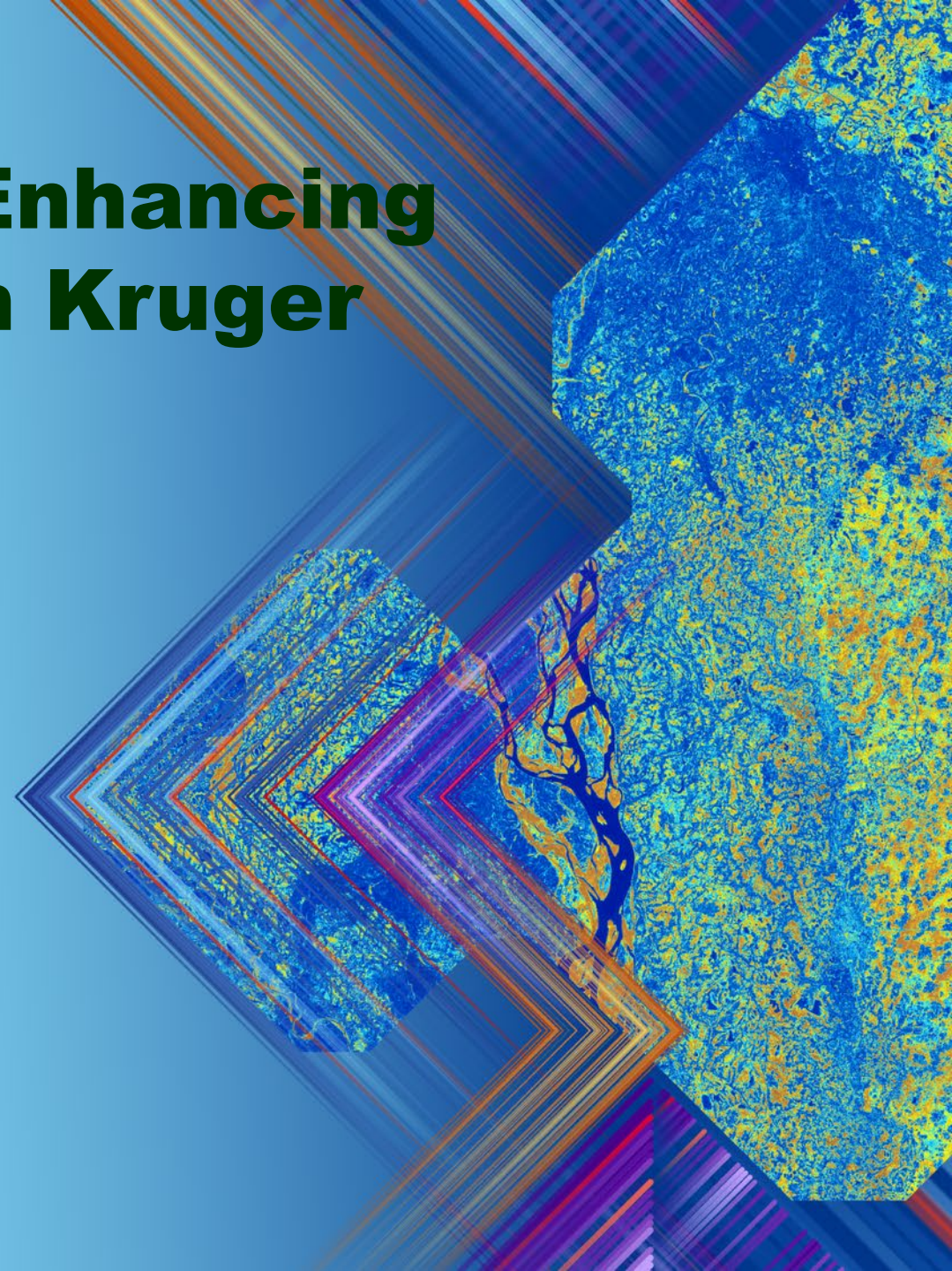


Mapping Conservation: Enhancing effective management in Kruger National Park

Chenay Simms



SOUTHERN AFRICA ESRI USER CONFERENCE 2025

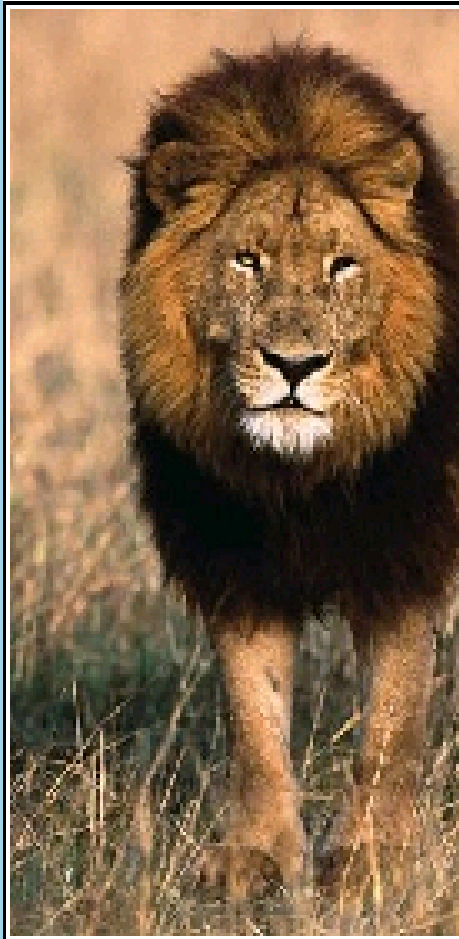


Sl

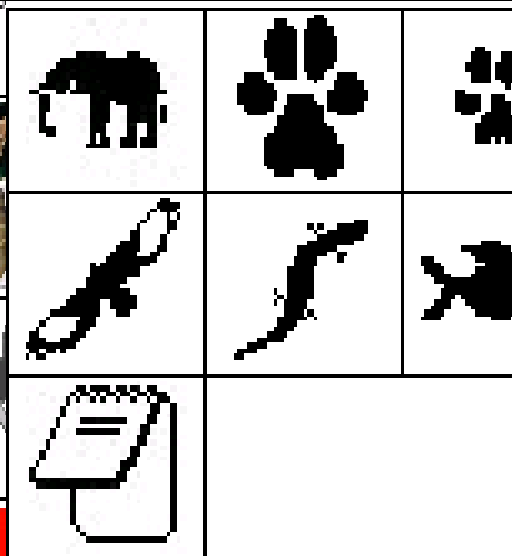


KRUGER NATIONAL PARK

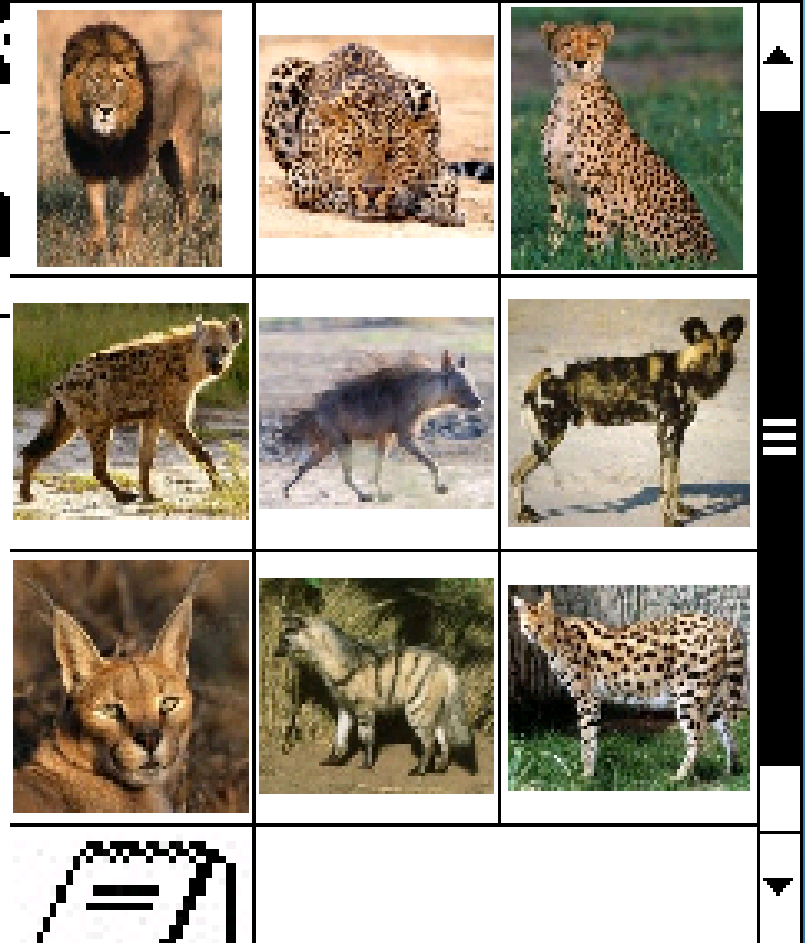
OBSERVATIONS



ANIMAL CLASS



LARGE PREDATORS

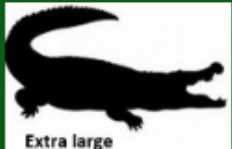


Hippo and Croc Census

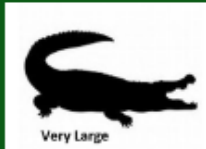
Census tracks

Click to turn tracks on / off

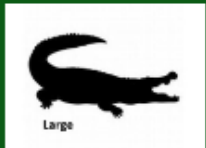
Crocodiles



Extra large



Very Large



Large



Medium



Small



● GPS accuracy 30m

Kruger National Park

Healthy chenays

Events

Ground Hornbill Sighting

Details

Reported By: Reported By... Priority: Green

Event Location: Set location Event Date: 2024/11/01 Event Time: 09:12

Conservation Manager: Location/Property:

Report type: Nest Activity:

Adult Males: Adult Females:

Note Attachment Event

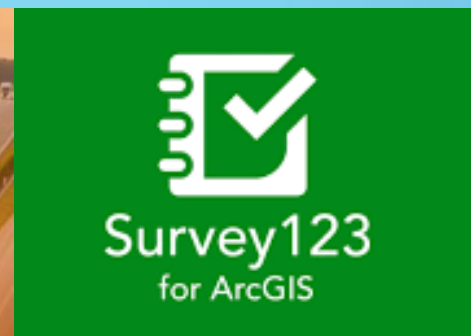
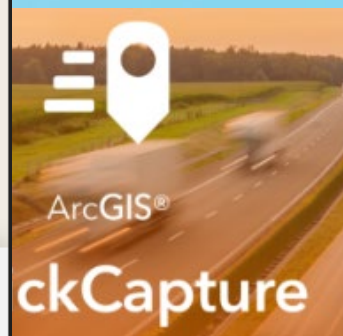
Cancel Save

Jump to...

Alien Plant Control

Hippo Culling

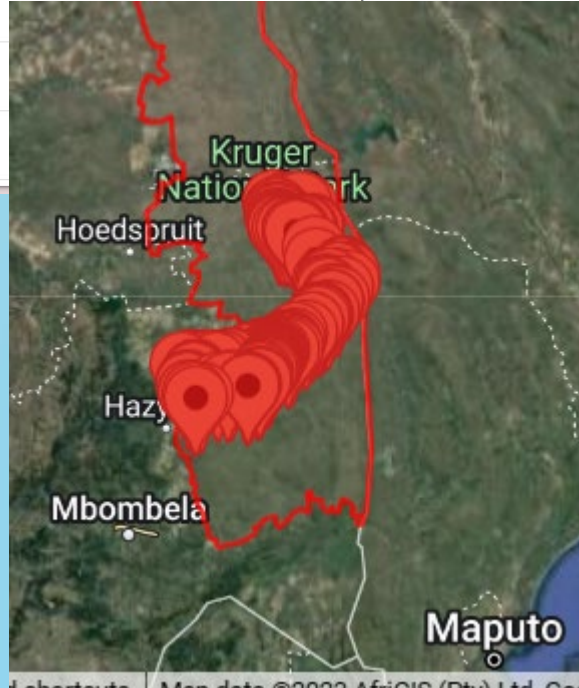
Injured Animal



The Kruger National Park Challenge 2023

From 1 Jan 2023 (00:00) to 31 Dec 2023 (23:59)

Species	Total	▼ Counter
Common Myna	1	190
Red-crested Korhaan	1	189
Southern Fiscal	1	188
Wattled Starling	1	187
Streaky-headed Seedeater	1	186
Levaillant's Cuckoo		185
Lizard Buzzard		184
African Scops Owl		183

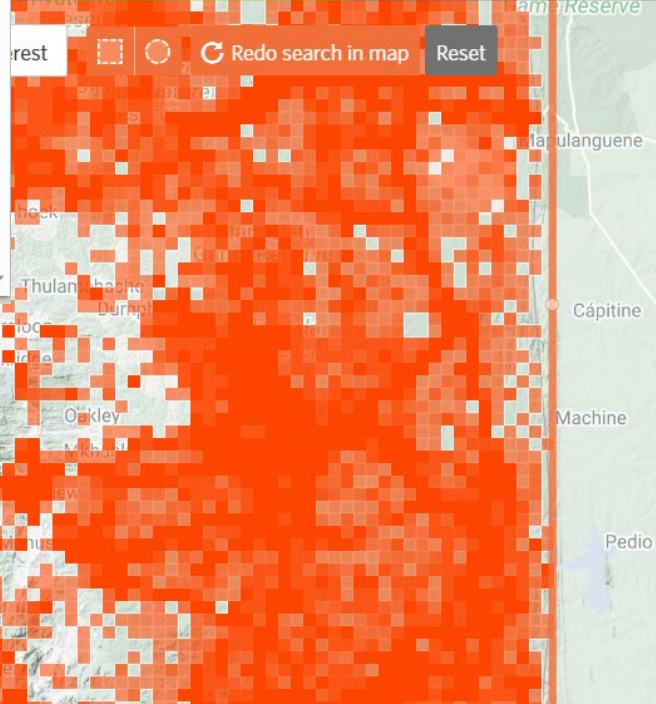



81,136
OBSERVATIONS

4,550
SPECIES


3,289
IDENTIFIERS

2,404
OBSERVERS







Frogs and Toads
(Order Anura)
Kruger Park, South... • Apr 11, 2023
3h



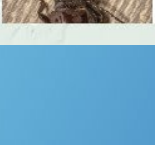
Blue-eyed Pierrot
(*Zintha hintza*)
Kruger Park, Bushb... • Yesterday
8h



Tridax Daisy
(*Tridax procumbens*)
Kruger Park, Bushb... • Yesterday
8h



Spotted Hyena
(*Crocuta crocuta*)
Kruger Park, South... • Oct 28, 2022
Research Grade 1
8h



Beetles
8h

Sustainable conservation

The Sustainable Development Goals are applied by SANParks through the lens of conservation, community development and sustainable tourism.

In Kruger National Park (KNP) the focus is particularly on protected area management, biodiversity conservation and socio-economic upliftment.

By integrating scientific research, conservation practices, and community involvement, KNP aims to create a sustainable, thriving environment where both wildlife and people can coexist.

Key aspects:

- Ecosystem-based Management
- Species Monitoring and Research
- Sustainable Development
- Community and Stakeholder Involvement
 - Vision2040





Management Interface

Kruger National Park

This interface brings together the various management components of Kruger National park into one accessible web page. Select the component of interest in the scrolling list on the right of the page.

Map view

Biodiversity



Planning & Development





Biodiversity

KNP Biodiversity

Ranger Patrol Data



Select a date

[No date selected](#)



Select a section

[No section selected](#)



Select a sightings class

[No sightings class selected](#)



Select a species

[No species selected](#)

