

The Local Ecological Knowledge (LEK) of Portulacaria afra

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Introduction

- *Subtropical Thicket Restoration Programme (STRP)*
- *92% of Valley (Spekboom Thicket) and Arid thicket (Spekboomveld, Noorsveld) has been degraded₂*
- *Phytomass_{3,4}, species_{1,3}, litter₃, water penetration_{5,7} and carbon_{4,5}*
- *No LEK on this key thicket species to complement accumulating scientific knowledge*

1. Sigwela, 2004; 2. Lloyed *et al.*, 2002; 3. Lechmere-Oertel *et al.*, 2005, 2008; 4. Mills *et al.*, 2003; 5. Mills & Fey, 2003; 6. Stuart Hill 1991, 1992 7. Kerley *et al.*, 1999



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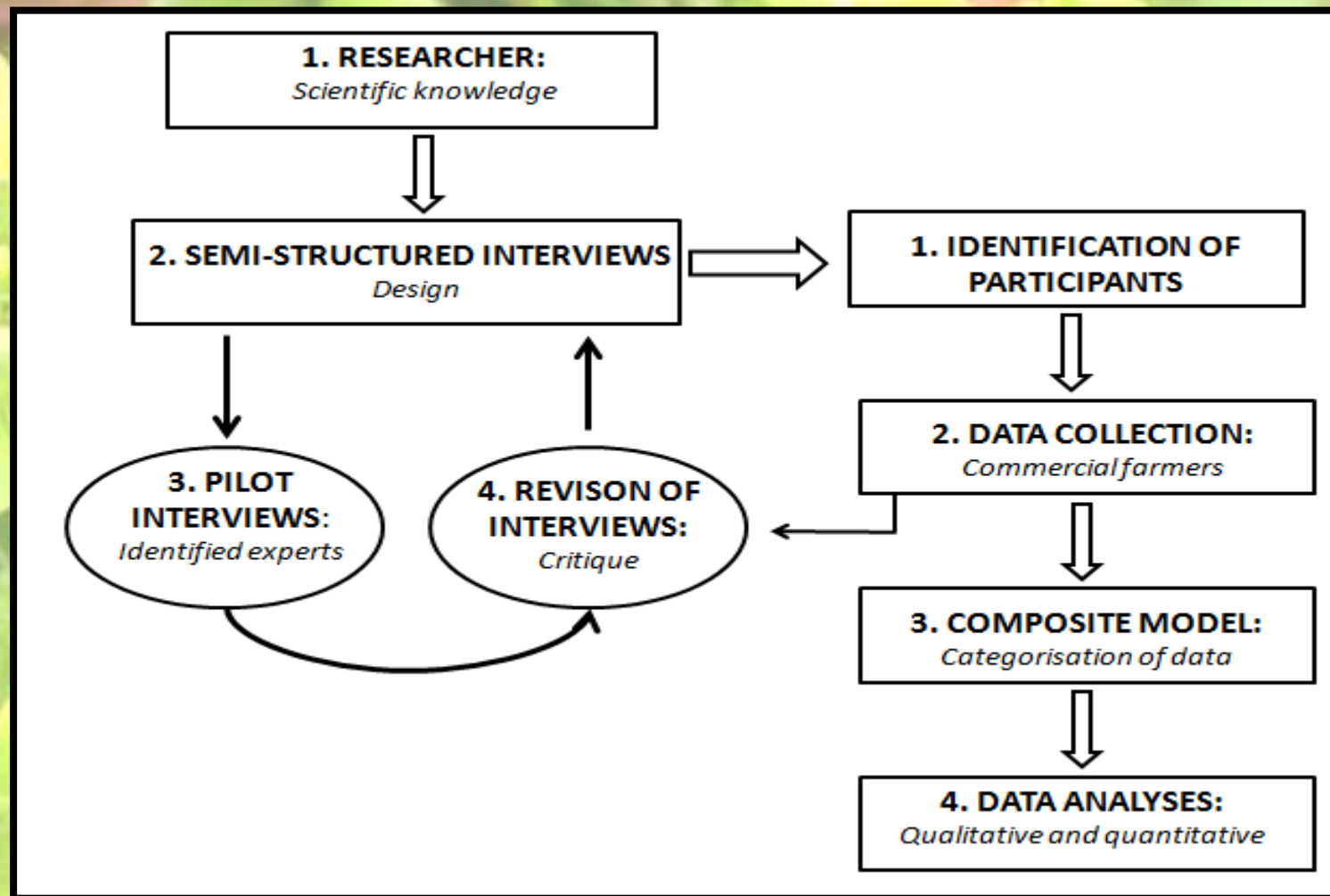


