Swaziland's Programme of Work on Protected Areas (PoWPA) Action Plan: Towards achieving Aichi Target 11

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Capacity-building workshop for Southern and Eastern Africa on ecosystem conservation and restoration to support achievement of the Aichi Biodiversity Targets: Livingstone, Zambia, 12 to 16 May 2014

Swaziland
national trust commission

2011-2020
United Nations Decade on Biodiversity

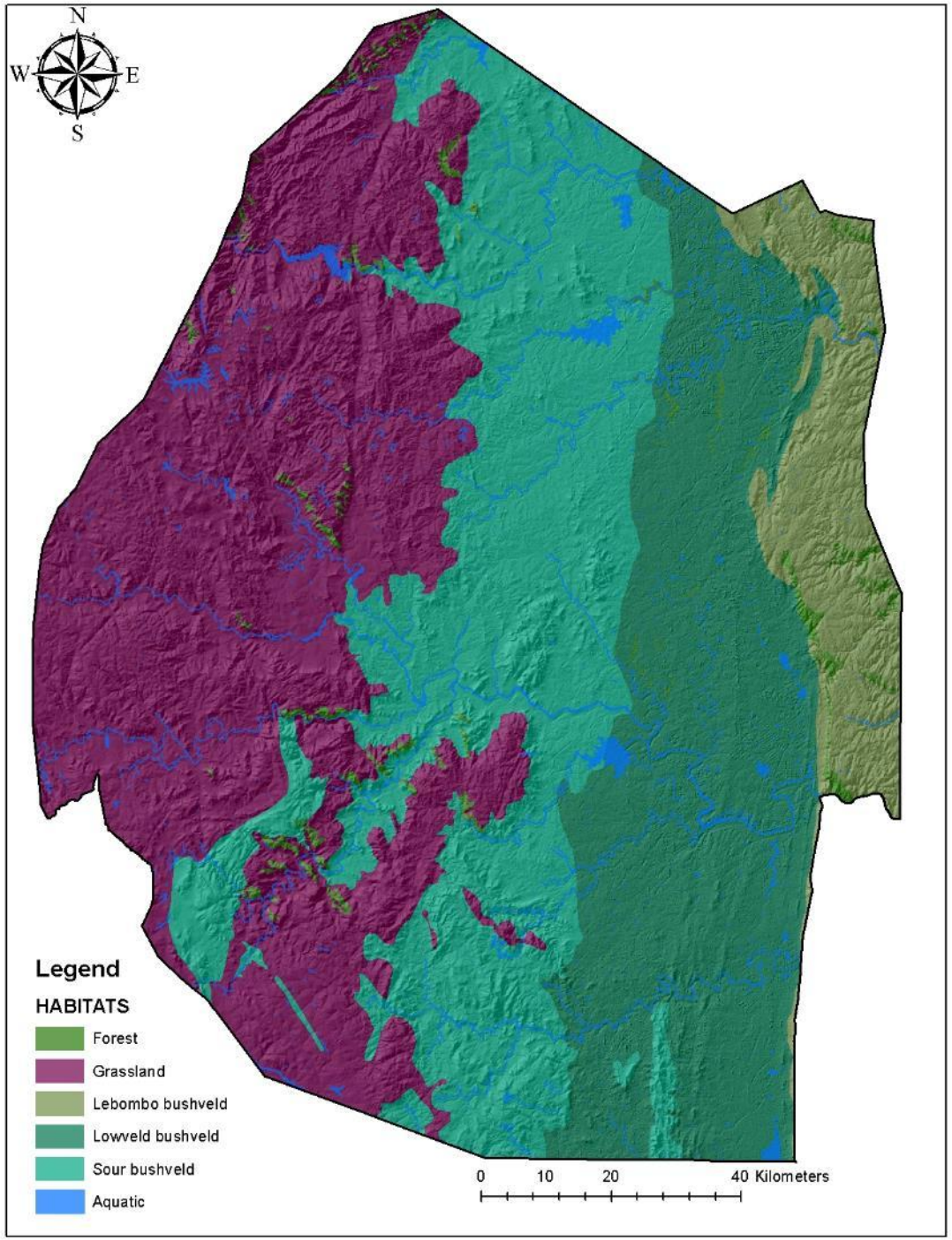
PRESENTATION OUTLINE

- Background
- Current protected area coverage
- Gap analysis
- Opportunities and constraints
- Ongoing national initiatives

BACKGROUND

BACKGROUND

- Area: 17,365 sq. km
- Population: 1,2 million people
- Agro-based based economy
- CBD Party since 11 November 1994
- High biodiversity richness in a small area:
  - 2,600 species of flowering plants,
  - 121 species of mammals,
  - 153 amphibians and reptiles,
  - 350 species of birds.
- The country also contains one of the largest remaining intact altitudinal gradients of natural ecosystems in Southern Africa, and is the only place where this continuum is concentrated in a relatively short distance (of about 200 km).
- Such an intact gradient holds great significance for biodiversity conservation because it allows ecological processes such as migration and gene flow, and provides the opportunity for population shifts as an adaptation to climate change.
- Swaziland's forests contain 22 million metric tons of carbon in living forest biomass.



