

# Wildlife Management in Other Countries

Sharing Experiences





# Landscape











# Fauna

# African Lions





# Leopard





# African Elephant





# White Rhino





# Black Rhino





# Hippopotamus





# Buffalo





# Cheetah





# Giraffe





# Burchell's Zebra





# Blue Wildebeest





# Kudu (male)





# Kudu (female)





# Waterbuck





# Bushbuck





# Impala





# Sable





# Nyala





# Warthog





# Red Duiker





# Chacma Baboon





# Water Monitor Lizard





# Terrapin





# Kori Bustard





# Southern Yellow-billed Hornbill





# Southern Ground Hornbill





# Saddle-billed Stork





# Egyptian Goose





# White-headed Vulture





# White-backed Vulture





# Long-tailed Starling





# Forest White





# Little Zulu dancers





# The Masai of Kenya





# KEY LEARNINGS

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# Protection

## A. Fencing

1. All properties in South Africa are fenced.
2. Different type of fences are used for different purposes. Such as, cattle farm, game reserves, agriculture field, etc.
3. In game reserves including national parks, electric fences are used.
4. The design of the fencing depends upon the type of wild life.



# Fencing





# Fencing





# Fencing





# Fencing





# Fencing





# Fencing





# Fencing





# Fencing





# Sacrificial Fencing





# Applicability in India

- In South Africa the commonest fencing is electric fencing. In Indian conditions it can be so modified that it is a combination of chain-link and electric fence depending upon the type of target animals.
- Chain-link fence alone can be very costly to make it robust enough to tackle large number of stray cattle as well as stocky wild animals.
- Electric fence alone have proved ineffective due to easy breach by the local people and improper maintenance.
- Mixed fencing would reduce the cost and improve the effectiveness of the fencing.



# Protection

## B. Micro-light Aircraft

- I. In South Africa Microlight aircrafts are used in many wild life conservation areas for both protection and management.
- II. Advantages & Applicability in India:
  1. Aerial surveillance of suspected poaching areas.
  2. Thorough area coverage to check animal distribution and concentration.
  3. Assist in research and monitoring of radio-collared animals by fitting the aircraft with telemetry equipments.
  4. Coverage of remote and inaccessible areas.
  5. Use of microlights acts as a deterrent to poachers.
  6. Effective monitoring of fire.



# Micro-light Aircraft

7. Monitoring of tourism activities.
8. Monitoring of waterholes and rivers.
9. Very good visibility.
10. Affordable price (around Rs. 20 lacs).
11. Very low noise levels.
12. Low running cost (around Rs. 1000 per hour).
13. Total initial cost including cost of air craft, pilot training, air strip and hanger and one year operational cost (@ 30 hours per month) – around Rs. 30 lacs.
14. Length of runway required is 30 to 50 metres.
15. Maintenance easy and cheap.
16. Time saver.



# Micro-light Aircraft





# Micro-light Aircraft





# Micro-light Aircraft





# Micro-light Aircraft





## C. Patrolling

- Bicycle patrol
- Quadra bike patrol



# Bicycle patrol





# Quadra bike patrol





# Fire Management

- In Kruger National Park, Savannah Fire Ignition Research Experiment (SavFIRE) is being undertaken.
- Annually, three 15,000 ha. areas selected in different regions are burnt.
- In each region, two 500 ha., two 1000 ha., two 2000 ha. and two 4000 ha. plots are burnt.
- In same size plot one is burnt by fire from a point and another is burnt from perimeter.
- Each plot is surrounded by fire lines of suitable width .
- Past Experiences:
  - No species is lost as a result of fire recurrence.
  - No fire results in more tree growth.
  - Annual hot season fires reduce tree growth.
  - In high rainfall years more area can be burnt and vice versa.



# Fire Management





# Fire Management





# Fire Management





# Fire Management





# Hand-held Weather Station





# Hand-held Weather Station





# Applicability in India

1. Since wildlife abundance is directly related to the availability of forage, fire management of grasslands and other forested areas with enough ground forage is very much required to improve forage availability in different seasons of the year.
2. A robust scientific fire use management policy is therefore need to be developed.



# Some good practices observed in South Africa

- Park Interpretation
- Film
- Literature
- Guided Tours
- Nature Shops
- Tree labels with national code number.
- Effective Electric Fences
- Well equipped dedicated game capture units.
- Water Holes with Solar Pumps.
- Appropriate Infrastructure.
- Tourism Sink



# Nature Shop





# Nature Shop





# Variety of literature





# Tourism Sink





# Tourism Sink





# Tourism Sink





# Appropriate infrastructure





# Appropriate infrastructure





# Appropriate infrastructure





# Appropriate infrastructure





# Park interpretation





# Park interpretation





# Park interpretation





# Park interpretation





# Debatable Practices

- Sale of animal Skins and Meat in Nature Shops.
- Fire Policy.
- Off road Driving for Tourism.
- Night Safari.
- High Speed Asphalt Roads in Tourism Zone with permissible speed up to 50 kmph.



