

Scaling up FLR across Africa through embedded learning

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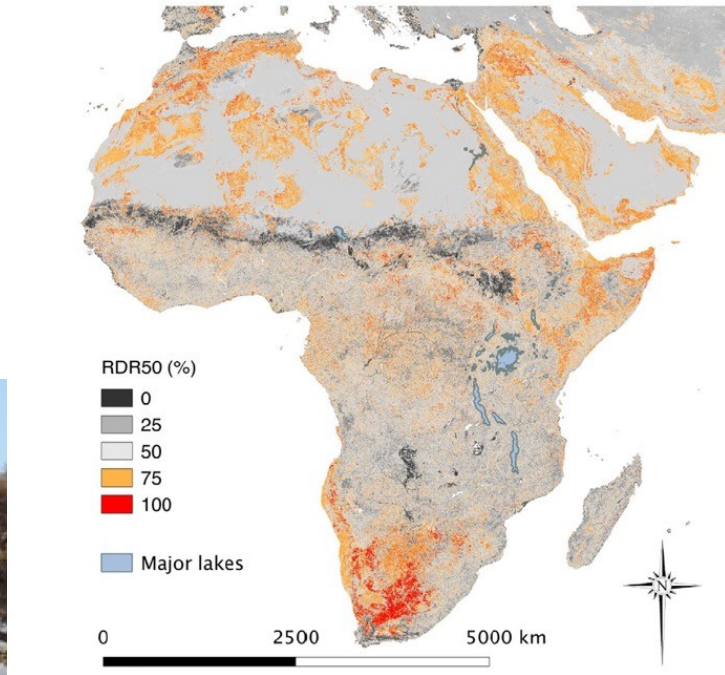
the Pokot ethnic group illegally grazing cattle on Ol Maisor Ranch in Laikipia, Kenya. Hundreds of Pokot
ru people have invaded the ranch, cutting or breaking perimeter fences to graze thousands of cattle, goats

/ THE NEW YORK TIMES

of Fertile Land Fuels 'Looming Crisis' Across

New York Times 30 Jul 2017

Land degradation



- 40% of agricultural land in Africa
- Reduced yields drives poverty and involuntary migration



afr100

Africa restoring
100 million hectares
of deforested and degraded
land by 2030

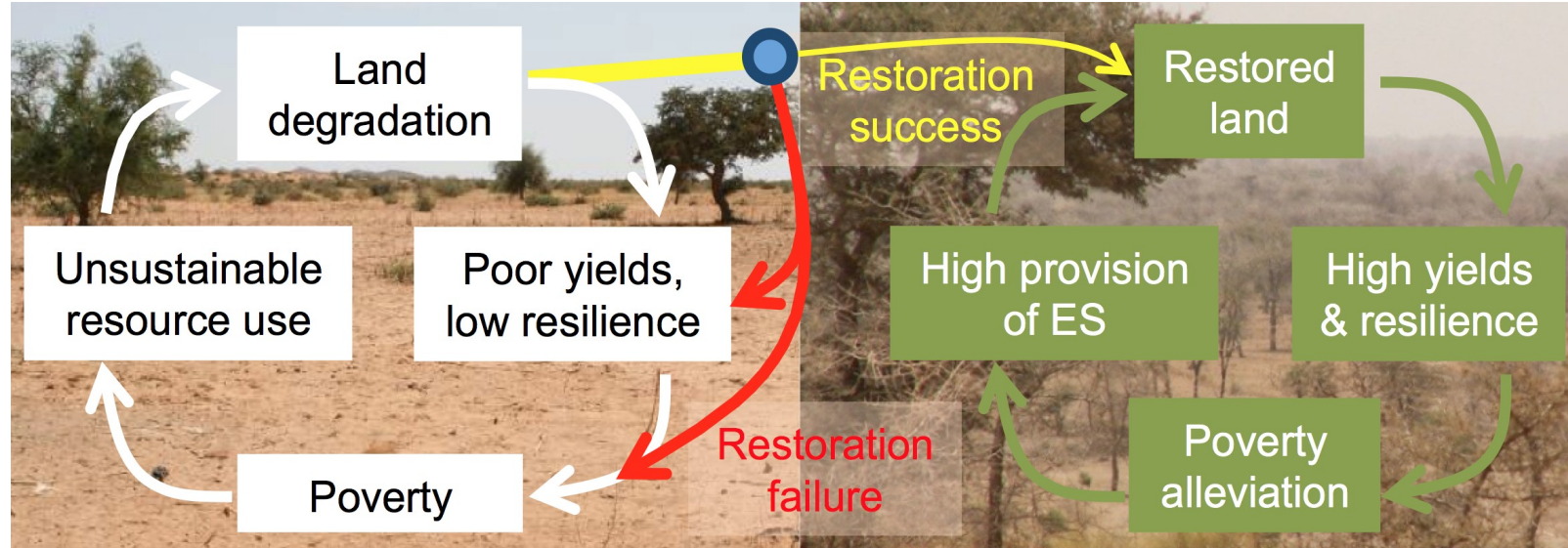
27 countries
have committed
to restore **111 mha**
AS OF SEPTEMBER 2018

