

# A KENYAN BIOLOGICAL RESOURCE CENTRE- A LONG JOURNEY

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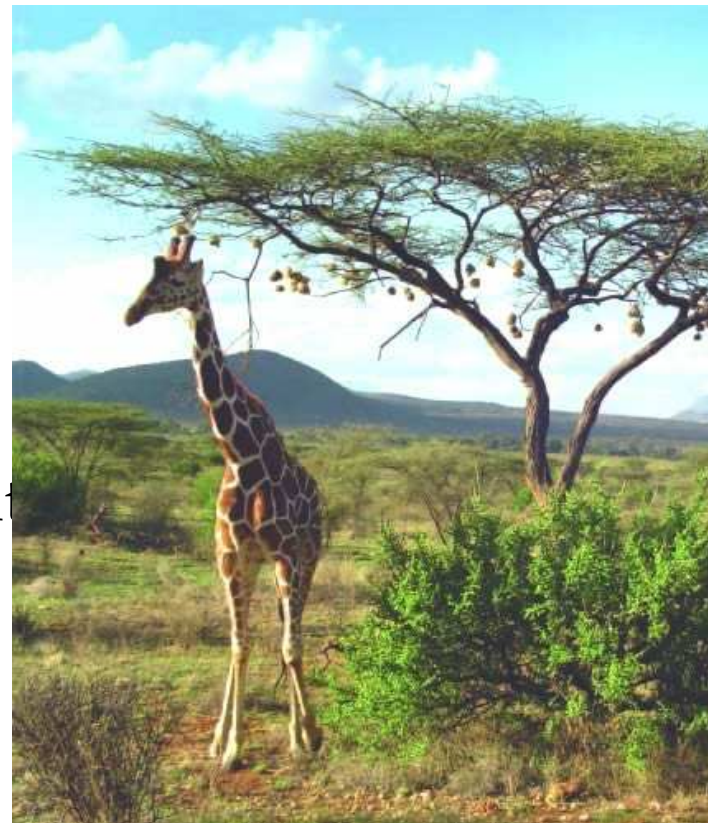
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# Background

Kenya is endowed with a rich biodiversity

Diverse habitats

- Marine
- Tropical Forests
- Semi-arid/ Arid areas
- Grasslands
- Soda Lakes (5%-30% salt)
- Hot springs



# Fauna and Flora

- Expansive National Parks
- Gazetted Forests
- Protection of biodiversity *in-situ*
- Faces serious threats
  - Encroachment
  - Deforestation
  - Pollution
  - Catchment destruction



# History

In 2003 CAB International conducted a scoping study

## **Objectives were:**

- *In situ and ex situ* conservation programmes for microbial resources including listing any existing collections of living microorganisms
- The potential needs and requirements of local industries for microorganisms/ their products
- In-country training opportunities in the field (University courses; study opportunities at centres of excellence; distance learning programmes etc.)
- Developments and activities in the National Biodiversity Strategy and Action Plan in relation to the conservation and utilization of microbial resources

# History cont.....

- Linkages to related international initiatives and the coordinators involved in the process of project development
- Existing or planned legislation relating to Biodiversity use, the environment and intellectual property
- Existing Biodiversity databases

## **Challenges identified**

- No depository for cultures.
- Little research towards industrial/applied microbiology
- There was general lack of capacity, facilities and financial resources to sustain and conserve microbial resources on long term basis.

# History cont.....

## **Strengths we could build on**

- Various legislations exist, which can facilitate the operation of the proposed centre
- Training opportunities within the country were available in many institutions.

## **JKUAT**

- BSc, MSc and PhD in Microbiology, Biotechnology, Molecular biology and Biochemistry
- Short courses in Microbiology and Molecular Biology
- A Molecular Biology and Microbiology laboratory
- Active isolation and Characterization of microorganisms on going/ Capability for anaerobic work
- BECA facility at ILRI for sequencing

# Recent developments

## **Workshop in March 2004 for East Africa**

**Aim:** To form East Africa Biological Resource Centre Network

**Agreed:** National Initiatives first be established before cooperation at the regional level

- 1<sup>st</sup> Kenya Biological Resource Centre Steering Committee established (mostly academics)
- Secretariat to be housed by the NCST

## **National workshop on BRC establishment in 2005**

- Attended by CABI- David Smith and from DSMZ- Dagmar Fritze
- Stakeholders from National Research Institutions, Regulatory Agencies and Universities
- NCST and the steering committee would work with CABI to develop a proposal on the Institutional Structure of the BRC.

# Role of NCST

- National Council for Science Technology for Kenya to spearhead the BRC initiative
- Little understanding of BRC
- Lack staff to drive the process
- Small budget
- Faces challenges from KWS, NEMA, KARI and KEMRI over overlapping mandates
- Facilitated development of a Proposal for establishment of BRC -Too expensive (2005-2008)

# A New Team-New Approach

- 2008 New CEO at the NCST
- A new Team appointed by NCST to spearhead initiative
- Membership:
  - Kenya Wildlife Service
  - National Environment Management Authority
  - National Museums of Kenya,
  - National Council for Science and Technology,
  - Kenya Medical Research Institute,
  - JKUAT (representing Universities),
  - Kenya Intellectual Property Institute (KIPI),

# A New Approach cont.....

- Review of Existing Biodiversity/Biological Resources Conservation Policies
- Creation of a Harmonised Policy
- Engaging stakeholders including Government
- Creation of a new legislative framework for conservation of biological resources by revising or amending existing legislation
- Creation of proposed Biological Resource Centre

# Current Status

- Proposal for policy formulation submitted to donors
- Eur. 30,000 set aside by NCST to facilitate process
- Strong support from the NCST
- Committee working on reviewing legislative framework
- Target: New policy by December 2011.

# Challenges

- Defining the task clearly has remained elusive
- Rigid bureaucracy working with Government Agencies
- Competing interest among Government Agencies
- Contradictory legislation where functions are scattered in various agencies
- Funds are minimal
- Fatigue

# Recommendations

- NCST staff and Committee members need further education on culture collections and BRCs
- Further sensitization of stakeholders will be necessary including Government/Legislators
- External technical support is crucial
- More funds should be sought to support the process