

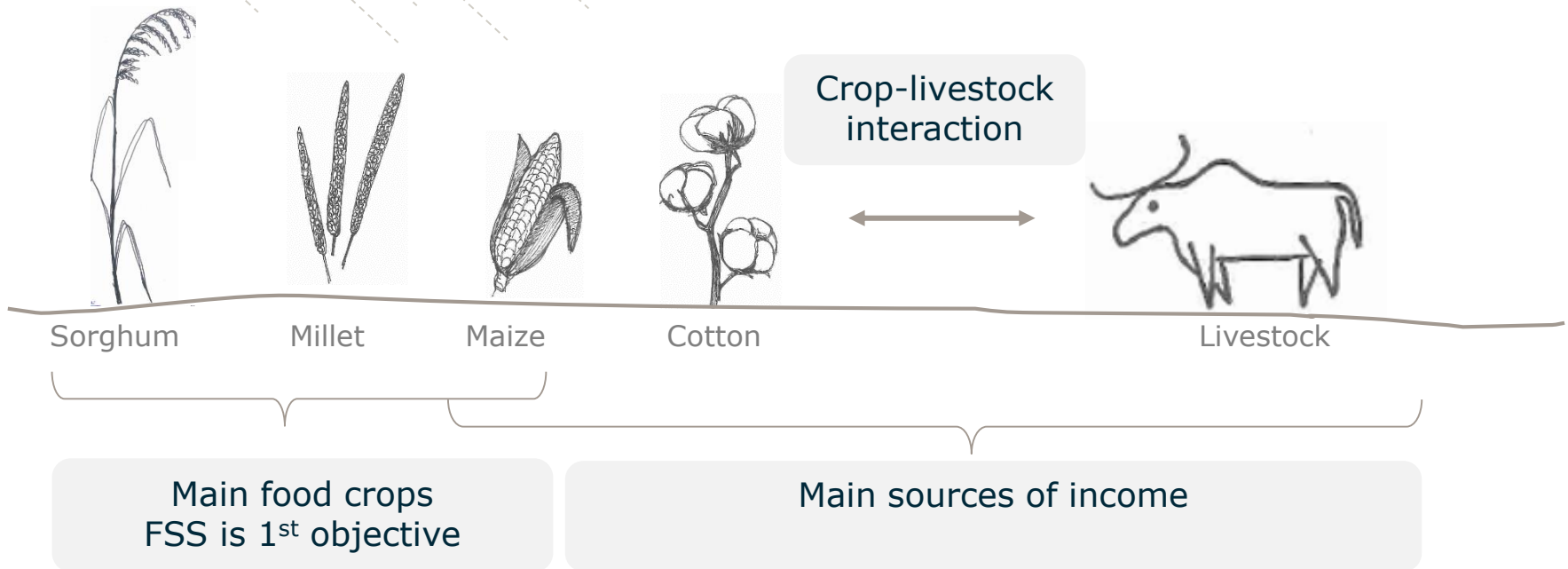
Risk perception and management strategies in southern Mali



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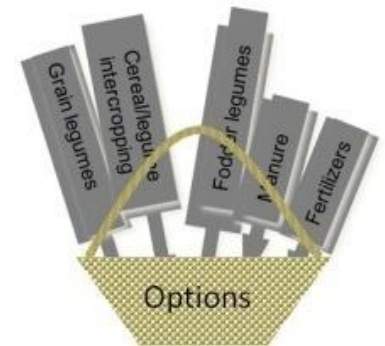
Farming system

Rain-fed agriculture (800-1000 mm/year)



Pressures and rationale

- Population pressure,
 - Stagnation of yield
- ↓
- Options for improving sustainable production
 - Tailor to local context
- ↓
- Risk perception and management strategies play a role in farmers decision making