\$1B in
development
finance
\$481M
private sector
commitment

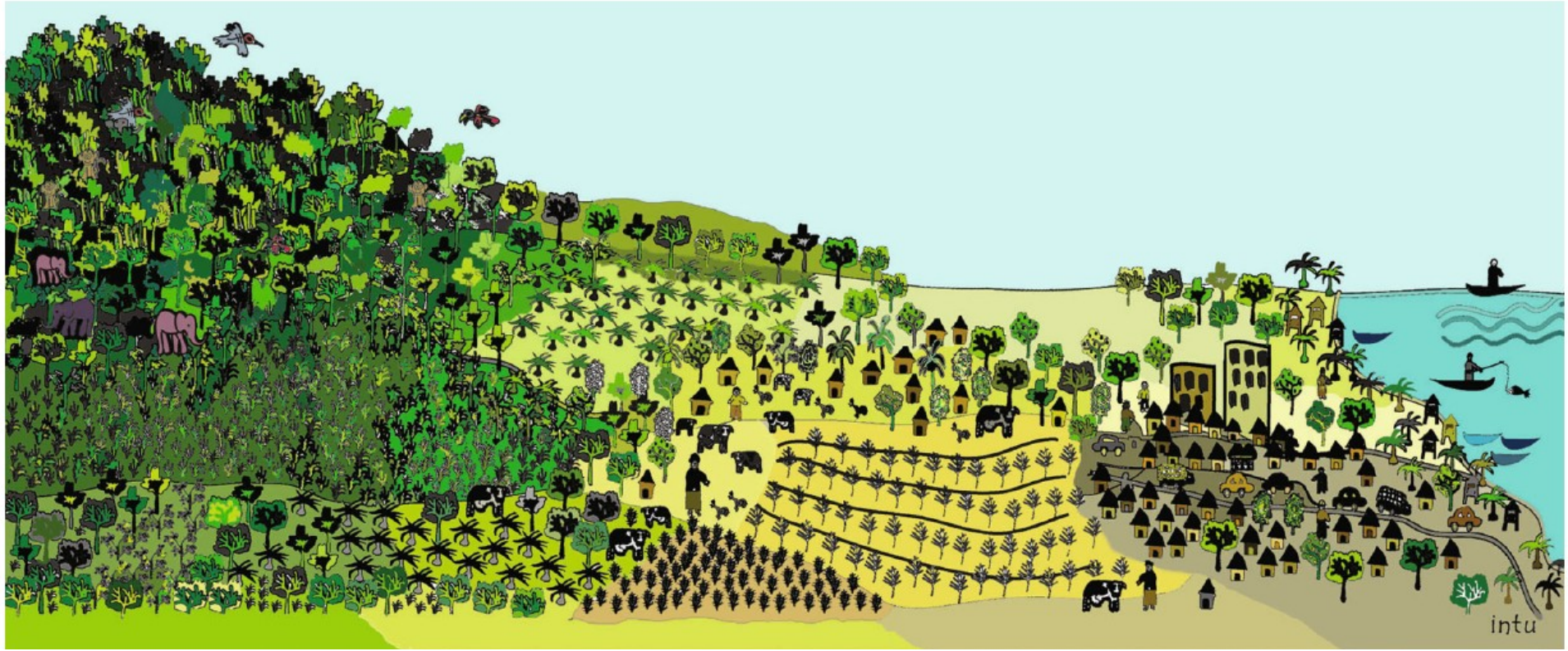
*formulating commitment



Restoration: Breaking the vicious cycle



High risk of failure!



Landscapes are complex and highly variable

- ✓ Socio-ecological systems
- ✓ Diverse beneficiaries
- ✓ Large-scale feedbacks
- ✓ Market failures

Sayer et al 2018

F Landscape R approach

- ✓ Adaptive management
- ✓ Common entry points
- ✓ Multiple scales
- ✓ Multifunctionality
- ✓ Multiple stakeholders
- ✓ Negotiated and transparent logic of change
- ✓ Clarification of rights and responsibilities
- ✓ Participatory and user-friendly monitoring
- ✓ Building towards resilience
- ✓ Strengthen stakeholder capacity

No complete scientific survey of landscape approaches (Reed et al 2016)



Community Forestry: Steps to secure rights

Technical support from the Forestry Department & partners

1. CF process initiation & awareness raising



✓ Tick when complete: Letter of interest submitted to DFO.

☐ Date.....

2. CF boundary negotiation, mapping & signing map



✓ Tick when complete: Boundary map signed by village head plus neighbouring traditional leaders / institutions & Chief (Annex 1)

☐ Date.....

