Adapting to climate change in a diverse landscape: the Kruger to Canyons Biosphere Reserve

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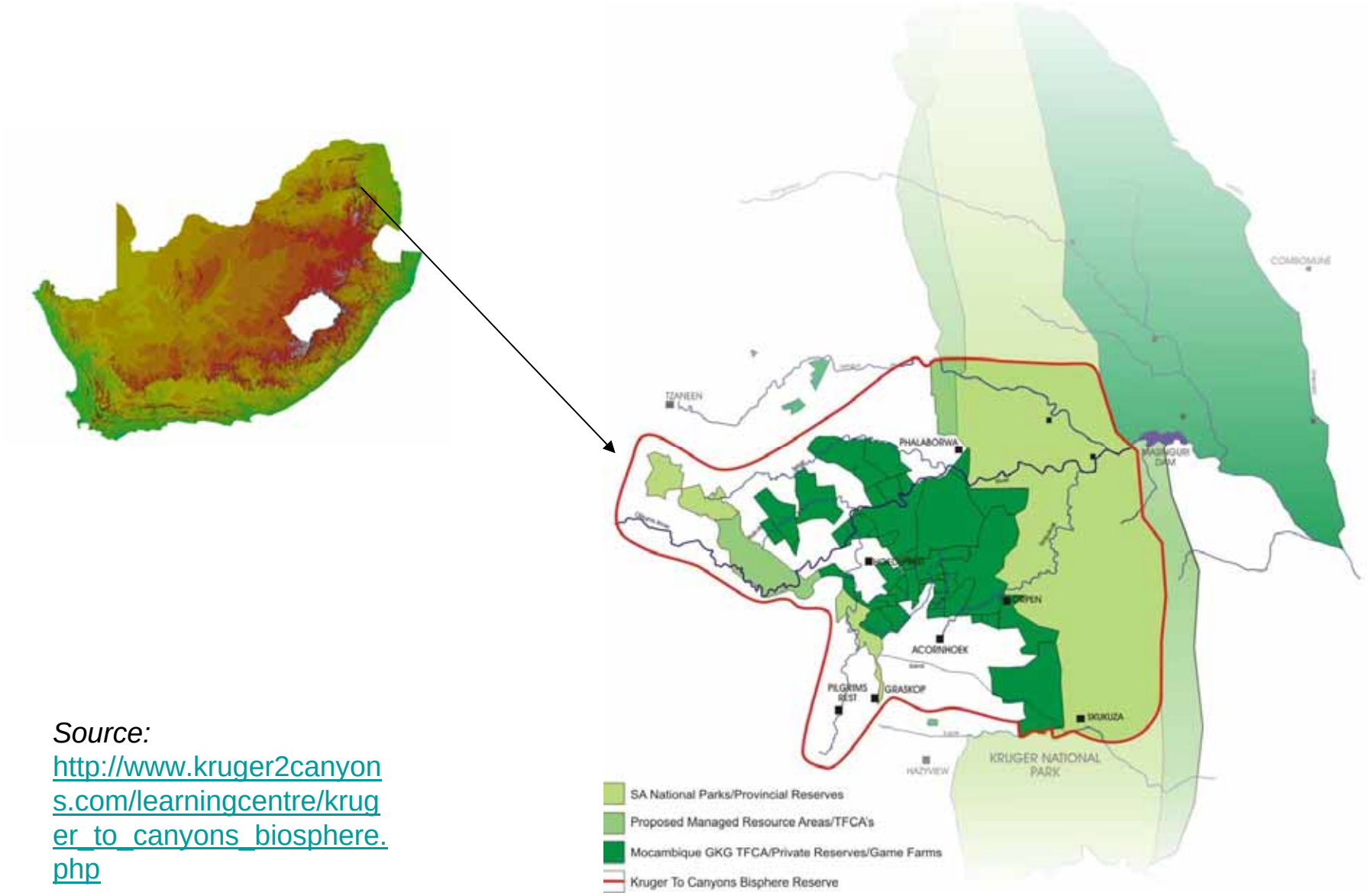
Location of the Kruger-Canyons area



Source:
http://www.kruger2canyons.com/learningcentre/kruger_to_canyons_biosphere.php

Climate change implications for the Kruger to Canyons area

- Existing background of rising temperatures
- Robust predictions of rising minimum, maximum and average temperatures
- Increased evapotranspiration
- Key (selected) impacts:
  - Water supply and quality
  - Commercial agriculture
  - Forestry
  - Health
  - Communal agriculture and livestock
  - Conservation and managing at the landscape level – Kruger to Canyons

Gap Analysis

- Landscape resilience to global change
- Water implications
- Altitudinal shifting
- Health implications for Bushbuckridge population
- Local institutions and communication/partnerships

Information (from data) needed

- Updated climate change projections for the area, with an envelope analysis
- Water balance models run with updated projections
- Climate change projections thresholded for key local industries and activities (commercial forestry, livestock, fruit)
- Where possible, health predictive models run with updated climate change projections (malaria, cholera)
- Global change resilience index of landscape with updated climate change projections as input

For example, in Acornhoek

- Increasing demand for water related to settlement dynamics
- Increasing water costs;

- What might climate change mean for already strongly drawn upon water resources within the catchment, and for Acornhoek settlement as a whole?

Conclusion

- The atlas should provide a useful outlet to help support:
  - Scientists and scientific stakeholders to undertake analyses to produce projected implications of climate change for the Kruger-Canyons area
  - Local stakeholders to access and query the information, using it to facilitate decision-making to improve resilience to climate change and risk.