Total # Species

627

70

Mammal species

476

Bird species

16

Reptile species

15

Plant species

0

Amphibian species

46

Alien species

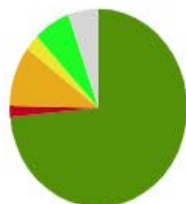
3

Insect species

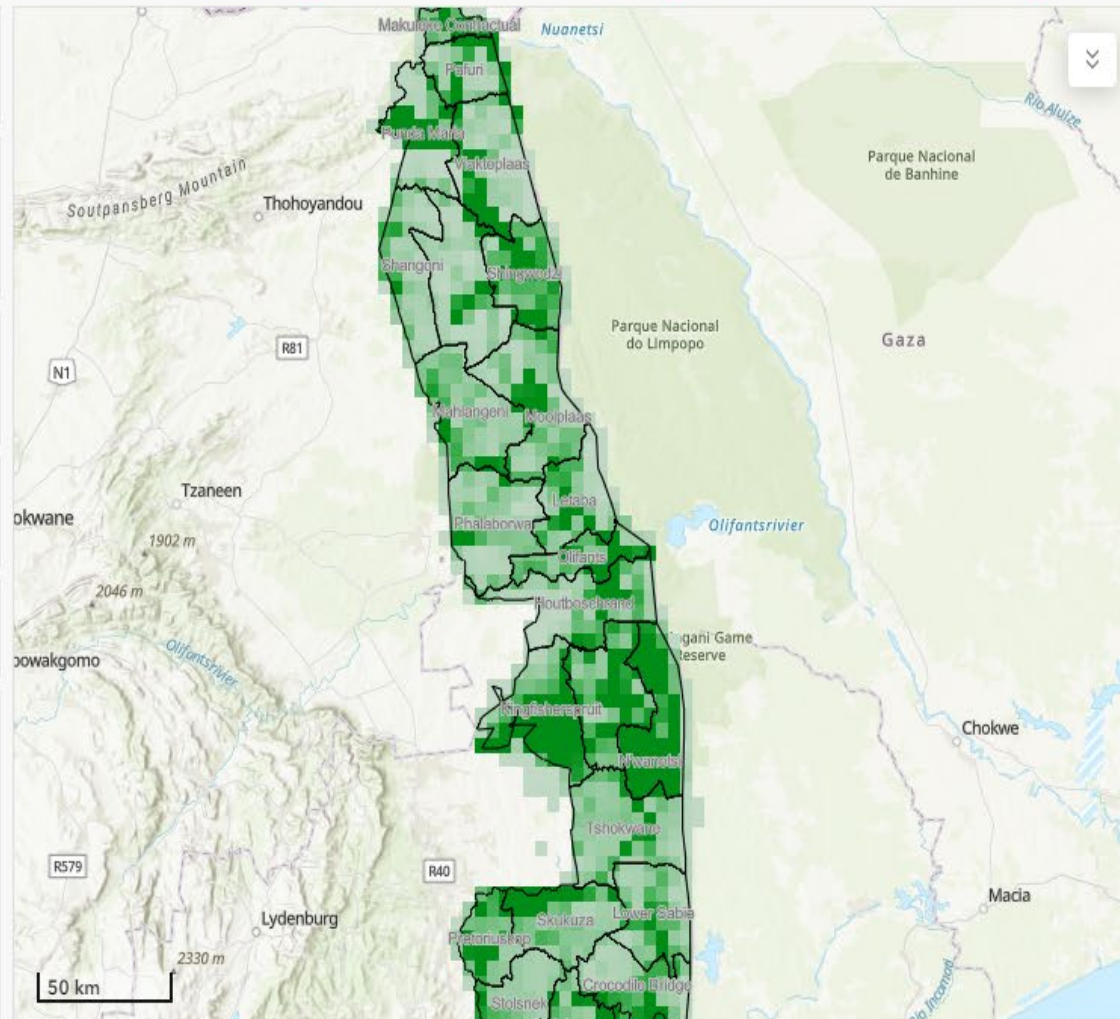
1

Fish species

Species of Special Concern



	Not a SSC	238,382
	SSC Class 1	5,929
	SSC Class 2	31,935
	SSC Class 3	8,398
	SSC Class 4	21,623



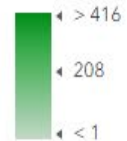
KNP Sections



KNP biodiversity



Record Count



Map legend



Table

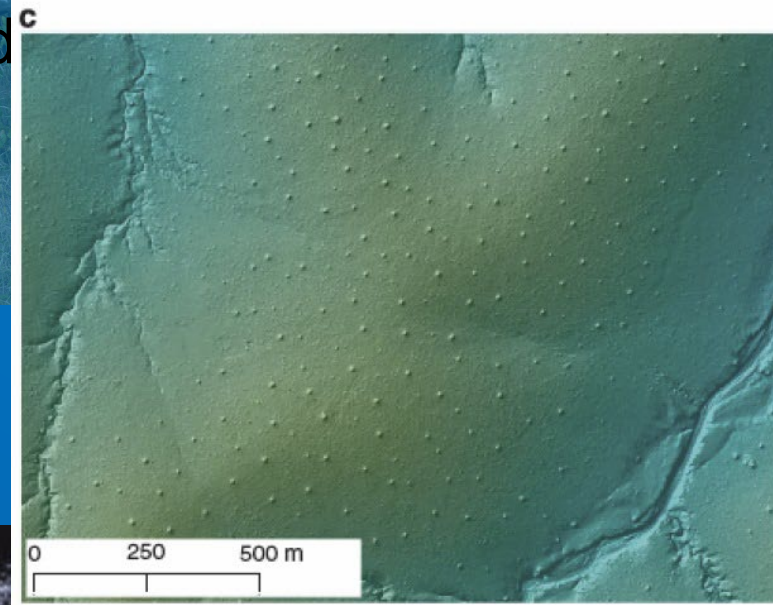
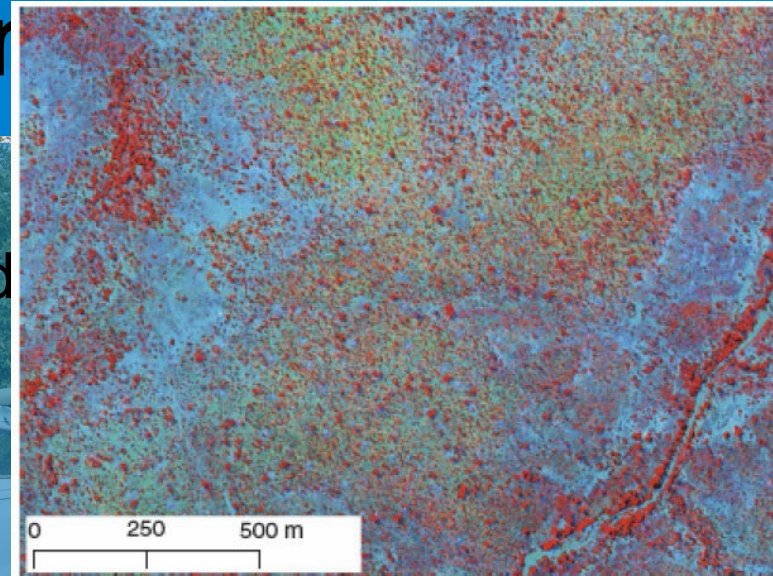
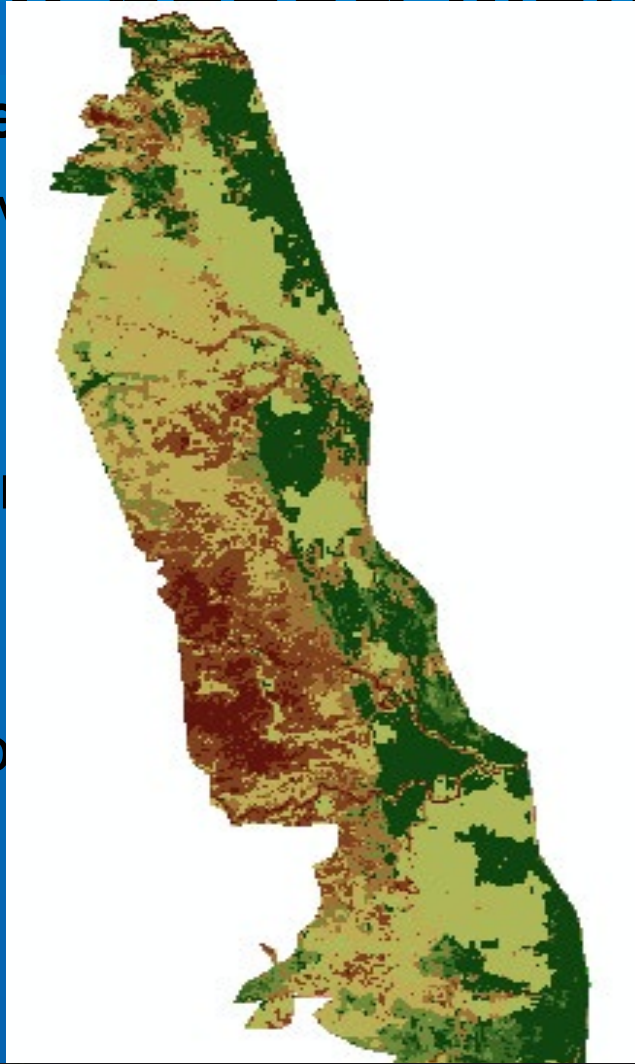
Ecosystem-based Management