3. CF management group constitution & election



✓ Tick when complete: CFMG constitution & committee (Annex 2)
✓ Apply for recognition using Form I SI #11 of 2018

☐ Date.....

4. CF management planning & forest management rules



✓ Tick when complete: Management framework & 5 year activity plan (Annex 3).

☐ Date.....

5. CF agreement preparation, application & signing



✓ Tick when complete: **Community Forestry Agreement** signed by Forestry Department, community & Chief using Form IV SI #11 of 2018.

☐ Date.....

6. Implement forest management plan, for forest protection, development, domestic use & forest based income generation



✓ Tick when complete: Annual workplan & simple forest business plan – to make more money from sustainably produced forest products allowed under new forest rights granted in the **Community Forestry Agreement**.

☐ Date.....

People-centred & empowering

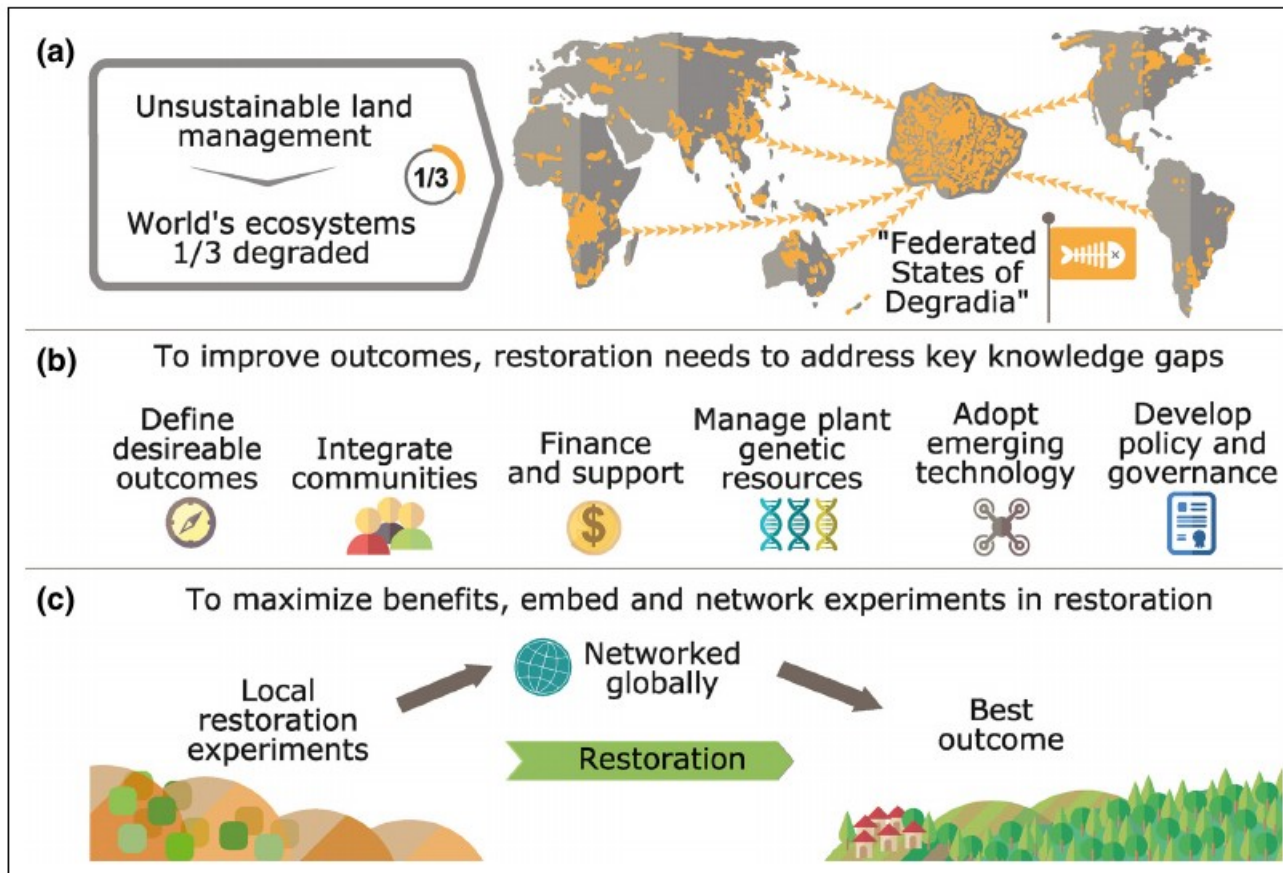
7. Joint monitoring, evaluation & lesson learning