Major ecosystems in Swaziland

- Montane grassland
- Sour bushveld
- Lowveld bushveld
- Lebombo bushveld

Montane grassland

Sour bushveld

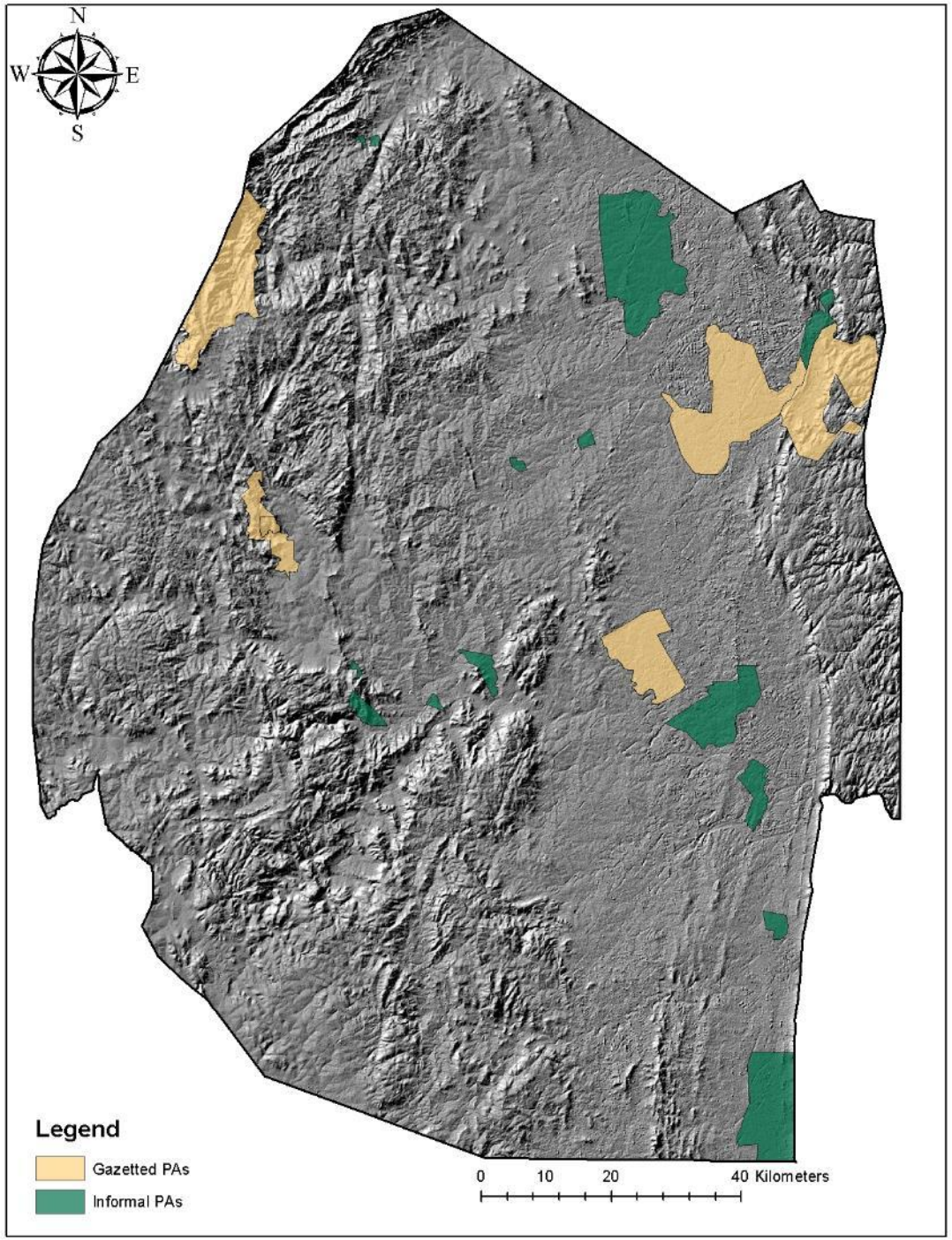
Lowveld bushveld

Lebombo bushveld

CURRENT PROTECTED AREA COVERAGE

PROTECTED AREA COVERAGE

- Swaziland's existing national PA (gazette) estate is comprised of relatively small areas covering only **3.9%** of the country.
- Three pieces of legislation:
  - Game (Amendment) Act of 1993 – Game Reserves and Game Sanctuaries
  - SNTC (Amendment) Act of 1973 – Nature Reserves, National Parks, National Monuments
  - Flora Protection Act of 2001 – Flora reserves, botanical gardens and special habitats.
- Informal (non-gazetted) predominantly private PAs – cover **2.7%** of the country
- Community conservation areas (non-gazetted)- approx. **1.7%** of the country
- Hence, **8.3%** of the country could be said to be under some form of conservation

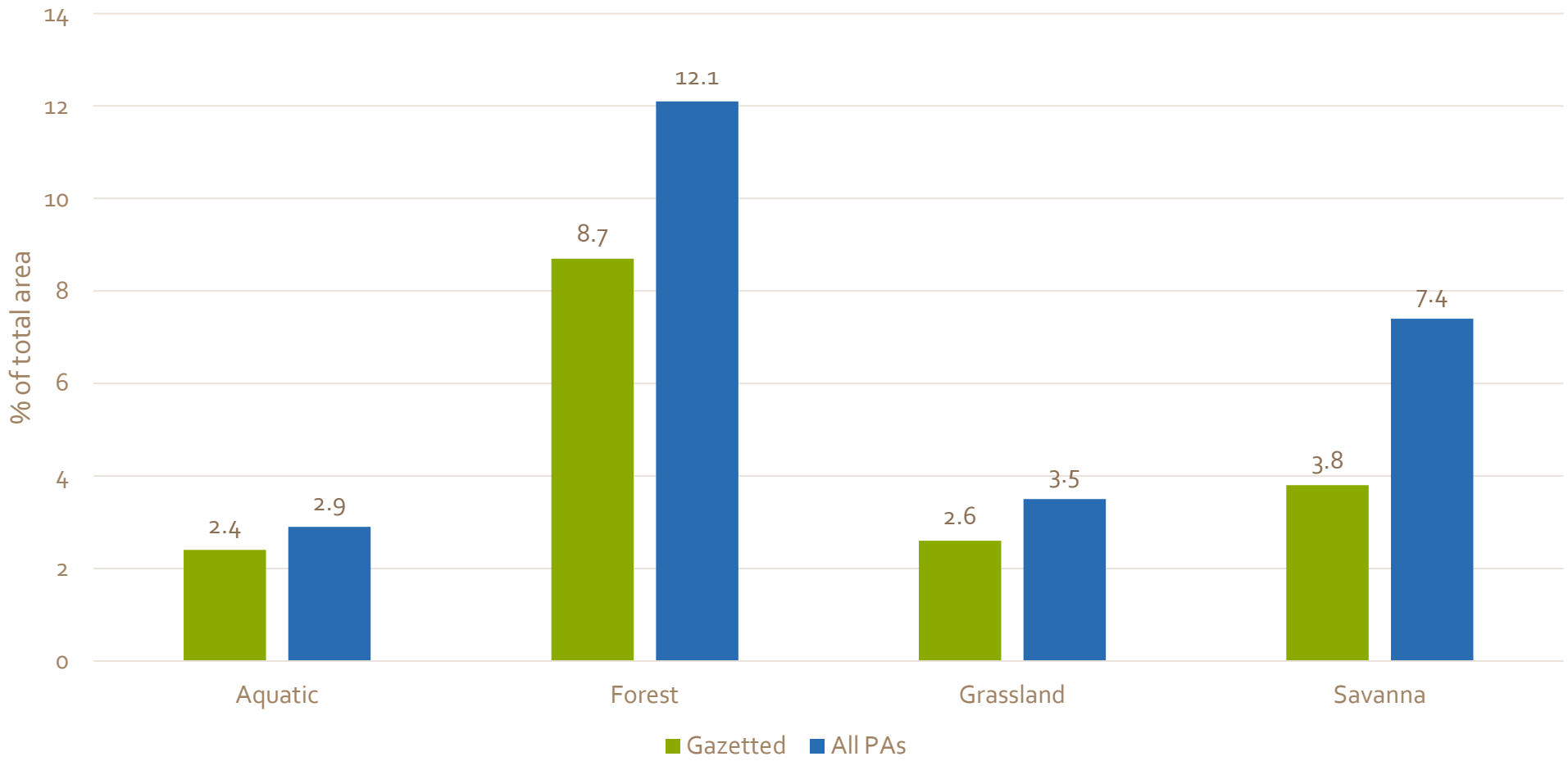


Protected areas in Swaziland

- A total of 17 conservation of which six are gazetted.

