



*Strengthening Resilience and Sustainability in
Food Systems for Environmental and Socioeconomic Development*

Farm resilience assessment using FAO's adapted SHARP+ tool in Busia County, Kenya

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Study took place in the context of the NICE project

- The NICE project facilitates locally-led actions to **improve nutrition of secondary cities' population** through agricultural, food and health sector collaborations, and public-private engagements, with strong emphasis on the role of women and youth entrepreneurs.



The NICE project consortium

More information and city factsheets on the NICE webpage: nice-nutrition.ch



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Swiss Agency for Development
and Cooperation SDC



DINAJPUR
MUNICIPALITY



RANGPUR CITY
CORPORATION



BUNGOMA COUNTY



BUSIA COUNTY



RUBAVU DISTRICT



RUSIZI DISTRICT

Local Government Engagement



Public-Private Partnership



Governance,
policies and systems

The Swiss Tropical and Public Health Institute works in global health and nutrition, with a focus on low- and middle-income countries.



Agroecology, value
chains and markets

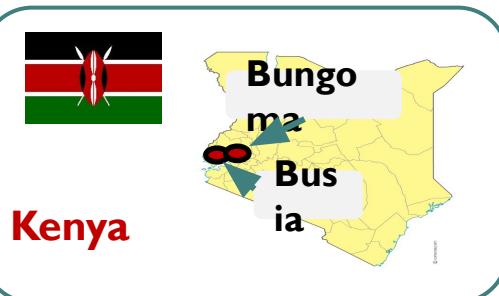
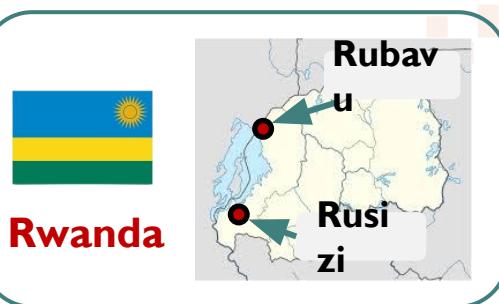
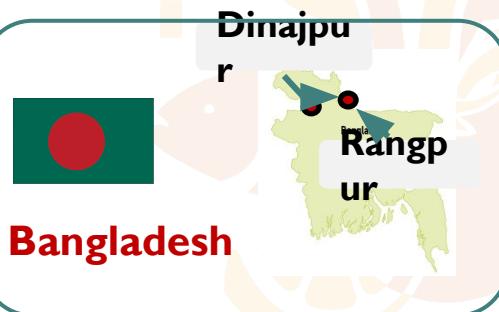
ETH Zürich Sustainable Agroecosystems Group holds globally recognised expertise in agriculture, agroecology, food systems and city region resilience.



Behaviour change
communication &
Social marketing

Sight and Life is a global nutrition think tank, which fosters public-private partnerships for improved nutrition and develops viable social business models.

Project locations



Purpose of the research for NICE

- M/E: baseline for NICE project objectives
- Priorities: identify priorities to reinforce and build resilience

What is the FAO SHARP+ tool?

- Resilience assessment tool combining:
self-assessment of farmers + external
assessment of agricultural systems
- A methodology developed by FAO in 2014
- In the context of CC adaptation projects, it has
been implemented in 45+ countries

