progress, the participants would review the past milestones in the evolution of zoos, the external and internal forces shaping the zoos, idealize the future of the zoos in 2010, map the path from the present state to the future and putdown steps for action, which could be realized by responsible persons in the central government,

\* Central Zoo Authority, Bikaner House, Shahjahan Road, New Delhi 110 011



Participants all contribute to a "Mind Map" of the Indian Zoo community (See Illustration below)

state government, Non governmental organizations and individuals. The final product of this workshop would be in the form of a guiding vision for the future and routes for reaching the goal.

A workbook which was prepared by the facilitators were circulated to all the participants. A copy is appended to these proceedings. The participants were asked to write events of importance in the history of Indian zoos pre 1950's to the present under the category of personal, national and global milestones. These were later transferred to the timelines on the flipcharts.

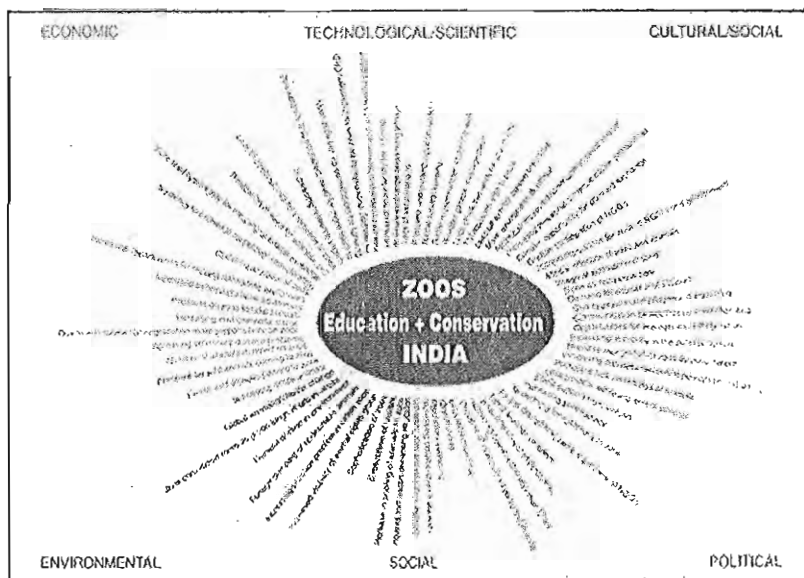
These events were later discussed by five groups formed out of the participants and were analyzed for patterns. The discussions were



on a no holds barred basis and intended to bring out the underlying harmony conducive to strategy formation and action.

Next, a discussion on the trends impacting zoo conservation and education in India prepared individual participants for a group exercise of creating a "mind map" of these trends. The participants prioritized the various trends which had been written on a large piece of paper by putting coloured dots beside the trends, they considered most important and thus ranking them as follows:

1. Pressure on zoos to take animals due to increased environmental stress
2. Increased need for staff education
3. Improving quality of animal management
4. Increasing opportunities for non-commercial naturalistic zoos
5. Less political will to implement policy
6. Greater unionism plus unrest among zoo personnel
7. Deteriorating image of the zoos (Recreation only)



On the same day it was time to begin dreaming of the ideal zoo, a theme which was carried to the next two days. The participants were asked by the facilitators to forget the past, problems and obstacles, and just imagine their ideal zoo.

Working groups were formed among the participants to put these dreams into a form -- some as news story, some as magazine report and some as a play with symbolic illustration of their dream.

Later on these symbolic illustrations were combined into one to represent the whole group's vision. A strategic vision for 2010 was developed.

Participants recorded the experiences which led them into zoo work

## STRATEGIC VISION - 2010

*"Our Zoos will have healthy animals in eco-system based naturalistic enclosures, supportive to in situ conservation with competent and contented staff, good educational and interpretative facilities, the support of people and be self sufficient".*

The remainder of the workshop was devoted to investigating ways and means of meeting the dream and realizing the strategic vision for 2010. Participants from various groups (viz., collection and exhibit planning, animal management, conservation and research and zoo education and sponsorship) were invited to make commitments as to what they would as individuals do to improve the zoo as centers of education and conservation.