GAP ANALYSIS

GAP ANALYSIS – ECOSYSTEM LEVEL



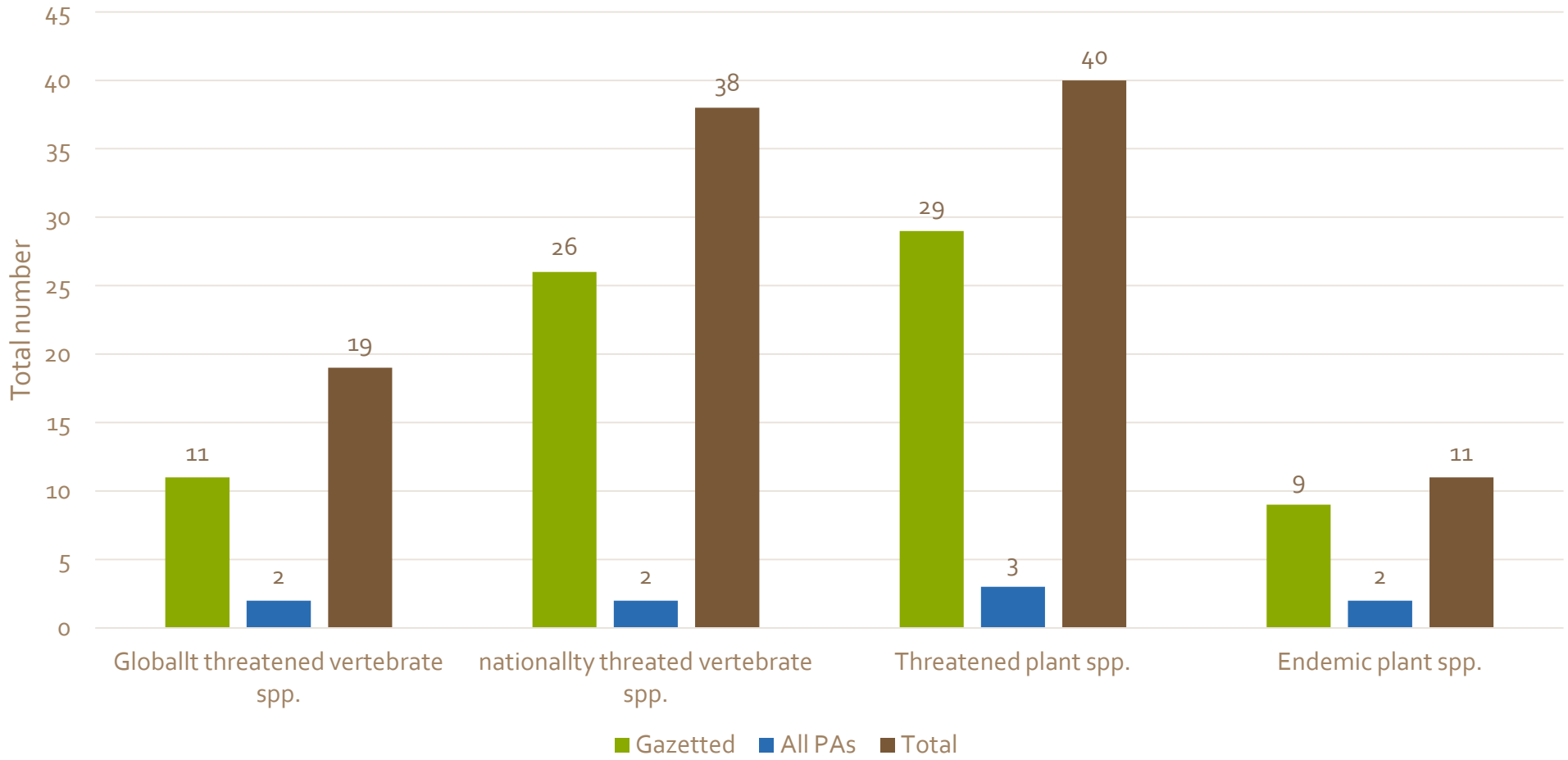
GAP ANALYSIS – ECOSYSTEM LEVEL

- Vegetation unit level analysis indicates that the priority should be given to Ithala Quartzite Sourveld, Northern Zululand Sourveld, Lebombo Summit Sourveld, Kaalrug Mountain Bushveld.

GAP ANALYSIS – SPECIES LEVEL

- The current distribution of species was also considered based on up to date records in relation to the PA network.
- Of the 19 globally threatened vertebrate species, 6 are locally extinct in Swaziland and 11 are found within gazetted PAs.
- Of 38 nationally threatened vertebrate species 6 are regionally extinct and 26 are found within gazetted PAs. 2 others are conserved within informal PAs.
- Of 40 threatened plant species,29 occur within gazetted PAs, a further 3 occur in informal PAs.
- Of 11 endemic plant species, 9 are found within gazette PAs and the other two although not found in informal PAs are found within potential new PAs.

GAP ANALYSIS – SPECIES LEVEL



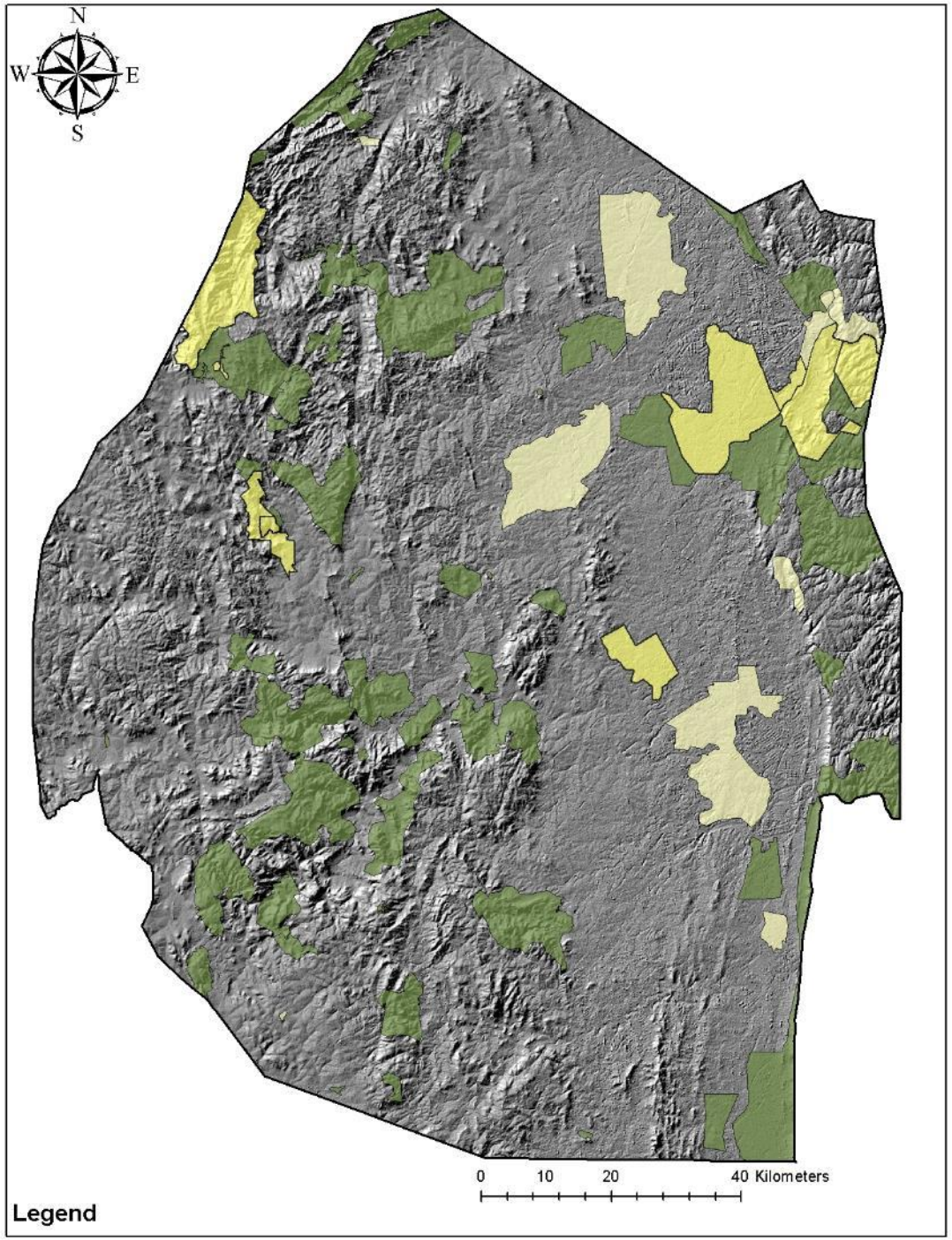
GAP ANALYSIS – SPECIES LEVEL

- The above analysis highlights that while the current PA network does conserve a relatively good proportion of the threatened and endemic species of vertebrates and plants, there are a number of gaps which are consistent with the analysis for vegetation/habitat types.
- From a broader ecosystem service point of view, more ecosystems and vegetation units need protection.