SHARP+ main outputs



- Detailed information of farming systems and livelihoods



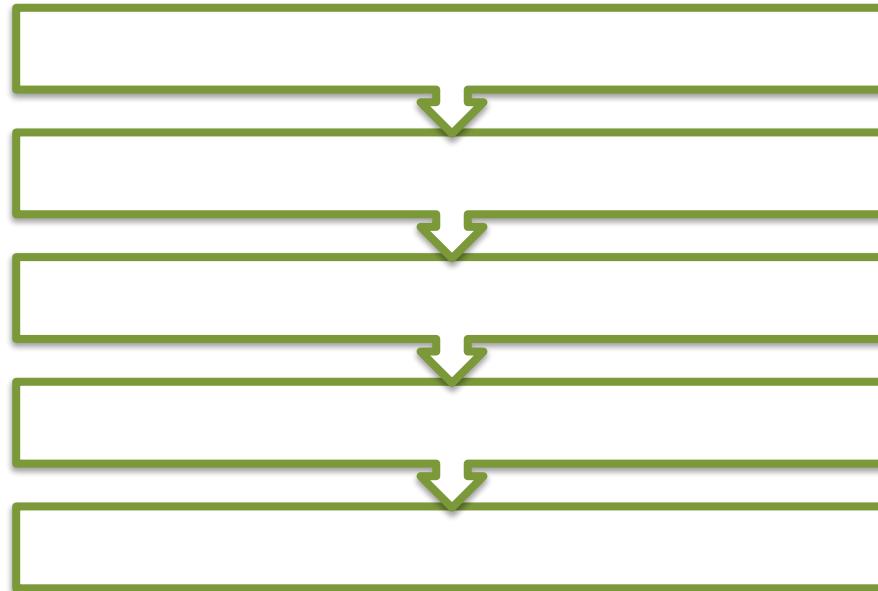
- Resilience scores of farming systems and livelihoods



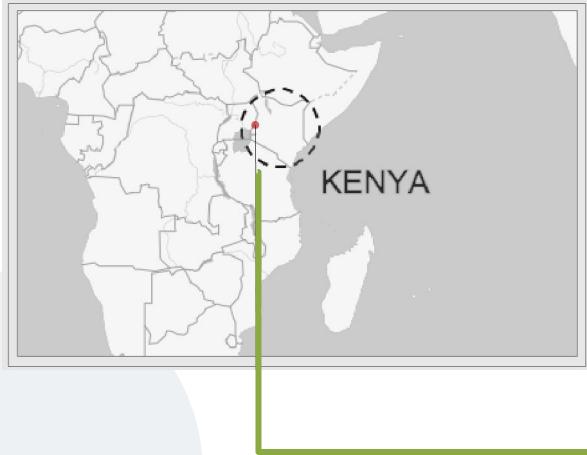
- Quantitative & qualitative georeferenced data



Adaptation FAO SHARP+ tool

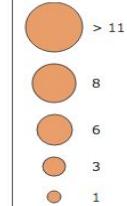


Research location

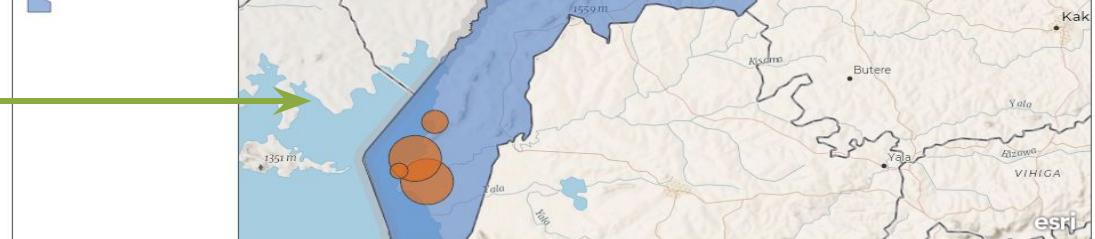


Busia County Locations Farmers (NICE project; Feb 2022)