Research questions

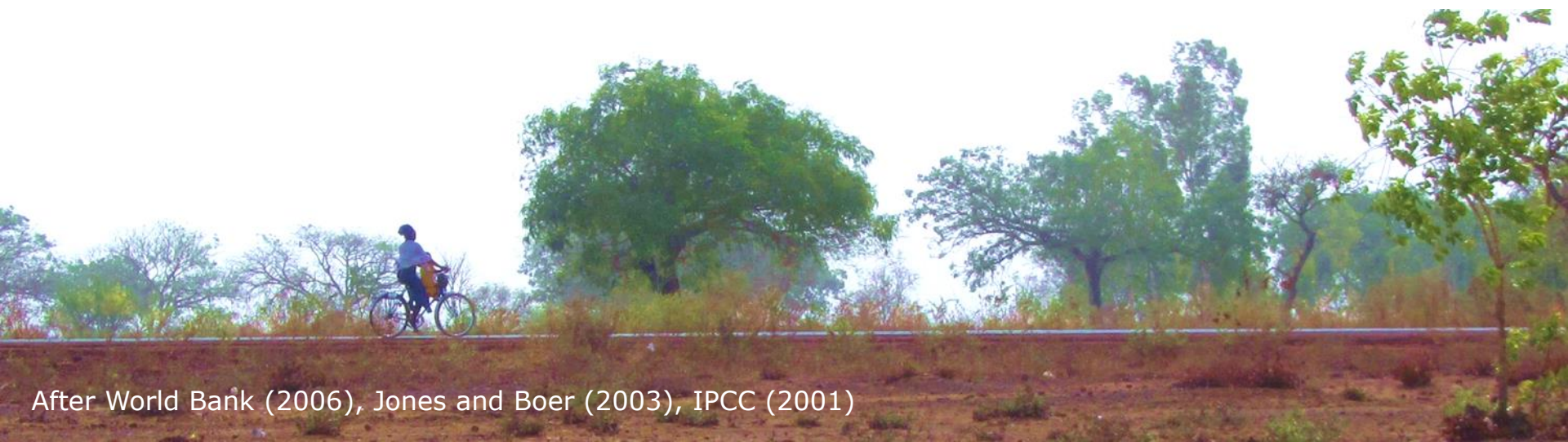
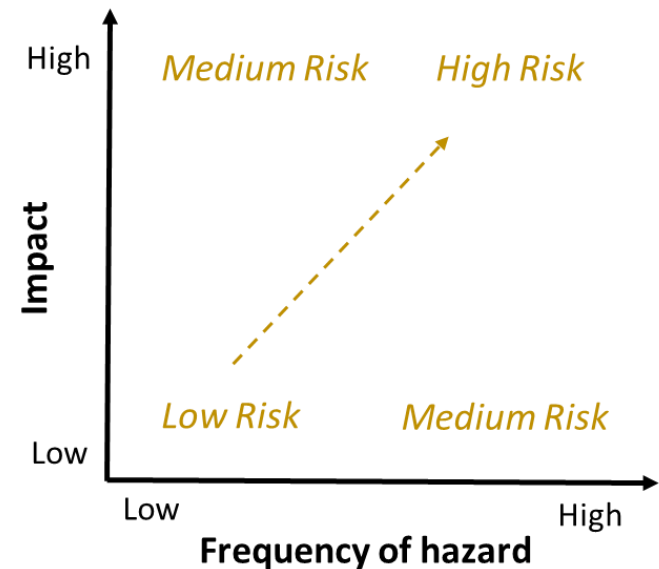
- What are the risks perceived as most important by farmers?
- Does perception differ among different groups of farmers?
- How do farmers prepare for and react to risks?
- How do different farmers manage risk?