OPPORTUNITIES AND CONSTRAINTS

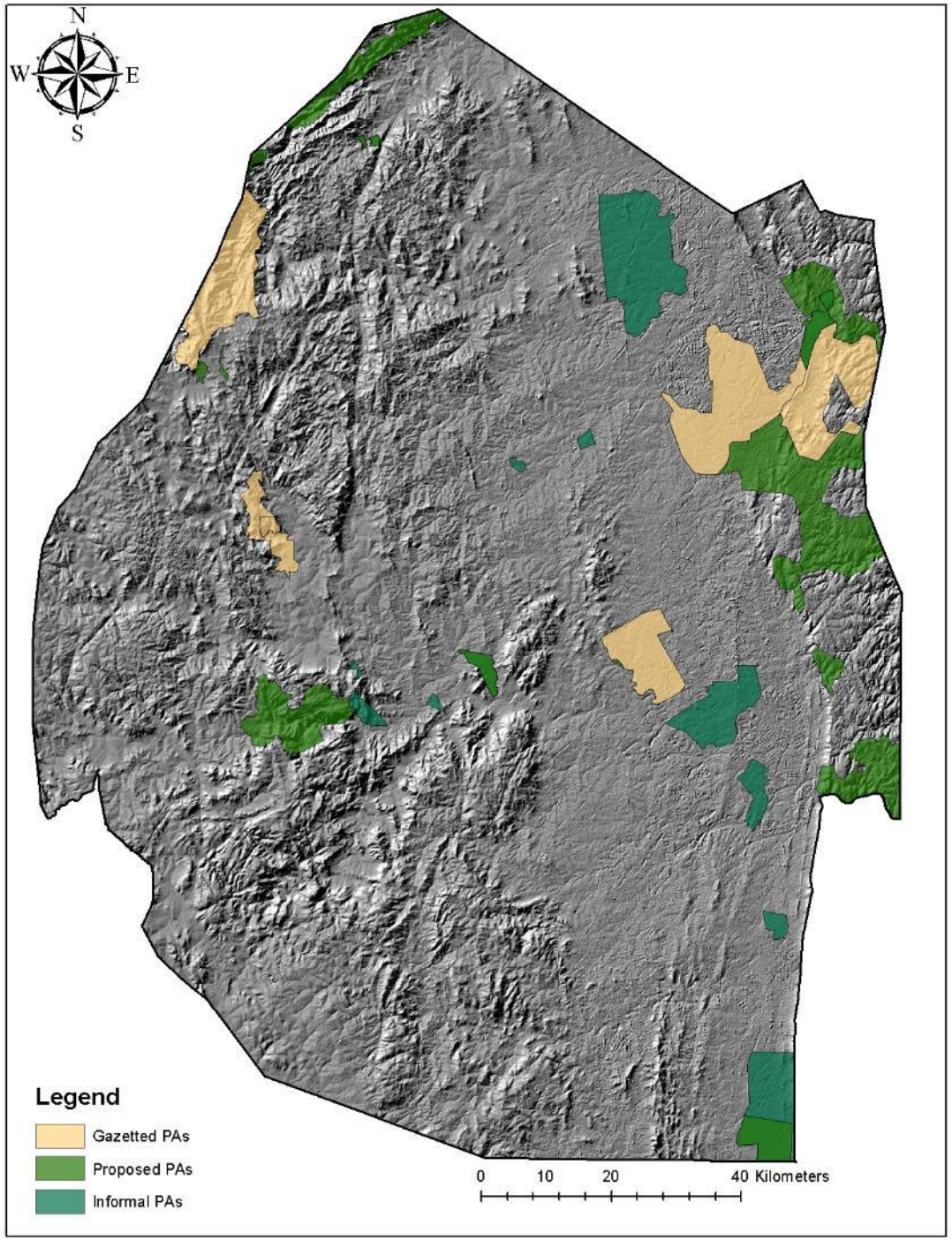
OPPORTUNITIES

- In the face of competing land-uses, conservation planning must use limited resources to achieve defendable conservation goals, and it must be accountable in allowing decisions to be critically reviewed whilst at the same time being pragmatic and practical.
- Protection worthy areas survey (2002) identified 44 areas from which to prioritize.
- From recent GEF project preparation and based on the previous PWA, three principles were used to guide the selection of new (potential) areas to be added to the network:
  i. be of a sufficient size to represent as much of the variation in biodiversity as possible
  ii. connectivity;
  iii. to have the highest likelihood of being sustainable including socio economic importance.



Protection worthy areas

- Most ecosystems covered
- Limited connectivity
- Rivers/streams provide corridors in most cases



Priority new PAs (by 2020)

- Most ecosystems covered
- Limited connectivity
- Rivers/streams provide corridors in most cases

Target 11: By 2020, at least 17 per cent of terrestrial and inland water areas, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes

National Target: By 2020, at least 6 (10) per cent of terrestrial and inland water areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes.

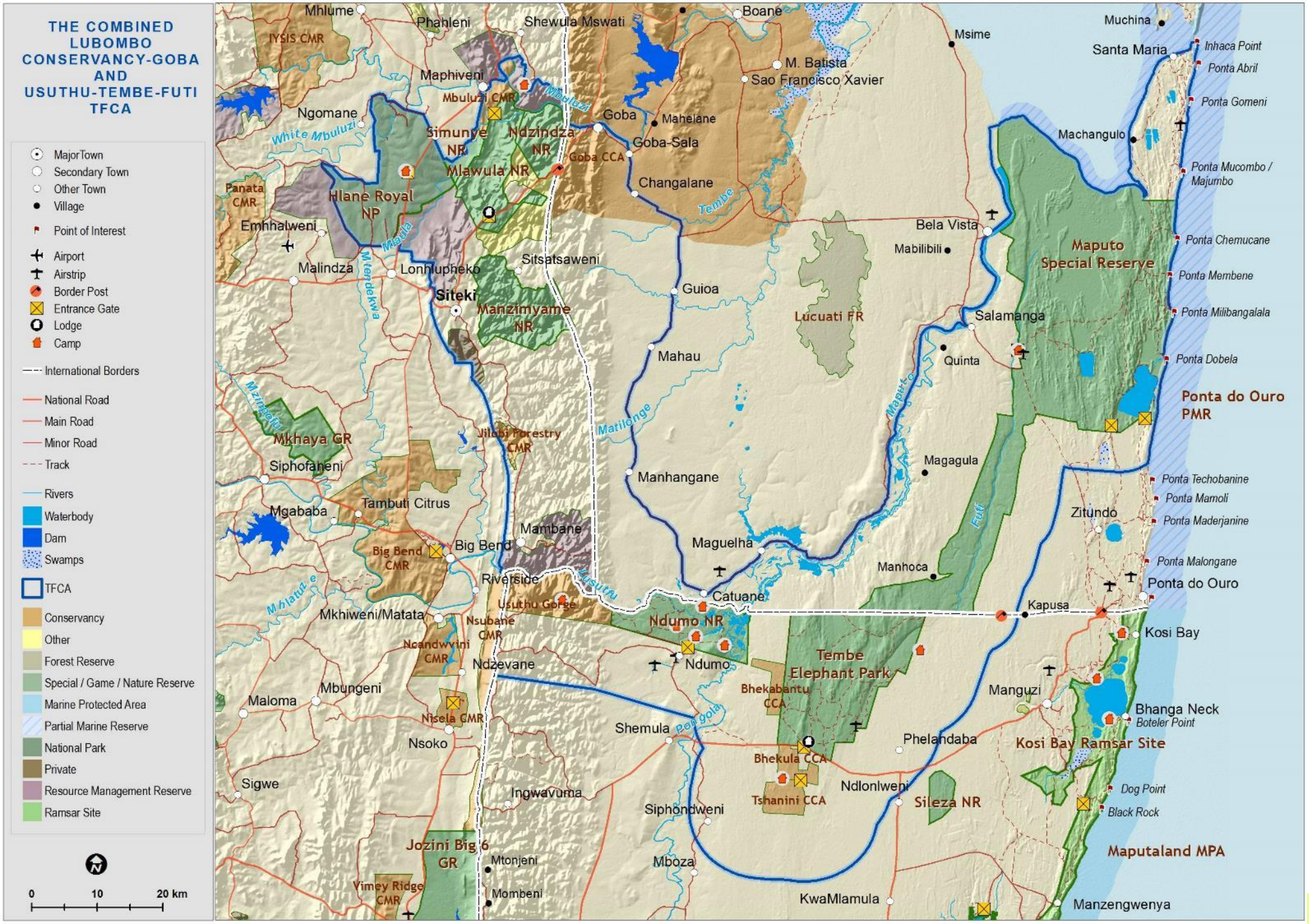
NB: the 6% refers to legally gazetted areas, otherwise this increases to 10.7% considering non-gazetted but effective PAs.