### STRATEGIC FUTURE FRAME WORK FOR ACTION:

In order to achieve the vision of 2010, participants to the workshop were divided into following groups which held working sessions and identified areas of importance

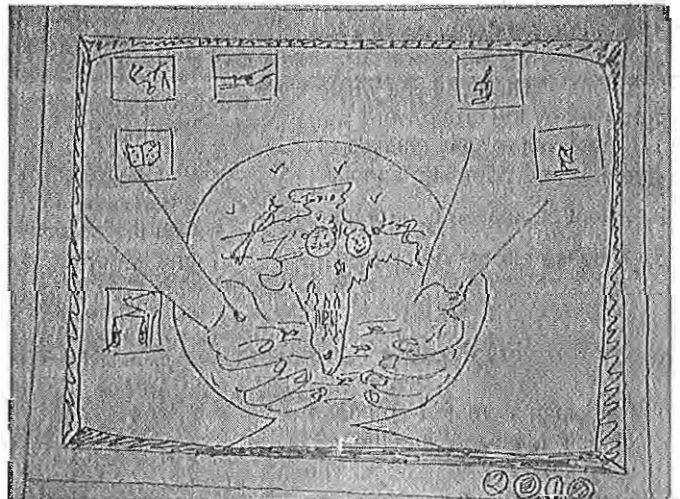
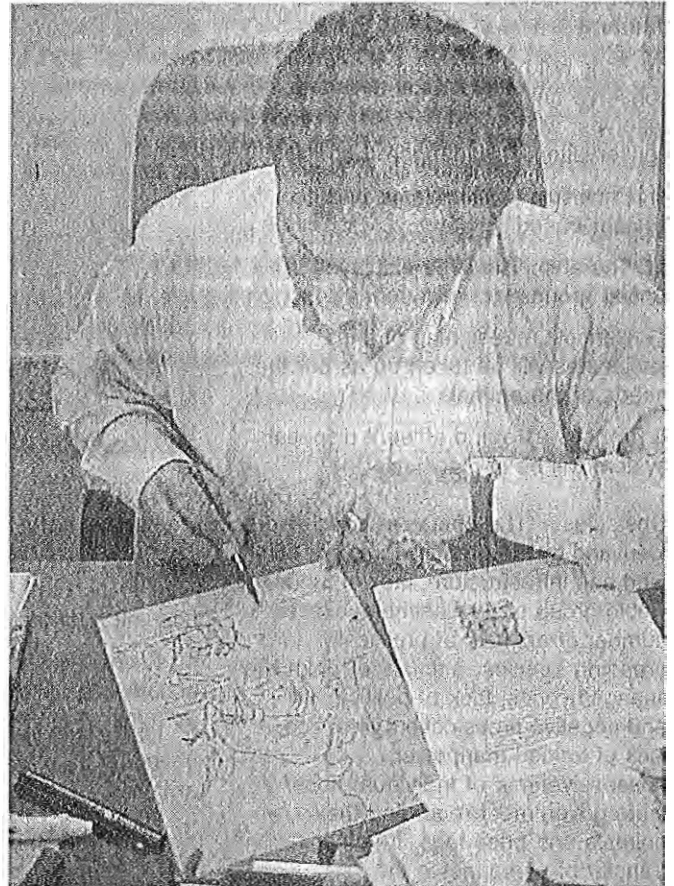
1. Collection and exhibit planning group
2. Animal management group
3. Conservation and research group
4. Education and sponsorship group



One of the visioning working groups -- this one worked on a recovery programme for Malabar civet with zoo conservation playing an important role.



Another working group expressed their vision with a "Star News" interview of a zoo director



Encapsulating the vision of an ideal zoo in a graphic representation was also part of the assignment. A zoo director (top) work hard on the vision statement of his group and displays the result. The "cleaned up" versions are on the page after next.

# 1. COLLECTION AND EXHIBIT PLANNING GROUP:

The purpose of this group was to deal with collection and exhibit planning in the zoos. The following areas were identified

## Future . . . .

- a) The zoos will exhibit animals as per regional, national and international demand
- b) Zoos will be theme based to conserve animals of local biosphere reserves, with emphasis on conservation of endangered species
- c) Enclosures will be large and eco-system based.
- d) The animals will be displayed in Social groups
- e) Periodic redesigning of the enclosures will be taken up as per the needs of the animals
- f) Proper waste and effluent disposal system will be in place.



