

Substandard Zoos

Introduced by Sally Walker

Sally Walker has worked for nearly 25 years for zoo improvement in different parts of Asia and currently is chairing a WAZA Working Group on the topic of Substandard Zoos.

Introduction

There may be as many as 10,000 institutions in the world calling themselves “zoos.” These vary from the worst roadside or restaurant menagerie to the best conservation centres. Substandard zoos give good zoos a bad name. The word “zoo” is defined as much or more by the worst examples as by the best.

Not only that. Substandard zoos are hasten the extinction of some species by bad practices – capturing animals from the wild, purchasing wild caught animals from dealers; inbreeding, overbreeding or crossbreeding animals; breeding outside cooperative programmes, releasing surplus animals to wild habitats inexpertly and inappropriately, keeping single animals for exhibition only, keeping animals in substandard conditions leading to loss of fitness and early death, etc.

Recently, a Substandard Zoos Working Group at the Annual meeting of IUCN SSC CBSG responded to a forthcoming WAZA initiative by formulating a statement to express what good zoo personnel feel about the issue of substandard zoos. The statement was taken to the President of WAZA and Chair of the WAZA Welfare and Ethics Committee who created a Subcommittee or Working Group organize information and coordinate strategic action on this issue. The Subcommittee will work through national and regional associations to inventory the substandard zoos of their region and discuss how to help them raise their standard to acceptable and ultimately excellent.

Much of the impact of substandard zoos is a topic that might be addressed both by CBSG and RSG, so this meeting is an excellent forum for discussion of the issue precedent to the SAZARC meeting. SAZARC may benefit by the output of this group and begin to develop a strategy for improving, dissolving and preventing more substandard zoos in each country of South Asia.

Substandard Zoo Issue – World Association of Zoos and Aquariums : Discussion in context of South Asia by CBSG/RSG and SAZARC meetings, 28 November – 5 December 2005, Coimbatore, India

Note : A total of three working groups discussed the Substandard Zoo Issue over the two meetings of CBSG/RSG and SAZARC. Each group built on the information of the one preceding it. These were the first in a series of meetings on this issue which will be conducted in different regions, countries and venues all over the world.

Part I : Working group for Substandard Zoos . . . Zoos contributing to Extinction! Renamed as Zoo Improvement Initiative, CBSG/RSG Meeting 28-30 November, Coimbatore.

Working Group Members : Karin Schwartz (Facilitator), Abdur Razzaque, Azharul Islam (Computer Recorder) C.S. Yalaki, Dilip Kumara, R. Marimuthu, Zahed Md. Malekur Rahman. Sonali Ghosh (Recorder), Md. Mongur Morshed Chowdhury, Nihal Senarath De Silva, R. Manickam, R. Suresh Kumar, Shahzaman Khan, Renuka Bandaranayake, Snehal Bhatt, N.C. Banik, M. M. Qazi, Dig Vijay Sinh

The Working Group decided to re-name the group as Zoo Improvement Initiative because of the difficulty of categorizing good or bad zoos at the regional level. The objective was not to criticize any zoo but only to identify factors obstructing the welfare of captive animals and contributing, directly or indirectly, to extinction of species, and to list out problems and solutions leading to contributions to conservation.

The purpose of the zoo first was defined as being for *Ex situ* and *in situ* conservation

- Education and research
- Animal Welfare
- Recreation
- Revenue generation

1. Animal welfare violations in captive animals.

Animal welfare violations dealt with animals in captivity and their overall upkeep. The most important factors leading to loss of fitness, high death rate, etc. and thus contributing towards their extinction were:

- **Improper housing** - inadequate space, design and sanitary conditions in animal enclosures is a cause of concern. Many zoos are built on the concept of keeping animals in cages under aseptic conditions. Due to lack of resources, a large number of animals are subjected to living in a cramped space, without consideration for light, running water and disposal of waste.
- **Improper nutrition** - lack of resources, initiatives and knowledge often results in underfeeding or overfeeding of animals. The animals are fed on a diet which is starkly different from their wild food in terms of the nutritional components. Lack of hygiene and sanitary considerations also can result in feeding animals with sub-standard food that can cause harm to the animals.
- **Faulty animal management** - results in over-breeding, inbreeding, unnatural grouping or isolation in captive animals. Uncontrolled breeding in herbivores is a major problem faced by almost all South Asian zoos. Wrong identification or no identification of species, especially primates, results in unnatural grouping and unwanted hybridization. Lack of ecological and behavioural inputs towards managing animal populations was a prime

concern among all the South Asian zoos represented in the working group.

2. Zoo violations impacting wild populations and habitat, leading to reduced populations and possible extinctions

Some examples of ways zoos in South Asia have impacted wild populations :

Capture

- Over harvest from the wild - trapping highly threatened animals with neither knowledge of the impact on the wild population or expertise in captive breeding.
- Impact on non-target species, for example, people involved in wild capture trap other species before capturing the targeted species

Collection

- Collection from the wild is often done under the guise of rescue, treatment and also as unregulated "donations" from influential persons of the society who captured or purchased these animals for their personal collection.

Release

Impact on wild populations

- Unscientific/unthoughtful release to the wild (e.g. deer, macaques, langurs, various reptiles)
- Animals kept in captivity for a some time, then released into the wild without proper screening for zoonotic diseases, genetic heterozygosity and wild survival instincts, can precipitate disastrous results. Such animals have limited chances of surviving and maximum chances of adversely affecting resident animals.
- Such releases can also cause serious imbalances in existing wild populations of the taxa resulting in overpopulation.
- Without adequate post-release monitoring analysis, such experiments are destined to be repeated as there is no systematic record of such initiatives for the purpose of learning from past mistakes.

Impact on Habitat

- Release of captive animals not only impact wild populations but also habitat
- Release in some localities has led to overcrowding or population imbalance and resulting degradation of habitats or ecological imbalance.
- Scarcity of food had resulted in unwanted inter-specific and intra-specific competition often resulting in extinction of weaker individuals.

Impact on public education and public image of zoos

Zoos play an important role in educating people about wildlife conservation. A bad zoo can contribute negatively towards public understanding of wildlife by providing misleading information. Environmental education and awareness in South Asia may have been especially affected by:

- Wrong *display* messages (badly kept or unhealthy animals; hybrid animals, crowded conditions, etc.
- Untrained and unmotivated zoo staff may actually discourage people from appreciating zoos as they sometimes convey a message that a zoo is a bad place which mistreats animals.

- Lack of discipline by zoo staff also results in teasing and stress to the animals by the visitors.
- Lack of public infrastructure and educational facilities results in loss of potential of educating visitors about the need for conservation.
- Lack of zoo education staff, zoo guides and an education officer/ in-charge for education in badly managed zoos puts an additional burden on the managerial staff.
- Zoo education is the lowest priority and is often sidelined or ignored completely .
- Even signages or informational boards may contain misleading, irrelevant or incorrect information which does not convey the essence of conservation. This contributes to the erroneous impression that the zoo is just another recreation spot.
- Lack of awareness in the public leads to further stress on captive animals (teasing, feeding, vandalism) and even on wild populations (purchase/collection of wildlife and wildlife products).

The points mentioned above and others constitute a loss to wildlife conservation, both by errors of commission and omission or by loss of potential. They can be summarized as follows:

- Poorly managed zoos fail to sustain viable captive populations of threatened taxa that could contribute to conservation yet succeed in producing excess stock of common species which either take up valuable zoo space or are released inappropriately and destructively into forests.
- Conservation awareness / education goals are not met or misinterpreted by poorly managed zoos which results in lost potential for education and lack of public or institutional support.
- Lack of public support affects the morale of zoo staff and administration which leads to further mismanagement.
- Final breakdown of the infrastructure, closure of the zoo leading to placement of animals in other zoos at the expense of their own collection.