OPPORTUNIES

- **His Majesty the King (Head of State)** highly supportive of conservation
- **Culture** highly dependent on biodiversity (need to preserve)
- Amendment of SNTC Act to include new protected area categories and governance types (e.g. CCAs, mixed land use PAs) – **Bill in Parliament**.
- **Community conservation areas** – to contribute to socio-economic development through tourism and other ecosystem services.
- **Community involvement** and participation is improving and positive.
- Private ranches willing to conserve areas through mixed land use models such as tourism, cattle and wildlife ranching – emergence of **conservancies**.
- **Transfrontier conservation areas** with Mozambique and South Africa.
- GEF project: **Strengthening the National Protected Areas System of Swaziland** – ProDoc to be submitted mid-May. Implementation expected to start in April 2015.

Community involvement and benefit-sharing

- CCAs
- Access to current PAs



Transfronier conservation areas

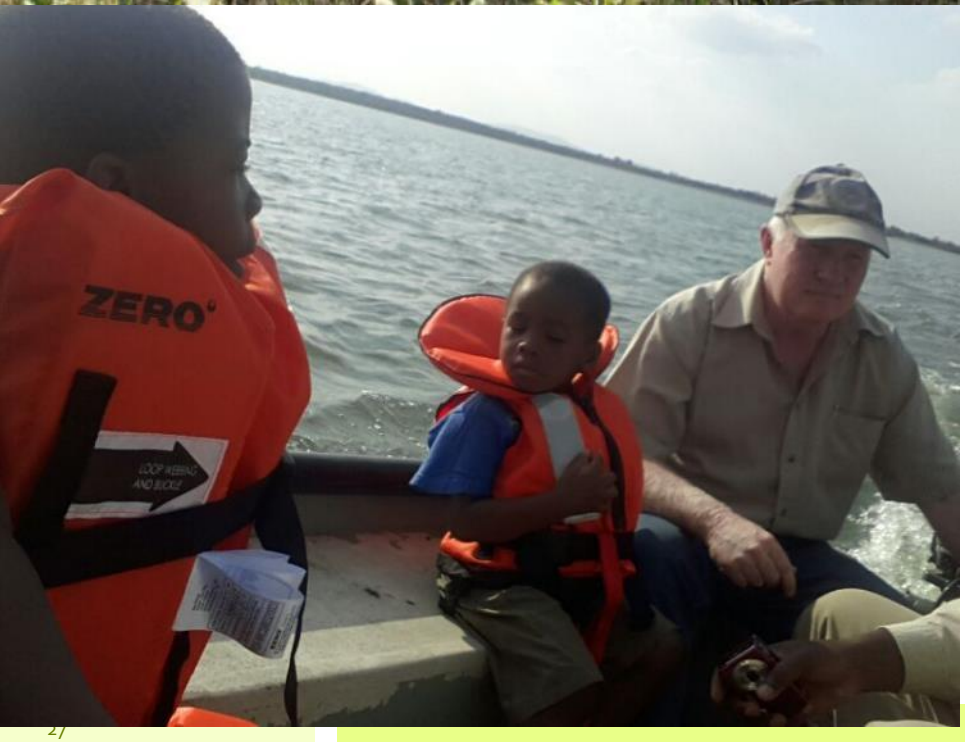
- Collaborative effort with South Africa and Mozambique since the year 2000.

OPPORTUNITIES

- **Integration of protected areas and protection of critical ecosystems** into the broader landscape (through GEF project, Critical Ecosystems Partnership Fund and other initiatives)
- Draft **national climate change policy** recognizes and promotes ecosystem-based adaptation
- **Mining and biodiversity guidelines** under development with various stakeholders to minimize mining impacts on biodiversity especially biodiversity hotspots and protected areas
- Country is party to a number of MEAs and recently acceded to the CMS, AEWA and Ramsar conventions (early 2013) thus offering an opportunity to integrate these into the PoWPA and **leverage more technical and other forms of support**
- **Conservation Agriculture Programme** reduces land degradation and promotes landscape conservation

Reed dance and annual *Incwala*

- Reed dance necessitates the conservation of wetlands (Ramsar sites)
- *Incwala* necessitates conservation of some tree species and sacred sites
- *Butimba* (Royal hunt) (once in every few years) conducted in a area adjacent to a protected area (thus necessitating its protection)



Environmental education and awareness

- Improved awareness of protected areas values
- General appreciation of protected areas by future decision-makers

