



SANBI
Biodiversity for Life



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Using spatial data to develop a tool for prioritising natural resource management investment

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Background

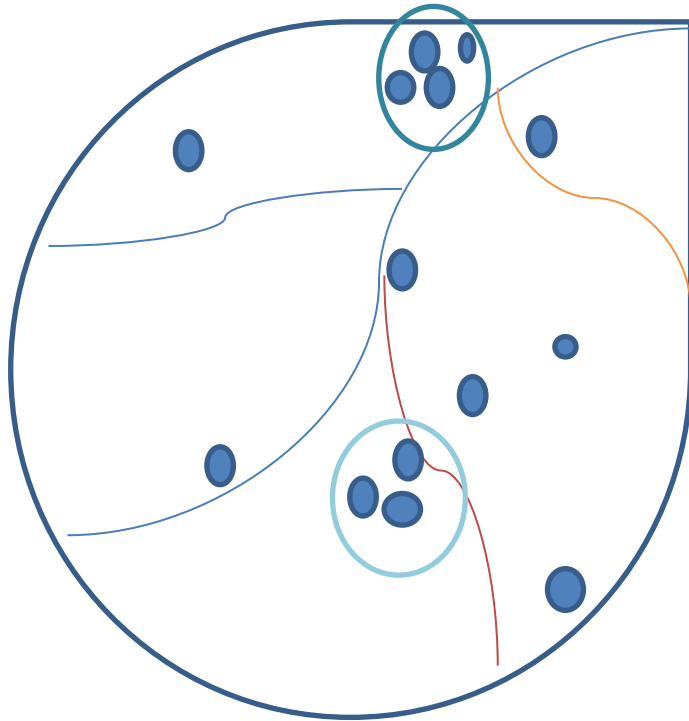
- 2003- need to prioritise species and areas for clearing identified
- DEA NRM approached SANBI to assist in developing criteria for determining where to invest resources as land-user incentives
- Used for 2013 LUI assessment



Introduction and Rationale

- The following criteria were used to assess the LUI applications:
- **Ecosystem service potential** (water flow, water quality, erosion control, fire management and risk reduction, resilience in the face of climate change)
- **Protection status of the land**
- **Security of the NRM investment**
- **Ecosystem rehabilitation potential**
- **Wetland/ river health & condition**
- **Receiving environment includes**

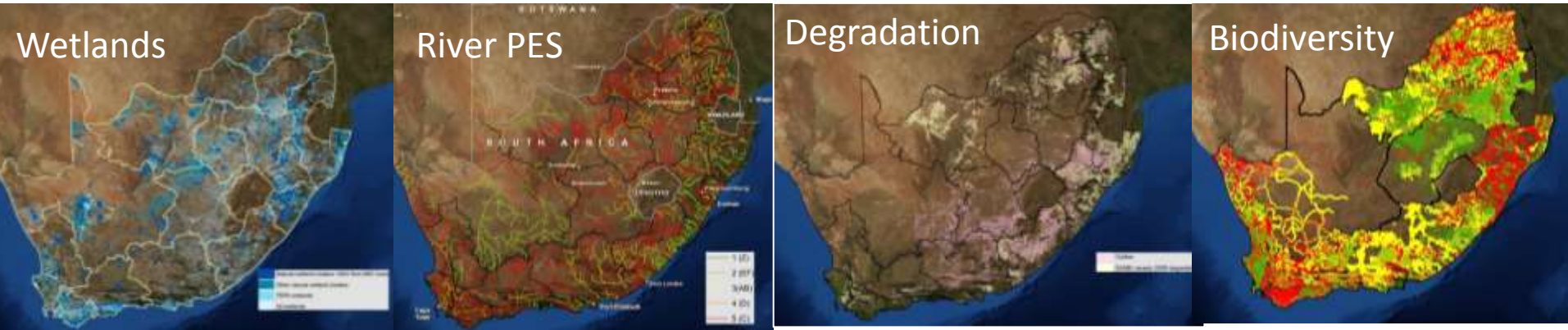




- Wetland systems, middle of a catchment, often indicate which hydrological issues affect the system
- Wetland clusters have greater potential for ecological-directed rehabilitation than single wetlands
- Rivers with a PES score of C or above are suitable for ongoing rehabilitation through NRM type investments