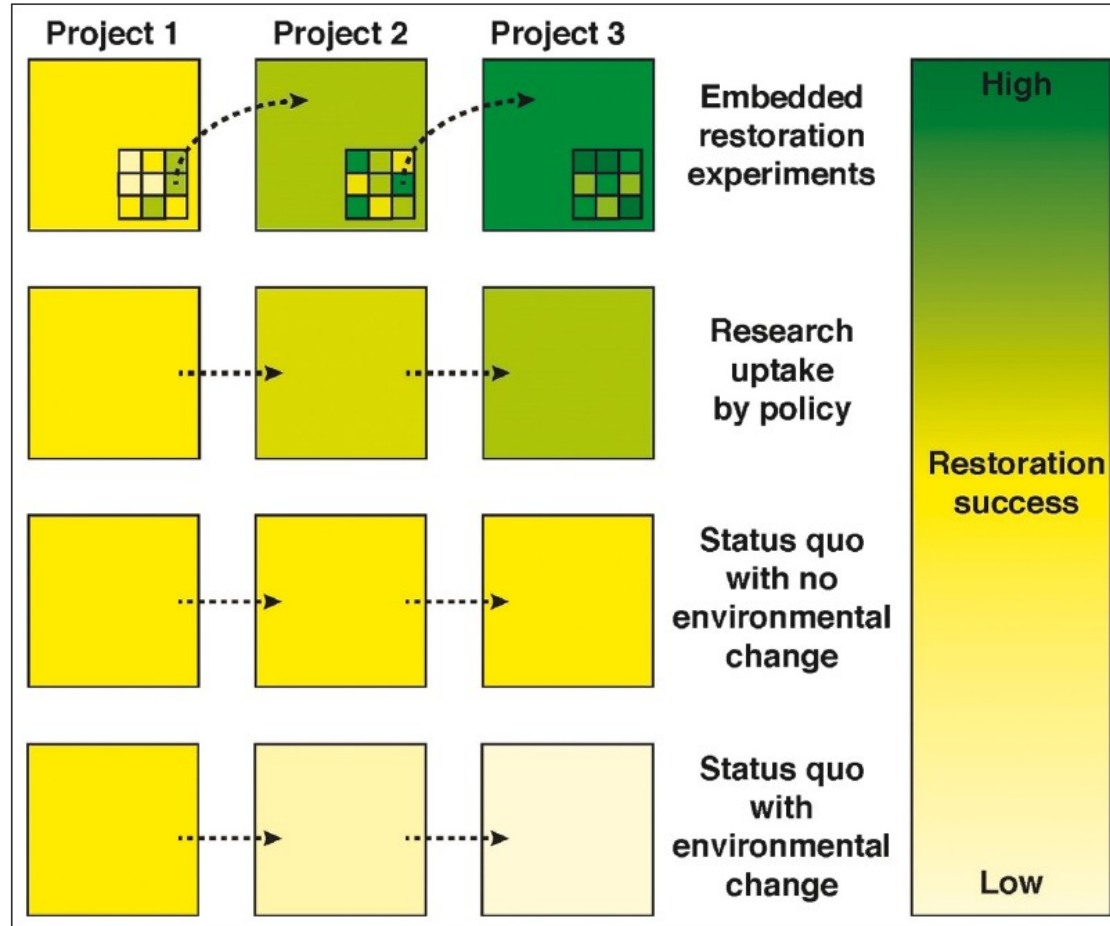




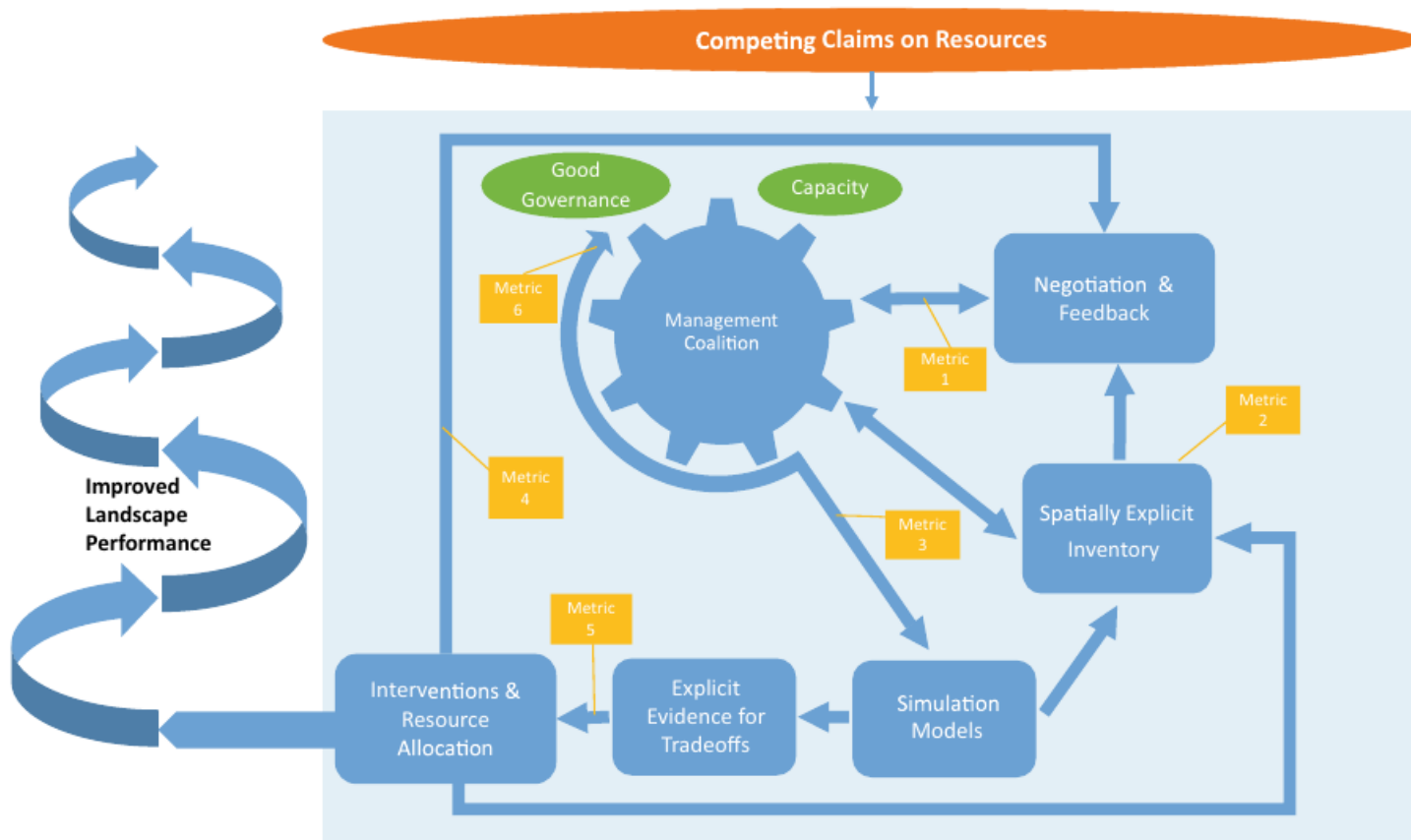
What can the research community do to support FLR?

- ✓ Establish knowledge hub on landscape restoration
- ✓ Develop tools (e.g. online dashboards) and guidelines
- ✓ Network trials across projects (Gellie et al 2018)
- ✓ Establish standardised metrics for monitoring success
- ✓ Establish standardised data collection protocols and analytical tools



