

Developing a Biodiversity monitoring system

'Strong partnerships as a foundation for Darwin's legacy to Kenya'

Darwin Initiative Workshop, November 6th 2008,
Arusha, Tanzania

by

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The outline

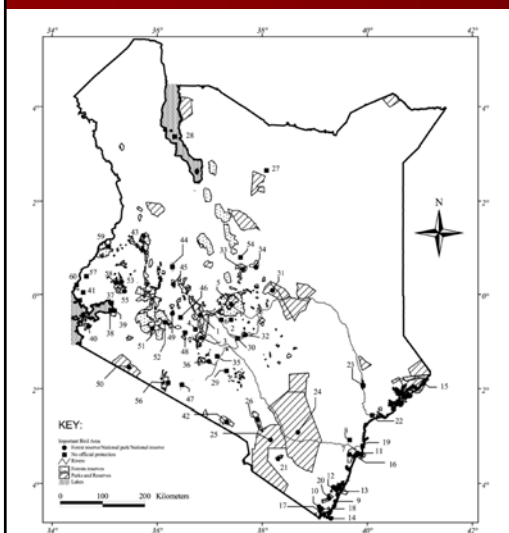
- Introduction
- The IBAs
- Monitoring & why monitor IBAs?
- What are the parameters monitored?
- The IBA monitoring framework
- How data is presented?
- What happens to data when collected?
- Monitoring results
- Achievements so far
- Challenges & opportunities

Introduction



- **Nature Kenya** – the East Africa Natural History Society
- Founded in 1909
- Membership based organization
- The Mother of National Museums of Kenya
- Mandate: Conservation- Species & their habitats; Advocacy, Research and so on
- Mission Statement: Connecting people and Nature
- BirdLife International Partner in Kenya-hosts BirdLife Africa Secretariat
- www.naturekenya.org

The IBAs



IBAs = Important Bird Areas

The IBAs are places of international significance for conservation of birds at global, regional (Africa) and national level (Kenya)

ALSO show high diversity of plants, mammals, herpes and invertebrates life

The IBAs...cont'd

IBA ID Criteria:



1. **Globally threatened bird species-** Bird Listed in the IUCN Red List.
2. **Range-restricted species:** Species whose total distribution range on earth is <math>< 50,000\text{KM}^2</math>
3. **Biome restricted species -Birds** Species restricted to particular broad habitat types.
4. **Congregations of Bird Species-** Where large population of birds occur together annually or seasonally.

The IBAs...cont'd



- 35 IBAs are legally protected (under KFS or KWS) 25 sites are not protected.
- Forests=22, Wetlands=18, Bush lands, Semi-arid or Arid=12, Moist Grasslands=6 and others 2.
- The 60 IBAs cover habitats that conserve over 1080 birds species recorded in Kenya.

What is monitoring & Why monitor IBAs?



Monitoring: is the repeated and systematic collection of data and / or information over time in order to detect changes in particular variables

- Provide timely warning on conservation status – for timely action
- Assess the effectiveness of conservation intervention and efforts
- Influence decision making → participatory
- To inform and guide conservation action



Two types of Monitoring are taking place in Kenyan IBAs:

1. **Basic Monitoring:** occur all 60 IBAs
2. **Detailed Monitoring:** occur in 8 IBAs

What are the parameters monitored?

■ State:

- Habitat Quality/Quantity
- Bird species or groups/Population estimate (Pairs or individuals)

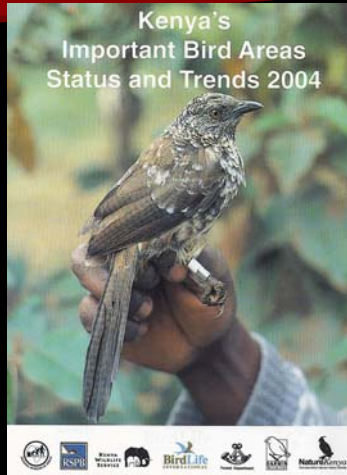
■ Pressure:

- Agricultural expansion & intensification
- Residential & commercial development
- Energy production & mining
- Transportation & service corridors
- Human intrusions & disturbance
- Natural system modifications
- Invasive & other problematic species & genes
- Pollution
- Geological events
- Climate change & severe weather

■ Response:

- conservation designation
- management planning
- conservation action
 - Land /water protection
 - Land & water management
 - Species management
 - Education & awareness
 - Law & policy
 - Livelihood, economic & other incentives
 - Capacity building
 - surveys, monitoring, research, EIAs

The IBA monitoring framework



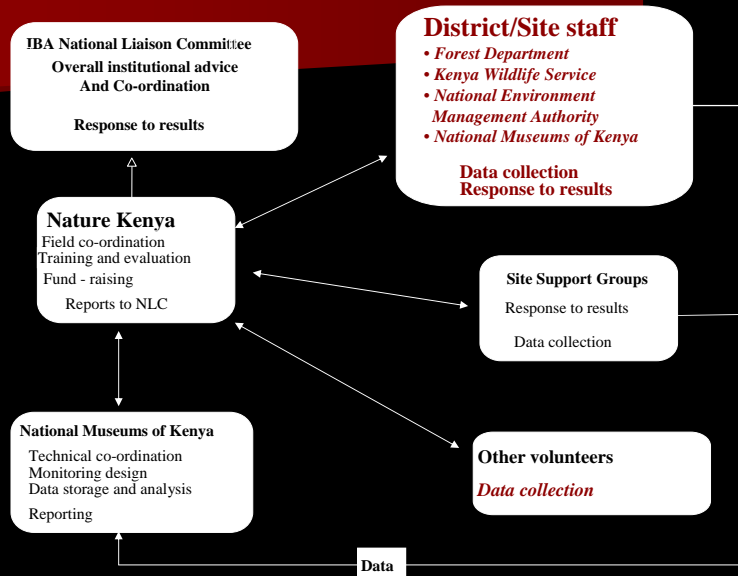
The foundation of IBA monitoring in Kenya was laid with support of **Darwin Initiative** through Royal Society for Protection of Birds

An IBA Monitoring Framework was established and applied

Key features:

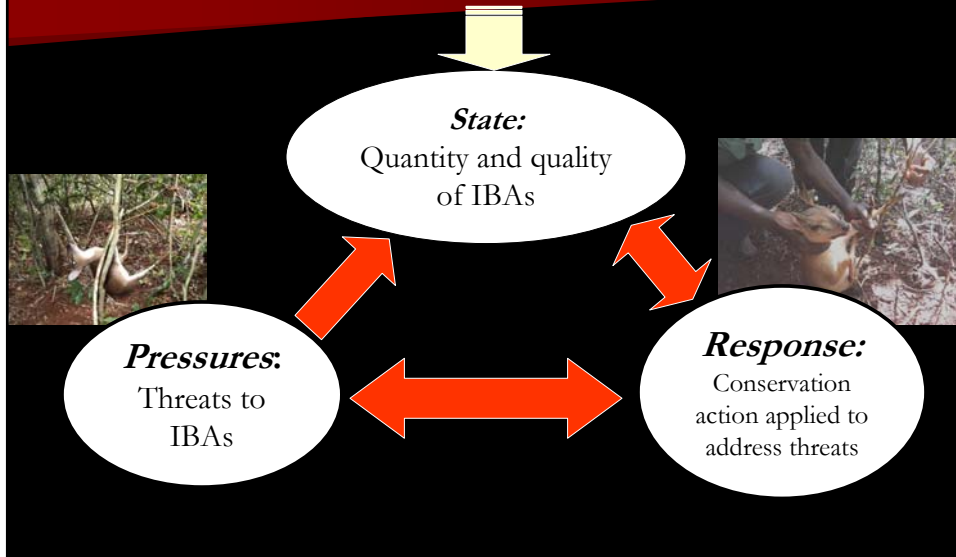
- A monitoring protocol
- Institutional set up=National Liaison Committee comprising of a *Biodiversity Monitoring sub-committee*

