

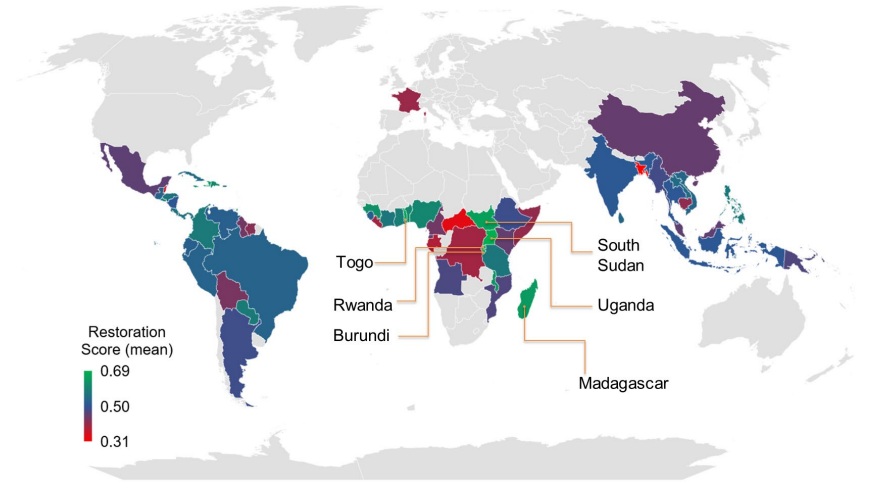
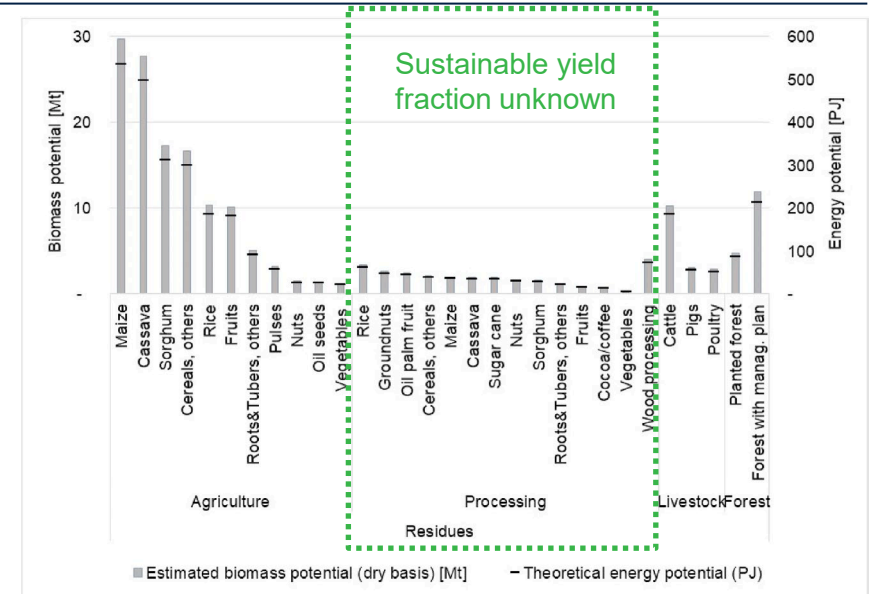
Biomass in sub-Saharan Africa

A major opportunity and challenge for sustainable futures

Dan Abudu

Sustainable biomass in sub-Saharan Africa (SSA)

- SSA holds over 60% of Africa's biomass potential
 - If sustainably managed, biomass could meet 40% of SSA's energy demand by 2030.
- Key sustainability challenges
 - Data & modelling gaps, Risk of unsustainable harvesting and Land-use competition
- Opportunity - restoration planning offers an opportunity to align biomass with environmental goals