Working group members : P.R. Sinha, J.H. Desai, Sally Walker, A.V. Joseph, Ms. Satnam Ahuja, Dr. R.K. Sahu

**Obstacles --** The obstacles which were identified by the groups were lack of land and infrastructure, lack of funds, viable group size of animals, excess number of animals of prolifically breeding species, animals of unknown lineage/hybrids, lack of political will and negative press coverage of zoo, lack of trained manpower, possessiveness of individual zoos/ state government regarding their animals and price tags, frequent transfer of personnel in the administrative and supervisory level and lack of Indian personnel for drawing up master plans of zoos.

**Solutions --** The solutions which were proposed by the group were

1. Phase out excess animals of common and domestic species
2. Adopt population control measures.
3. Release excess herbivores,

- primates, small animals in such reserves which have low or nil population of the species
4. Exchange animals between zoos to accomplish socially viable groups
5. Lobby with individual zoos/state government to abolish price tags on animals
6. Provide environmentally enriched ecologically compatible exhibits for the animals.
7. Use of invisible barriers
8. Putting to use modern gadgets for feeding the animals and cleaning enclosures. Reduced human imprinting
9. Services of non-governmental organizations to be taken for lobbying with the politically influential people and the press to gain support for the

zoos.

10. Train personnel with help of Wildlife Institute of India, Conservation Breeding Specialist Group, Species Survival Commission.

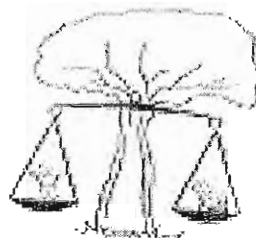
11. Ensure continuity of personnel in the supervisory and administrative level

12. Train personnel for drawing up master plan and management plan for zoos.

In order to achieve the above solutions, support of Central Zoo Authority, concerned government departments, national and international policies and legislation should be taken. The action steps and time lines to achieve the objectives were drawn up by the group and are presented as below:

## Ideal zoo

Participants created an image of their "ideal zoo" and then were asked to illustrate it. The results were evocative and sophisticated. This exercise helped people to visualise better what a zoo should be.



The Ultimate



Symphony of Nature  
200 - 2010

1. COLLECTION AND EXHIBIT PLANNING GROUP		
Action Steps	Objectives to be achieved	Time frame
1. Training and Technical know how of preparation of collection planning and master planning	Viable group size from now to two years: Zoo Directors ii) Prepare standards / guidelines for master planning: Central Zoo Authority iii) Zoo Outreach Organisations / CBSG India will compile material from Zoos in other regions and collection plannings and master planning iv) Zoo Outreach Organisation will provide information on status of wild animals (India) for use in collection planning	6 months
	To prepare management plan for Kanpur Zoo. Wildlife Institute of India (WII) will help develop guidelines for zoo master plan and management plan. Zoo Outreach Organisation will write articles for the press and for zoos that need help justifying regional display or lack of exotic.	1 year
	Assess training in preparation of master plans: Central Zoo Authority, Zoo Outreach Organisation / CBSG, India will plan organize a course on Master Planning and Collection Planning involving resource persons from India and abroad.	1 ½ years
	Zoo Outreach Organisation will help create an ideal model and maintain upto date conservation directions	2 years
2. Alternate area for Zoos which are congested at present.	Site inspection / selection	6 months
	Acquire area	1 -1 ½ years
	Master planning layout planning infrastructure designing and preparation of a master plan: Central Zoo Authority	2 years
	Start implementation	5-7 years
	Action complete	10 year
3. Phase out surplus, common, hybrid, domestic species	Population control measures, gift and exchange, feed to zoo animals build public support Zoo Outreach Organisation will support any zoo in its effort to phase out excess animals by writing favourable articles explaining to the public about it.	6 months – 1 ½ years
4. Designing of enclosures	Zoo Outreach Organisation will collect materials from old Zoos that have been renovated in recent times for use by the Central Zoo Authority consultants and zoos. Assist in planning of enclosures : Central Zoo Authority	6 months
	Assist in designing of enclosure, modern cages with gadgets for cleaning and feeding : Central Zoo Authority	1 year
	Provide financial assistance for new enclosure : Central Zoo Authority	2 year
	Action Complete	10 year
5. Signages	Data collection, selection of materials, allocation of funds. Center for Environmental Education will support signate effort, Zoo Outreach Organisation will collect and distribute example of good but do able signage from both Indian and foreign zoos into a book for use of zoos	6 months - to 1 year
	Action Complete	10 year
6. Stake Holders	Identify lobby, theme work and training, identify relevant groups, create effective awareness. Zoo Outreach Organisation will create theme work training modules for different size and budget and approach with zoos.	6 months - 1 year



## 2. ANIMAL MANAGEMENT GROUP

The purpose of this group was to deal with the animal management in zoos. Following areas were identified.