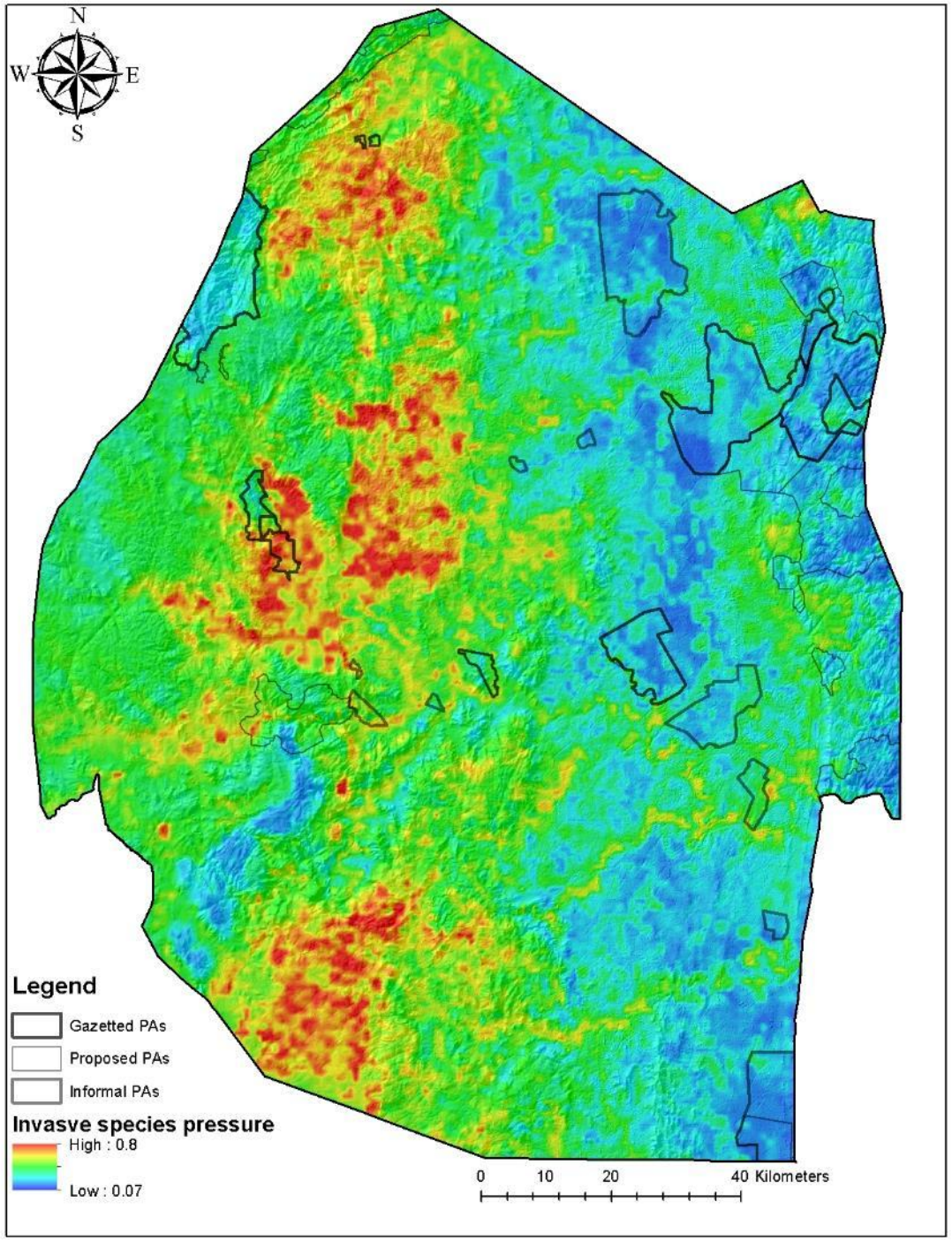
CONSTRAINTS

- Competing land uses:
  - Human settlements encroaching to pristine habitats including wetlands
  - Agriculture especially subsistence agriculture and sugarcane
- Climate change
- Changing fire regimes
- Alien plant invasion
- Bush encroachment – primarily by *Dichrostachys cinerea*
- Unsustainable harvesting including poaching and trafficking
- Forest degradation/deforestation
- Overlapping mandates
- Limited financial and human resources

*Chromolaena odorata (*Triffid weed)

Alien plant invasion

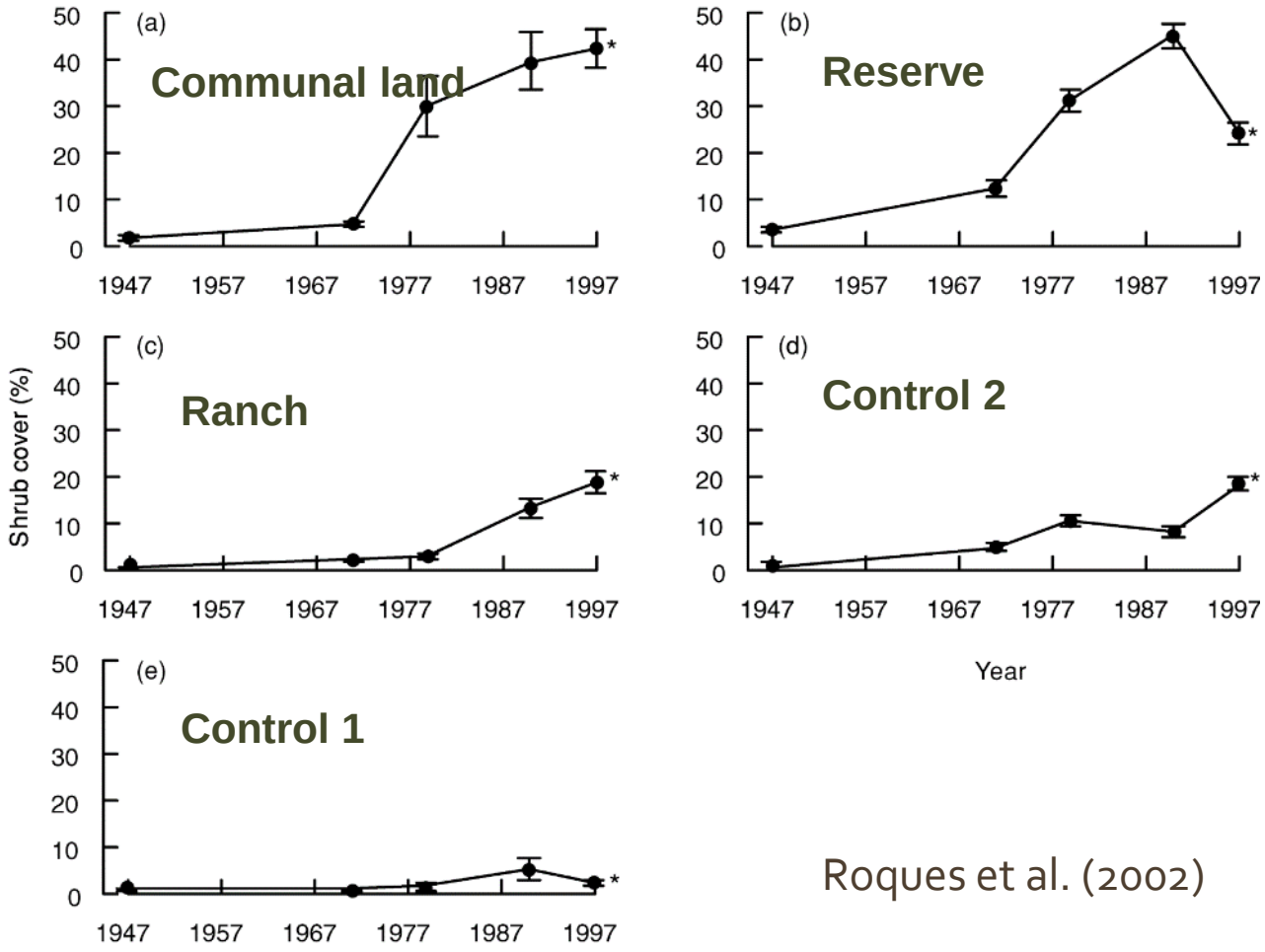
- *Chromolaena odorata*, *Lantana camara*, *Psidium guajava*, *Acacia mearnsii*, amongst several other species are invading rangelands and most ecosystems affected.



Invasion pressure

- Based on sum of species distribution model outputs for 16 priority species derived from the most comprehensive aerial survey done in the region covering the whole country within 1km grids.
- 80% of country infested with at least one invasive plant
- Disturbed areas near human settlements and riverine ecosystems highly vulnerable