# Sale of Ostrich egg shell





# Sale of skin





# Off-road driving





# Off-road driving





# Night safari





# Behavioral change in wildlife





# Highway-like situation





# Zoo Management



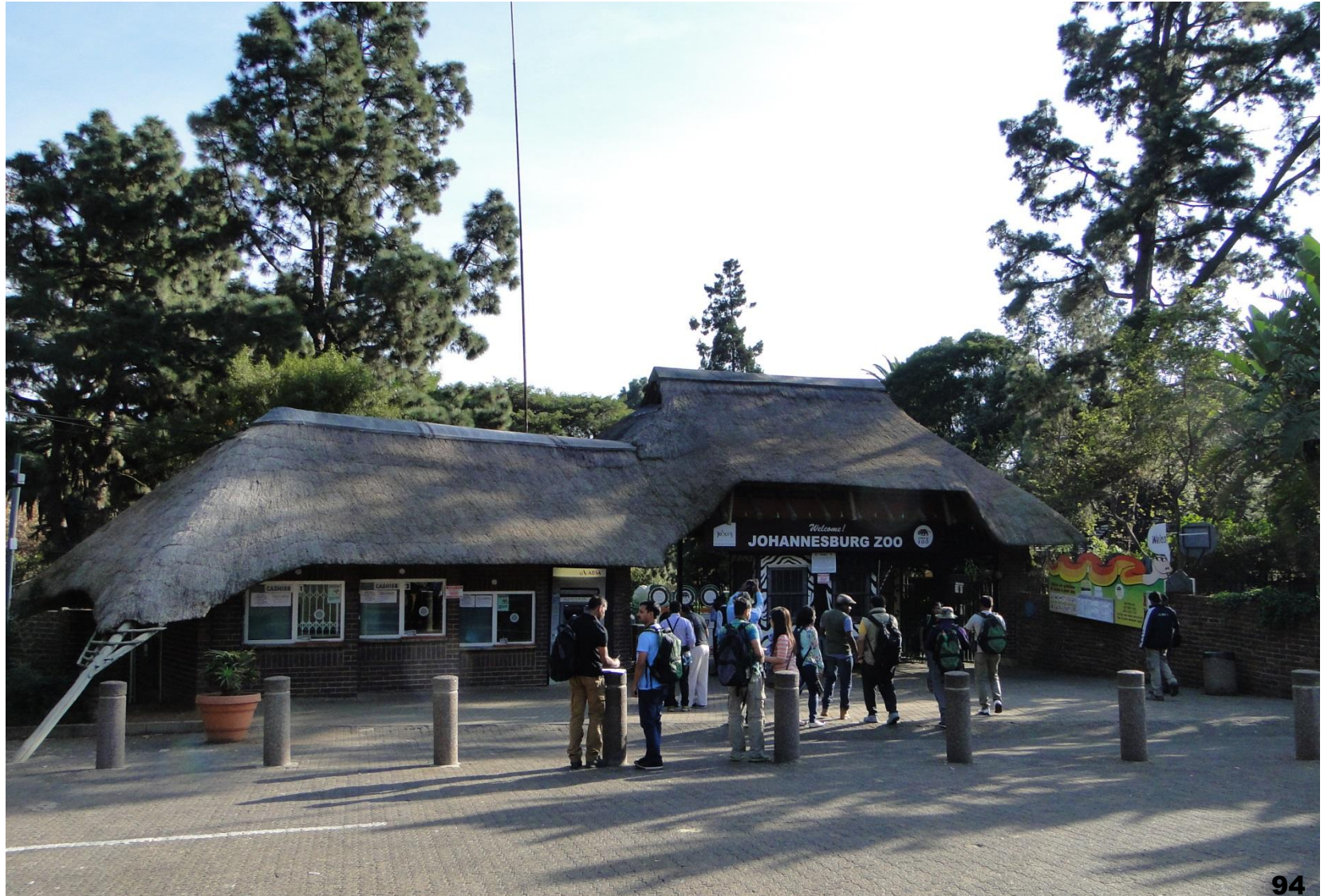


# VISITOR AMENITIES





# The Entrance





# Washroom & Parking

















# Signages





## Interesting information about our elephants



<b>Gestation period</b>	22 months
<b>Mass of new-born calf</b>	± 120 kg
<b>Heaviest pair of tusks</b>	102 & 97 kg
<b>Mass of bull</b>	5-6 ton
<b>Mass of cow</b>	3-3½ ton
<b>Mass of the heart</b>	± 27 kg
<b>Heartbeats per minute</b>	± 30
<b>Life expectancy</b>	± 70 years

[www.nzg.ac.za](http://www.nzg.ac.za)



## Food per elephant per day



**Boskos Cubes:**  
1 bucket = 5kg

**Dry Lucerne:**  
½ bale = 8kg

**Dry Teff:**  
2 x small bales = 25 kg

**Whole vegetables:**  
1 bag = 10kg sweet potato,  
gem squash, pumpkin, butternut,  
spinach, carrots or beetroot.

**Browse (fresh branches):**  
3 x weekly = 6 branches

[www.nzg.ac.za](http://www.nzg.ac.za)









# National Research Facility

- ❖ The National Zoological Gardens of South Africa (NZG) is the only zoo on the African continent with a statutory mandate to undertake scientific research.
- ❖ The NZG was declared a national research facility and transferred to the management of the National Research Foundation (NRF) on 1 April 2004.
- ❖ Serve as research platforms accessible to the entire research community, including universities and other components of the science system, both locally and internationally. As a national research facility the NZG is in a unique position to generate new knowledge, core technologies and data pools/ collections at par with international standards.