Definition

Risk is the combination of

- Likelihood of a hazardous event (frequency)
- Severity of the possible losses (impact)

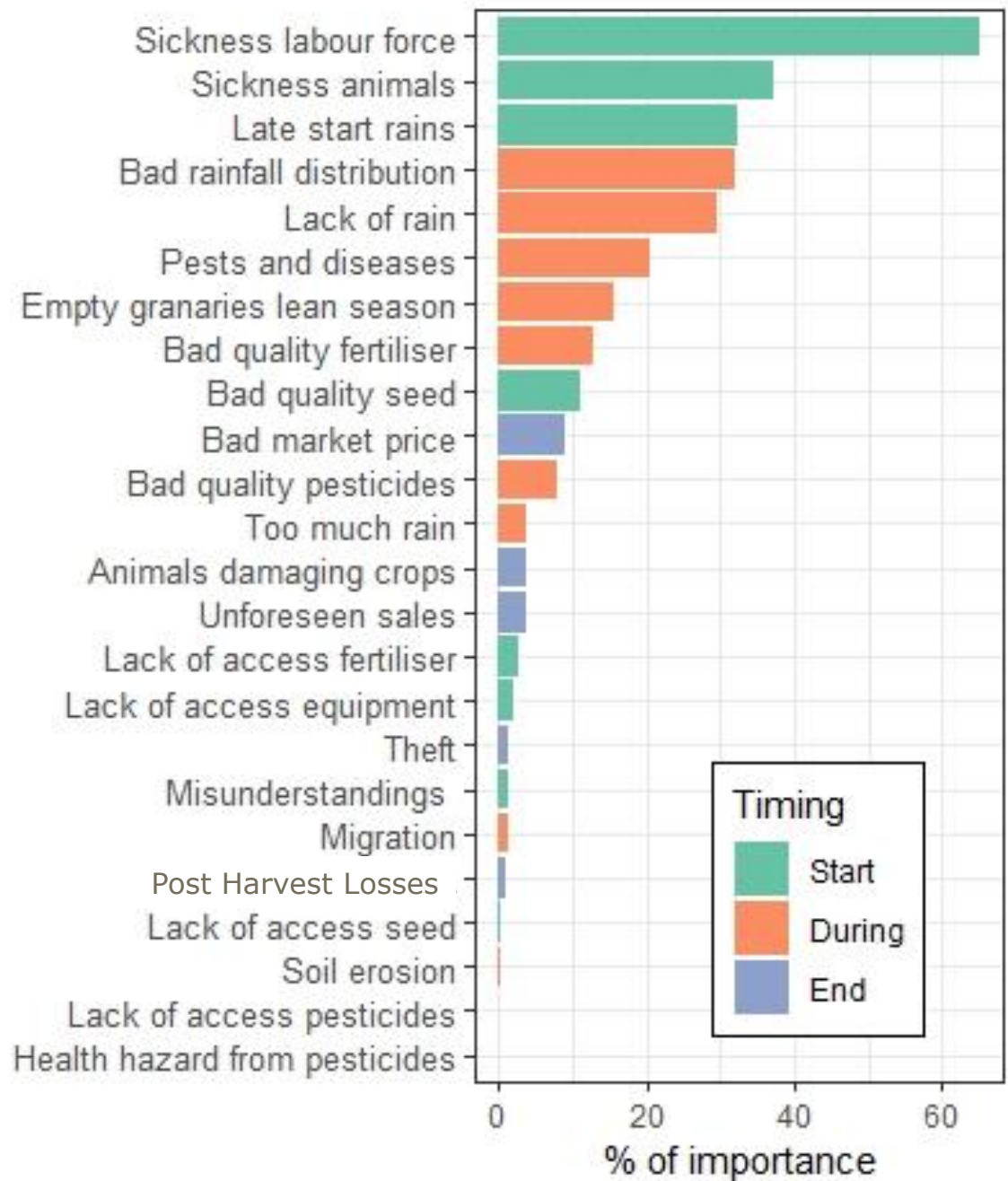


Methodology

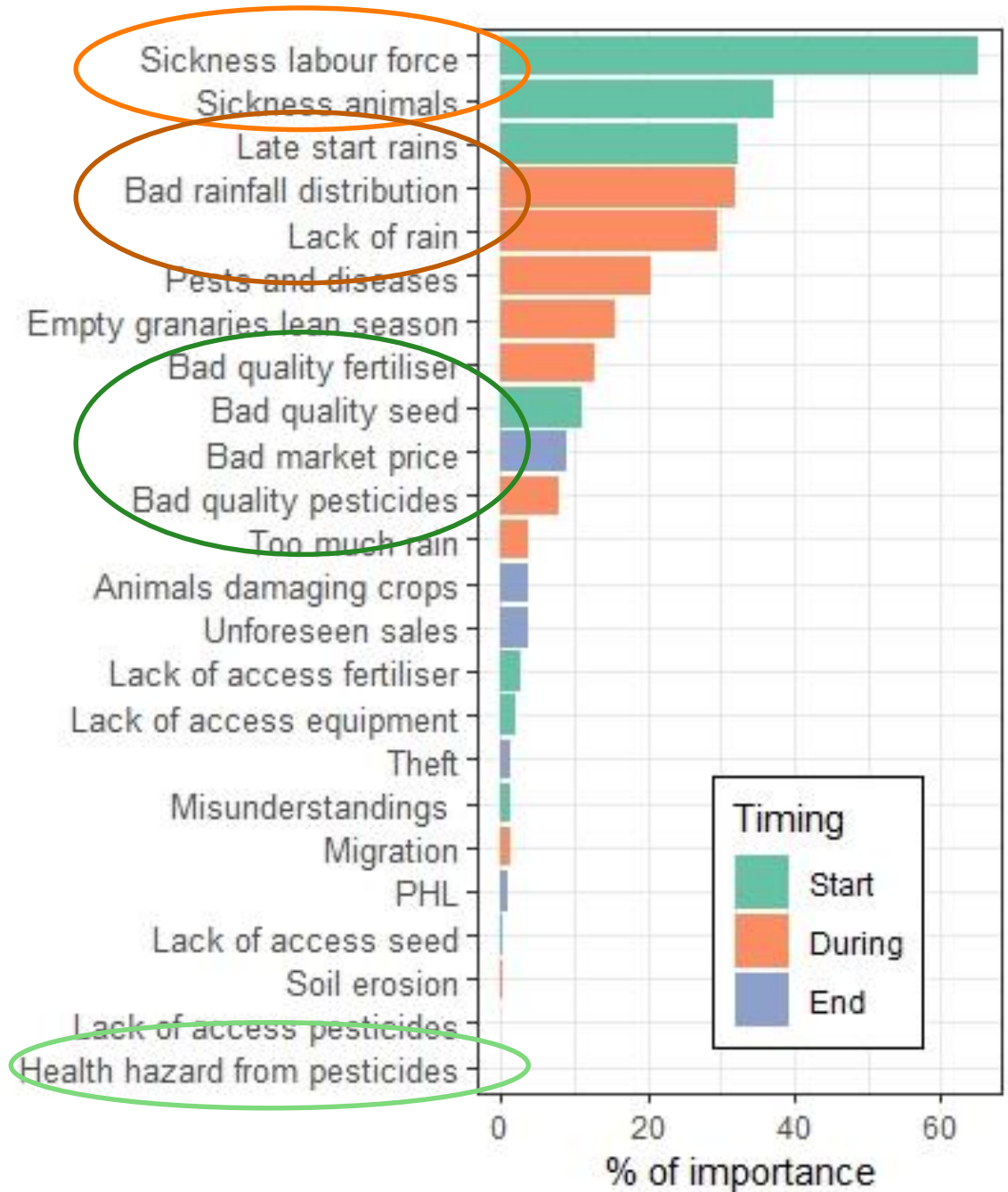
- Focus Group Discussion in 4 villages
 - Define a list of hazards
- Individual surveys
 - 250 household members of 58 farms
 - Ranking and scoring concern of hazards
 - Household heads: what was the reaction to hazard?



