

# Participant Presentations on Legislation

## Zoo Legislation in Nepal : A Road Ahead

By Sarita Jnawali, Manager, National Trust For Nature Conservation/Central Zoo, Lalitpur, Nepal.

Background: The Central Zoo at Kathmandu, established in 1932, is the only officially recognized zoo in Nepal. The Government of Nepal entrusted KMTNC which morphed into National Trust for Nature Conservation with the management of the zoo for 30 years on December 29, 1995.

There are many other facilities which are holding wild animals in captivity and are open to public visitors however, no official records of such facilities exist. They are neither recognized nor authorized by concerned authorities.

### The Problems include:

- Lack of legal provision to operate zoos.
- No legal status of animal facilities.
- Improper management of animals in captivity-animal welfare issues.
- Lack of coordination between such institutions within the country.

### The Needs include :

- **Zoo legislation** - that recognizes a zoo as a place of *ex-situ* conservation where animals are managed in a state of excellence so that it provides recreation, conservation, education and research activities.
- What's being done: We, the Central Zoo, being the only national zoo of the country, have initiated work to prepare and endorse the zoo legislation in Nepal.

### First Phase: Survey of all animal facilities in Nepal

- There are a least 9 facilities operating as zoos.
- Most are managed by municipality in the city park or by the community forest group in the forest.
- Collection by rescue of problem/orphan animals.
- List of animal facilities
- Survey methodology
- Site visit by team of experts from Central Zoo.
- Physical infrastructure, management structure , animal welfare and educational component were studied.

### Survey Finding

- All these animal facilities are poorly managed with pathetic animal welfare.
- Keeper-staff without any formal training and education in this field.
- No record keeping system.
- No conservation education activity.
- Leads to bad image of what zoos should be.

### Survey Report

- Report prepared and circulated to all concerned government authorities.
- Need for zoo legislation recognized.

## Second phase: Meeting and discussions

- Series of meeting and discussions held with concerned government officials and legal experts.
- Need for a workshop involving all stakeholders identified.

## Third phase: Workshop

- Workshop involving Secretary of Ministry of Forest and Soil Conservation, Director General, Department of National Parks and Wildlife Conservation, all concerned government officials and legal experts organized.
- Decision made to draft legislation and proceed forward to incorporate it in the National Park and Wildlife Conservation Act.
- Two me zoo legislation for Nepal.

## Next Steps:

- Workshop to discuss the draft legislation involving all concerned authorities.
- Finalize the draft legislation and submit it to the government for endorsement.

## Zoos in Bangladesh

By Md. Shafiqur Rahman (Dhaka Zoo) & Abdur Razzaque Mia (National Adviser, Dept. of Livestock)

Bangladesh currently has 10 zoos, e.g. Dhaka Zoo, Rangpur Zoo, Rajshahi Zoo, Comilla Zoo, Chittagong Zoo, Dulahazara Safari Park, Kurmitola Golf Club, Khulna (Banbilash), Savar (Aranyak), Sithesh Ranjan Dev Mini Zoo, Sylhet

Initially the Dhaka Zoo was started at Old High Court Area in 1947 but a Zoo Master Plan was approved in 1960 with instruction to be shifted at Mirpur. An Advisory Board was formed in 1961 and the zoo was opened for visitors on 23 June 1974 at Mirpur, Dhaka.

The purpose of the zoo was declared to be :

To promote awareness among the people about wildlife conservation. Animal Welfare, Recreation & leisure for visitors, Education and Research, to donate/exchange animals and birds to the other Zoos in home and abroad.

The following sections were planned for carnivores, herbivores, small mammals & reptiles, birds, animal nutrition, veterinary, publicity, laboratory, and zoo museum. Major activities included breeding, feeding, care & management of tiger, lion, leopard, hyena, bears, deer, elephant, giraffe, zebra, water buck, hippopotamus, oryx, eland, kudu, wild beest, nilgai, tapir, spotted & sambar deer, horse, ass, gaunder etc. Special care to be taken for Endangered Hoolock Gibbon & Gharials.

Major birds included emu, rhea, ostrich, night heron, golden pheasant, vulture, peacock, flamingo, green dove, White dove, White peacock with special care for Critically Endangered Vulture.