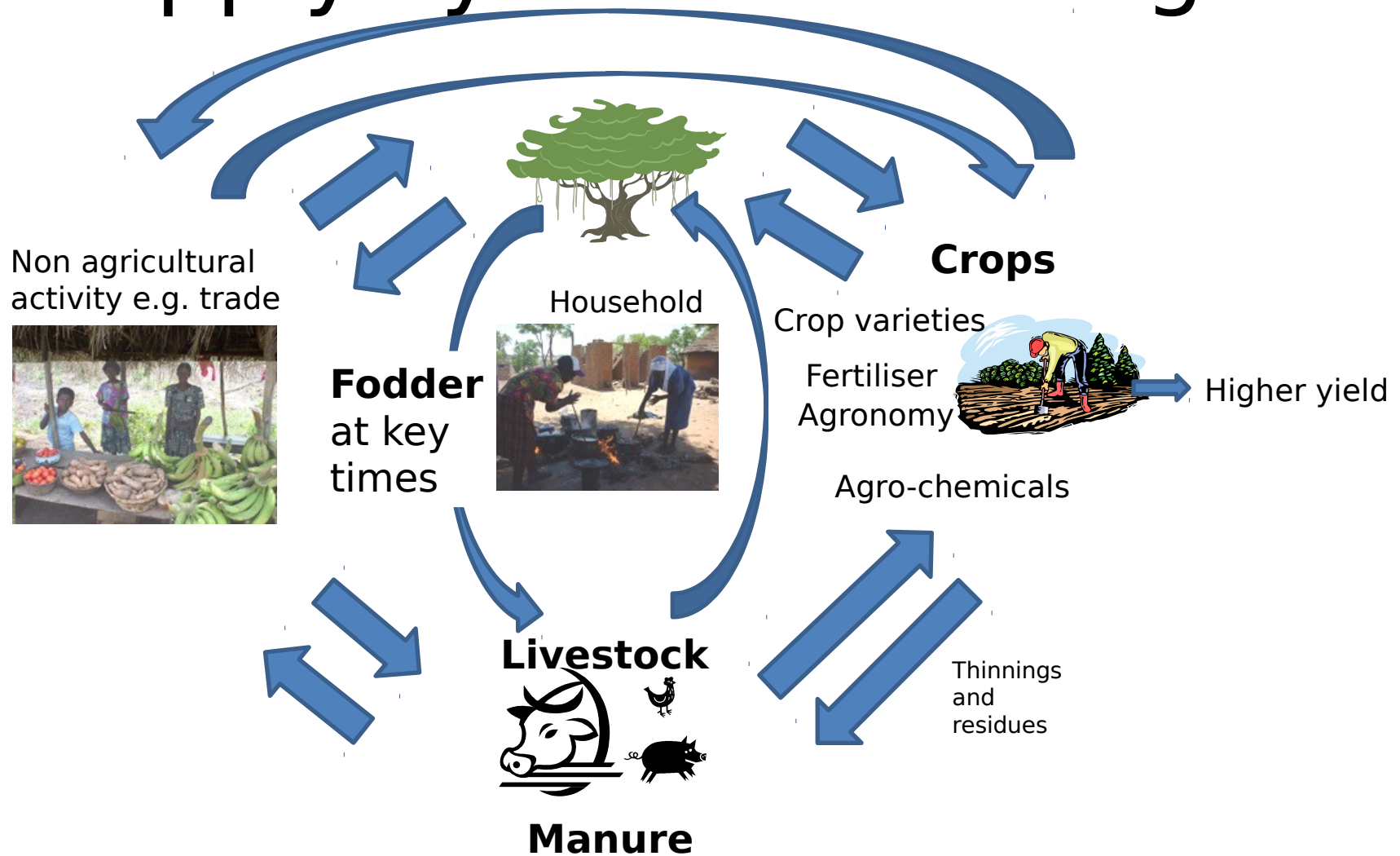


Use ToCs



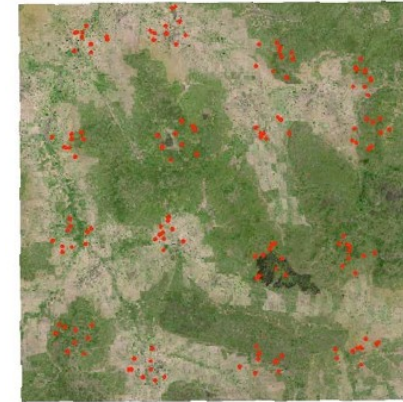
Sayer et al 2018

Apply systems thinking

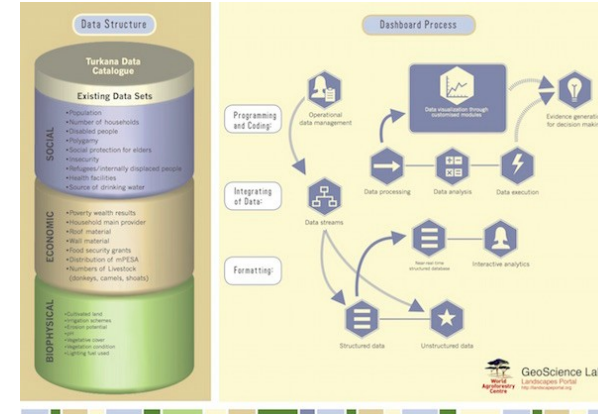


Robust assessment and monitoring

- ✓ Ecosystem health mapping (e.g. LDSF)
- ✓ Relevant to stakeholder needs
- ✓ Local knowledge
- ✓ Multiple scales