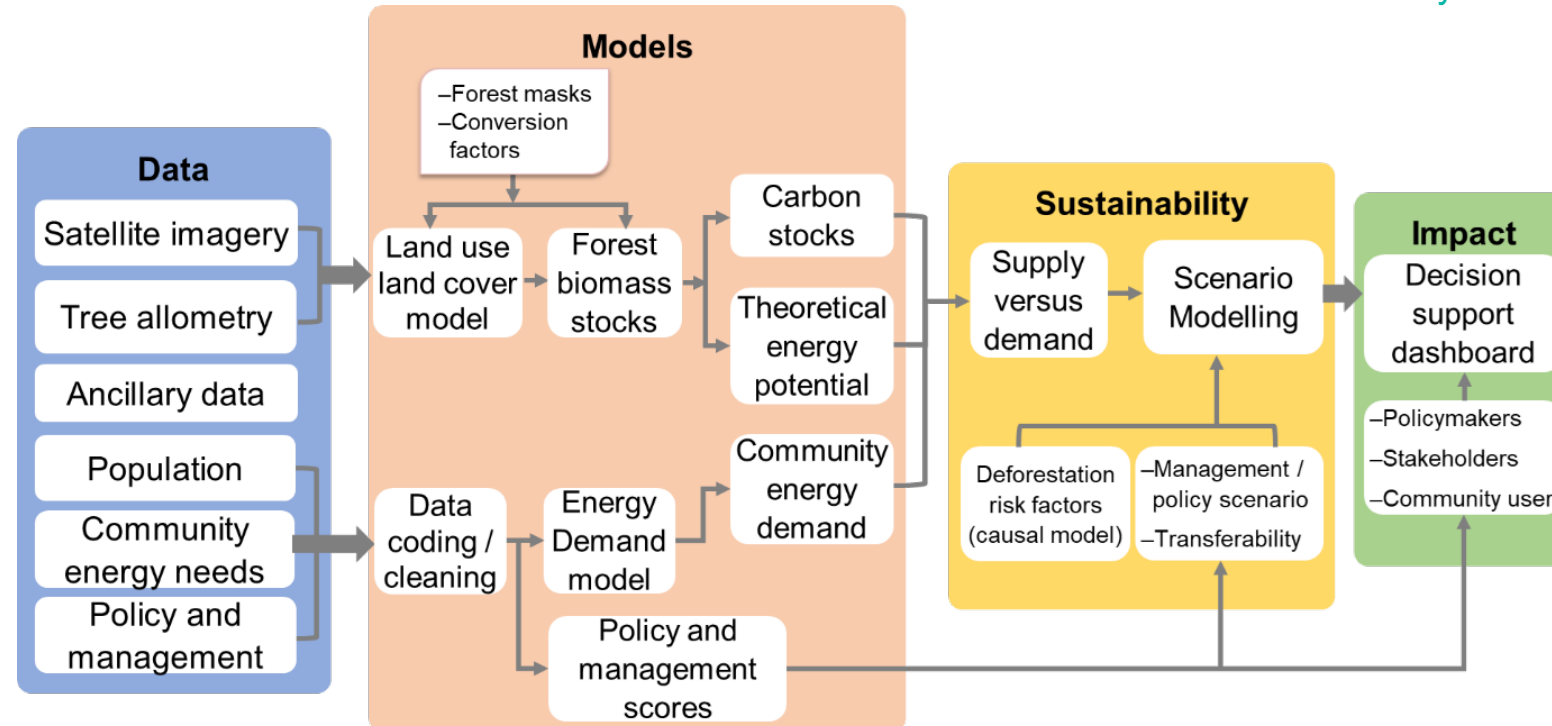
Why biomass resource assessment matter in SSA

- Our work aims to improve the accuracy, transparency and sustainability relevance of biomass resource estimates in SSA.

