

Savanna Science Networking Meeting
Skukuza March 2010



A visitor's perspective
&
an invitation...

Tally Palmer

Applied Research and Innovation

Hector Magome & Kelly Scheepers



- National Parks
 - “.... to be the pride and joy of South Africans”
- Contribute to human well-being



KNP Objectives Hierarchy

Biodiversity for human benefits + wilderness and cultural resources

Biodiversity:

- Ecosystem
- Legal and statutory

People:

- Tourism
- Wilderness
- Direct Human Benefits
- Constituency Building
- Cultural Heritage

Balancing:

- SAM
- Develop + Biodiversity planning
- VSTEPP
- Env Responsible Practices
- Align business & operational

Enabling:

- Communication
- Infrastructure
- HR, finance, Admin
- Knowledge management
- Core subject specific support

Savannah Network

domains of interest 1^o 2^o 3^o



Biodiversity for human benefits + wilderness and cultural resources

Biodiversity:

- Ecosystem
- Legal and statutory

People:

- Tourism
- Wilderness
- Direct Human Benefits
- Constituency Building
- Cultural Heritage

Balancing:

- SAM
- Develop + Biodiversity planning
- VSTEPP
- Env Responsible Practices
- Align business & operational

Enabling:

- Communication
- Knowledge management
- Infrastructure
- HR, finance, Admin
- Core subject specific support

Dependencies are missing

- What needs to be completed in order to enable each successive step
- Recognise bottlenecks
- Links to
 - kpi's
 - budget
 - time frame



Biodiversity: Ecosystem Objectives




Looking for processes and connections

- **Atmospheric effects (climate)**
 - **Flux tower**
 - temperature effects (elephant movement, distribution of ungulates)
 - **Fire**
 - Aerial depositions - > pollutants
- **Water in the landscape (early greening – base flow?)**
 - Dead crocs (Dixon), fish kills (Huchzermeyer) sugarcane-biofuel);
 - Wetlands –structure &function (Riddell)
 - Artificial water points
- **Terrestrial ecosystem**
 - Structure (Baade – erosion deposition; organic Carbon & C fluxes; catenas; soil/water dynamics)
 - Function – predator/prey (hyaena, wild dog, cheetah, vultures, black rhino,
 - Vegetation, and herbivores – **Elephants** (Angela Gaylard)
 - Species responses
 - Land-use
- **Threatened biota**
 - Fish, Sable, Roan, small vertebrates?
 - Trees?

Balancing

- **SAM**
 - **Craig M Loughlin – rivers**
- **Development + Biodiversity planning**
 - **Look back at people impacts**
- **VSTEOP**
 - **Inkomati CMA (the ghost of Kevin Rogers)**
 - **Sharon Pollard & Derrick du Toit**
 - **Reserve – quality & quantity**
- **Environmentally Responsible Practices**

People

- Tourism & Wilderness (Sabie Gorge)
- Direct Human Benefits
 - **Sam Ferreira ES** (Maintain ecosystem integrity, tourist experience, stakeholder relationships);
 - **Grundling – wetlands**
 - **Cattle/buffalo interactions, anthrax**
 - **Communal farmer perceptions (van Rooyen)**
 - **Scheepers – resource use projects**
 - **Wood fuel**
 - **livelihoods**
- Constituency Building
 - **Derick du Toit – does it matter what upstream users think?**
 - **CMA meetings**
 - **Sharon Pollard – shared rivers**
 - **Gatvol index**
- ? Impacts  balancing
 - **Land-use**
 - **Wood fuel collection (=herbivores)**

International perspectives....+

- The pack of cards?
 - Tipping points – dead crocs – combination of responses to acute and chronic stressor – in relation what we measure and recognise as stressors
 - **THE SYSTEM**
- Policy & Law – Science - People nexus
- Technology
 - **CAO & Lidar**



And....

- Out of the box thinking
 - Chris Barachievy
- Poster presentations
- > use of remote sensing data
- Women in science!

System and complexity approaches

- LOTS of “good science” –
- Less:
- Making new connections between the objectives boxes
- Scale, time, feedbacks



New ways to...

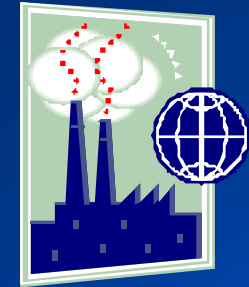
- do research that serves society
- positively influence human well-being:
values
- measure making a difference:
“impact”



ARI: three key goals, one premise

WHAT ?

- move applied research outcomes through the innovation value chain towards commercialisation;
- support applied research that informs the policy, legislation and implementation that underpins societal well-being – values



HOW ?

- broker relationships & processes that invigorate the applied research and practice community



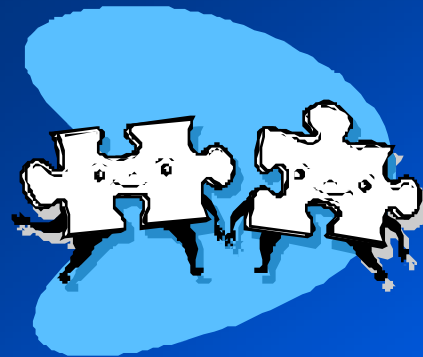
WHY?

- the planet comprises social-ecological systems that are complex and adaptive – we need to engage with complexity to solve problems



Implications of application

- All that research and a deteriorating planet.....
- Moving from data generation to application – central role of VALUES
- Requires engaging with complexity & integration



***Akili* CII : 28 April Workshop**

- *Akili* complexity and Integration initiative
- Wise knowing: “knowledge and wisdom”
- Pan-African