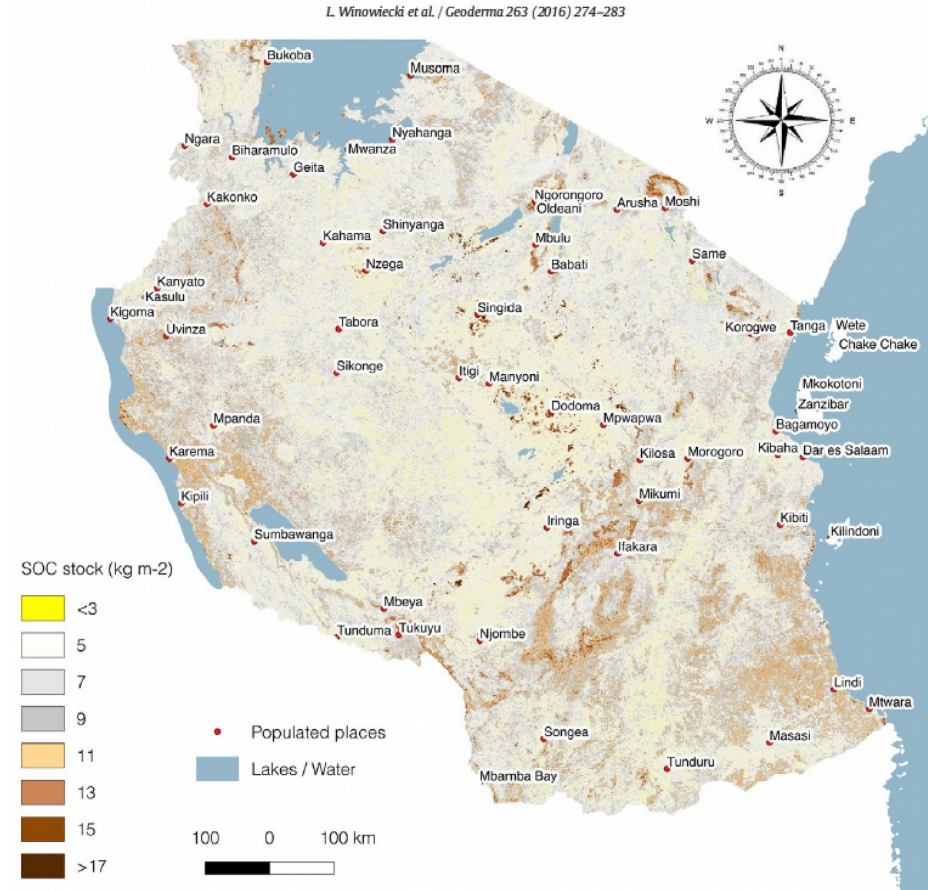
10 x 10 km site with sampling clusters



National Soil Organic Carbon Stock Estimates

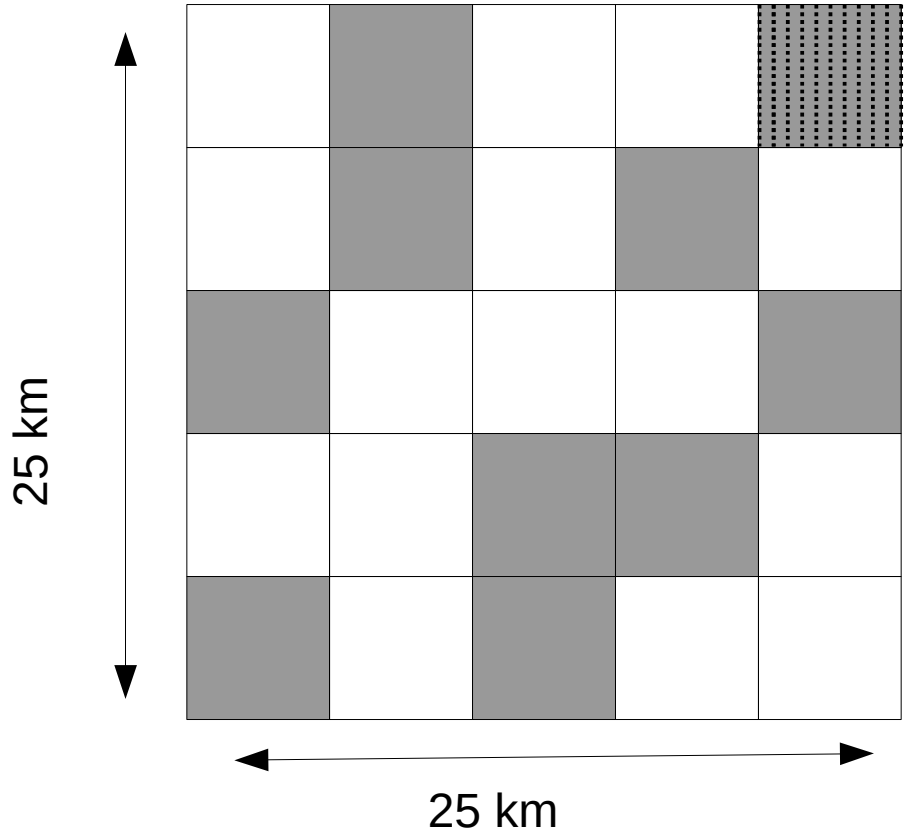


Example of mapping
SOC stocks at 30 cm
at 30 meter resolution



Tools for Land health/BioD

- Stratified random sampling
- Focus on key components:-
 - Land health
 - Trees / vegetation
 - Birds
- Optional protocols for local adaptation:-
 - Pollinators / natural enemies
 - Soil biota
 - Terrestrial vertebrates
- Modelling with remote sensing
 - Enables wide-scale assessment
 - Cost-efficient updating
- Biomass / C estimation



Planned comparisons

- Fill information gaps around the viability of the option
- Estimation of cost/benefit payoff
- Identification of barriers to adoption



