Assessment of Synergies and Tradeoffs among Ecosystem-based Adaptation, Biodiversity Conservation and Community Forestry in Ayeyarwady delta, Myanmar

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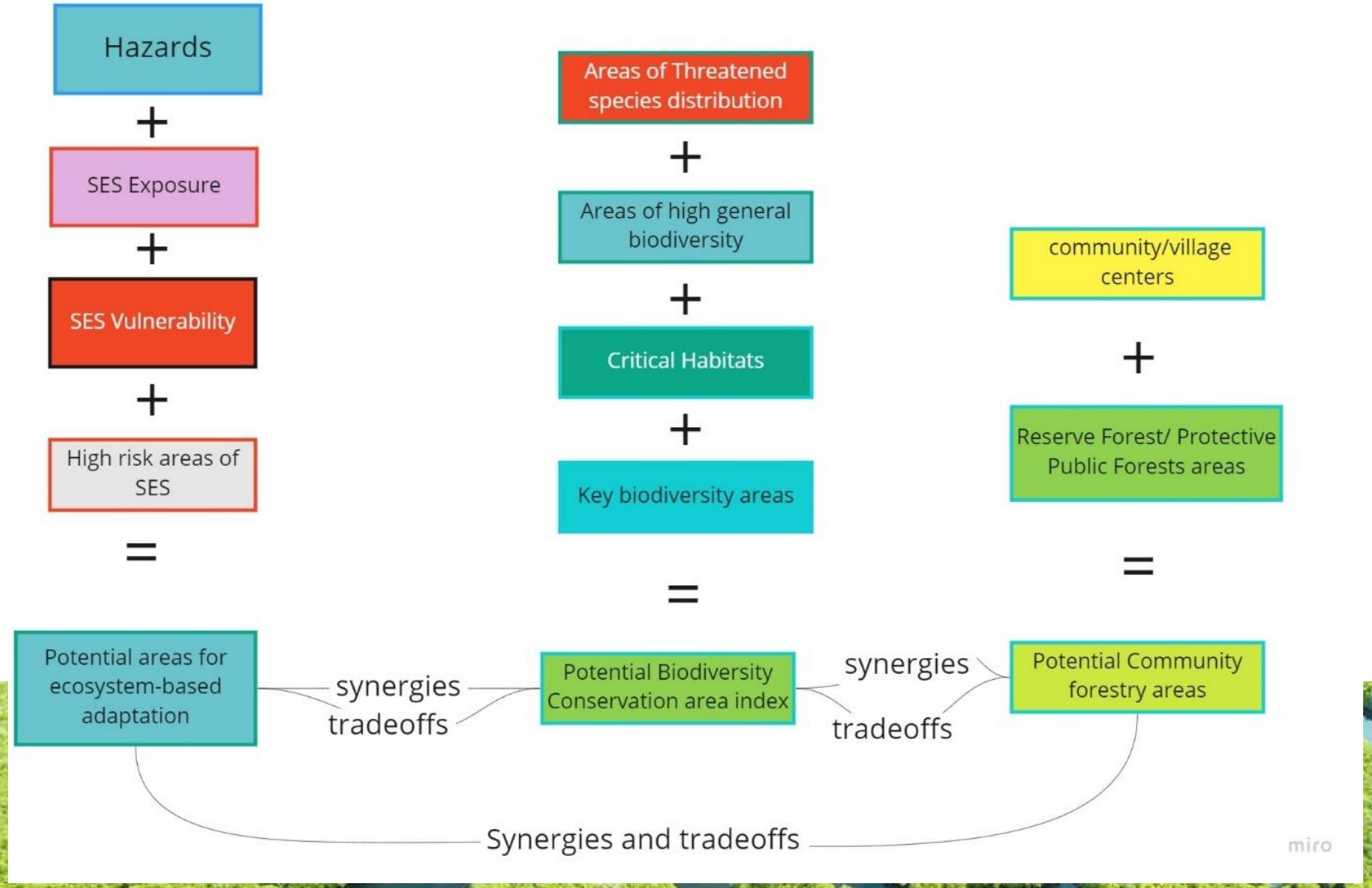
Research Objective

- To understand **spatial and conceptual** synergies and tradeoffs among ecosystem-based adaptation, biodiversity conservation, and community forestry to **maximize implementation of ecosystem-based adaptation** with **legal, financial and social support**