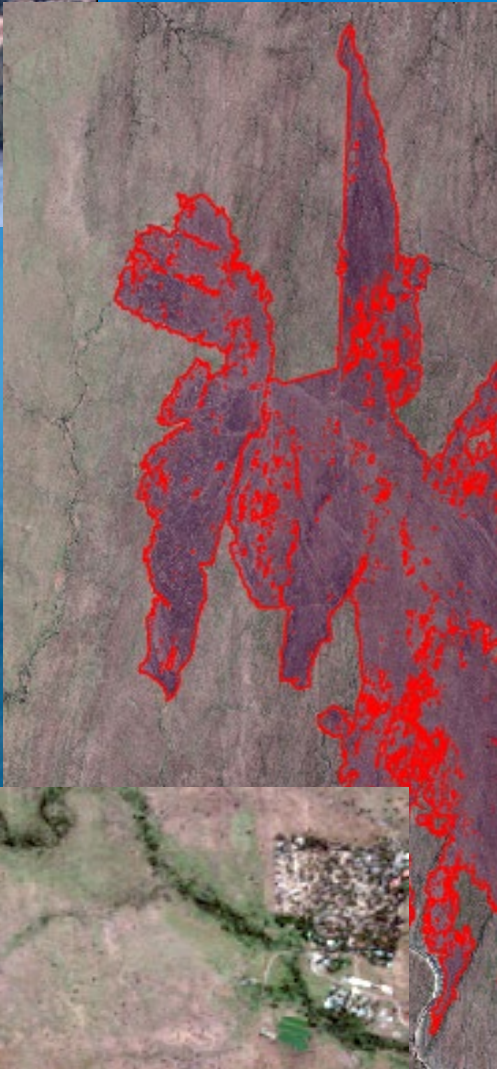

- **Veld Condition Assessment**

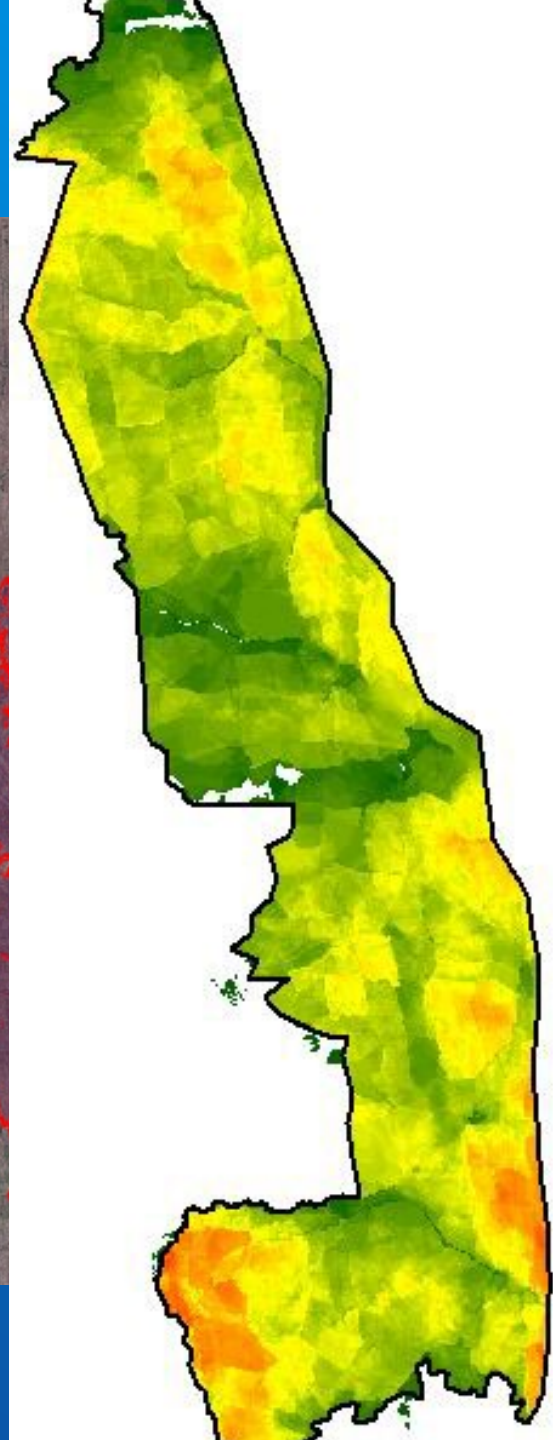
- 1989- present grass surveys over 500 sites

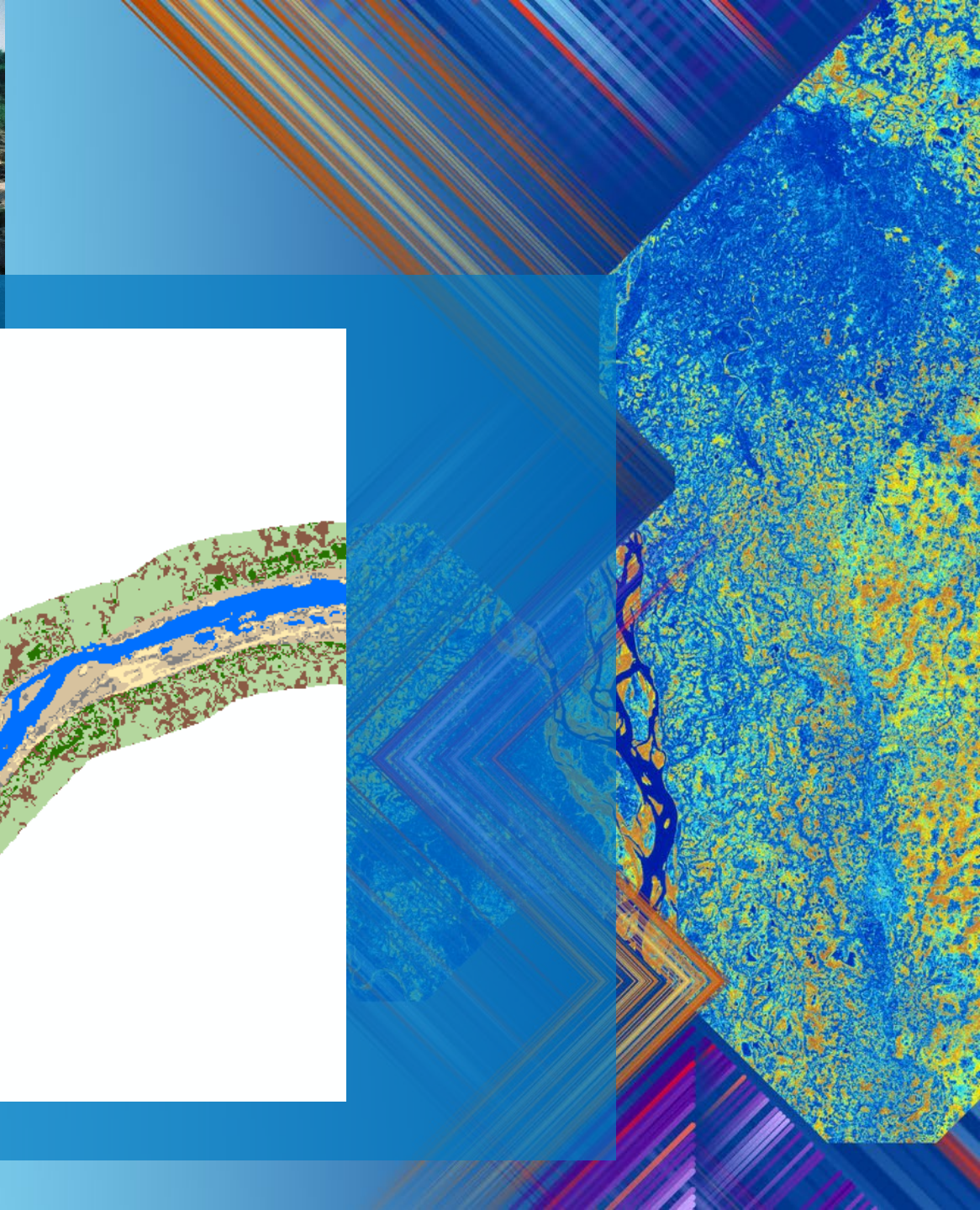
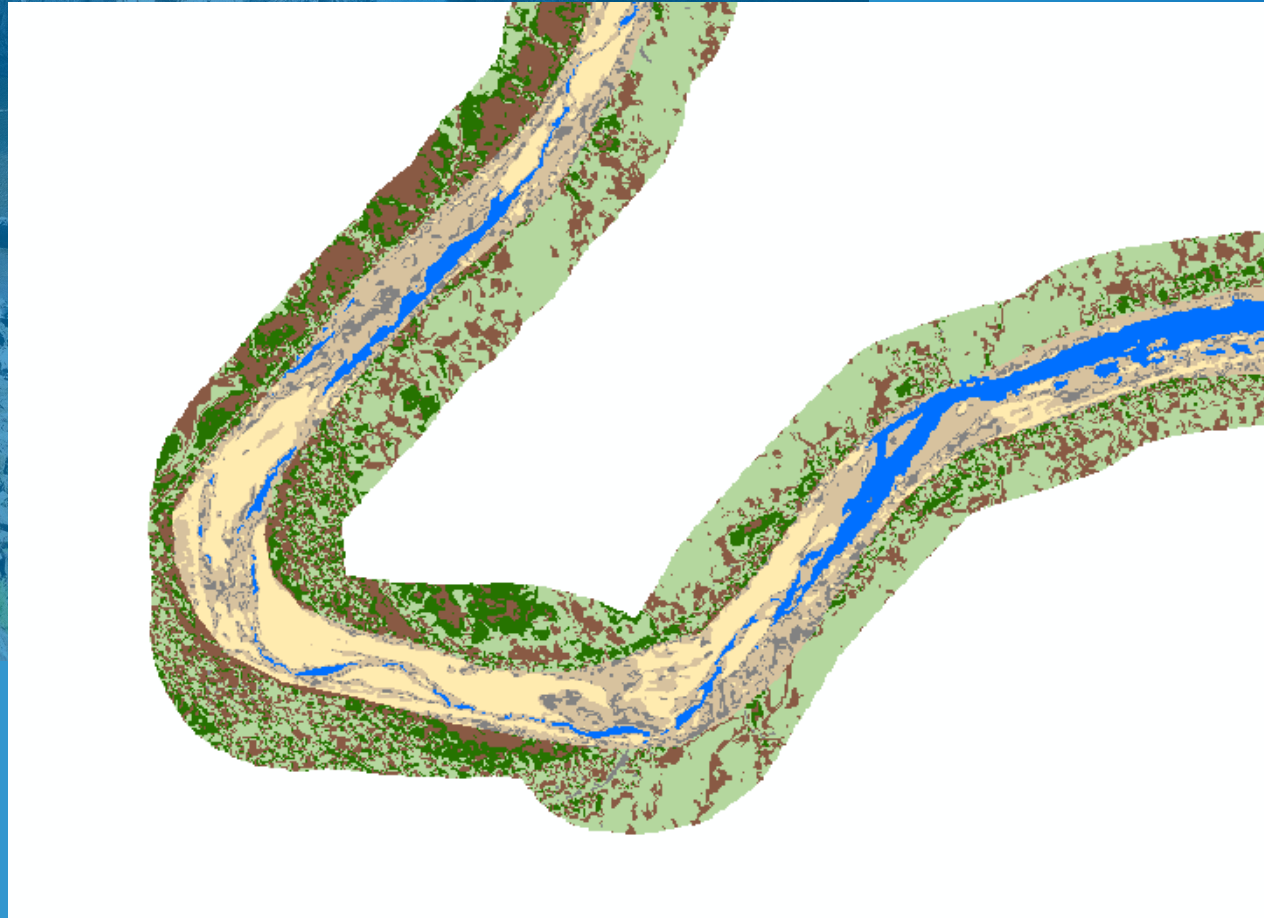
- **Exclosure vegetation monitoring**