Suggested Solutions

1. Formulation of a zoo policy and strict implementation of guidelines. Several of the South Asian countries are yet to come up with a national zoo policy, legislation and guidelines. Even in countries which have a zoo policy there is a need to design more stringent follow-up
2. The formulation of zoo management plans, animal collection plans, breeding / exchange plans, and zoo manual based on zoos of different standard and potential is much required.
3. Proper record keeping for captive animal management - the existing records are to be rectified and improved. The use of computer database management systems, such as ISIS, ARKS, ZIMS will be highly useful in the future.
4. Education and training of zoo staff at all levels – the animal keeper as well as the manager of the zoo need to be trained effectively so that they are motivated and empowered to efficiently carry out their assigned tasks and implement all aspects of the above mentioned plans.
5. An effective education plan that targets visitors of all age and social levels and conveys clear conservation messages.
6. Population management and regular screening animals for disease and both animals and staff for zoonotic

diseases will help reduce the risks on wild animals and their habitat when a release operation is planned.

7. Research and monitoring should be conducted in all aspects of zoo management.

8. Incentive schemes for zoo staff- to enhance the motivation levels of the zoo staff and also to inculcate a sense of duty, incentive and welfare schemes can help in better management of the zoos.

9. Providing semi-natural or natural habitat within enclosures for captive animals wherever possible can enhance their quality of life. The constraints of space and funds often lead to restrictions on animal housing but innovative thinking to create a friendly environment can help in reducing stress in animals.

10. Mentor zoos - a few zoos that are well established and doing well in their respective fields of *ex-situ* conservation such as captive breeding, environment education etc. can help the other zoos in their vicinity by exchange of ideas, staff and resources. Such zoos can be designated as mentors and they can further assist the zoos around them.

11. Mentor countries – countries which have developed zoo legislation, zoo policy, etc. (such as India) could help countries which have no such formal structure in place.

12. Assessment of zoos by independent authorities can put a check on unlawful activities. Constructive criticism will help the zoos to assess themselves in a new light and encourage them to work harder towards their goals.

13. Liaisoning and coordination between *in-situ* and *ex-situ* managers is essential especially when a rescue or release operation is planned.

14. Zoos should also coordinate and network with rescue and rehabilitation centers so that the zoos are not overburdened nor is there any duplication of effort. Zoos can invest their resources in captive animal facilities/ amenities and conservation education. The issues of rescue and release can be more efficiently handled by such designated centers.

Approach

- More autonomy to zoo authorities will facilitate improvements in a timely manner
- Resource augmentation through restructuring and recycling the gate fee can be used for zoo improvement instead of going to general government
- Ban on wild capture of animals except under exceptional circumstances and facilitation of exchange among zoos
- Incorporation of all the objectives with animal welfare as a priority over other considerations
- Educate visitors and policy-makers using animal talks, trained zoo staff, and publicity through media (TV, press, websites, brochures, etc.)



Part II : Grey areas in Zoo management with particular reference to South Asia, CBSG/RSG Meeting 28-30 November, Coimbatore.

Working Group members, Karin Schwartz, Mansoor Qazi, Abdur Razzaque, Azharul Islam, C.S. Yalaki, Dilip Kumara, Digvijay Singh, R. Marimuthu, Zahed Md. Malekur Rahman.

The Working Group for zoo improvement, (renamed from the Substandard Zoos group) after deliberating on the state of South Asian zoos was tasked with discussing what could be done by the better zoos of South Asia to help their colleagues with zoo which, for whatever reason, are not so fortunate.

The group tried to define the problems and first looked at different aspects of In-house management divided into two categories : animal related management and visitor related management.

1. Visitor related management

Visitor related management targeted the following lacunae or absence of: capacity to cater to visitor related destructive behaviour such as uncontrolled use of plastic materials in the zoo, smoking, entrance of private vehicles, entrance of domestic pets, public feeding and teasing of animals, and others. It was decided that visitors need both more amenities and more safeguards.