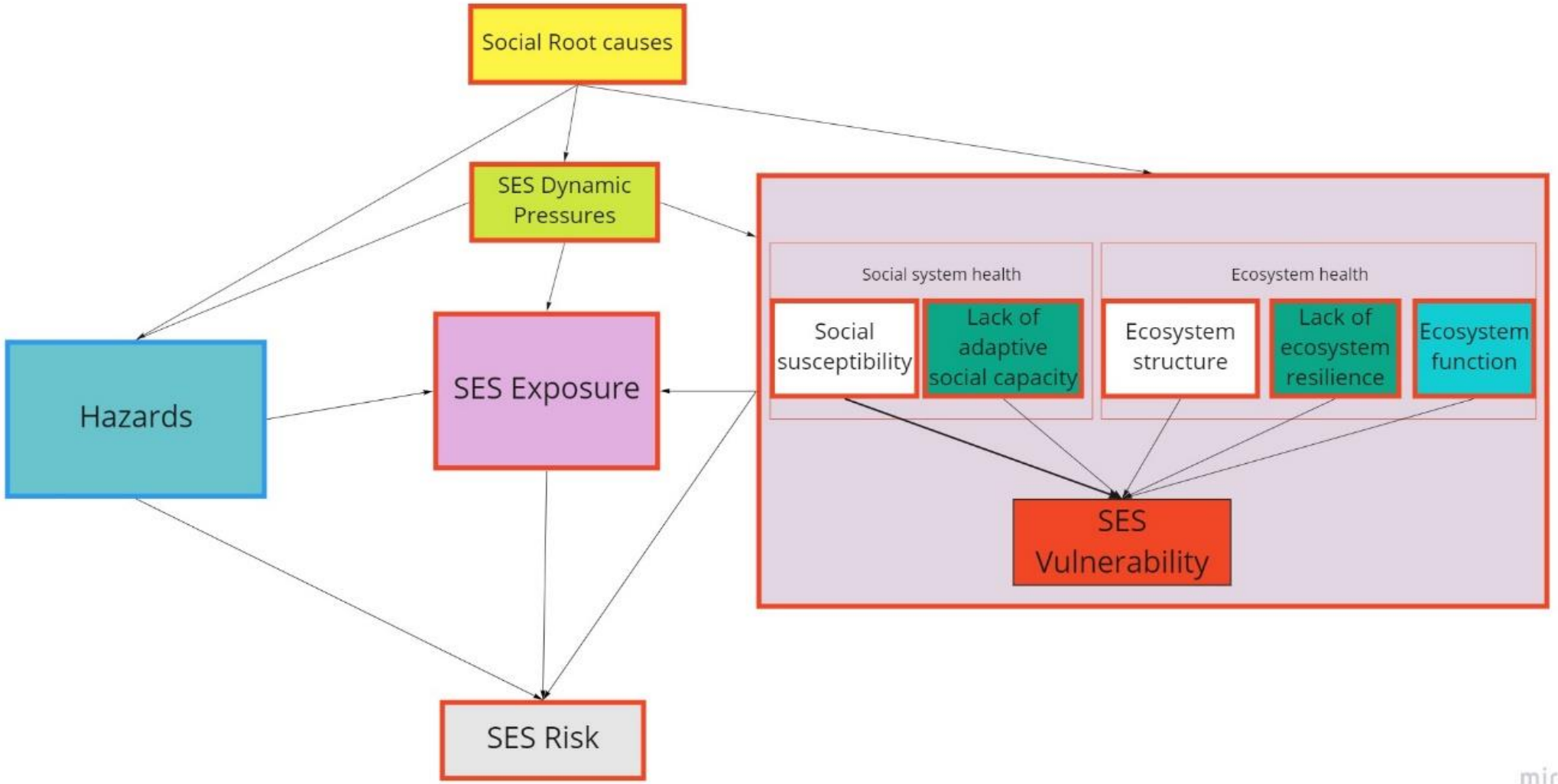
Research Questions

- What are **synergies and tradeoffs** between ecosystem-based adaptation, biodiversity conservation and community forestry **spatially and conceptually**?
- What are general **barriers and limits** towards implementing synergies among ecosystem-based adaptation, biodiversity and community forestry in Myanmar?