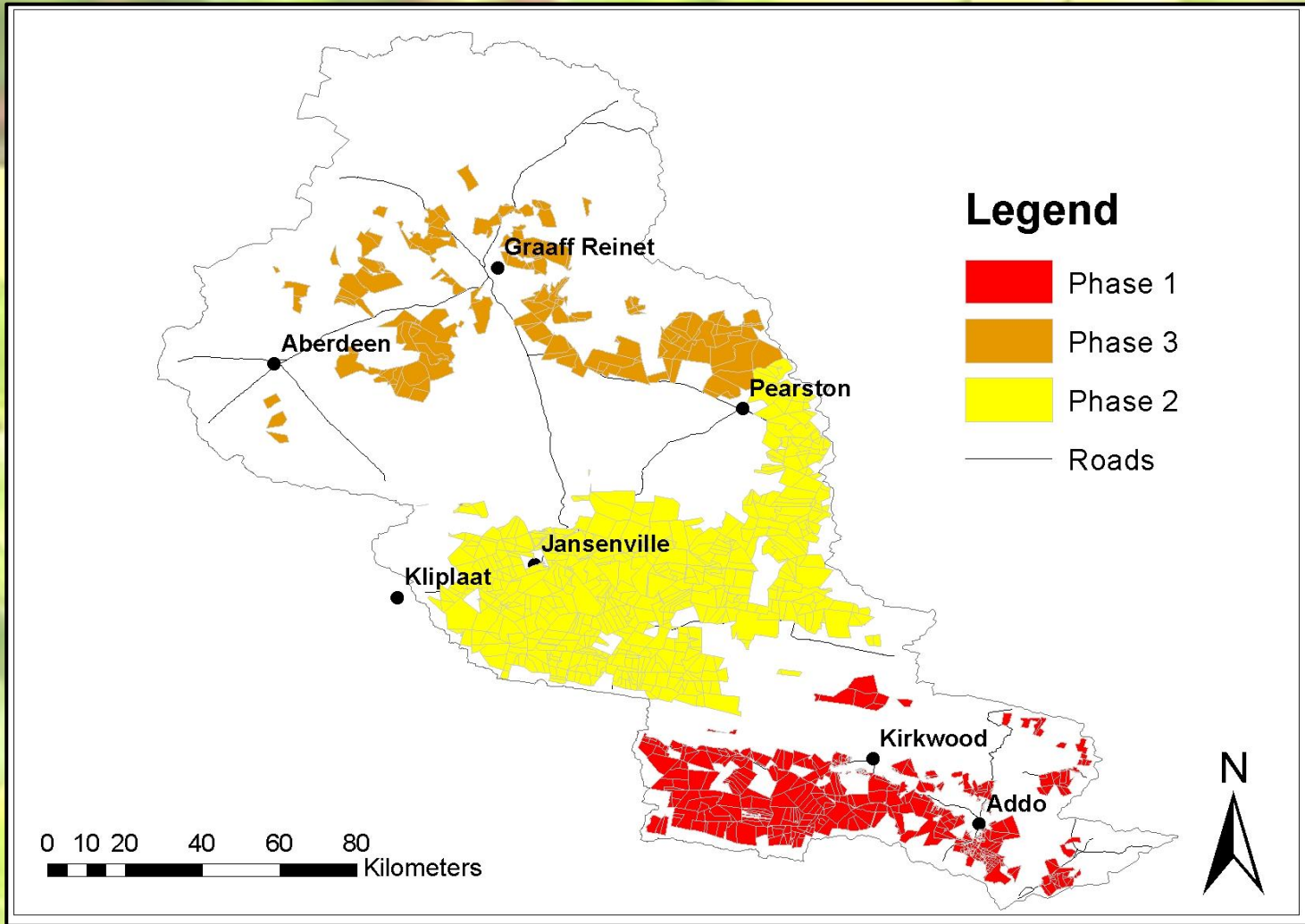
Objectives

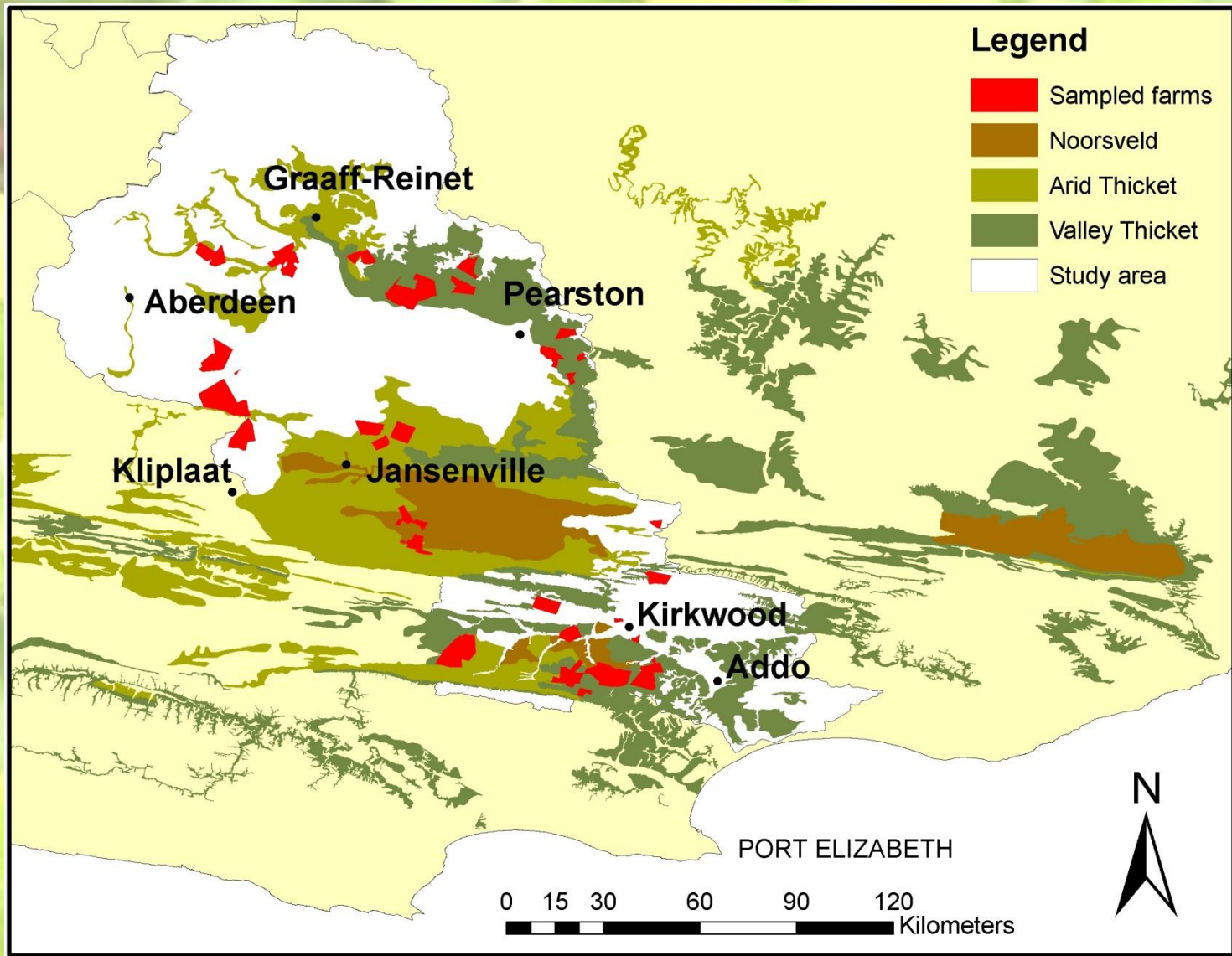
- *To gauge commercial farmers LEK of spekboom.*
- *To compare the LEK of spekboom with current literature and scientific studies.*
- *To evaluate the possible use of the LEK for the STRP.*