Meta-analysis of estimation models

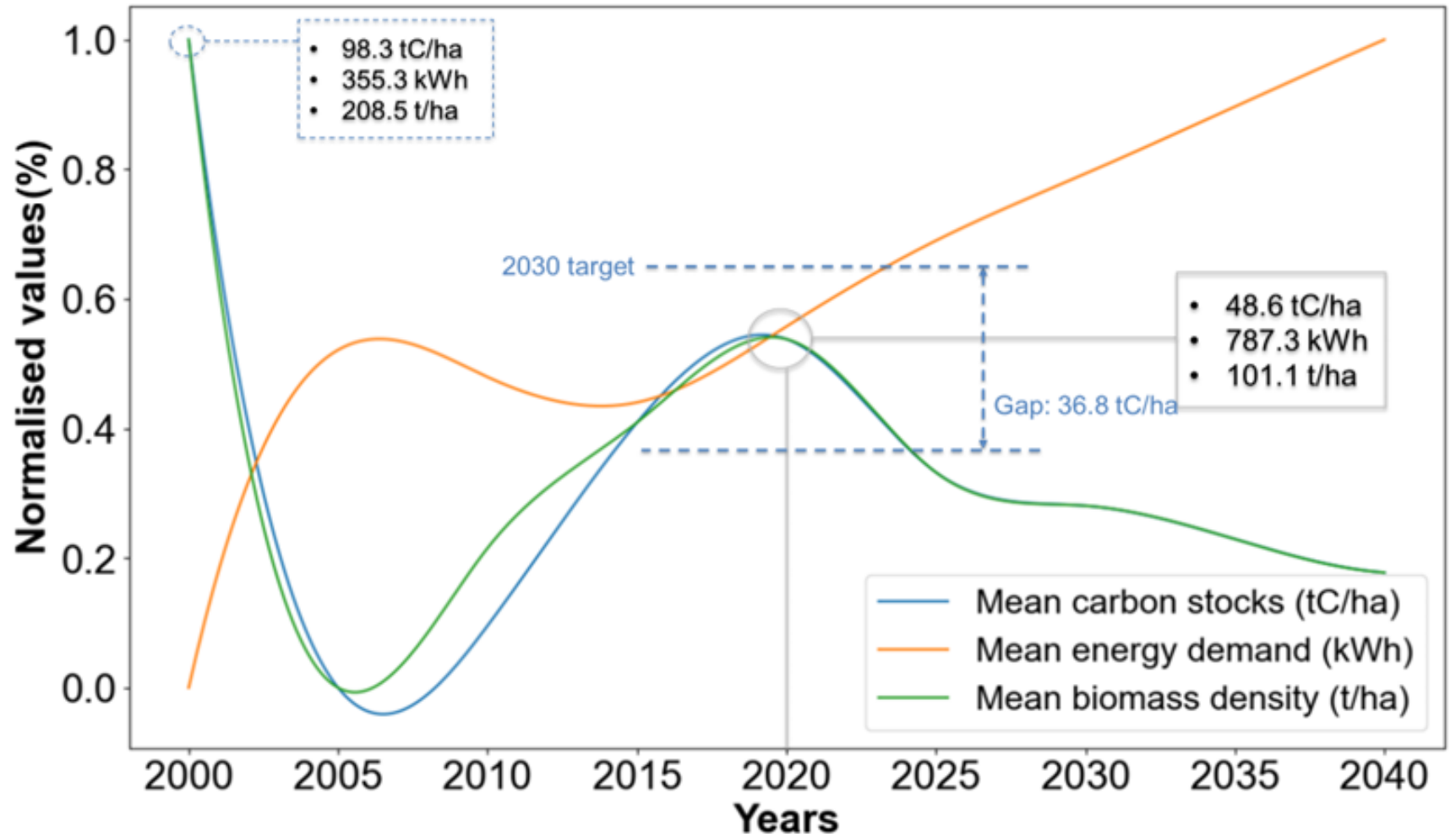
Remote sensing-based framework

Integration with policy and carbon stock dynamics



Implications – Uganda’s case

Sustainability is not about how much biomass SSA has, but how much can be mobilised without compromising future resilience†





Thank you

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Our open-access tools

- GeoSEM deforestation risk model:
[10.5281/zenodo.14758682](https://doi.org/10.5281/zenodo.14758682)
- Real-time LULC for biomass and carbon stocks estimation:
[10.5220/0013434200003935](https://doi.org/10.5220/0013434200003935)
- Meta-analysis of BEMs in SSA:
[10.1016/j.scitotenv.2025.180455](https://doi.org/10.1016/j.scitotenv.2025.180455)