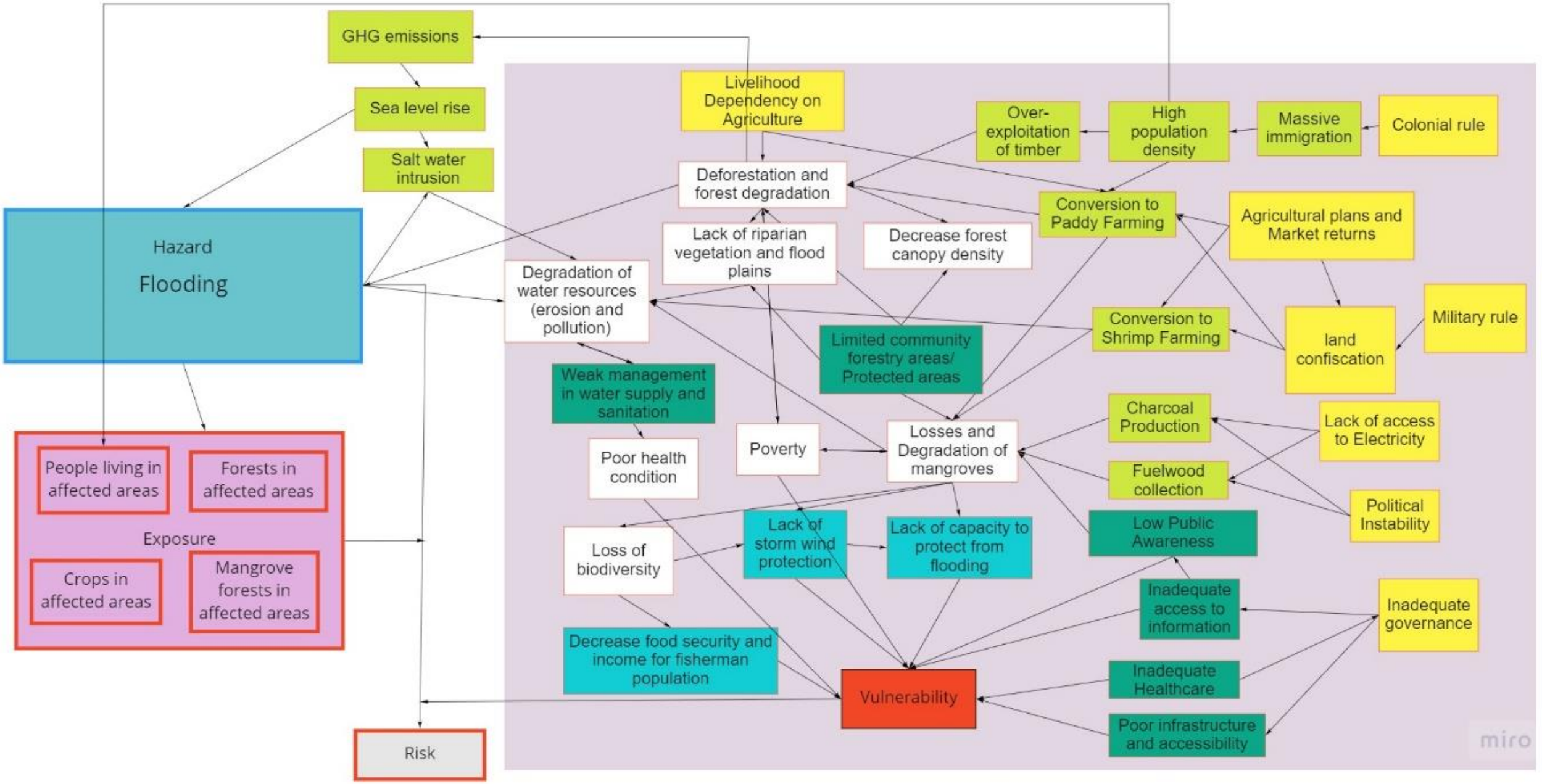
Methodology | Main Conceptual Framework



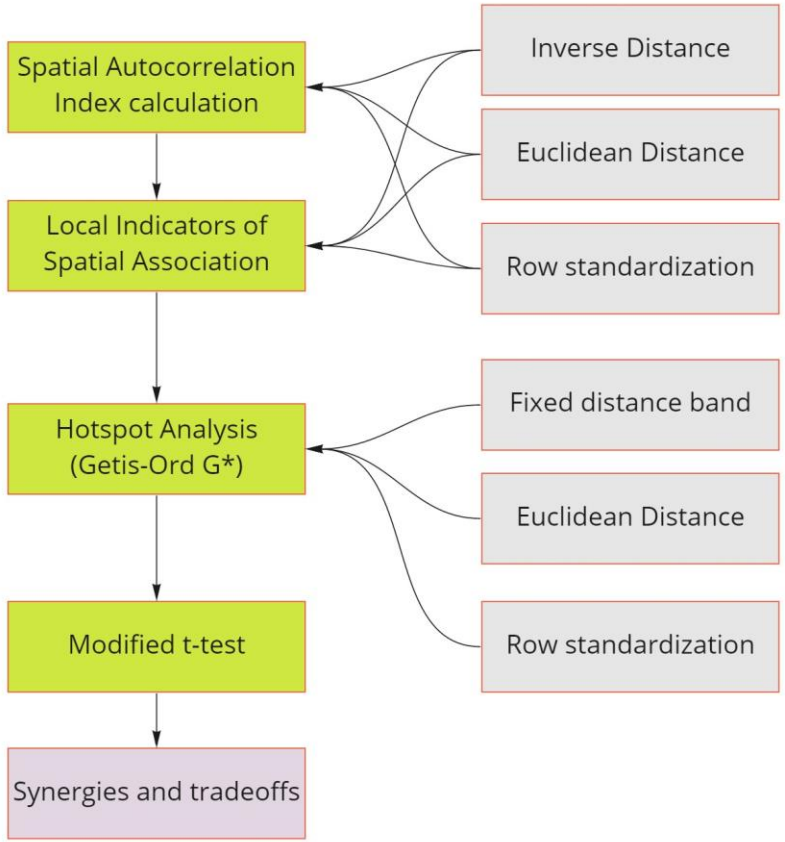
Methodology | Ecosystem-based Adaptation | SES risk framework