Methodology







Themes:

- *Veld management and degradation*
- *Ecology*
- *Restoration*
- *General feelings and perceptions*



Ecology

Growth rates and location

- **Northern slope**
- **Rocky areas**
- **Mountains and just below**
- **Won't grow where there are rainy clouds**
- **Slow depends on rain**
- **Nibbling pruning**



Ecology

Mortalities

- **Overgrazing**
- **Old ones just fall over and rot**
- **Frost (burns shoots)**
- **Little caterpillar/ worm in Kirkwood**
- **Virus where leaves turn yellow**
- **Generally hardy and drought resilient**



Ecology

Trees

- **Grazing- 33.3%**
- **Location (soil, aspect) – 29.6%**
- **Other (water, protection)- 14.8%**
- **Grazing and age - 11%**
- **Age- 7.4%**



Ecology

Varieties

- *Sweet and Sour*
- *'Big leaf spekboom'*



Ecology

Reproduction

- *Seedlings from old trees*
- *Male and female*



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Restoration

***81.5% have done planting and had
thicket wide plots***

- ***Already done restoration (55.6%)***
- ***Want to do restoration (66.6%)***
- ***Do not want to do restoration (33.3%)***



Restoration

Carbon Farming

- *Already done carbon farming (7.5%)*
- *Want to do carbon farming (68%)*
- *Do not want to do carbon farming (32%)*



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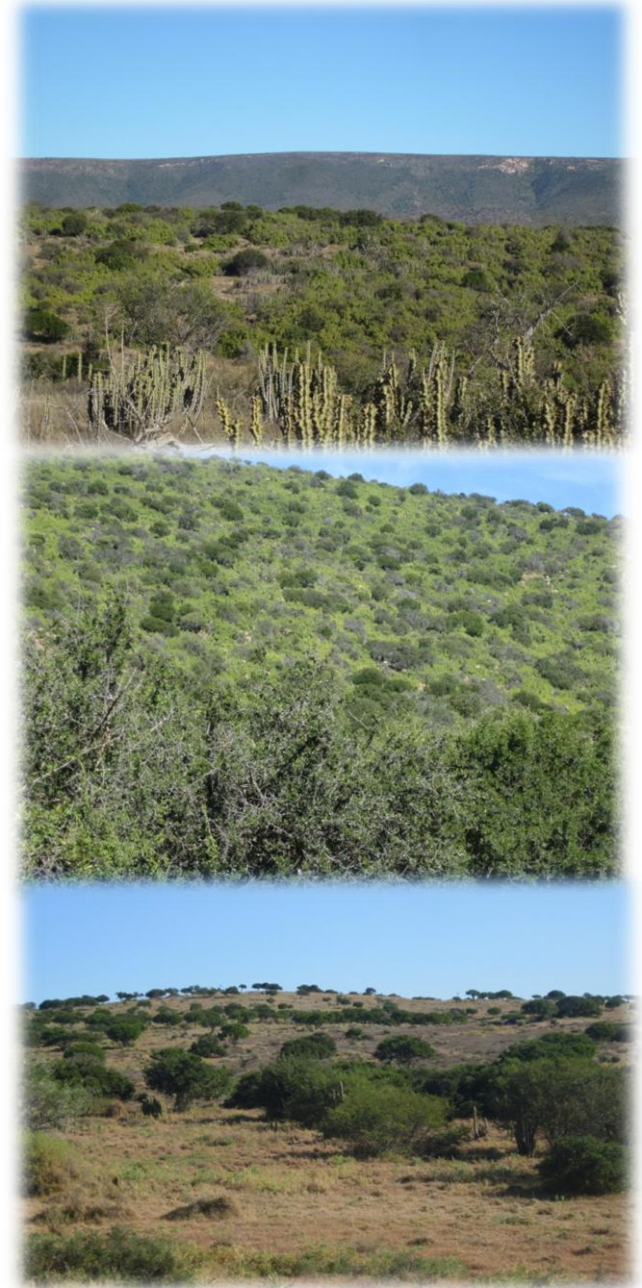


