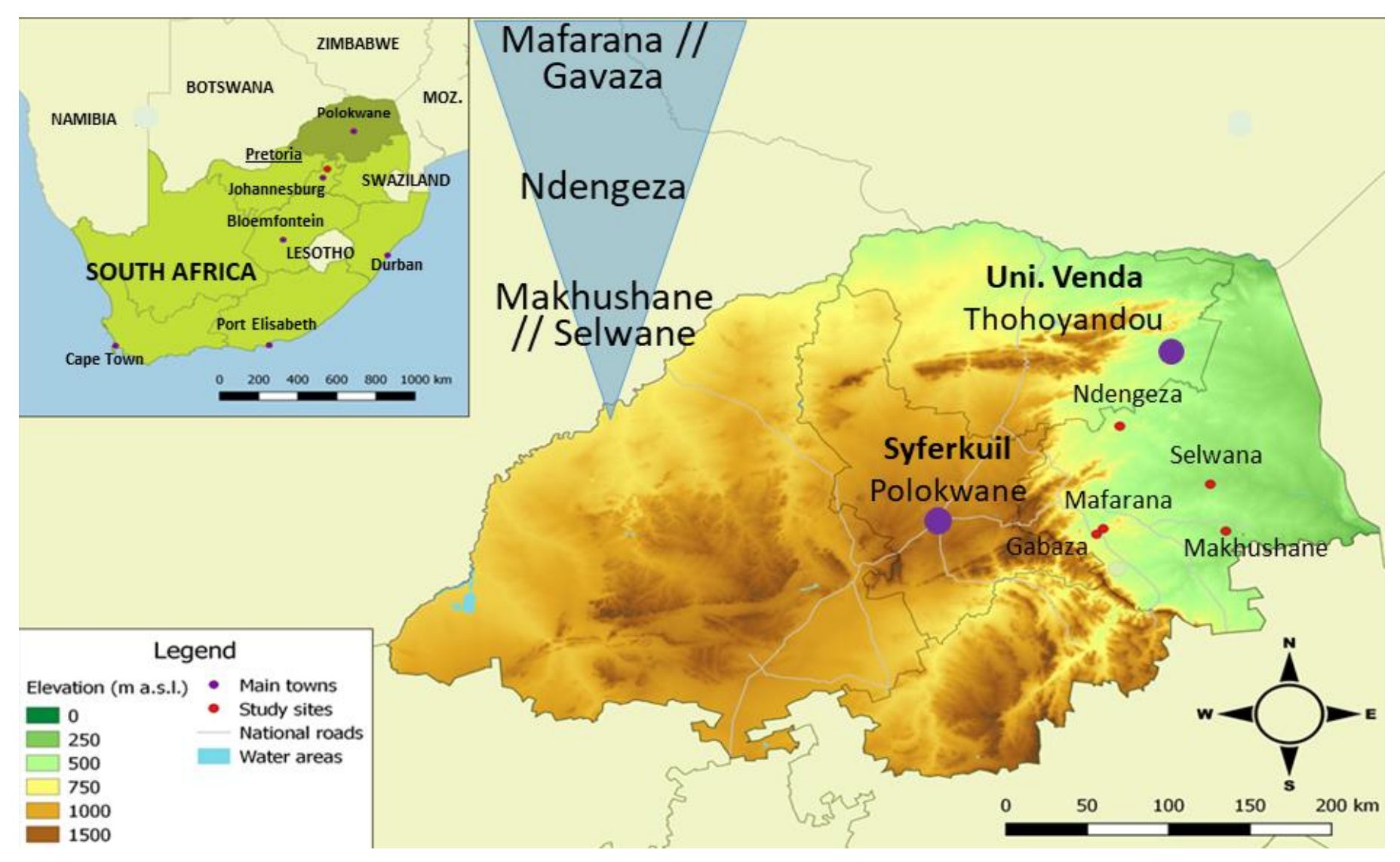


Background

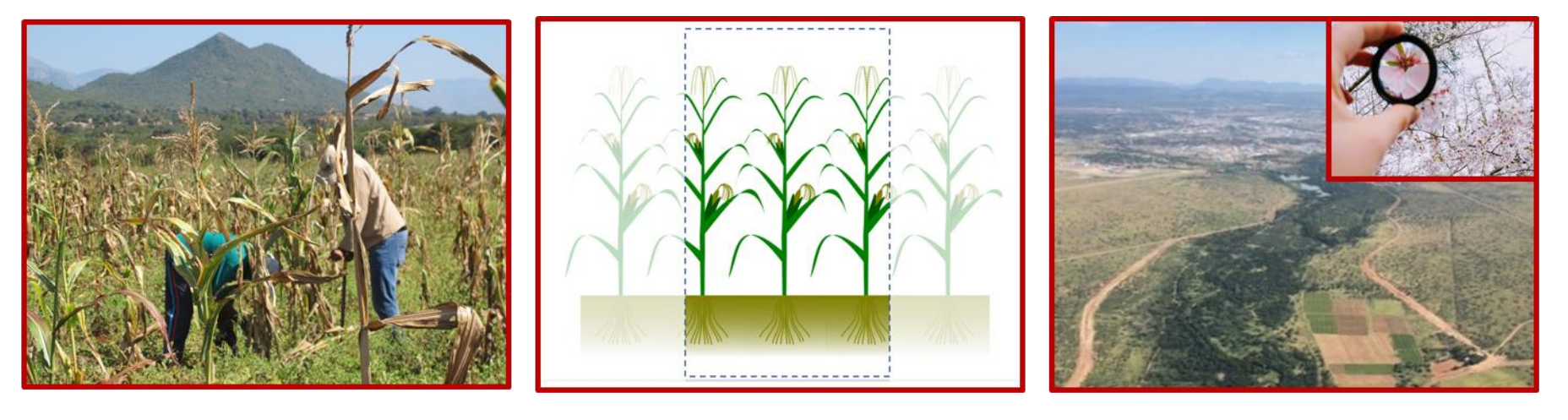


Location within the Limpopo Province, South Africa. Red dots: study sites. Illustration by Thomas Bringhamti using QGIS.

SALLnet based in north-eastern most South African province of Limpopo across a climate gradient.

Focus and key question:

How can we enhance the multi-functionality and resilience of savannah landscapes in southern Africa under climate change and socio-economic developments – particular focus on food security and biodiversity.



Linking groundwork and modelling to understand complex realities at different scales

Covid-19 impacts

- South Africa field-experiment results missing (2019-2020)
 - Young scientist exchange postponed. Scholarships awarded, but trips postponed (summer semester 2021)
 - Training and stakeholder workshops postponed
 - Lab analysis (e.g. soil) delayed & backlogged
 - Long-term field experiments disrupted
- Pandemic-proof ground-truthing data collection plans Intensify online partner exchange, potentially stakeholder too