Methodology | EbA | Flood Impact Chain



Methodology | spatial analysis and expert interviews

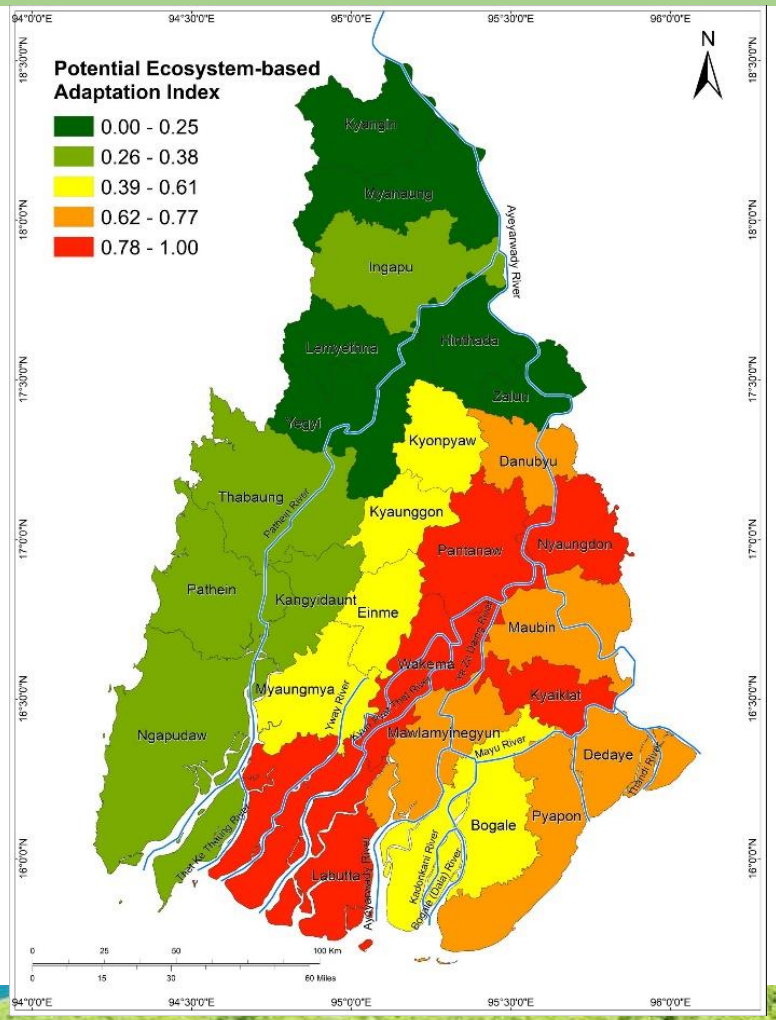


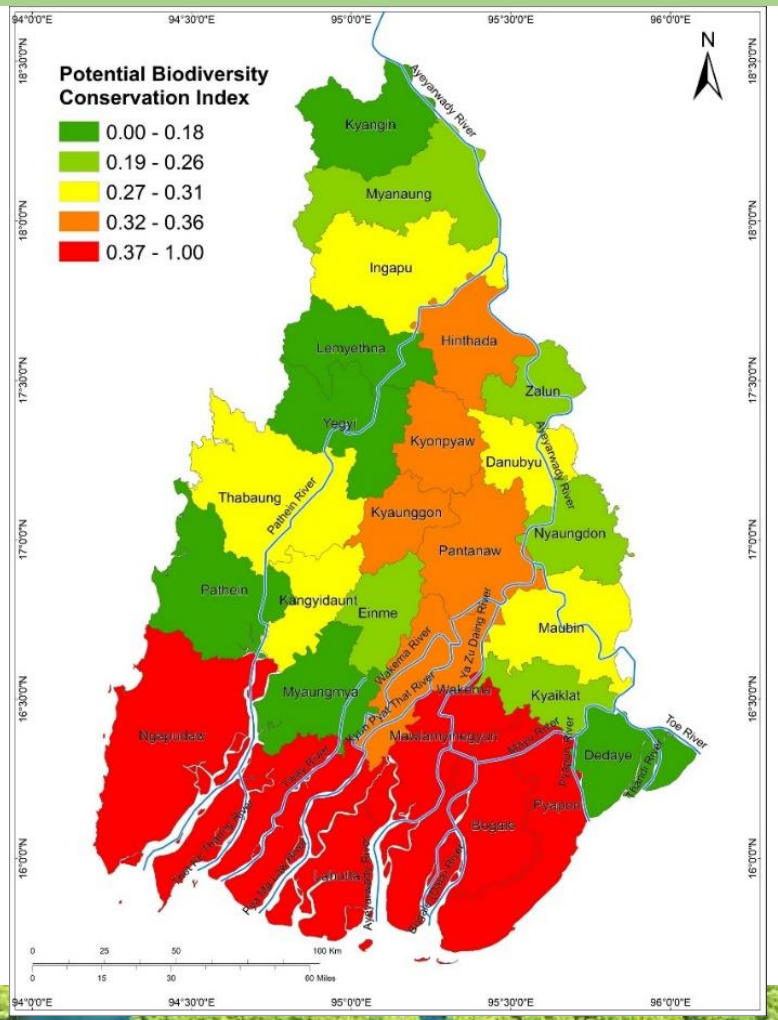
9 in-depth Expert interviews
and
content analysis