- 2000 2 exclosures were established (with yearly grass surveys)
- Phenology monitoring done on 100 plants



- 
- 
- 
- **Fire Scar mapping**
 - 1941- present (annually)
 - **Experimental Burn Plots**
 - 1940's





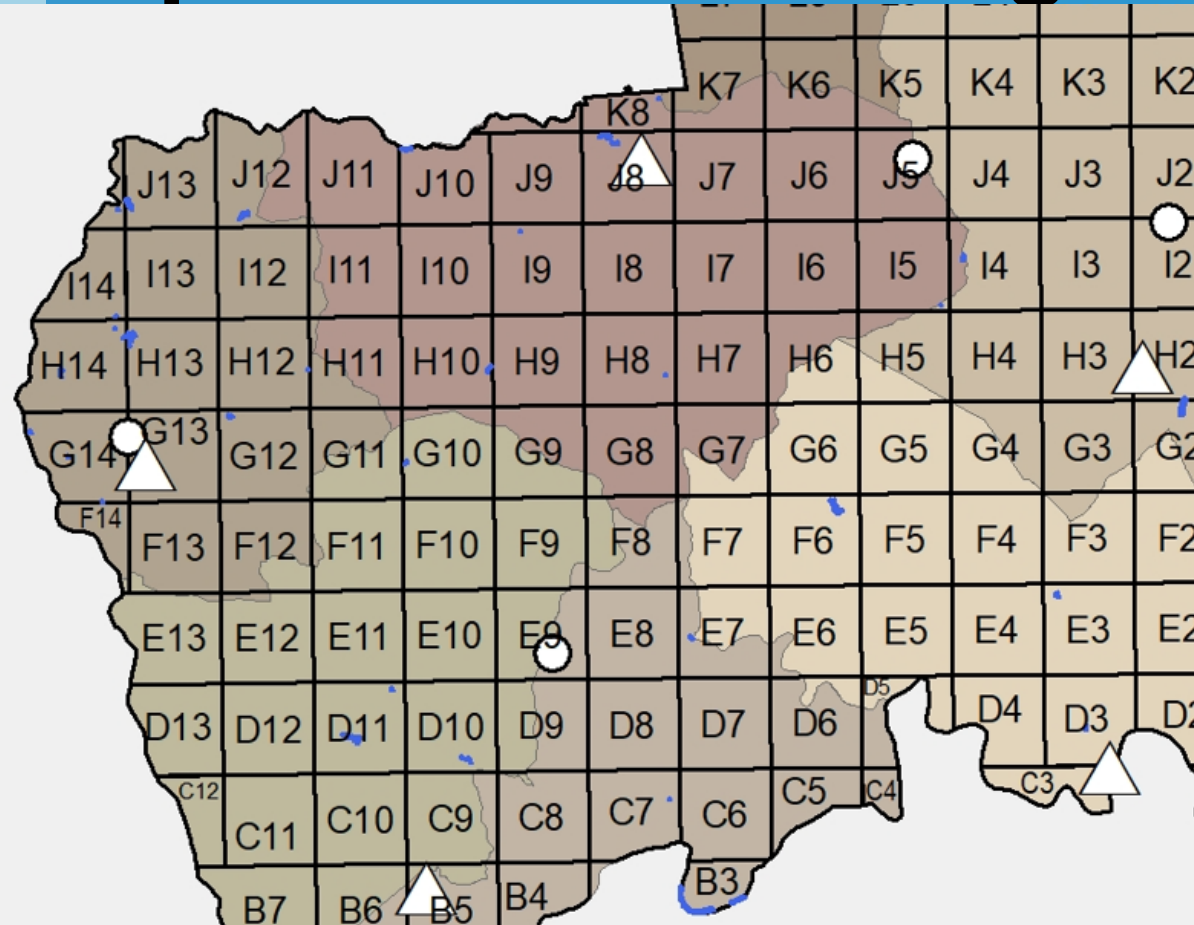
Species Monitoring and

- B

-
-

- La
- wi

-
-



surveyed bi-annually



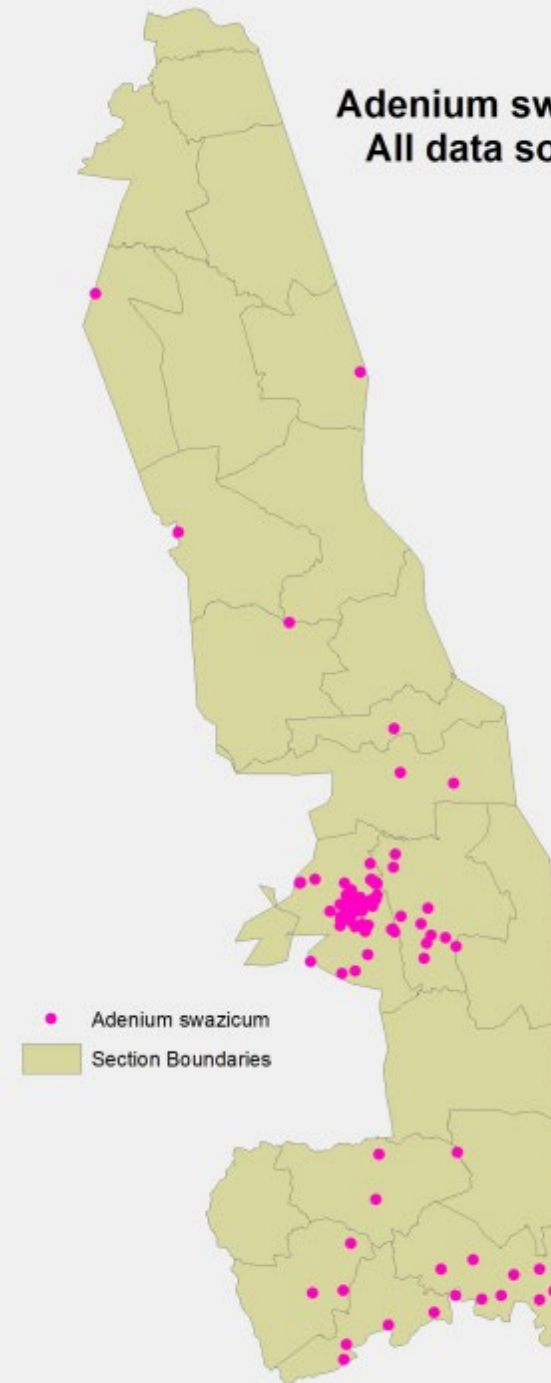
The SSCs of the Kruger National Park:

Species of special concern to be monitored have been divided into three categories; red species will be monitored regardless of regional threats because they are listed as endangered or critically endangered by IUCN, orange species came out as priorities during the scoring process (these scored above threshold or have been monitored over the long term), and yellow species are currently data deficient, research is encouraged, otherwise information will be gathered opportunistically (these are mostly rare species with bulk of remaining population in park).