esi
department of environmental science

General feelings and perceptions

Preference for spekboom vegetation

- **74.1% mixed vegetation**
- **18.5% dense spekboom**
- **3.7 % no spekboom**
- **3.7% cattle dense, goats none**



General feelings and perceptions

Uses

- ***Grazing, hedge, aesthetic, honey, food, thatch housing, stimulate breast milk production, diabetes***



Restoration

Rehabilitation value

- **44.4% Needs more initiative, high fences, survive.**
- **11.1% Not in their lifetime**
- **40.7% Yes, if you can afford it and keep out stock.**
- **3.7% Not excited about it.**

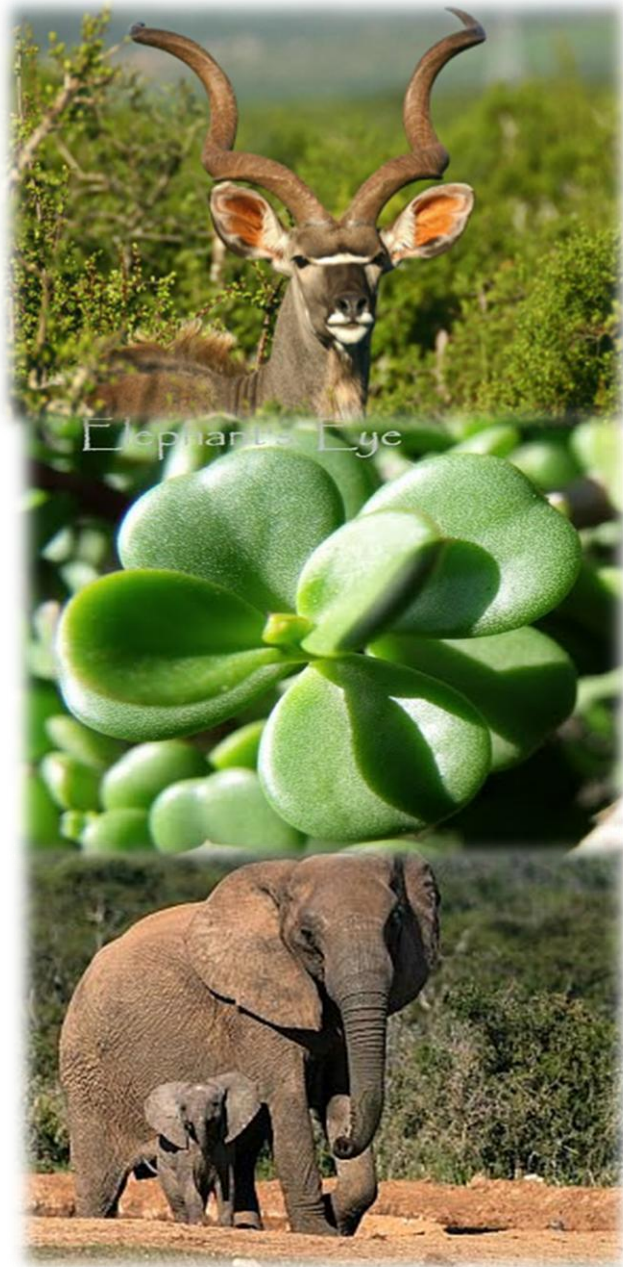


General feelings and perceptions

General feelings

- *Palatable, nutritious, good ground cover, binds soil, shelter for other plants and animals, worth more than other veld during drought, keeps mohair clean, can't burn.*
- *Not dense, not grazing resistant, nutritious but not when its too dry.*





Conclusion

- *Generally farmers like spekboom*
- *Interested in restoration/ carbon farming but felt it required more initiative*

Thank you

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