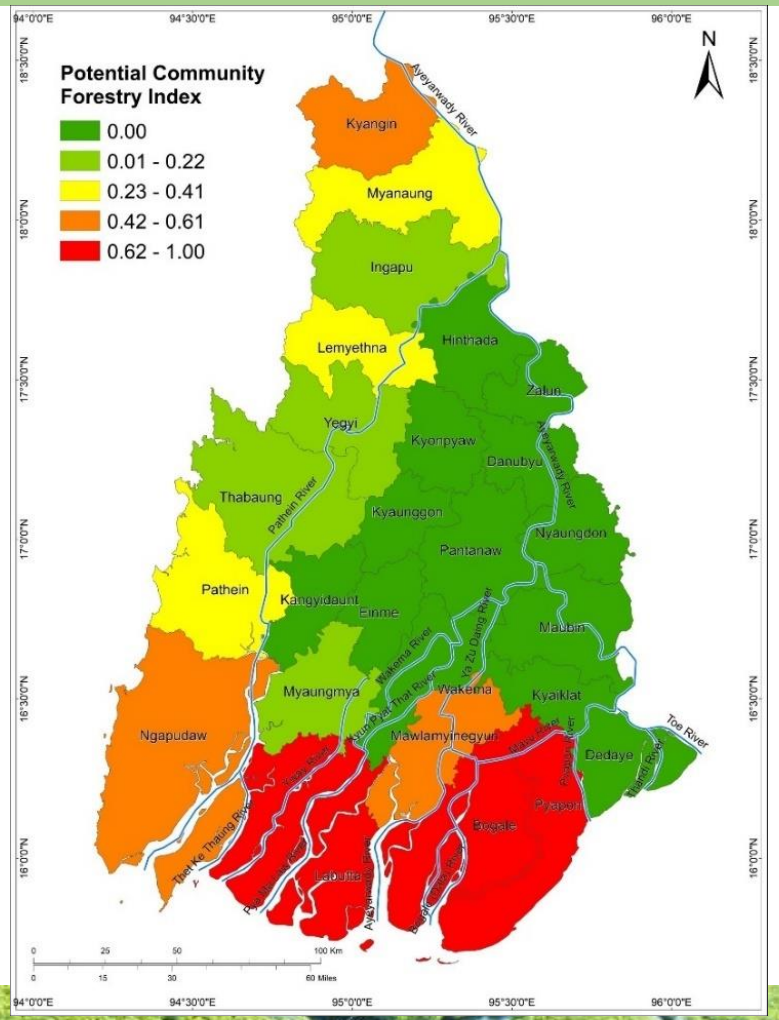
Results and Discussions | Spatial synergies and trade-offs

	Ecosystem-based Adaptation	Biodiversity conservation	Community forestry
Ecosystem-based Adaptation	1	0.29	-0.115
Biodiversity conservation	0.29	1	**0.723*** **
Community forestry	-0.115	**0.723*** **	1

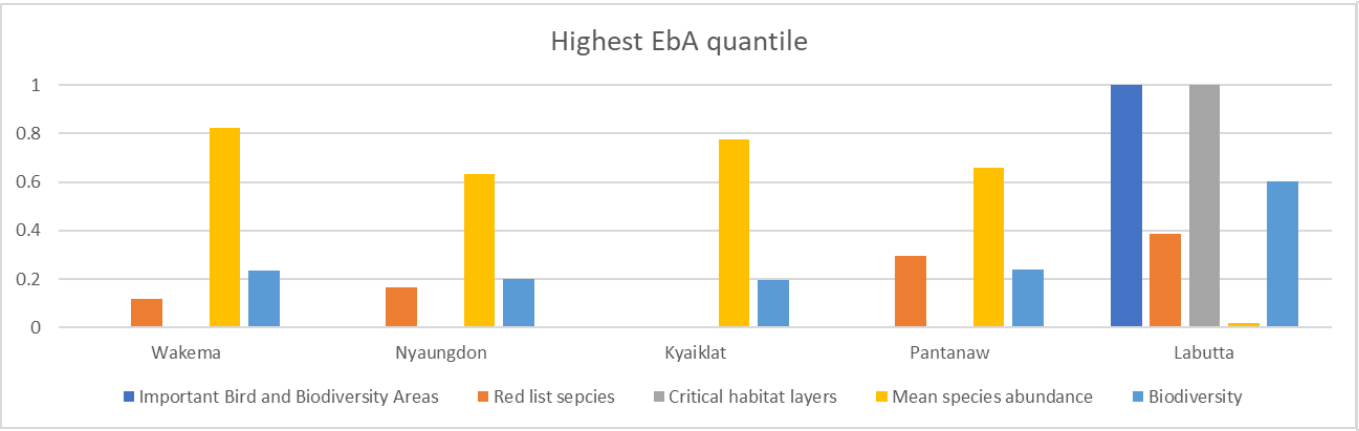
Results and discussions| Risk Assessment