### Better Animal Management:

a) Permanent trained and experienced veterinarians and support staff need to be recruited

b) Adequately equipped hospitals, mobile clinical quarantine facilities, and diagnostic labs.

c) Linkage with research institute and veterinary colleges locally and globally through Med-Arks.

d) A workshop/conferences computer networking for exchange of knowledge

e) Polyclinic approach whenever feasible with backup panel of experts Training of interns of veterinary graduates.

### Animal Friendly Care:

a) enclosure enrichment

b) regular screening for zoonotic diseases and maintenance of hygiene

### Bio-Technology

a) Application of bio-

2. ANIMAL MANAGEMENT GROUP		
Action Steps	Activities	Time Period
Better Animal Management, animal-friendly care bio-technology and nutrition	Till such time regular veterinarians are arranged in Zoos, to optimally utilize resources, the Chief Wildlife Wardens of all the states will convene a meeting to ensure linkages and develop mechanism for veterinary support to the Zoos	6 months
	Major Zoos will make arrangements for support, improve the Hygienic conditions and establish linkage with veterinary colleges and other institutions	3 months
	Zoo Outreach Organisation will compile briefing books of appropriate Zoo nutrition material and provides training opportunity to Zoo Veterinarians and Curators	1 year
	Veterinary Council of India, Indian Veterinary Research Institute and WII, India will develop a package to extend support to major Zoos and smaller facilities	3 months

technology in conservation including surplus population control

b) Advance breeding practices artificial insemination, embryo-transfer, DNA fingerprinting for species characterization and selected planned breeding.

c) Avail services of qualified nutritionist for qualitative and quantitative evaluation of animal diet. The action and timelines to achieve the above said objectives were drawn up.

*Working Group members : Dr. M.A. Salam, Mr. R.S. Badhauria, Mr. M.G. Gogate, Mr. A.K. Das, Dr. V. K. Sharma, Dr. R. L. Singh, Dr. L.N. Acharjyo, Dr. B. M Arora and Ms. Geetha Seshamani.*

## 3. CONSERVATION AND RESEARCH GROUP

The Purpose of this group was to deliberate on the issues of conservation of wild fauna and research needed in providing better upkeep facilities for the animals and for their further growth. The following areas were identified for drawing up an action plan.

a) Linking of zoos with conservation of species and their habitat through education, documentation/dissemination of information, *in situ* information input from Protected Area management and wildlife researchers and designating qualified personnel in zoos.

b) Prioritize species or a habitat for rational selection. Ex: Primates, Hornbills, Pheasants, Raptors, Turtles, High altitude zones and grasslands.

c) Recovery team of experts and zoo staff, simulation of habitat, appropriate enclosure, coordinated collaborated and network with other zoos.

d) Identification of animals and procurement, quarantine facilities, breeding plan, marking, population control in captivity.

e) Use of advance reproductive techniques

f) Establishing genome banks

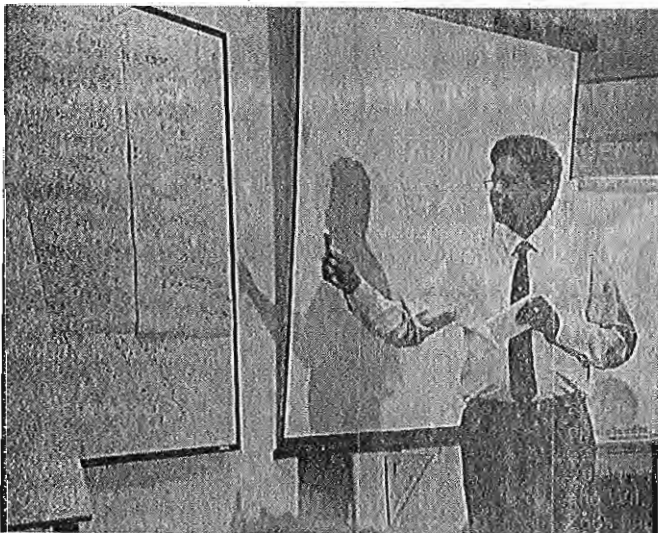
g) Simulation identification of habitat for reintroduction, collaboration with relevant groups and habitat restoration and preparations.

h) Plan re-introductions based on IUCN/SSC guidelines, develop a monitoring protocol, research and collect data on related aspects (In Zoos and *in situ*).