Mulu Tufa in Ethiopia
with Papaya tree

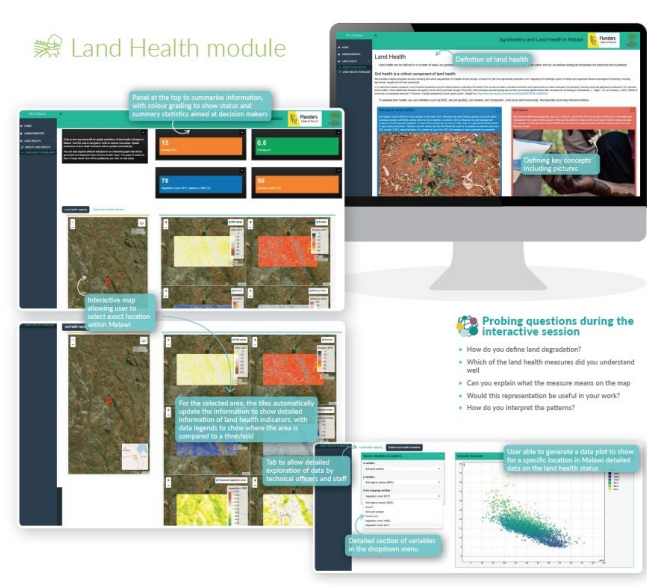
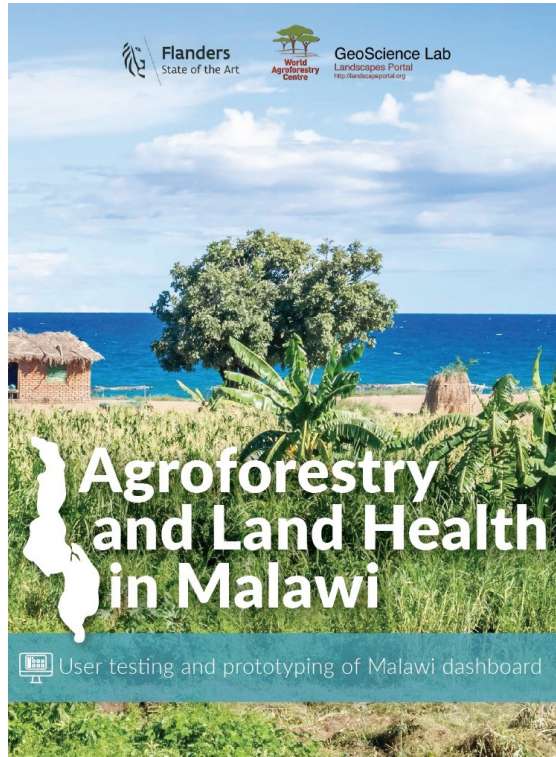


Grafting in Mali

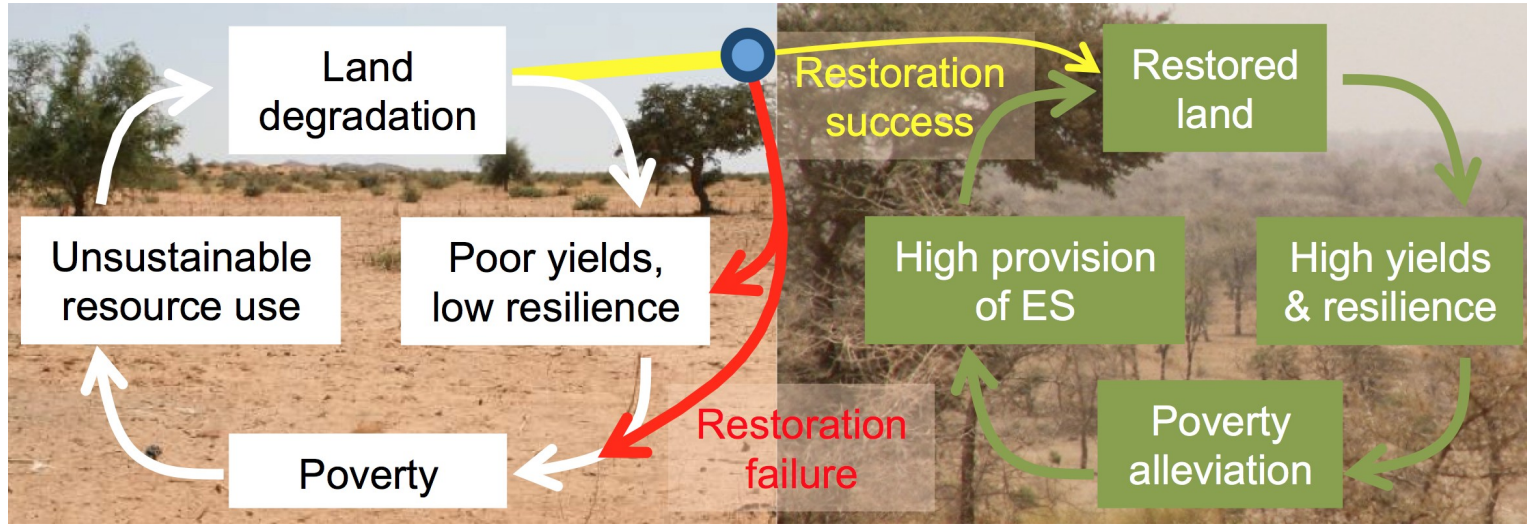


Abdrahamane Hayo in Zinder,
Niger, millet harvest in FMNR

Presenting/interacting with data



100 Mha by 2030



Thank you

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