Number of respondents

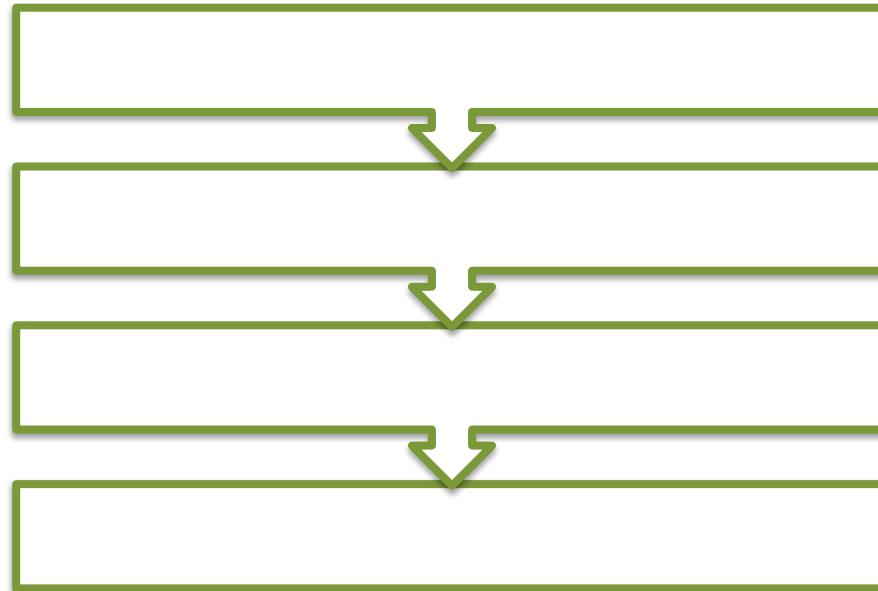


Busia County





Multi-stage purposive sampling



Enumerator training



Interviews with farmers

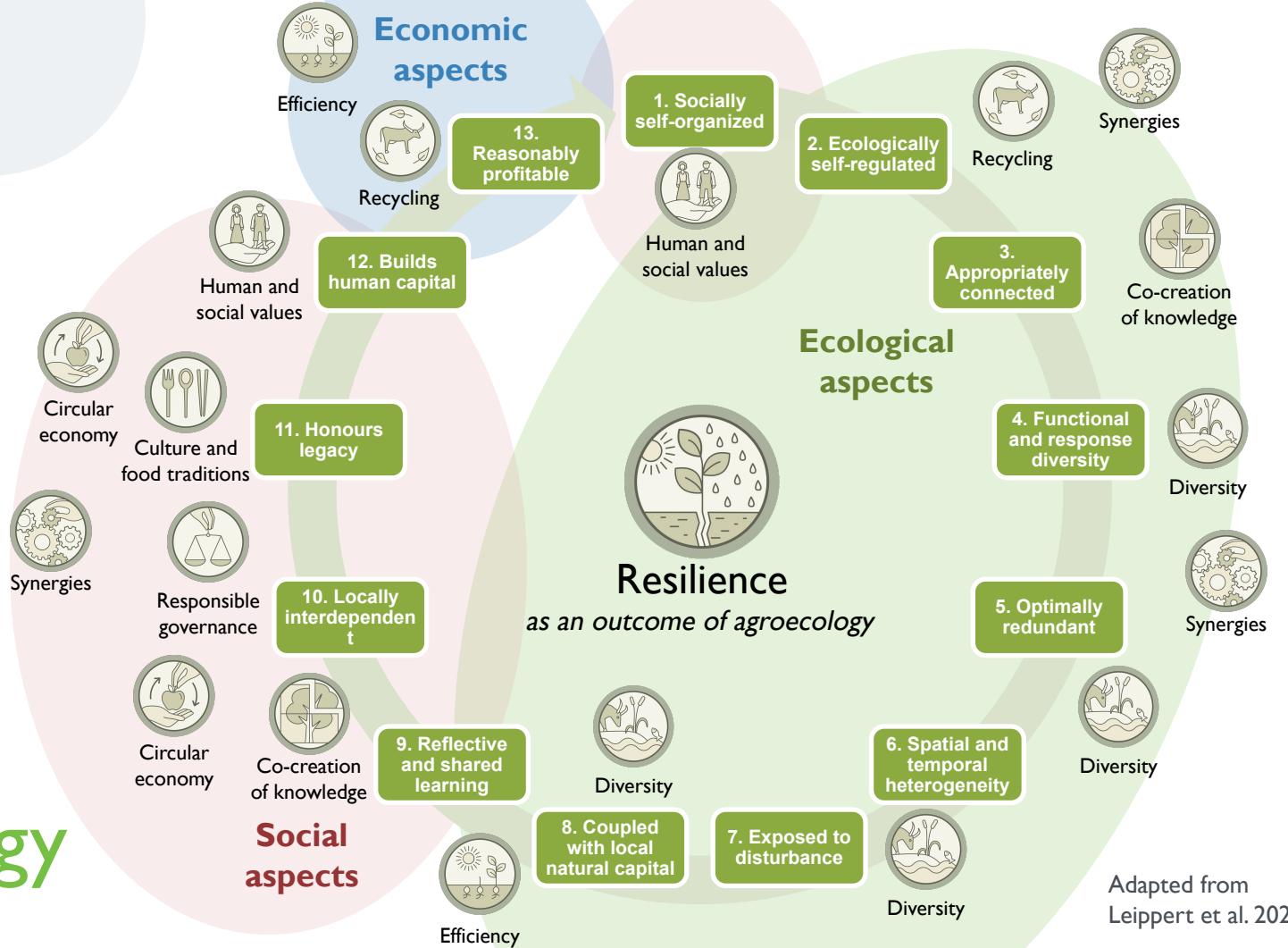


The 13 SHARP+ resilience indicators and ...