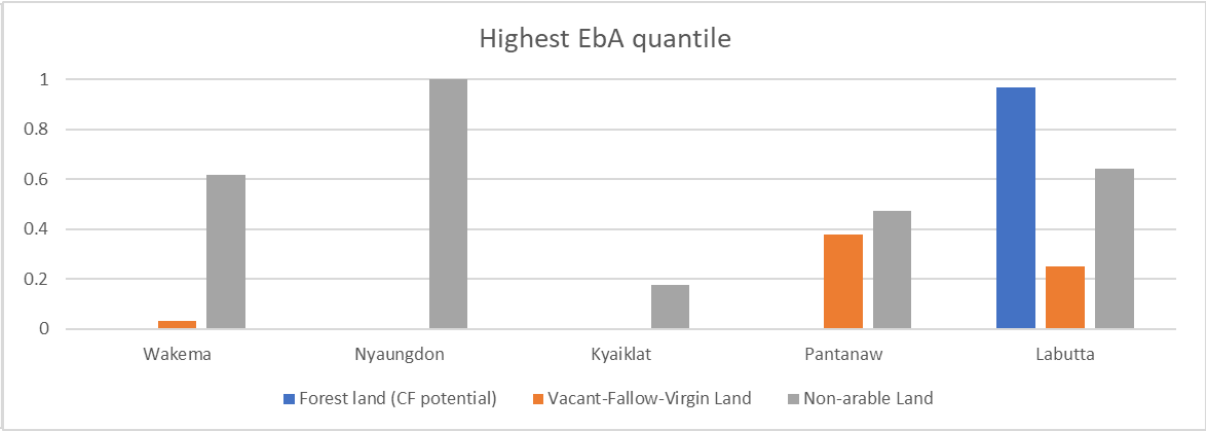


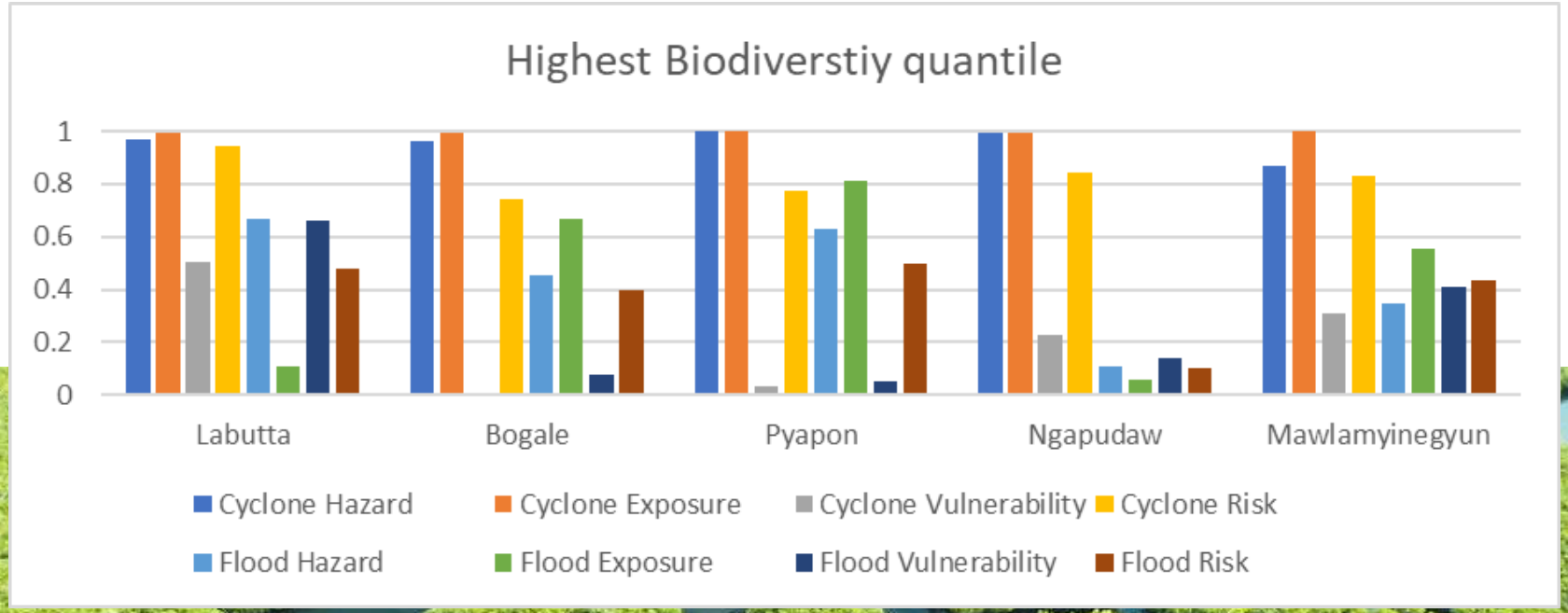


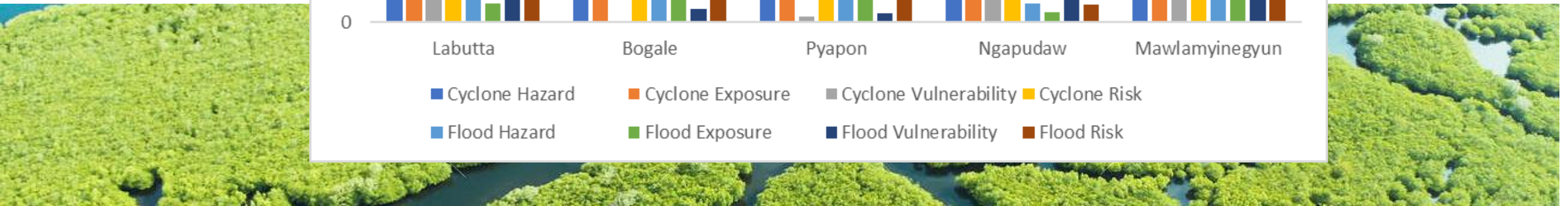


Results and discussions

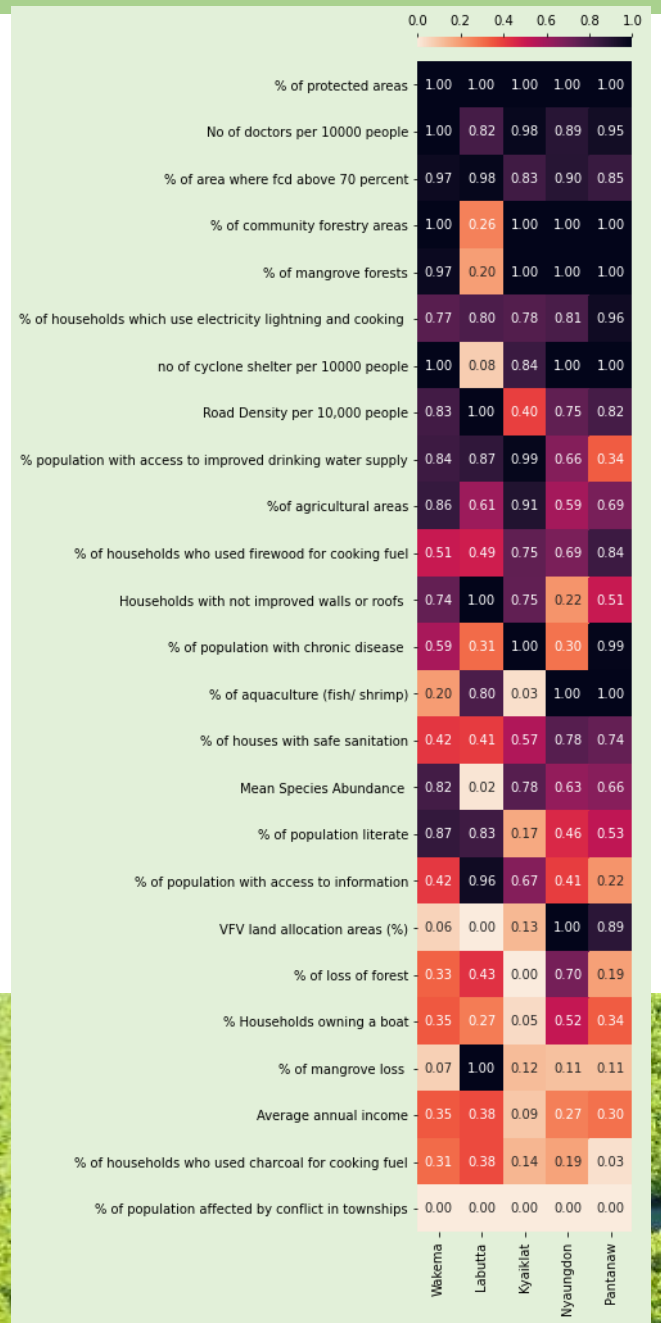


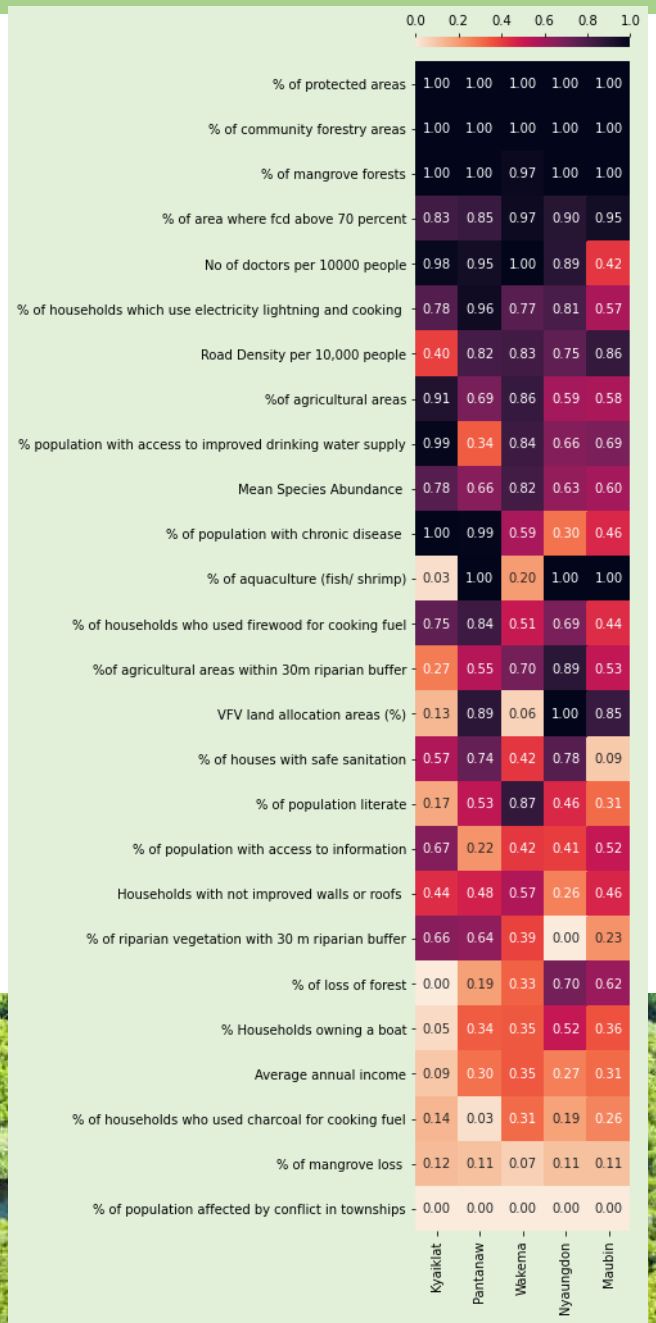






Results and discussions Indicators in Highest risk townships

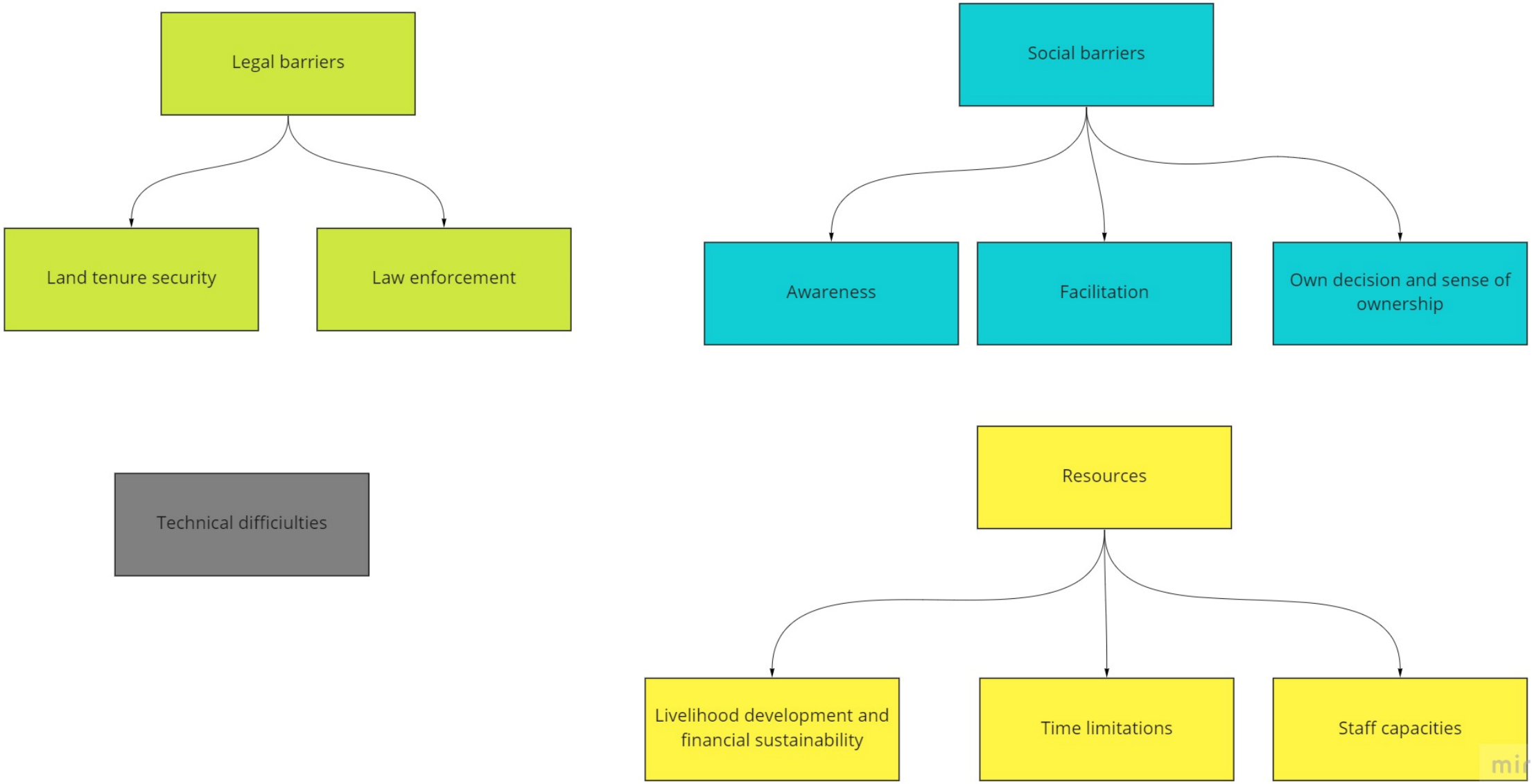




Results and discussions| Conceptual synergies and trade-offs

Synergies between EbA and Biodiversity conservation	**Synergies between EbA and CF**	**Synergies between biodiversity conservation and CF**
Climate change considerations	Participatory management, capacity building and trust	Traditional indegineous knowledge and awareness
Ecosystem health	Livelihood development and community needs	Bottom-up approaches