## Van Vihar Bear Rescue Facility

By S.S. Rajpoot, Director, Van Vihar National Park & Zoo, Bhopal

The Objectives of the Van Vihar Bear Rescue Facility

- Implementation of the Wildlife Protection Act by removal of illegally held bears
- Rehabilitation of the Kalandar community into alternative livelihoods
- Assist State Forest Departments to prevent poaching of cubs from the wild
- Current Objectives : To replicate this project in other states in India in collaboration with different state Governments

### Kalandars

The Kalandars have been operating in India at least since Jahangir's time. Today the Kalandar tribals entertain tourists around towns and other rural areas. They have lived disadvantaged lives for centuries, shunned by society for their nomadic lifestyle with animals. They have no education, social security, public health, toilets or water supply and no support for their unemployed.

With the support of a study conducted by Wildlife SOS a three pronged approach was evolved with the following

#### 1. Rescue Centres

- Agra Bear Rescue Facility in U.P
- Karnataka, Chhattisgarh, Haryana
- Van Vihar Bear Rescue facility, Bhopal, MP
- Purulia Bear Rescue Facility, WB

**2. Rehabilitation of Kalandar Community** – 500 Bears removed (kalandars rehabilitated) and an **3. Anti-poaching** squad to prevent bear cub poaching

The rescue centres have a Wildlife Veterinary Hospital where they do rope removal, cleaning of infected wounds getting rid of pus and maggots. An assessment of the damage to muzzle and cartilage is done. Microchipping & Natural markings ID are done. The bears are kept in large, naturalistic enclosures which are enriched for the bears to have a variety of activities. As the bears are rescued and housed at rescue centres, also their former owners are rehabilitated by career counseling and loans to start a business. The project involves Kalandar tribal rehabilitation or helping people help themselves. Some of the preferred professions are : Welding, fabrication units, generator rental, auto-rickshaw, cool drink stalls, cycle repair shop, tea shop, grocery stores.

**Why are Bears Poached ?** Bears are poached because of market forces of demand and supply of the Kalandars. The mother bear defends her cubs fiercely and is often killed by poachers. The cubs are barely 4 weeks old. They are trained to dance with painful string through the nose. Their teeth are pulled and their nails broken. Our ultimate goal is : species conservation with our Sloth Bear Habitat conservation & protection and conservation education – school programs.

## Lahore Zoo at a Glance

By Bushra Nisar Khan, Education Officer, Lahore Zoo, Pakistan

Lahore Zoo was established in 1872 A.D. It has an area of 25 acres with 3 million visitors annually. The zoo has 1086 animals of 121 species and 133 staff. The budget for 2008-09 is Rs. 3,66,77,000. Lahore zoo is a Self-sustaining Semi-Autonomous body run by Zoo Maintenance Committee (ZMC)

### Mission Statement

To provide educational and recreational facilities to the general public and to actively contribute to Pakistan's International commitment in terms of the Convention on Biological Diversity by providing suitable opportunities for the *ex-situ* and *in-situ* conservation of species.

### Achievements of the Zoo

1. Successful captive breeding of Emu, Chinkara, Zebra, Spotted Deer, Hog Deer, Peafowl, Bengal Tiger, Lion, Mouflon Sheep, Vervet Monkey, Fallow Deer, and Wallaby.
2. It is a financially sustained institution.
3. Provision of research facilities to students of national, / international institutions, / organizations.

#### 4. Zoo Education Programme

Annual number of School / Colleges / Universities visited Zoo -- 15,000-20,000 and students -- 40,000-50,000. The education / awareness and research is the basic objective of any zoo. Lahore Zoo is running its Zoo Education Programme successfully since 2000.

Education facilities include: 1. Touch table (Taxidermy animals/birds/skin and horn are kept/displayed on table for education and information to visitors and students); 2. Awareness programme; 3. Adoption programme; 4. Internship facilities; 5. Naming ceremony; 6. Birthday ceremony. There are also Guided tour programme, Wildlife Week celebration, Animal Environment Day Celebration, Campaigns against use of plastic shopping bags/ vandalism against animals/Birds, Competitions.