Perception

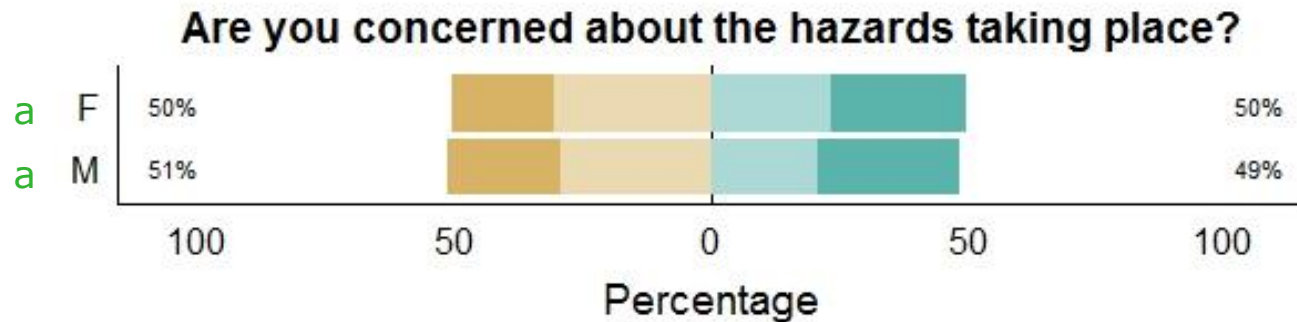


Perception

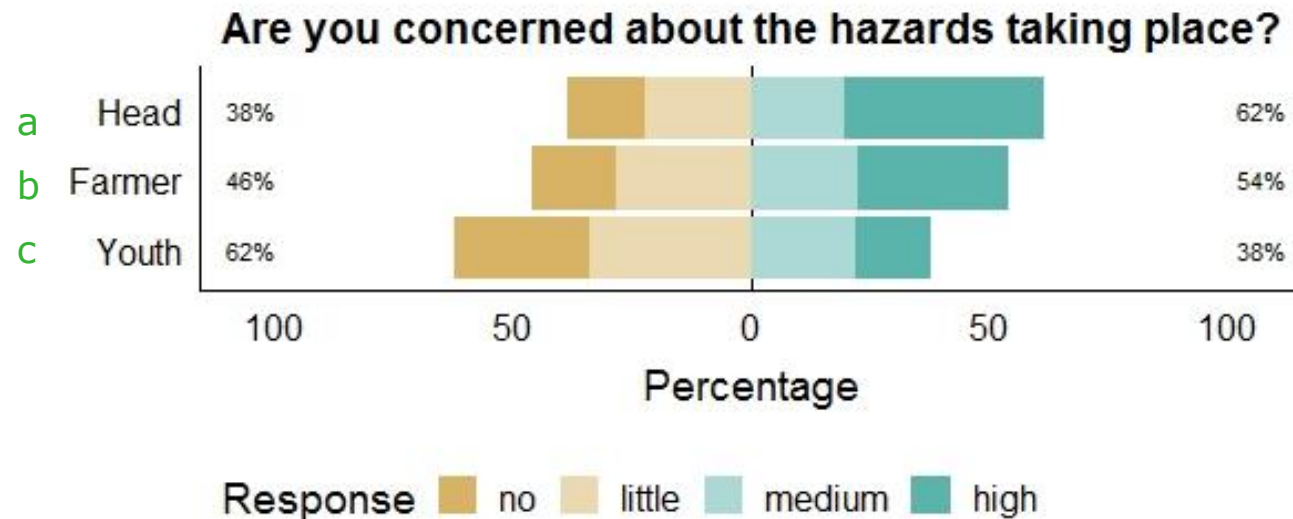


Intra-household diversity

Gender

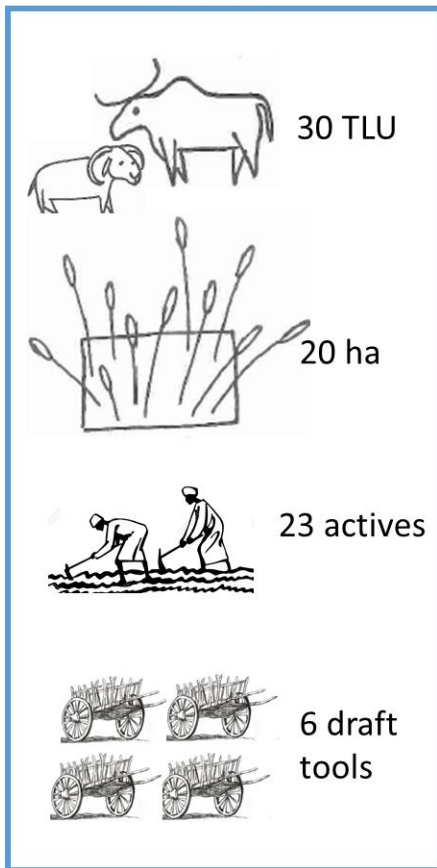


Position



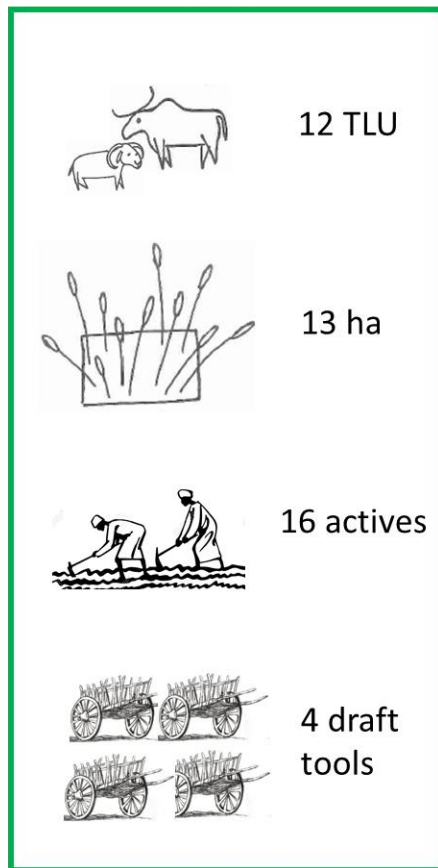
Farm Types

HRE-LH



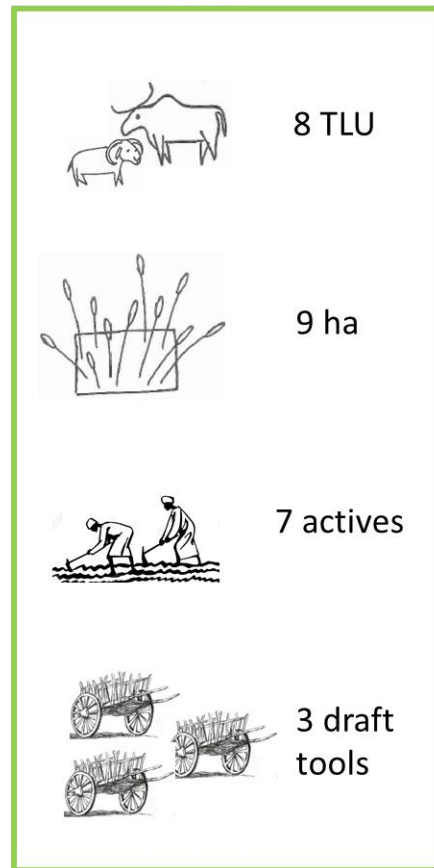
High Resource Endowed
+ Large Herd

HRE



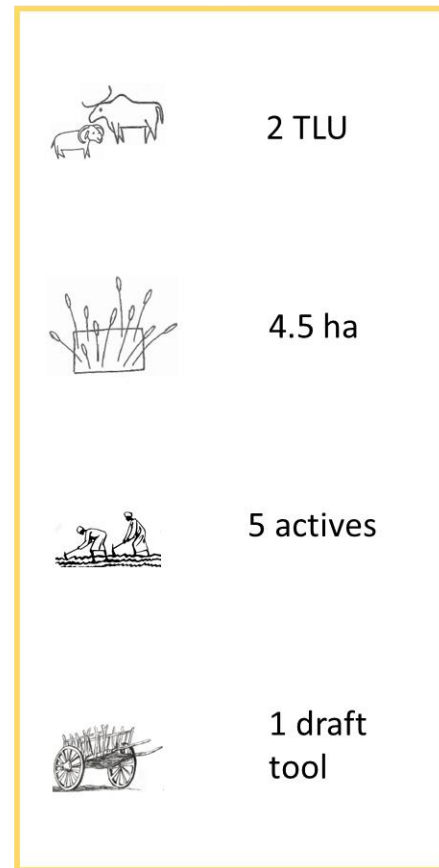
High Resource Endowed

MRE



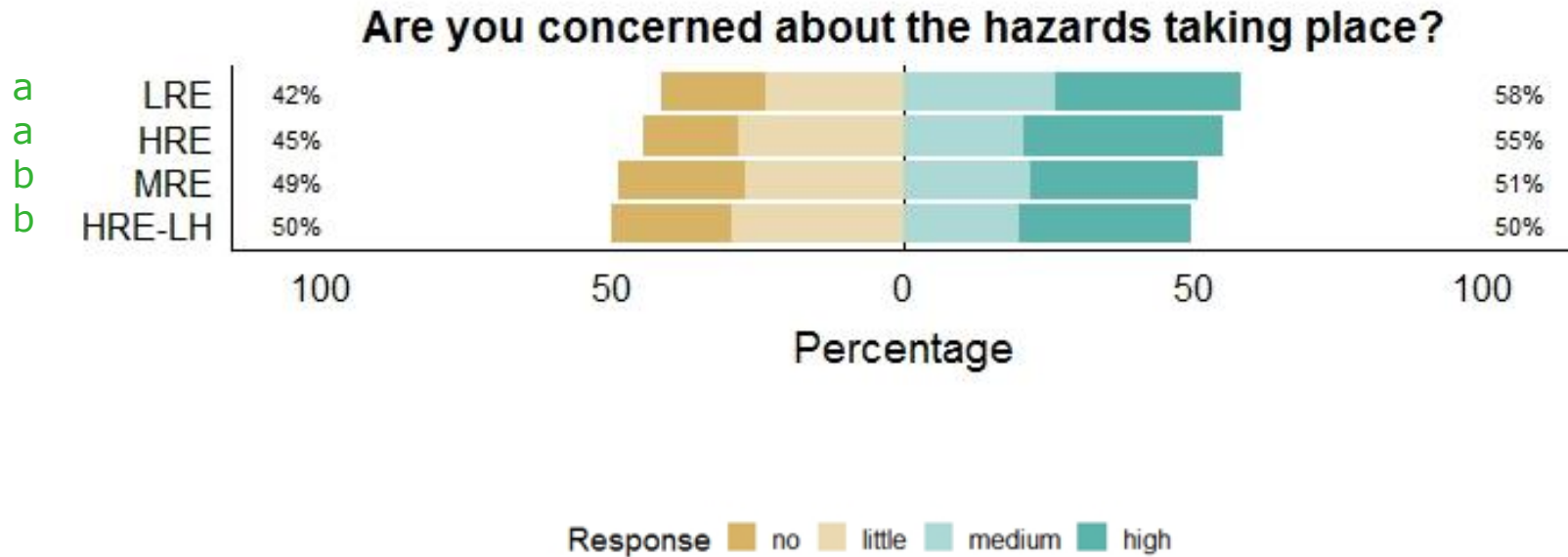
Middle Resource Endowed

LRE

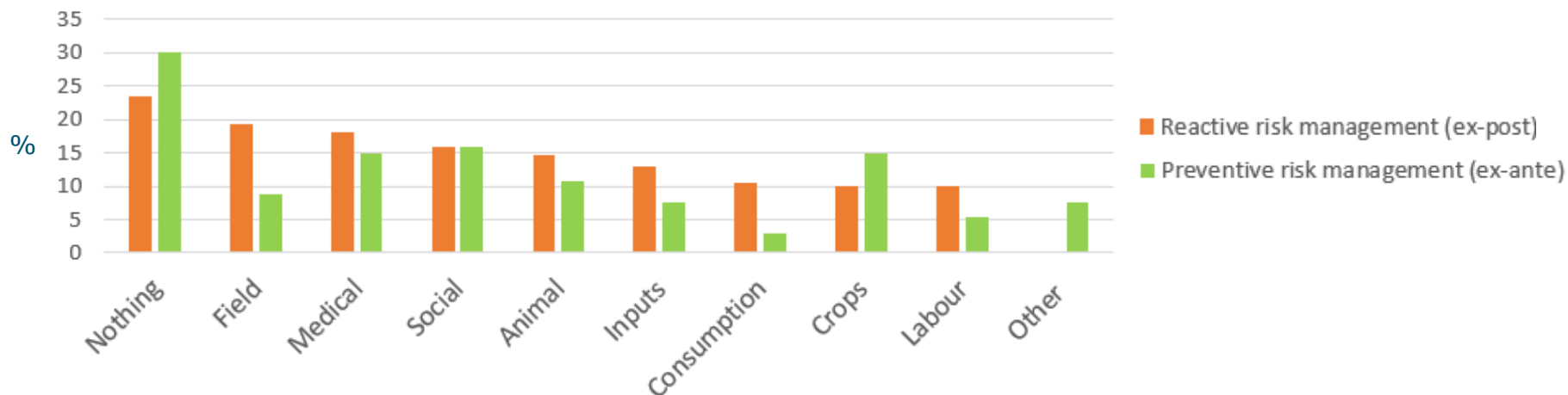


Low Resource Endowed

Inter-farm diversity



Risk Management Strategies



