

South African Limpopo Landscapes Network

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Background



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

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

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.









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)



Remaining project focus

Output Feed gap of current management vs. sustainable intensification (SI) scenario









(in prep. - not for citation)

- Young scientist exchange postponed.
 Scholarships awared, 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





Feed gap assessment of two scenarios, 'current' and sustainable intensification' for two sites in Limpopo.

Ground-truthing survey from April-May 2019 as part of crop simulation model set-up and validation.

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

Sustsinable intensification (SI): maize-soybean rotation, application fo 50 kg ha yr⁻¹, continous weeding, manure application at sowing, 50% of crop residue left on the field, 50% removes 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.

SO 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



support

GEFÖRDERT VOM

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SPACES II Midterm (online) October 2020







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