1. Warburgia salutaris, 2. Siphonochilus aethiopicus, 3. Adenium swazicum, 4. Nyamblysomus julianae, 5. Diceros bicornis, 6. Redunca fulvorufula, 7. Lycaon pictus, 8. Gyps africanus, 9. Torgos tracheliotos, 10. Trionoceph occipitalis, 11. Gyps coprotheres, 12. Necrosyrtes monachus, 13. Chetia brevis, 14. Serranochromis meridianus, 15. Scotopelia peli, 16. Aquila rapax, 17. Polemaetus bellicosus, 18. Terathopus ecaudatus, 19. Sagittarius serpentarius, 20. Poicephalus cryptoxanthus, 21. Ehippiorhynchus senegalensis, 22. Bucorvus leadbeateri, 23. Gorsachius leuconotus, 24. Podica senegalensis, 25. Smutsia temminckii, 26. Acinonyx jubatus, 27. Damaliscus lunatus, 28. Tragelaphus oryx, 29. Hippotragus equinus, 30. Hippotragus niger niger, 31. Ceratotherium simum, 32. Adansonia digitata, 33. Crocodylus niloticus, 34. Python sebae natalensis, 35. Rhynchoceros vendae, 36. Bowia volubilis subsp. volubilis, 37. Caesalpinia rostrata

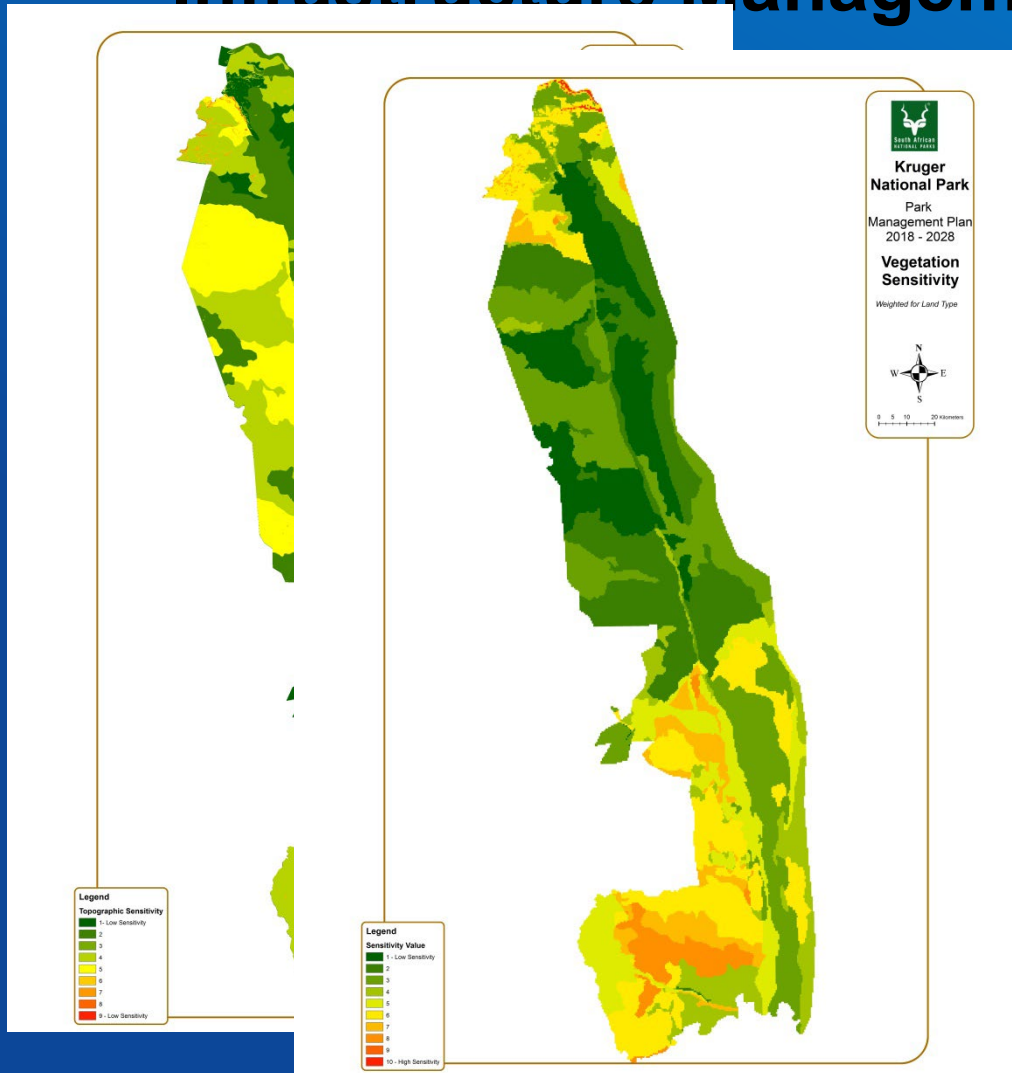
Adenium swazicum All data sources



Sustainable development

- Infrastructure Management

ent Framework



Infrastructure Management



Current Infrastructure Development and Maintenance Projects



Maintenance Project - Current

- Maintenance project that are currently underway

Maintenance Project - Complete

- Maintenance project that has been completed within the last 2 years.

Maintenance Project - Planned

- Maintenance project that is planned for the coming financial year.

Maintenance Project - Cancelled

- Maintenance project for current financial year that has been postponed or cancelled.

Development Project - Current

- A new development project that is currently underway

Development Project - Completed

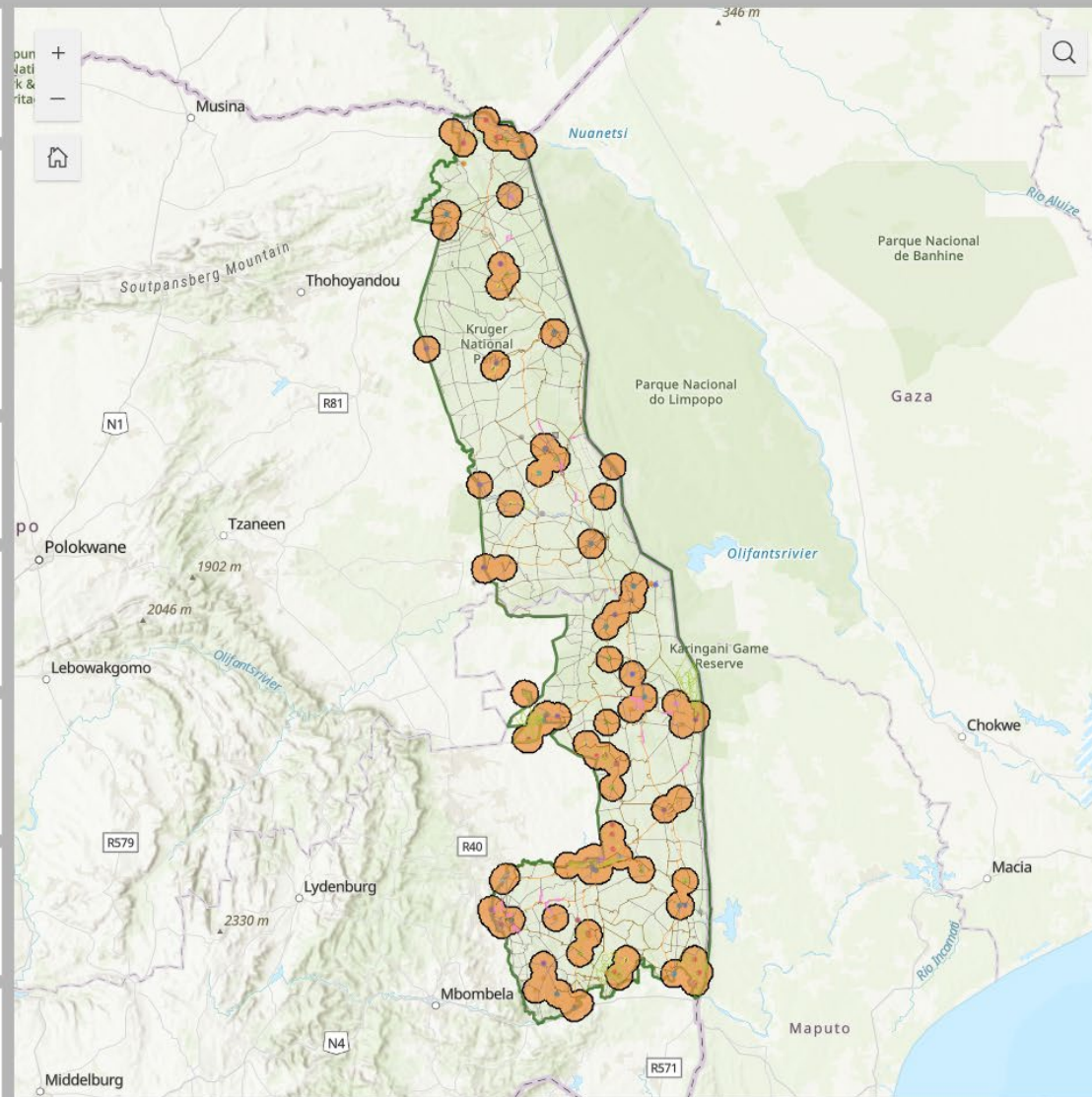
- A new development project that has been completed in the current financial year.