### Issues include :

- Early completion of Project Master Planning/ Development and Improvement
- Inbreeding among animals/Birds
- Proper sex ratio of animals/birds
- Timely disposal of surplus animals/birds
- Strengthening of manpower

### Master Plan

Development and improvement of Lahore Zoo Remodelling and up-gradation of Lahore Zoo for the improvement of habitat and provision of recreational and education facilities.

## **Sri Lanka's Zoos**

By Dammika Malsinghe, Deputy Director, Dept. of National Zoological Gardens, Sri Lanka.

The Department of National Zoological Gardens looks after the zoo in Dehiwala and the Elephant Orphanage at Pinnawala. The new zoological facilities coming up in Ridiyagama, Hambanthota and Pinnawala are also attached to the DNZG.

In the year 2008 the net income for Dehiwala Zoo was Rs.55,648,061 and for Pinnawala Elephant Orphanage was Rs.126,189,891

The Vision of the Department of National Zoological Gardens is stated as:

To create one of the world's outstanding zoological institutions that is a centre of excellence for conservation, research and education with the following objectives:

- Conservation
- Animal welfare
- Recreation
- Education
- Research & Breeding

### **Education**

Educational programmes are conducted by the education section for different levels of students and general public.

### **Research**

Research is being carried out by the Departmental staff, universities and other researchers on conservation breeding, behaviour, animal nutrition, etc.

### **Recreation**

The Dehiwala Zoo is located in a highly congested urban area but able to manage its unique environment with a diverse collection of trees. The Zoo is landscaped with flower beds, water cascades, pathways, etc. to enhance the zoo experience.

### **Pinnawala Elephant Orphanage**

By Dr. Chandana Rajapaksa, Veterinary Surgeon, Pinnawala Elephant Orphanage, Sri Lanka.

This facility is located in Kegalle district near the town of Rambukkana. It enjoys an annual average ambient temperature of 28°C and rainfall 39 mm.

The Elephant orphanage at Pinnawala (EPO) was established in 1975 with five orphaned babies. Earlier it was a coconut land of 26.6 acres. The aim of the Orphanage is take care of orphaned or displaced elephant calves in the wild. Currently, it acts as an elephant breeding and conservation centre. At the same time it is a good tourist attraction. There are 86 elephants and 120 staff members in Pinnawala Orphanage now.

Elephant herd structure consists of 39 Males, (3 Tuskless, 36 Tuskless), 47 Females, total 86.

Pinnawala daily activities

08.30 - Open to visitors

09.15 - Bottle feeding

10.00 - Herd leaves for the river

12.00 - Herd returns from the river

13.15 - Bottle feeding

14.00 - Herd leaves for the river

16.00 - Herd returns from the river

17.00 - Bottle feeding

### Captive Breeding

Results -- 24m & 21f, Birth rate -- 1.95.

# breeding elephants - 15m, 28f, Total 43

Average 1st calving at Pinnawala :- 14.5 yrs

### Veterinary Care at Pinnawala consists of:

Disease prevention, diagnosis & treatments and elephant welfare.

### Recently completed research results:

- Study of endocrine and metabolic profiles and behavioural patterns during oestrus cycle, gestation, parturition and postpartum period of Asiatic elephant in captivity.
- Developmental and endocrinological changes associated with puberty and sexual maturity in female elephants.
- Investigation of ecto-parasites on elephants in EOP.
- Development of the social behaviour of the Sri Lankan elephant in a group of some wild elephants:
- Importance of the group individuals in this developments and particular role of the mother.

Facilities for elephants include bottle feeding centre, water pond, free land, River Ma Oya, water tanks

Visitor facilities include car park, cafeteria, souvenir shop, safety zones, bank.

Major issues are limited space, reintroduction, supply more space, another (space) Orphanage.

### **Safari Park at Ridiyagama, Hambanthota**

By Dammika Malsinghe, Deputy Director, Dept. of National Zoological Gardens, Sri Lanka.

The selected venue of the Safari Park is close to a famous hot water springs, new botanic garden under construction, Madunagala National Park, new harbour & Airport under construction. Enclosures are to be separated by two chain link fences and in between the enclosures, a forest patch will be preserved. Buses will be sent inside according to a time schedule on a one way route.