The IBA monitoring framework...contd

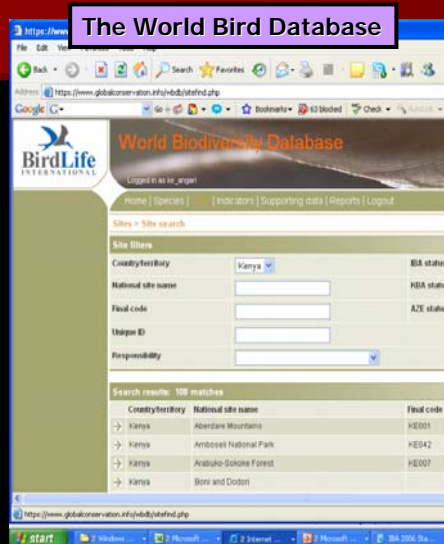


How data is presented?

Pressure-State-Response Model



What happens to data when collected?



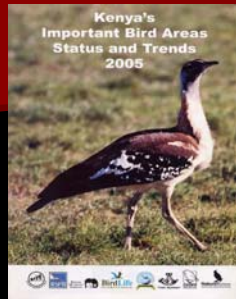
Data collected using the standardized Global IBA monitoring form

Data is uploaded and organized in **The World Bird Database** for easy analyses

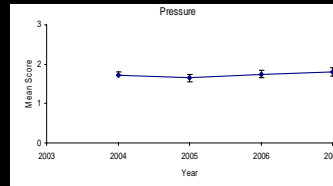
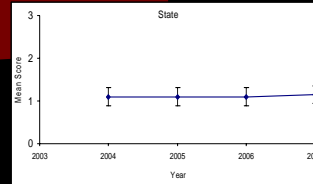
Data analyzed at National Museums of Kenya

Out Put > Status & Trends report

Monitoring Results: Basic



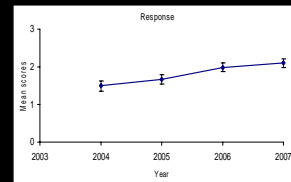
State



Pressure



Response

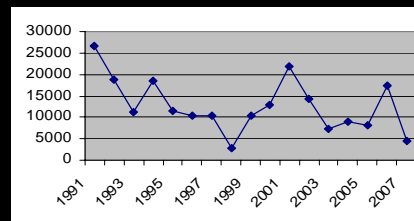


2007 Report – in the pipeline

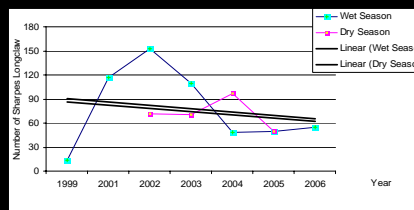
Monitoring Results: Detailed



Birds population trends-Lake Naivasha: 1997-2007



Trends in No. of Sharpes Long Claw-Kinangop IBA:1999-2006



Some achievements

1. Has been possible to bring the key policy makers & implementers in conservation and environment management together for **shared action**
2. The results of the monitoring work are being used for **national reporting to CBD**
3. The IBA framework is being **replicated** in Africa
4. The monitoring reports/results have been a useful **resource mobilization** tool - presents facts based on observation
5. **Capacity building** on monitoring has been done in key govt institutions & 16 Site Support Groups – SSGs
6. The monitoring work has been **ongoing** since it was started in 2003

Some Challenges & opportunities

- Some sites are in remote areas that are difficult to access – use of **freely accessible remote sensed data**
- Inadequate skills in data / information collection – **more people, more participatory by more stakeholders => sustainability**
- data / information collection is slow – **greater sense of local ownership of monitoring by stakeholders → institutionalization → strengthened partnerships → sustainability**

Acknowledgments



**THANK
YOU !**