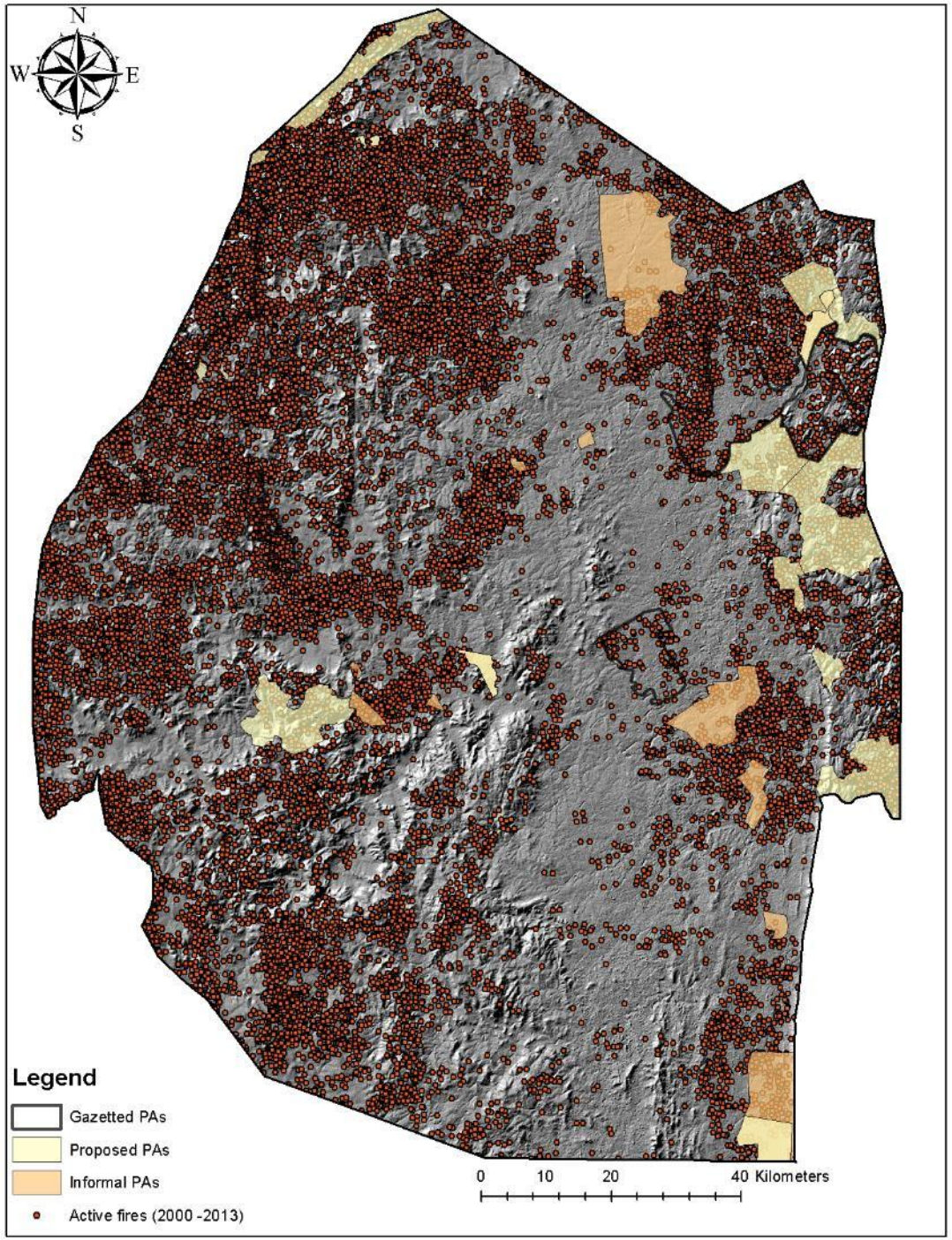
Bush encroachment



Roques et al. (2002)

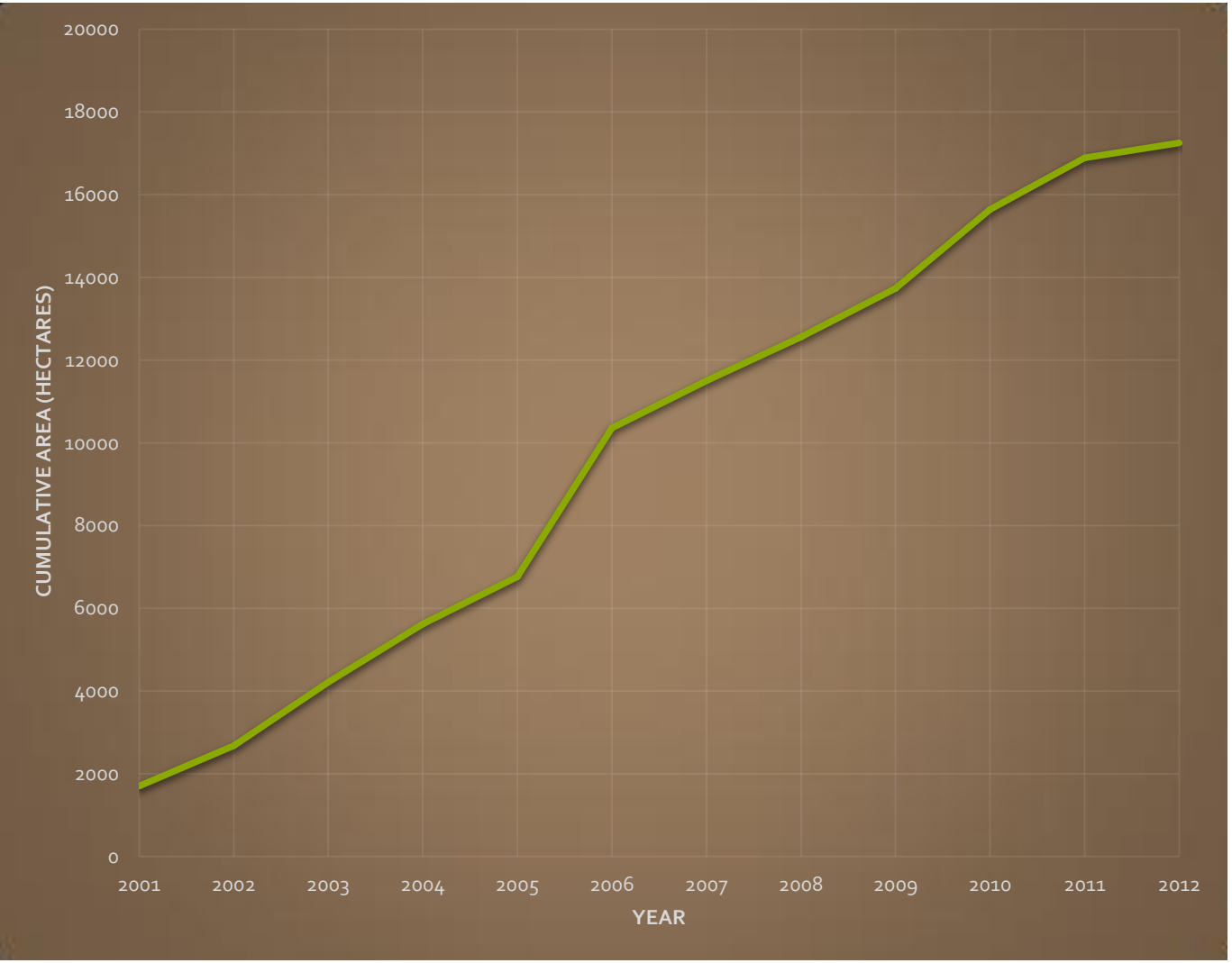
Mining

- Some PAs have mineral deposits such as iron ore, coal, gold, diamond, etc.