An Action plan with the timeframe was suggested by the group to achieve the identified objectives, which is as follows:

*Working group members : B.C. Choudhary, S. Molur, N. Krishna Kumar, N.C. Bahuguna, Rahul Kaul, Goutam Narayan, Bipul Chakraborty, C.S. Yaiakki, Pushp Kumar, S.K. Patnaik, N. Rajashekhar, T. Ramakrishna and R. Rajamani.*

Photo left : B.C. Choudhery gives the report of the conservation and research group.



3. CONSERVATION AND RESEARCH GROUP	
Strategy	
Partial autonomy of Zoo in Andhra Pradesh	Submit proposal for legislative change, if required. Share proposals, experience and motivation with other zoos.
Sponsorship/ Adoption by corporate sectors in Chennai Zoo and Zoos in Andhra Pradesh	Get government order Contact corporate bodies Organize workshops MOU with participating corporate bodies Share experience with other Zoos Initiate process on the similar lines efforts in Andhra Pradesh
Autonomy of Zoos Mysore Zoo, Darjeeling Zoo	Gather information on how autonomy was achieved and disseminate it to other zoos through Central Zoo Authority (2 months)
Sponsorships in Trivandrum Zoo	Prepare proposal (1 month) as the state Govt. has already approved Get permission ( 4 months )
Gift shop at Nandankanan Zoo	Permission sought. Establish shops through registered societies Designing of Products Establish shop, begin sale and monitor progress (1 year) report status (2 year)
Share information on collaborative Zoo research with all Indian zoos	Pass on the information to Central Zoo Authority for distribution to all Zoos.
Wildlife Institute of India training workshops for producing project proposals	Conducting Workshops Project document to reach different agencies Financial and logistical support to Wildlife Institute of India for a workshop by Andhra Pradesh
World Pheasant Association Avicultural workshop	Workshops in zoos/ captive animal collections
Setting up a website for awareness about Indian zoos by Zoo Outreach Organisation	Raise funds and setup the Website Request zoos to provide information for the site Create Zoo database as information becomes available
Distribution on database, Galliformes bibliography on pheasant conservation to Central Zoo Authority	Pass it on to the Central Zoo Authority for distribution Conduct the programme for two trainees at a time on response (duration to be decided on basis of awareness and experience of the trainee)
Durrel Wildlife Conservation Trust – Pigmy Hog Conservation Programme Internship programme for specialized training on conservation and breeding on endangered species	Conceptualized and send information to Central Zoo Authority and Zoo Outreach Organization for dissemination Conduct the programme for two trainees at a time on response (duration to be decided on basis of awareness and experience of the trainee)
Full income tax rebate for donors to Indian Zoos.	Proposals to be mooted, approach CBDT Decision and action by CBDT to be relayed to the Zoos. Zoo to take up the issue with local authorities.
Ploughing back revenue collected from Zoos in Andhra Pradesh	Submit proposal Get order from State Government
Research in Zoos-ongoing project of Wildlife Institute of India	Make research reports available to different Zoos through Central Zoo Authority
Development animal selection protocol for Indian Zoos	Complete and develop protocol via Central Zoo Authority and Zoo Outreach Organisation
Institute of Zoo Science	Propose concept paper to general body of CZA. Follow up MoEF
Central Zoo Authority award for best managed Zoo	Established award
Problem of air transport of Zoo animals	Write to Civil Aviation Ministry concerning safe and timely transport of Zoo animals, with copies to Indian Airlines and Central Zoo Authority
Help Nandankanan Zoo, devastated by cyclone, in rebuilding enclosures and in landscape planning	Now to two years
Indian Zoo Director Association compendium	Publish and distribute
Document on issues related to inherent problems of preparing a collection policy and in animal exchanges	Submit a 2 page document to Central Zoo Authority for follow up with Ministry of Environment & Forests (1 month) Central Zoo Authority will follow up Ministry of Environment & For. And Forest Commissioners / Secretaries of States (3 months) Get order from State Government

## 4. EDUCATION AND SPONSORSHIP GROUP

The purpose of this group was to deal with the Zoo education and awareness among the visitors and garner support for Zoos through sponsorships. The identified themes for deliberations by this group were

- a) Signage
- b) Interactive live interpretation (Keeper Talks), Interpretation centres
- c) Performing arts
- d) Guided tours
- e) Special activities for schools, distribution of subsidized literature, audiovisual programmes
- f) Use of mass media
- g) Library and Website
- h) Zoo outreach activity (Eco-clubs)
- i) Observing of special days and weeks
- j) Income Tax exemption, publicity, special bonus to sponsorers.