Capacity to provide adequate amenities for visitors would include facilities for education, shelter from climatic elements, public drinking water, concessional facilities, toilet facilities, cloak room, visitor rest areas, directional signage/maps, zoo guides -person, written material (brochure, booklets, guide maps etc. Safeguards would include risk management, enforceable rules and regulations, safety measures for coping with hazards due to zoo design, or enclosure too much accessible to public.

2. Animal related management

Animal related management included housing, nutrition, health care, staff expertise and attitude, captive breeding management, and species selection. The following were assessed as areas which required improvement.

a. Housing

Housing flaws include inadequate or inappropriate : space, feeding and drinking facilities, landscaping, use of natural material, treatment facilities, shelters, ventilation, housing arrangements, light, drainage and water supply, security in enclosures and zoo, and selection of proper material for fences, railings, flooring materials. Some of these lacunae could be avoided by consulting zoo field personnel during early zoo plan and design stage.

b. Nutrition

Nutrition lacunae include : lack of scientific information on balanced diet (taxon specific), feeding guidelines that exist are not followed, improper feeding methodology, no variety in feeds, poor quality of feeds, overfeeding / underfeeding, inadequate supplements –vitamins E, minerals –ca, p, inadequate feeding of natural foods, and lack of species-specific time schedule for feeding (instead it is linked to time of supply and delivery).

c. Health Care

Health care is compromised by: inadequate laboratory facilities (examination facilities, equipment), use of undesirable cleaning materials (e.g. Phenols), poor sanitation, lack of quarantine protocol and facilities, health care, lack of adequate veterinary staff, lack of routine health monitoring, fecal and urine analysis, lack of knowledge of anesthesia dosage and use, improper disposal of carcasses, lack of health screening of staff for TB, rabies, tetanus, inadequate sterilization of utensils, poor or lack of medical record keeping for disease, treatment, and difficulties in procurement of drugs, medicine and vaccines.

d. Staff expertise and attitude

The difficulties of staff expertise and attitude include : negative attitude towards animals, visitors, other staff; poor work ethic, lack of skill (overqualified or underqualified for position), lack of systematic in-house training, lack of communication between staff of different levels, lack of incentives for staff (should include insurance, risk allowance, vacation allowance, medical allowance, awards, overtime).

e. Captive Breeding Management

The following comments and lacunae were suggested : management as such is seldom done; captive breeding is unplanned and unselective resulting in inbreeding, crossbreeding and hybridization; skewed sex ratio, poor or no record keeping, unpaired animals, aged animals, lack of cooperation between zoos for exchange of animals, legal and procedural hurdles of animal transport, lack of good environment for breeding, inadequate information on crating, tranquilization, anesthesia doses, capture methods etc., lack of species-specific information on infant care, gestation period, lactation period, breeding period, etc.

f. Animal Species Selection

Species selection is hampered by the lack of an animal collection plan which leads to other problems such as whether to obtain exotic vs endemic animals, animals to exhibit only and not breed. The lack of a collection plan also facilitates the illegal acquisition of animals, acquisition of exotics (without knowledge /experience with that species) suitability of climate not considered (e.g. cold climate animals kept outside in Bangladesh in hot climate). If there were a collection plan, inexperienced new managers and even superiors could not order animals not mentioned in the plan.

g. Release (unplanned without following IUCN Guidelines)

Wrong releases lead to disease spread in the natural habitat, habitat destruction, human-animal conflict, poaching, introduction of invasive species, competition to resident population, criticism from international agencies, press and public, high incidence of mortality of released animal (endangering the health of released animals).

h. General management

General management was felt to be hampered by the lack of a mission statement, inadequate research on zoo animals, health care, nutrition, husbandry, lack of visitor behavior studies, lack of record keeping system (documentation and publication), lack of implementation of rules and regulations, lack of funding, donations, government or regulatory authority restrictions, frequent transfer of administrative staff, veterinary /husbandry staff, insufficient staff, lack of autonomy of zoo authority, inadequate health care facility, improper use of power by administrator, interference of media due to poor relationship, poor networking with regional association and inadequate access to working internet.