### Objectives

- to conduct exchange programmes with other reputed international institutes to ensure the sustainability of genetic variation.
- to establish an Institute for education and research of endangered animals and promote collaborative

research with local and International Organizations.

- Set up an area for public recreation for spending a day with memorable experiences.
- Help to upgrade of the life standards of the residents of the area by providing direct and indirect job opportunities
- Provide an additional revenue for the country by promoting eco tourism.

#### Selected Animal Species

Carnivores -- African lion, Bengal tiger, Sloth bear, Sri Lankan leopard

Herbivores in African continent & Asian continent

Birds-- Ostriches & Birds in Asia

#### Barriers

- Outer-most electric fence
- Middle scrub forest
- Inner most wall and chain link fence on it.
- A service road in between the thorn forest innermost wall.
- Three security posts at the selected points on the wall.
- One emergency exit.

#### Design of animal enclosures

-Six enclosures will be designed. Four separate enclosures for carnivores, one for African Safari & one for Asian Safari. Size of the enclosures vary from 50 – 85 acres. Enclosures separated by two chain link fences and in between the enclosures, a forest patch will be preserved. Remote controllable double door gates at the entrance and exit of each enclosure.

Vehicle accessible pathway throughout each enclosure. Buses will be sent inside according to a time schedule in a one way route. All roads are to be tarred.

Abandoned tanks to be reconstructed.  
Construction of small ponds for drinking purposes.  
Construction of caves as animal shelters.  
Some scrub forest patches have to be removed.  
Large number of trees to be planted to provide shelters and cooler environment for the animals.  
Trees suitable for the dry zone climatic conditions select from the Department of Forest.

Outer infrastructure will include:

Entrance complex with ticket counters, toilet complex, vehicle park, bus stand and bus park, veterinary section, animal quarantine cages, cafeteria, water sumps, stores, kitchen, employees resting area, quarters for employees.  
Construction of roads to reach the Safari Park. No new constructions. Use of existing roads.

Waste Disposal: Small numbers of animals are in larger areas. Therefore fecal matter allow for natural decaying. Human garbage utilize for composting and recycling. Small incinerator to burn unwanted materials.

Waste water: No animal waste water will be collected. Water obtained from cleaning of ponds can be used for watering the trees. Human waste water from resident employees and other areas can be sent to the absorption pits. Reconstruction of the tanks to be designed with water purification system.

#### **Pinnawala Zoo Development Project**

By Renuka Bandaranayake, Assistant Director, Dept. of National Zoological Gardens, Sri Lanka

#### **Site**

The Maha Oya river flows by the side of the located site. This offers a unique riverine environment associated with low lying depressions that form into marshes.

#### **Project team**

Client: Department of National Zoological Gardens  
Consultants: Environmental Management Lanka (Pvt.) Ltd.; Lead Consultant of the Project  
STEMS (Pvt.) Ltd.; Design Group 5 (Pvt.) Ltd.; SHPL (Pvt.) Ltd.; Contractor State Engineering Cooperation – Sri Lanka

#### **Objectives**

- Sri Lanka will be able to actively contribute to the conservation of global biodiversity conservation efforts through enhanced knowledge on animal behaviour and their captive breeding potentials.
- The program will help to preserve and enhance the genetic pool.
- The research facilities that will be associated with the program will promote great opportunities to conduct collaborative research
- Exchange of animal among the zoos across the world
- Enhance the tourism potentials of the southern region thus improving the economic potentials
- Create more job opportunities for the locals hence bringing economic prosperity to the town
- Educating people about animal behaviour, habitat etc and enhance their knowledge on these aspects

The Pinnawala zoo will serve as a centre of excellence, sanctuary for breeding and survival centre for endangered species, community resource for cultural enrichment and environment awareness that meet highest conservation standards and socio-economics aspirations of the nation.

Proposed features of the Zoo

- A wide collection of animal
- Unique landscape
- Infra-structural facilities

Zoo management and operations

Project consist of 3 stages.

- Stage I- Pinnawala Zoo
- Stage II- Night Safari
- Stage III- Aquarium