An action plan with a timeframe was suggested by the group to achieve the said objectives.

*Working Group members: Mr. S.C. Dey, Mr. B. Vijaya Raghavan, Dr. Rama V Kumar, Ms. Meena Raghunathan, Ms. Mamta Sharma, Mr. Brij Kishore Gupta and Mr. R.C. Bhattacharya.*

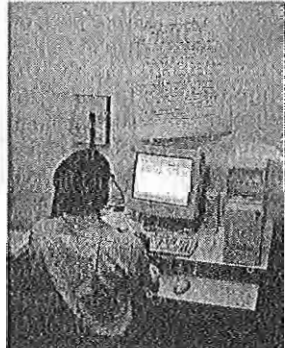
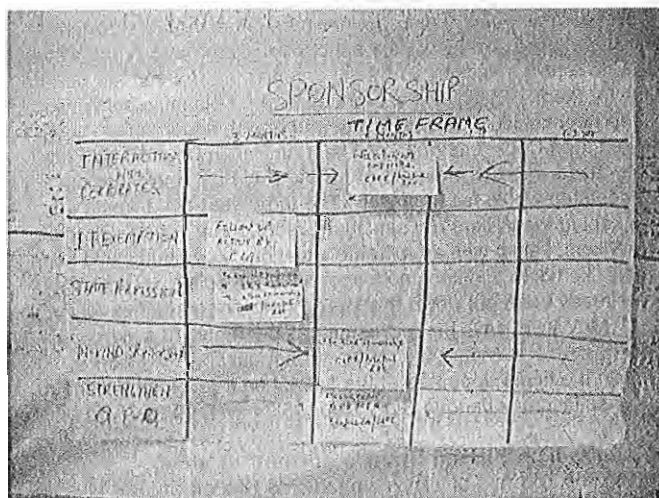
4. EDUCATION AND SPONSORSHIP GROUP		
Action Steps	Activities	Time Period
1. Signage	Outdated signage to be replaced, rewriting of existing signage, interpretative package. Zoo Outreach Organisation will compile a book of successful innovative signages. Environmental Education Centres will work with Zoos according to their demand	3 to 6 months
	Preliminary review and evaluation – Central Zoo Authority	1 to 3 years
2. Interpretation Centres	Locating, identifying and creating a database on expertise available – Central Zoo Authority Kanpur Zoo, Chennai Snake Park Trust (CSPT) and Zoo Outreach Organisation will compile the information and ideas for mini centres (single exhibit interpretation centres). Training and capacity building – Central Zoo Authority – Kanpur Zoo – CSPT	1 to 3 years
3. Guided Tours	Training programmes for guides and certification: Training for Zoo educators, Kanpur Zoo, CEE and CSPT. Zoo Outreach Organisation will compile material on how to train Zoo guides. Development of site and situation specific infrastructure – Kanpur Zoo/CSPT	3 months to 1 year
	Arignar Anna Zoological Park, Chennai will produce Student Education kit and circulate to all Zoos	1 to 3 years
4. Special activities for Schools	Training of Zoo educators by CEE, manual for teachers bringing kids to Zoos by CEE and technical expertise to be provided by Central Zoo Authority. Links with State education department and conduct training – Kanpur Zoo/CSPT and Central Zoo Authority. Zoo Outreach Organisation will prepare model study sheets for Bio-diversity study for schools.	3 months to 1 year
5. Sponsorship	Interaction with corporate BODIES	3 months to 3 years
	Income Tax exemption – on donations to Zoos – follow up CZA	3 months
	In kind sponsorship – CSPT/Kanpur Zoo	3 months to 3 years
	Strengthen Quid Pro Quo – CSPT/Kanpur Zoo	3 months to 3 years