Development Project - Planned

- New Development project planned for current financial year.

Development Project - Cancelled

- A new development project for current financial year that has been postponed or cancelled.



KNP roads

- Management Road
- Tourist Gravel Road
- Concession Road
- Disused
- Tourist Tar Road
- Rest Camp Road
- Firebreak Road
- Jeep / 4x4 Road
- Private Tourist Road
- Rehab
- Other

KNP camps all

KNP roads

KNP camps all

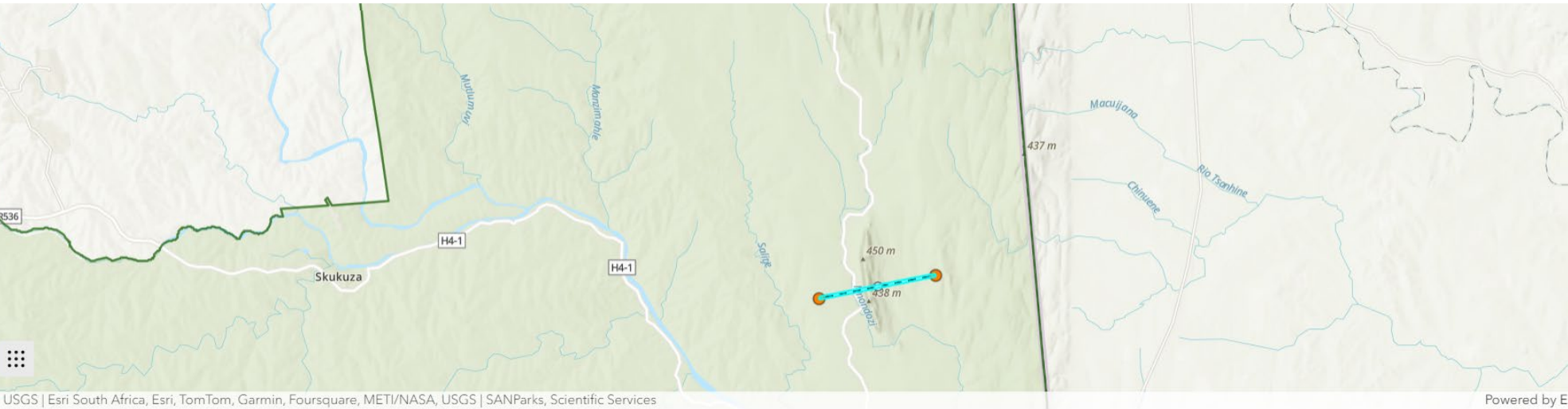
KNP facilities - 5m buffer

Zonation 2018

Kruger national park boundary

Planning & Development

NP Development Zones | KNP Planning & Development ⓘ



on profile



ers

ision boundaries - 2023



ads



mps



ilities - 5m buffer



New profile

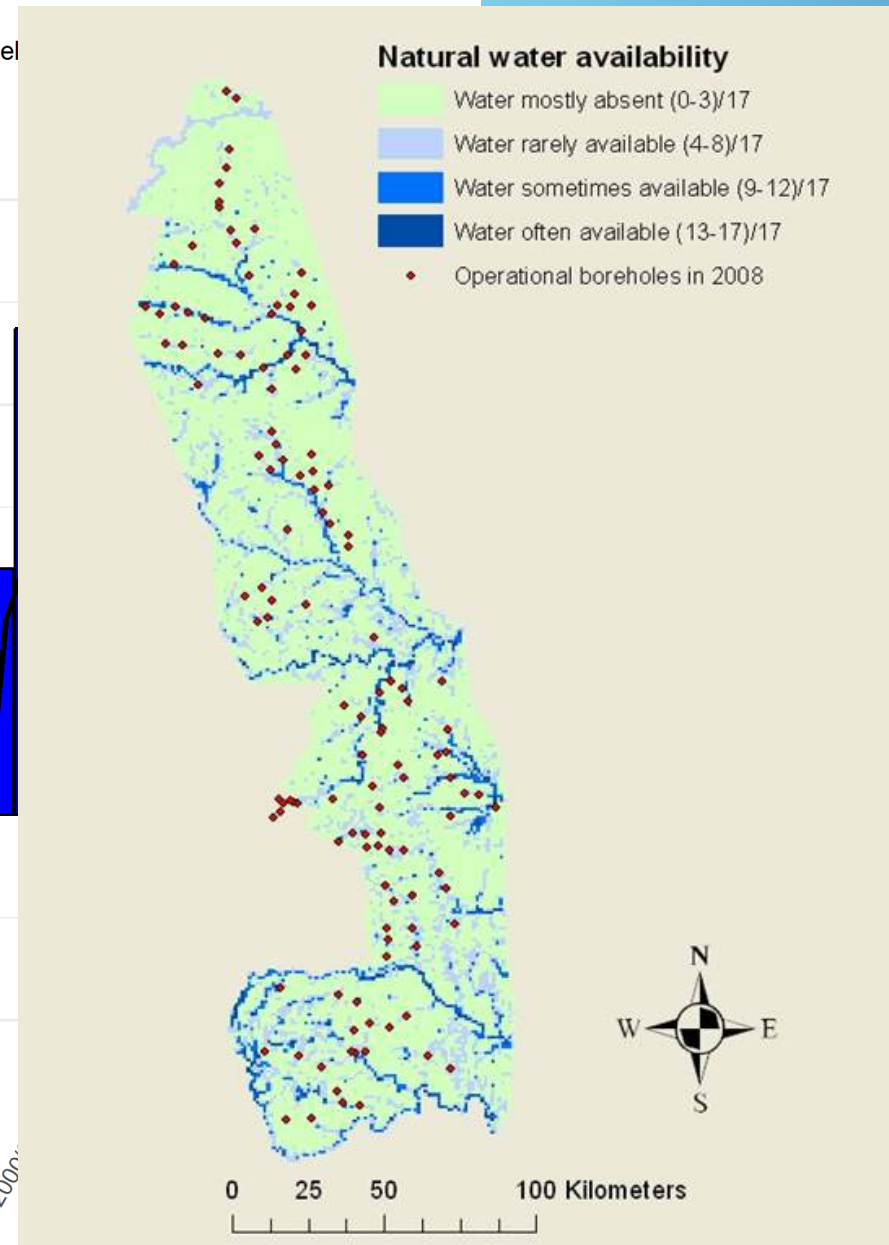
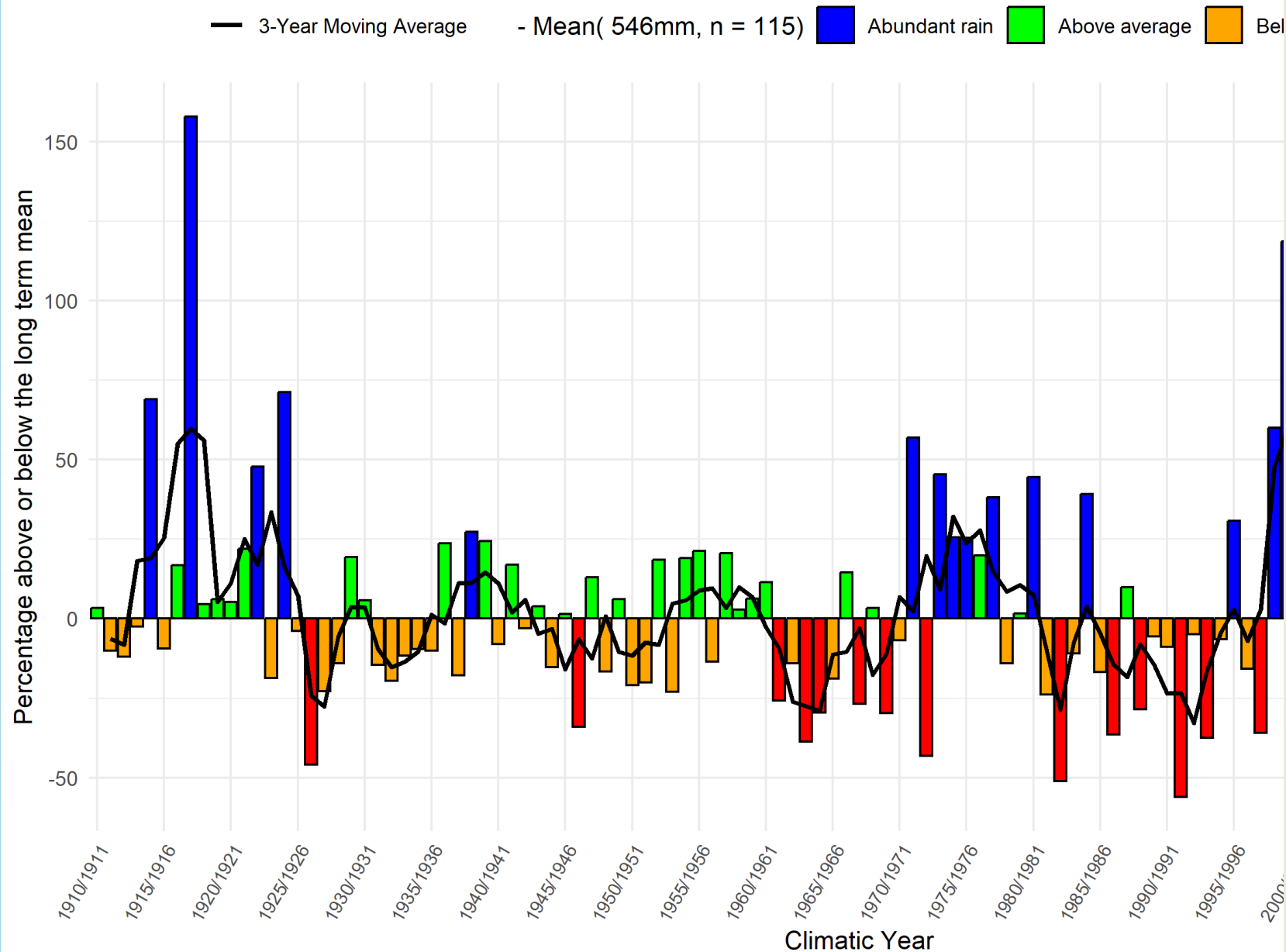
ment areas - Zonation