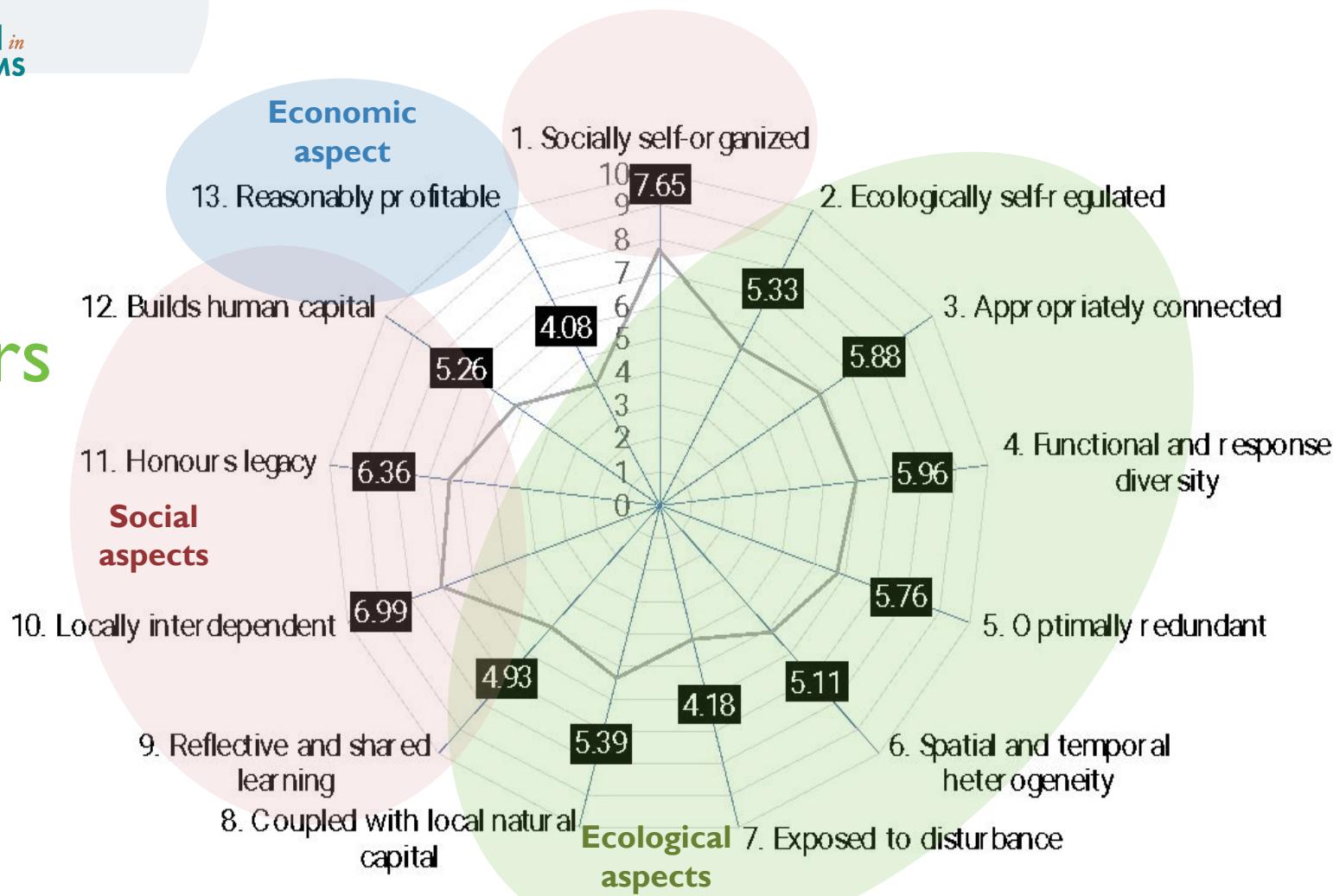
... the
overlap
with
agroecology



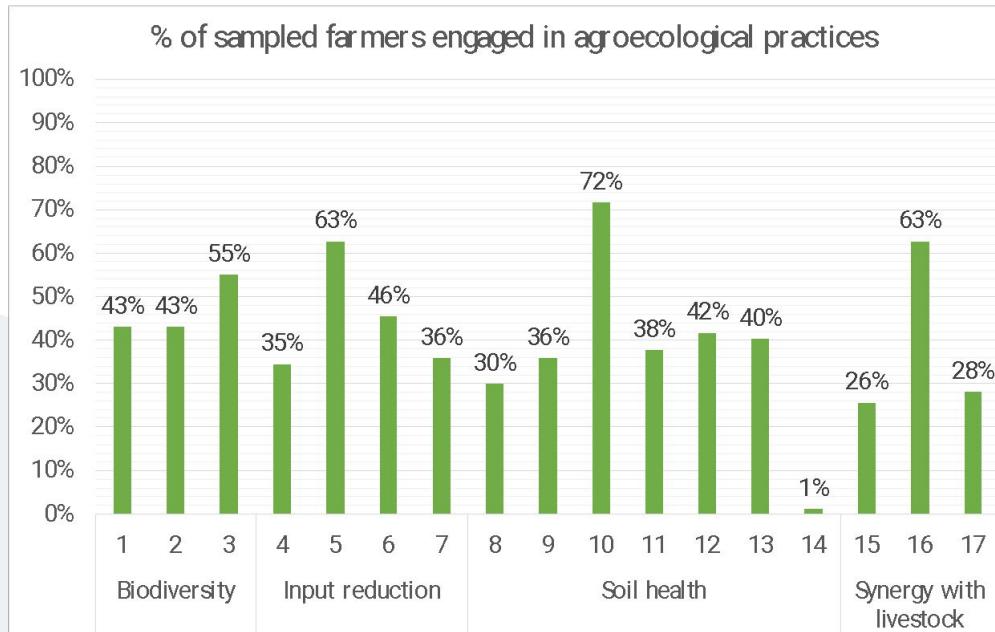
Example build-up score questions

Indicator	Module	SHARP question	Response	Scale
4. Functional and response diversity Heterogeneity of features within the landscape and on the farm; diversity of inputs, outputs, income sources, markets, pest controls, etc.	6. Crop production	6. By surface covered, which crops do you cultivate? (seasonal and perennials)	# of seasonal and perennial crops	I=0; 2=1; 3=3; 4=5; 5=6; 6=8; 7+=10
	22. Trees	22. Approximately how many different types/species of trees grow on your land? (trees)	# count from list	I= 3, 2= 5, 3= 7, 4= 9, 5+= 10
	3. Production activities	3. Do you usually carry out any of crops, trees, bee keeping, agroforestry, etc. these activities on your farm?	Animal production, I= 0, 2= 5, 3= 7, 4+= 10 keeping, agroforestry, etc.	
	24. Income sources	24. Do you have any non-farm income generating activity?	Yes, all year Yes, seasonally Yes, occasionally No	Yes, all year=10 Yes, seasonally=7 Yes, occasionally=5 No=0

Results on the indicators



Results on the agroecological practices



No.	Agroecological farming practices
1	Agroforestry
2	Crop diversification
3	Crop rotation
4	Excl. organic pesticide appl.
5	Part. organic fertiliser appl.
6	Part. organic pesticide appl.
7	Production and use of locally adapted seeds and breeds
8	Efficient & water-saving irrigation/water manag.
9	Excl. organic fertiliser appl.
10	Intercropping
11	Mulching
12	Barriers and terraces
13	Windbreaks and living fences
14	Other soil/water conserv. practices
15	Integr. of livestock/fishery with crop produc.
16	Rehabilitation of degraded grazing land
17	Controlled grazing

Conclusion and outlook

- Strengthening resilience of farming systems is imperative in the face of climate change
- Priorities for lower resilience scores
- SHARP+ rich in results and is scalable
- Georeferenced data for comparison

Thanks! ANY QUESTIONS?

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U.S. Mission to The
African Union