Type of action	Reactive risk management (ex-post)		Preventive risk management (ex-ante)	
	%	Examples	%	Examples
Nothing	23	/	30	/
Field	19	Change variety; re-sow; harvest early	9	Early maturing varieties; spread sowing dates; germination test
Medical	18	Traditional or modern medical treatment	15	Traditional or modern preventive treatment
Social	16	Remittances; borrow oxen, seeds or food in the village; get credit	16	Sell in group; associate with cooperatives; keep family reunions
Animal	15	Sell animal; stall feeding; buy or loan ox	11	Buy animals; store more fodder
Inputs	13	Increase dose of fertiliser; buy other product; change targeted crops	8	Increase production of organic fertiliser
Consumption	11	Buy or sell more cereals; consume lower diversity of food	3	Calculate how much cereal the family needs and store this amount; sell less
Crops	10	Reduce cropped area; change crops	15	Cultivate fodder; reduce cropped area
Labour	10	Work harder; hire labour; off-farm labour	5	Off-farm labour
Other	0	/	8	Build a granary; buy material

Conclusion (1)

- A variety of risks of concern for farmers
- Mostly related to production domain, less to the market
- Differences in perception
 - Position in household
 - Farm type
- Main risks are of concern for all



Conclusion (2)

- Diversity in coping reactions
 - Change field or labour management
 - Consumption-sales rates
 - Call on solidarity, institutions
- Livestock can be source of concern, but also of solution
- Risk acceptance is common



Tailoring options

- Adapted to different weather situations
- Do not increase labour requirements (beginning of season)
- Improving feeding regimes cattle
- Strengthen cooperations
- Outside agriculture: health care, off-farm work



Thank you

Questions?
Comments?