Part III : Working Group Report from the South Asian Zoo Association for Regional Cooperation, SAZARC on Substandard Zoos : Road to better Zoos and SAZARC

Editor's note : A task was given following a presentation about substandard zoos and their destructiveness to good zoos and to conservation. The task was to find ways and means that SAZARC as an association could make a beginning toward helping substandard zoos in the region improve, or if that was not possible, to close down without creating a burden for other animal facilities.

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The Working Group discussed the ways in which the South Asian zoo community could improve the destructive or non-optimal practices in good zoos and the bad zoos in general. Also the report on the grey areas in zoo management by the CBSG/RSG Working Group at the preceding meeting was utilized in this discussion.

The Working Group agreed that there are too many zoos without any set standards and very little inputs in scientific management. There is also a lack or paucity of resources

in terms of space, finance, infrastructure, etc. in the zoos of this region.

Under Animal Resource Management the following lacunas had been observed

- Inappropriate Housing
- Lack of balanced diet and lack of knowledge in the field of nutrition
- Unregulated collection of animals from wild.
- Substandard animal husbandry and veterinary care
- Poor expertise in animal behavior and ecology
- Issues related to captive breeding (haphazard and unplanned) and animal collection

Under Human Resource Management the following improvements are suggested

- Recruitment of staff with a minimum prescribed educational standard for Zoo personnel at all levels
- Motivation and attitude of staff
- Training, exposure trips, fellowships and scholarship opportunities for staff
- Attitude of visitors to be improved through education programmes
- Interpersonal and interdepartmental relations
- Incentive and welfare schemes for staff and families

- Definite career path for Zoo personnel

Working Group suggestions of how SAZARC as an organisation can assist and guide for the substandard zoos are as follows:

- To identify and designate a panel of experts that can help substandard zoos on all aspects of zoo management.
- Coordination within SAZARC members and also with other International organizations/ associations to help with substandard zoos.
- Facilitate exchange of information and sharing of expertise between member countries, forming a mentoring programme for zoos that need help.
- To evolve a monitoring, evaluation and a feedback system to allow inspection of zoos for making recommendations to the governments which have no system in place.
- Coordinate the formulation of a uniform standards or guidelines for zoo management specifically for the South Asian region
- Facilitate exchange programmes for zoo staff to update and upgrade their skills.
- Organize and conduct workshops, meetings and frequent interactions between all zoo staff at all levels, with particular emphasis on needy zoos.

Working Group suggestions of how SAZARC in collaboration with its associated zoos of a higher standard can assist and guide for the substandard zoos are as follows:

- Provide technical assistance and technical literature appropriate for the region
- Coordinate research appropriate for the region and facilitate short term and long-term studies in all aspects of zoo management.
- Formulate guidelines appropriate for the region for animal collection planning
- To help in all aspects of record keeping and database management, e.g., in liaising with ISIS
- Inputs in interpretation / visitor education and management.

Working Group suggestions for improvement of all SAZARC zoos at their own level

- Preparation / Standardize diet chart specific to each country
- Enhance capabilities in publicity and media management with help from literature provided by SAZARC Secretariat
- Encourage crisis management cell at regional, national and local levels by providing technical guidelines from experienced institutions
- Marketing and promoting South Asian zoos .
- Guidelines for Waste management/recycle of resources to be located and circulated.

The group acknowledges and appreciated the role/efforts/ contribution made by SAZARC in issues related to Zoo Management. SAZARC, as a collection of zoos of South Asia, should strive to be sufficiently effective and trusted be recognized as the apex body by all apex institutions / government organizations involved in zoo management in the respective countries. Also that SAZARC should be recognized by SAARC, the South Asian Association for Regional Cooperation.

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