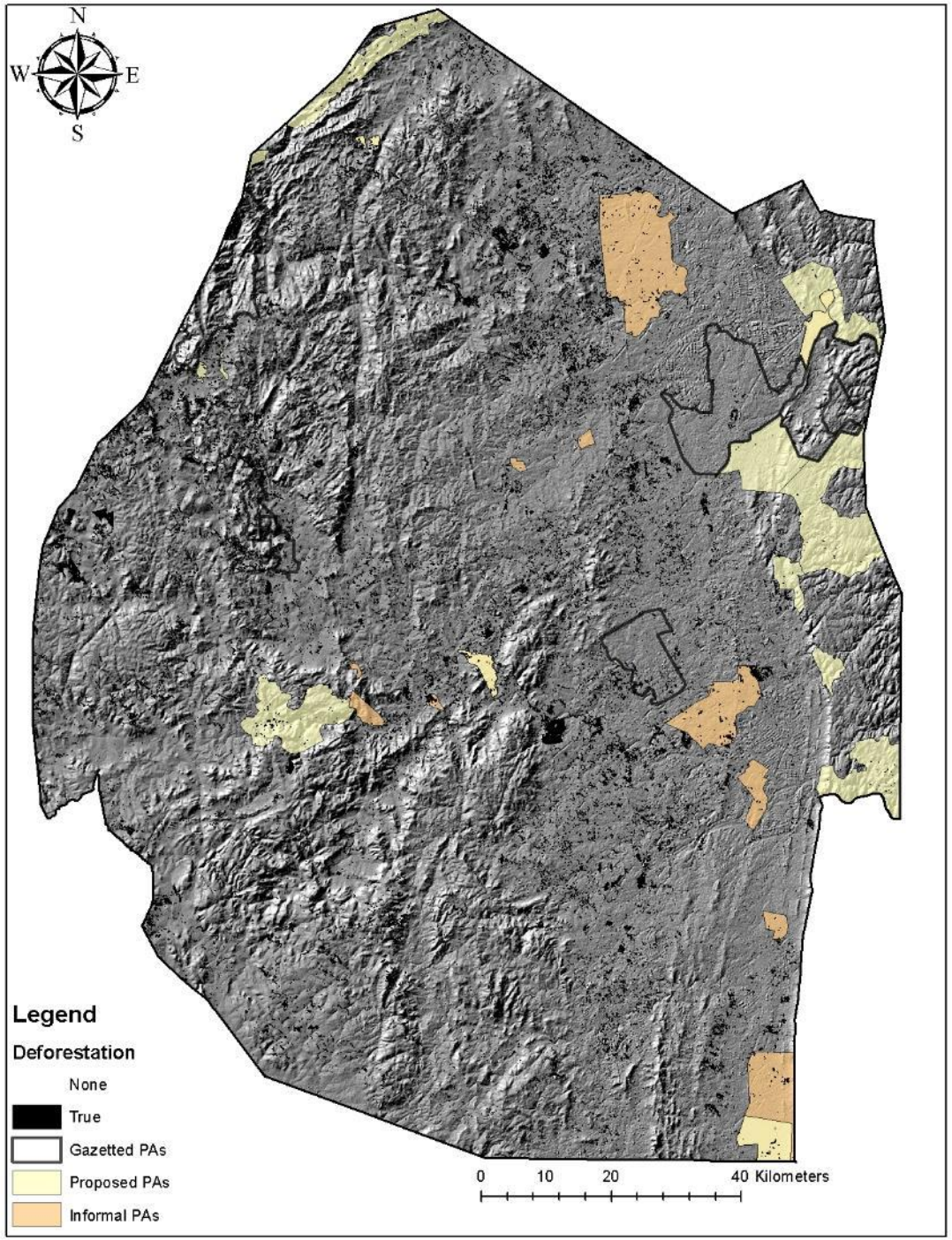
Uncontrolled Fires

- PAs are not spared
- Frequency gradually increasing



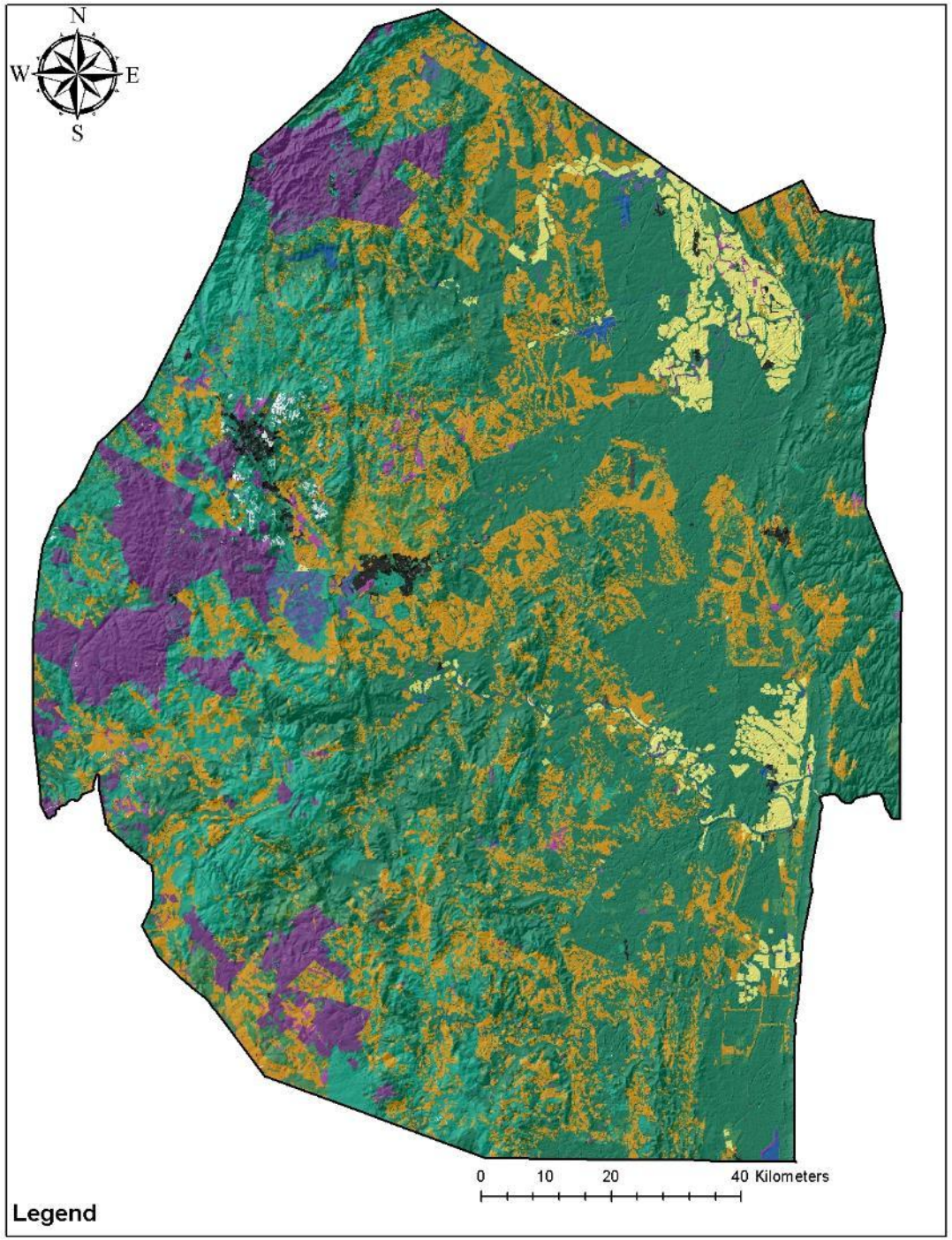
FOREST LOSS (2000-2012)

- 17,429 hectares lost between 2000 and 2012



Forest loss (2000-2012)

- PAs less affected
- Savannah ecosystem (sour bushbeld and Lowveld bushveld) most affected primarily due to sugarcane conversion (dam construction), subsistence agriculture and settlements.



Bare Rock Natural
Biult-up Rural Cluster
Built-up Rural Cluster
Built-up Transport / Industria
Built-up Urban
Cultivated Dryland
Cultivated Irrigated
Cultivated Sugarcane
Degraded Grassland
Degraded Woodland
Erosion
Grassland
Mines and Quarries
Plantation
Waterbody
Wetland
Woodland

Land cover map(2009)

- Highlights predominant cultivated dryland (subsistence agriculture) pressure – 20.8%
- Settlements expansion
- Sugarcane pressure
- Plantation forestry
- Degraded woodlands (4% of total land area)

POACHING

- More than just subsistence but commercial (including rhino poaching)
- Contributing to declines and possible future extinction of species if not curbed (here a poached rhino and kiaat trees are shown)

ONGOING NATIONAL INITIATIVES

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- GEF project (2015 – 2020)
  - Gazetting new PAs, Creating new CCAs, Management planning, Knowledge management (GIS, data collection/collation), Capacity building (tourism, finance, management), Infrastructure enhancement (IT, equipment, fencing)
- Critical Ecosystem Partnership Fund (Maputaland-Pondoland-Albany Hotspot)
- National climate change policy development
- Vulnerability and Adaptation Assessment of Biodiversity and Ecosystems (part of preparation of 3rd National Report to the UNFCCC) – to start in June 2014
- Ramsar Small Grants Fund: Wetlands baseline assessment
- NBSAP Revision – PoWPA integration
- Integrated Development Planning of the Transfrontier Conservation Area
- Lower Usuthu Smallholder Irrigation Programme (LUSI)-GEF Sustainable Land Management Project: conservation programmes in place
- Land Bill (through the LUSIP-GEF project)t: expected to clarify tenurial and land use issues.
- Community-based Fire Magement Project (FAO) : Fire Policy and Strategy Development including community support for integrated fire management

THANKYOU

Sibebe Granite, Swaziland