**Participants of CZA Strategic Futures Search Workshop,  
November 1999**

Dr. Harrie Vredenburg, Assoc Prof, Univ of Calgary, Canada.  
 Dr. Frances Westley, Assoc Prof, McGill University, Canada.  
 Shri S.C Sharma, Addl. IGF (WL), MOEF.  
 Shri P.R. Sinha, Member Secretary, Central Zoo Authority.  
 Ms. Mamta Sharma, Director, Kanpur Zoological Park  
 Mr. R.C. Bhattacharjee, Director, Assam State Zoo, Assam.  
 Mr. A.K. Das, Director, Alipore Zoo, Calcutta.  
 Mr. C.S. Yalacki, IFS, Director, Museums and Zoos, Kerala.  
 Shri N. Rajshekhar, Executive Director, Mysore Zoo  
 Dr. R.K. Sahu, Zoo Supdt., Ahmedabad Zoo  
 Dr. V.D. Sharma, Director, M.C. Zoological Park, Chhatbir  
 Dr. M.A. Salam, Asstt. Director, JN Biological Park, Bokaro  
 Dr. B.M. Arora, Head, Div. of Epidemiology, IVRI, Bareilly, U.P.  
 Dr. L.N. Achariyo, (Retd.) Zoo Vet, Nandanankanan Zoo  
 Dr. Rama Kumar V., Secy. General, VCI, Delhi.  
 Mr. Pushp Kumar, Zoo Consultant, Hyderabad.  
 Dr. J.H. Desai, Ex-Director, NZP, New Delhi.  
 Mr. S.C. Dey, Global Tiger Forum, New Delhi  
 Ms. Meena Raghunathan, Pgm Co-ordinator, CEE  
 Dr. Geetha Seshamani, Wildlife SOS, New Delhi.  
 Ms. Sally Walker, Zoo Outreach Organisation, Coimbatore.  
 Mr. R.S. Bhadauria, Retd, PCCF, Lucknow, U.P.  
 Mr. Sanjay Molur, Zoo Outreach Organisation, Coimbatore  
 Shir Biswajit Roy Choudhury Secy., NEWS  
 Mr. B.C. Choudhury, Wildlife Institute of India, Dehradun.  
 Shri S.K. Patnaik, Chief Conservator of Forests (WL), Orissa.  
 Shri T. Ramakrishan, IFS, CWW, Andhra Pradesh.  
 Dr. R.L. Singh, IFS CWW, Uttar Pradesh.  
 Shri M.C. Gogate, IFS, CWW, O/o of the PCCF, Nagpur.  
 Shri. A.V. Joseph, IFS, CF, Wildlife Management, Hyderabad.  
 Shri. N.C. Bahuguna, Conservator of Forests, Jaldapara  
 Dr. Rahul Kaul, World Pheasant Association, New Delhi.  
 Dr. Gautam Narayan, Pigmy Hog Programme, Guwahati  
 Dr. Satnam Ahuja, Hon. General Secy., AHYMSA, Mumbai.  
 Sri. B. Vijayaraghavan, Chairman, Chennai Snake Park  
 Shri. R. Rajamani, Ex-Secy, (MoEF), Hyderabad.  
 Shri. N. Krishna Kumar, Director, Arignar Anna Zoo, Chennai  
 Shri. Bipul Chakrabarty, Scientist, Central Zoo Authority.  
 Shri. Suresh B. Patil, Scientist, CCMB, Hyderabad.  
 Shri. K. Srinivas, Asstt. Mgr (PD), GVK Industries, Hyderabad.  
 Shri. Brij Kishor Gupta, Scientist, Central Zoo Authority.



After final working group sessions, actions required were put up on a chart under basic headings. Participants were asked to make personal commitments to action so that the dream of the ideal zoo in India can be realised. They wrote them on yellow sticky labels and put them up on the chart (below). Working Group Reporters then gave a report on the various subjects and how the action was to be implemented. (above).



Typists from Central Zoo Authority had a challenging job insuring that all material was "captured" and returned to working groups in good time as well as passed on to CZA for their excellent Report. The Report will be widely circulated so that the entire zoo and wildlife community can join in satisfying the commitments to promote the vision of an ideal zoo in the future.



Final plenary : participants received much praise from Facilitators, Harrie and Francis as well as CZA Member Secretary, P. R. Sinha.