only



nZONE	Wilderness
Old_Zone	
ZONE	Wilderness

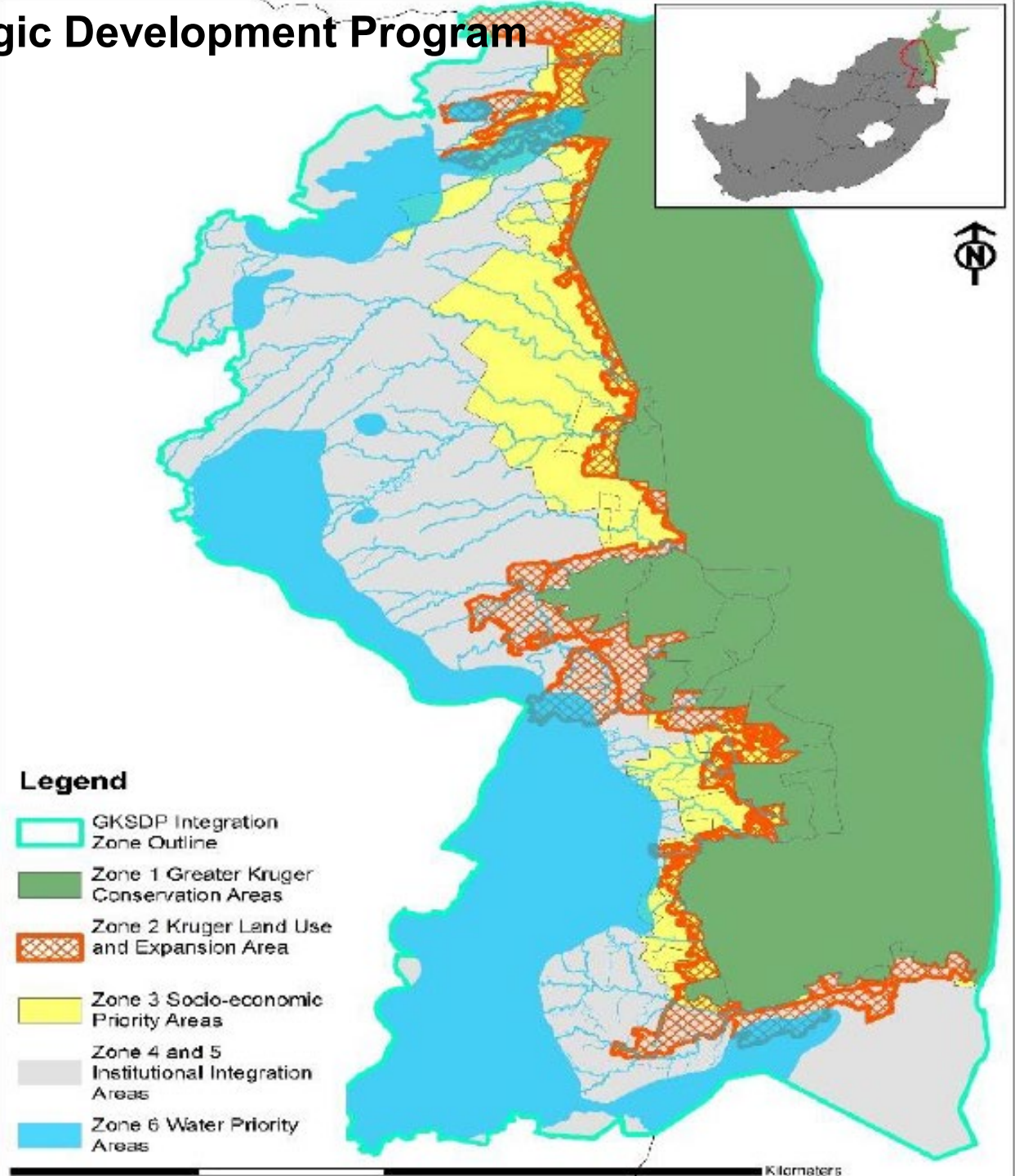
Climate Vulnerability

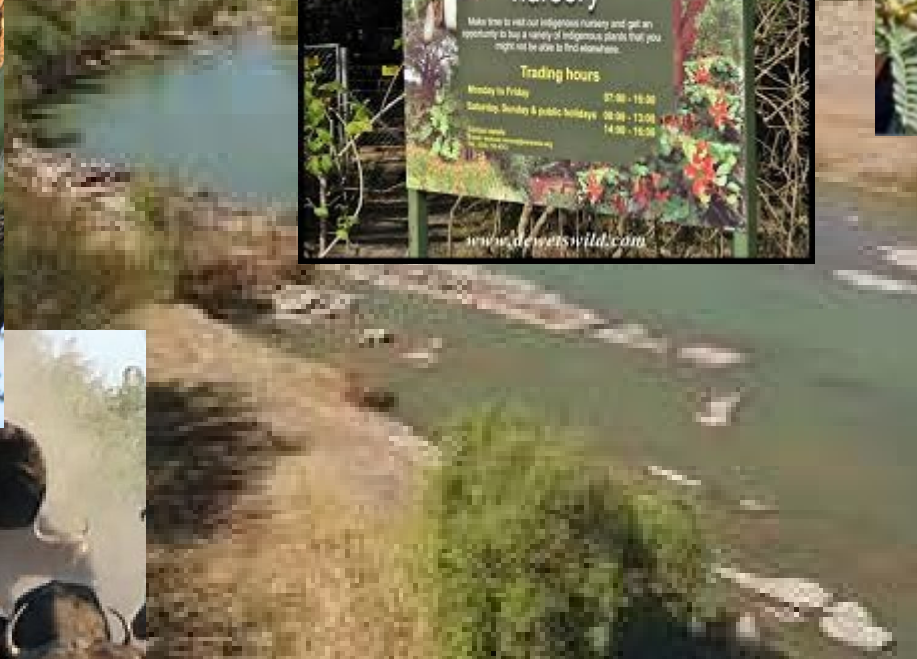
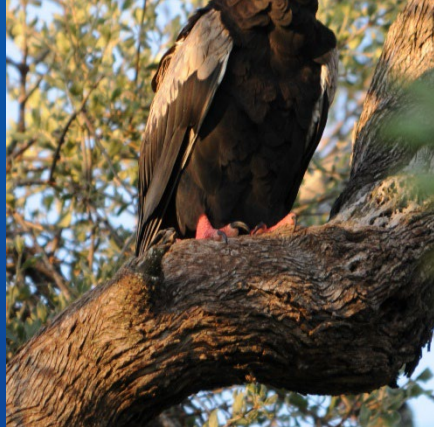


Vision2040



Greater Kruger Strategic Development Program





Thank you