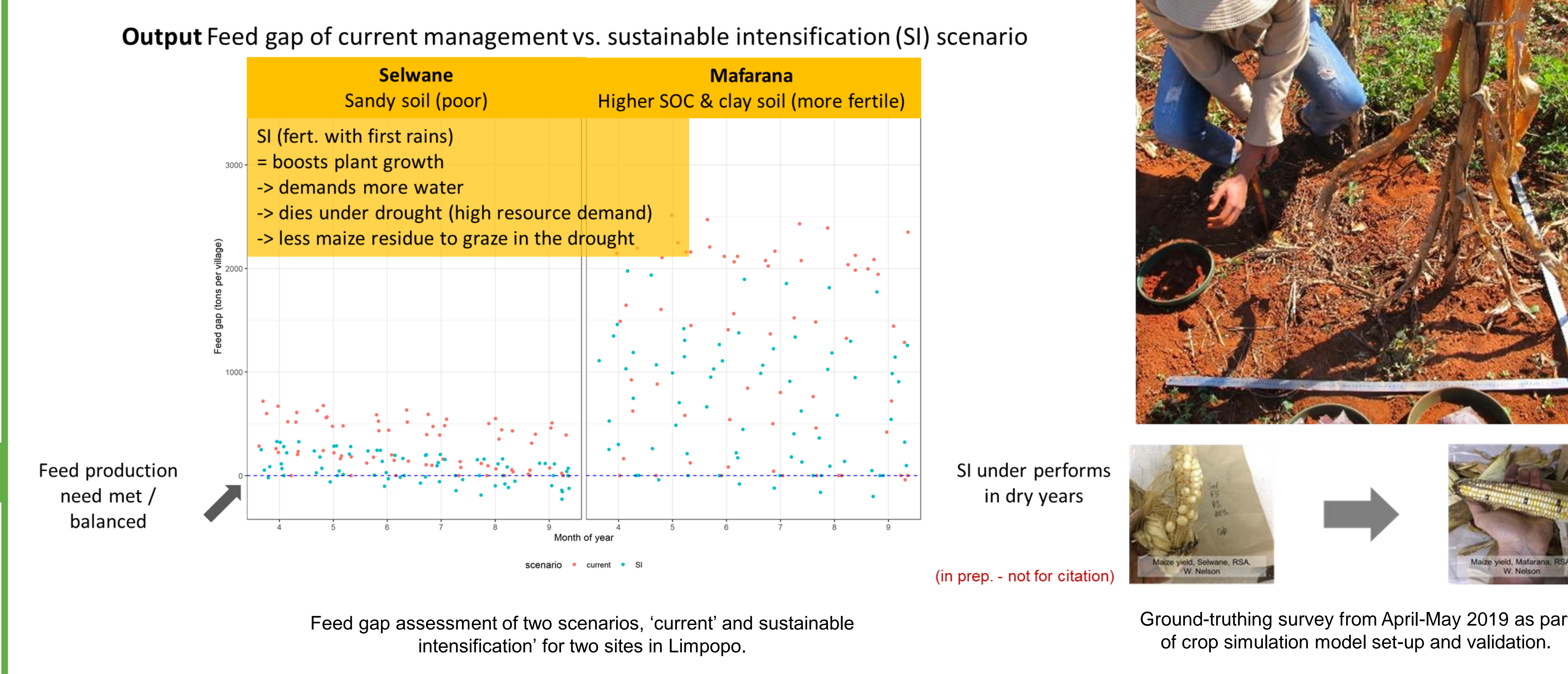
Structure

Seven work packages cover aspects from socio-economics to insect diversity; spread across partners in South Africa and Germany.

Landscapes are linked to one another and always have a farm household aspects that needs to be considered.



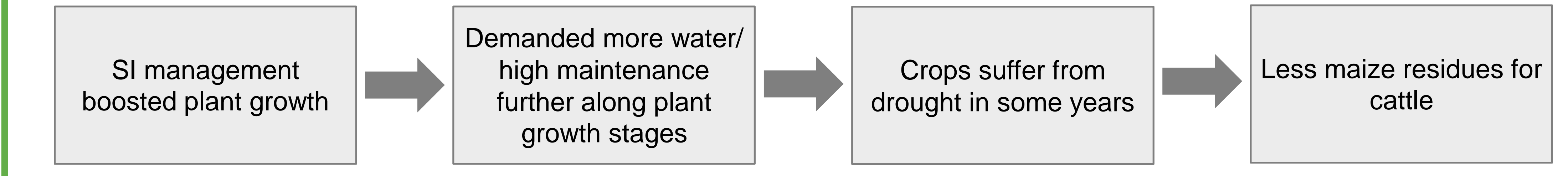
Remaining project focus



Feed gap = amount of grazing fodder needed vs. amount provided.

Sustainable intensification (SI): maize-soybean rotation, application of 50 kg ha⁻¹ yr⁻¹, continuous weeding, manure application at sowing, 50% of crop residue left on the field, 50% removed as cattle feed.

Current: no fertiliser, heavy weeds, maize monocultures, winter-grazing of cropping area.



SI has potential to close feed gap in general, but precipitation conditions need to be right.

SI is high potential gain, but also high potential risk.

Highlights need for seasonal model use at a local scale for risk reduction.

Input & collaboration

- Stakeholder support in unravelling and accessing important complementary data sources
- Stakeholder reflections on important outputs from research components e.g. feasible technological innovations – and on policy documents and views
- Exchange with terrestrial projects on high resolution soil, hydrology, climate, and climate change scenario data
- Exchange with terrestrial projects on innovative and promising land management options and innovative technologies
- Exchange with all SPACES II projects on appropriate means/ media to best channel policy relevant information