# Bio-bank in NZG

- ❖ The NZG runs a Wildlife Bio-material Bank which is unique in that it encompasses components of multiple bio-banks, such as cell cultures, a sperm bank, pathology bank and tissue bank. This represents an ideal platform for the development of a knowledge hub for the banking of biomaterials as well as reproductive physiology research.
- ❖ The bio-bank forms part of several international and national partnerships and links to the International Society for Biological and Environmental Depositories, Frozen Ark and the Barcode of Life initiatives.



# Kenya Wildlife Service

- The KWS administers and manages the National Parks in Kenya
- The KWS was constituted in 1989. Prior to that there was Wildlife Conservation and Management Department which managed wildlife in Kenya.
- The KWS has a Board of Trustees and the Director heads the KWS.



# Kenya Wildlife Service - Constitution

There are 6 Divisions headed by the Deputy Director and there are several Departments under each Division.

□The Divisions are as follows:

1. Security
2. Biodiversity Research and Management
3. Corporate Service
4. Wildlife and Community Service
5. Strategy and Change
6. Finance and Administration



# Kenya Wildlife Service

- ★ All the personnel of the KWS are required to undergo a paramilitary training the duration of which is dependent on the rank of the official.
- ★ The KWS has an Air Wing which has 1 helicopter and 12 fixed wing Planes. These aircrafts are used for various management purposes including protection and monitoring of the NP.
- ★ The administrative head of a National Park is the Senior Warden. The protection is done by the Rangers, who are provided with



# Kenya Wildlife Service



# Kenya Wildlife Service

## The Veterinary Department

### ★ Major activities:

- Veterinary Clinical Interventions
- Wildlife Translocation
- Disease Surveillance and Monitoring
- Captive Animal Management
- Disease Control and Prevention in Wildlife Populations
- Wildlife Veterinary Research/ Collaborations
- Wild Animal Rescues
- Laboratory Diagnosis and Wildlife Bio-materials
- Pathological Analysis
- Veterinary Wildlife Health Database and information Management
- Wildlife capture trainings



# Kenya Wildlife Service

## The Veterinary Department

### ★ Major responsibilities:

Wildlife disease control is a major responsibility of this Department. The strategies used to control wildlife diseases in Kenya are:

- Diagnosis and treatment
- Regular disease surveillance and monitoring
- Vaccination
- Animal quarantine

# Kenya Wildlife Service

## Community Partnership

- To involve the local people in conservation, community development initiatives, such as, construction of school building and dispensary, provision of water etc. as also aid in income generating activities are taken up under **Community Partnership & Conservation Education Programme as Corporate-Social Responsibility by the KWS.**
- **Around 10% of the revenue generated by tourism is utilized for this Programme.**



# Kenya Wildlife Service

## Management Planning

- Management Plan is prepared based on **Protected Area Planning Framework (PAPF)**. The PAPF aims to ensure that all KWS protected area management plans are developed according to a standardised process and have a similar structure.
- To ensure the management plans produced are both realistic and appropriate, and to build wider stakeholder understanding and support for implementation, the PAPF planning process has been designed to ensure a high degree of stakeholder participation in the development of a PA management plan.

# Kenya Wildlife Service

## Management Planning

- The three principal mechanisms used to enable this participation are:
  - ★ Core Planning Team
  - ★ Stakeholder Workshops
  - ★ Expert Working Groups.



# Kenya Wildlife Service

## Management Planning

- ★ **Core Planning Team (CPT) provides overall guidance and oversight to the entire planning process and consist of local managers and researchers, KWS HQ staff, and planning facilitators**
- ★ Stakeholder Workshops are held during the plan's development: one near the beginning and one nearer the end of the planning process. These workshops involve around 30-40 stakeholders including representatives from area management, KWS HQ, the local councils, local communities, tour operators and investors, and researchers and scientists

# Kenya Wildlife Service

## Management Planning

- Expert Working Groups are formed during the plan's development, each responsible for developing one of the plan's five management programmes:
  - Ecological Management Programme
  - Tourism Development and Management Programme
  - Community Partnership and Conservation Education Programme
  - Security Programme
  - Protected Area Operations Programme



# The Tsavo Elephants



# African Kalpavriksha: **The Baobab Tree**

*Adansonia* spp.







**and FINALLY...**

Q + A = progress





**THANK YOU**