Aquatic values	Agroforestry	Reducing pressures from illegal logging (less monitoring works)
Symbiotic Relationships	Ecosystem services	Biodiversity increase in CF
Livelihood development	Nearness to the population centers	CF as corridors
Corridor connections	Land tenure security and sense of ownership	Livelihood development
Protected areas as buffer		
No monoculture		
Protection of endangered species		
Trade-offs between EbA and biodiversity conservation	**Trade-offs between EbA and CF**	**Trade-offs between biodiversity conservation and CF**
Clear-cutting system	Improper facilitation and exclusive objectives	Economic interests
Trade-offs if monoculture is practiced	Power-competing interests	Human-wildlife conflicts
Exotic species	Trade-offs in case of no livelihood options	Monoculture
Trade-offs if top-down approaches are practices	Land use conflicts	Exotic species
		No Trade-offs

Results and discussions| Barriers



Conclusion

- **Local** and **socio-economic** dimension is the key to the success among three concepts.
- Proper **facilitation**, community **rule-making**, and biodiversity-friendly **livelihoods** were key enabling factors in achieving sustainable ecosystem restoration.
- Fostering those **synergies** is key for ecosystem restoration and conservation in the face of climate change, biodiversity loss, and poverty
- **Community governance** and **biodiversity** aspects in ecosystem-based adaptation to address societal challenges