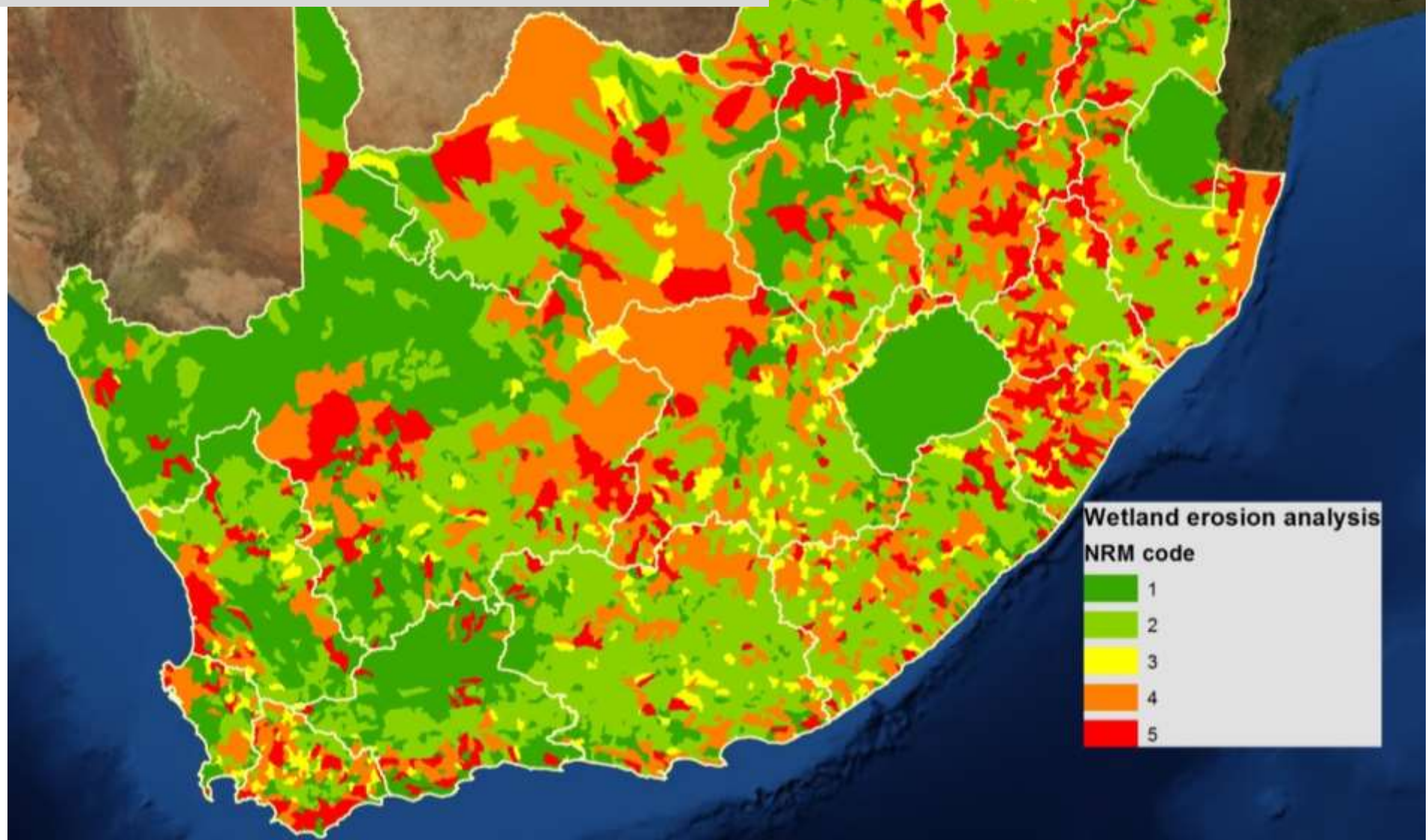


Methodology

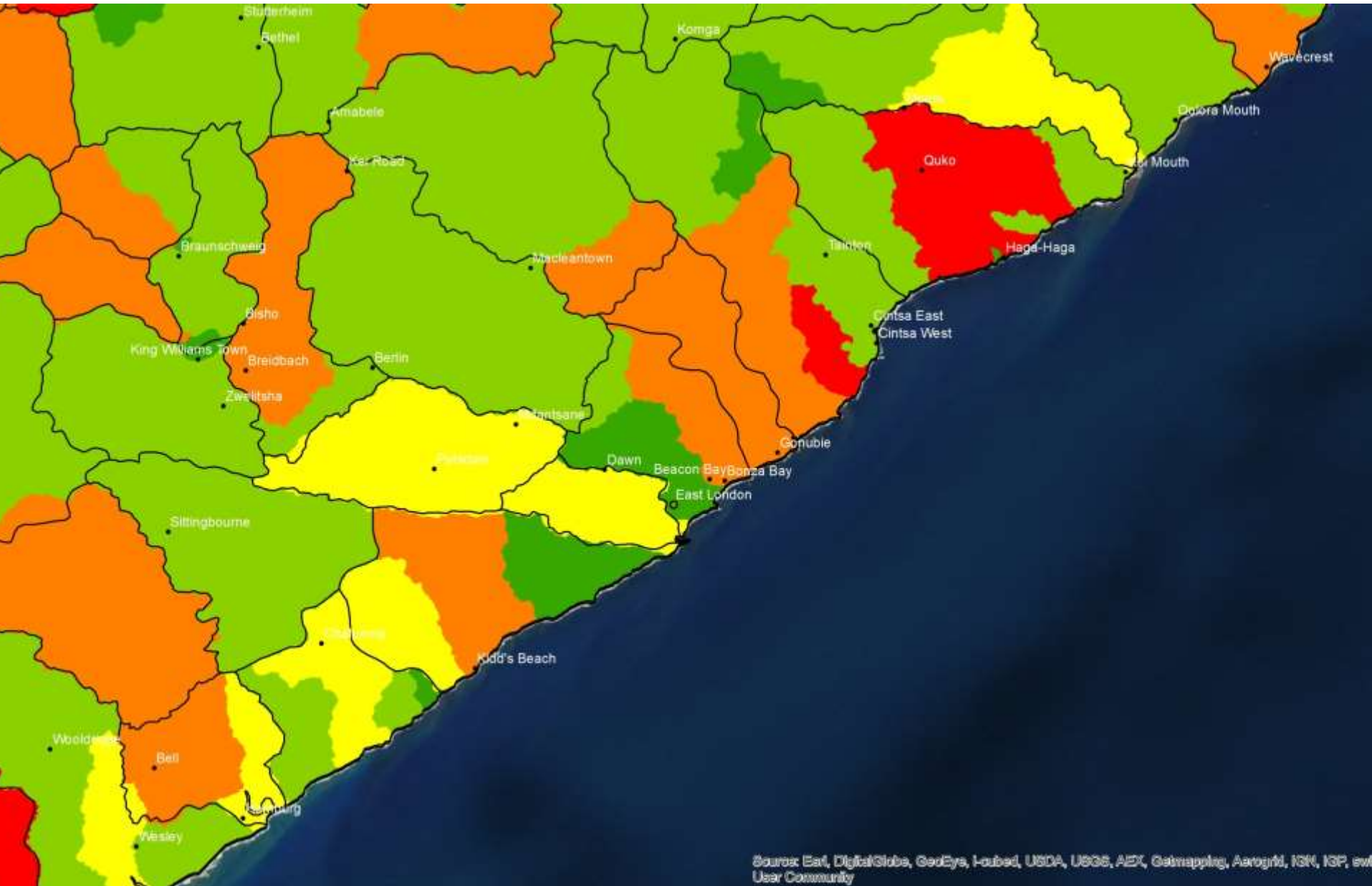


NRM code	NRM description	Description
5	Excellent	Catchments with erosion with a natural FEPA wetland cluster within 100m from an A, B or C river or in a CBA
4	Very Good	Catchments with any wetland cluster and some degree of erosion
3	Good	Catchments with FEPA wetlands and some degree of erosion
2	Average	Catchments with any wetland and erosion
1	Poor	Catchments with no wetlands

Ranked sub quaternary catchments for finer scale NRM planning



Detailed view



Advantages of this data set

- Allows NRM to know what the focus is in each catchment
- Useful indication of where specific Management Unit Restoration Plans should be compiled
- Identifies the key environmental issues at a sub quaternary scale
- Good spread of priority areas across the country
- Key areas in the northern cape where NRM know there are problems have come out as high

Further work

- Refinement of degradation data
- Inclusion of new PES data
- Identify catchments above dams in need of intervention
- Test it on the ground

