

Community Characteristics and Risk Perception in Agriculture:
A Case Study in Rural Northern Ghana

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Introduction

Rural livelihoods in the Guinea Savanna are based on smallholder farming. Climate change increases the risk of harvest failure (IITA et al., 2012)

A reassessment of risks in farming is necessary to optimize risk lowering interventions!

Agro-ecological zones of Ghana (Choudhary et al., 2015)

Problem Statement

Risk assessments for farming are often based on agro-ecological zones.

RESULTS IN

Key Risks of the Guinea Savanna (Choudhary et al., 2015)

1. Drought, unpredictable rainfall
2. Price volatility
3. Crop/livestock pest and diseases
4. Excessive rainfall/flooding
5. Uncertain input supply (i.e. quality, availability, prices)

Is it true?

How is risk perceived in rural communities in the Guinea Savanna?

My Approach

- Four communities in the Guinea Savanna
 - › Two communities dominated by the ethnic group Dagomba with different inter-community characteristics and two very identical Kassena communities
- Four focus group discussions per community
 - › High and low resource endowed men and women
- Data collection of risk ranking, frequency of exposure, and coping strategies
- Additional information from former research and experts

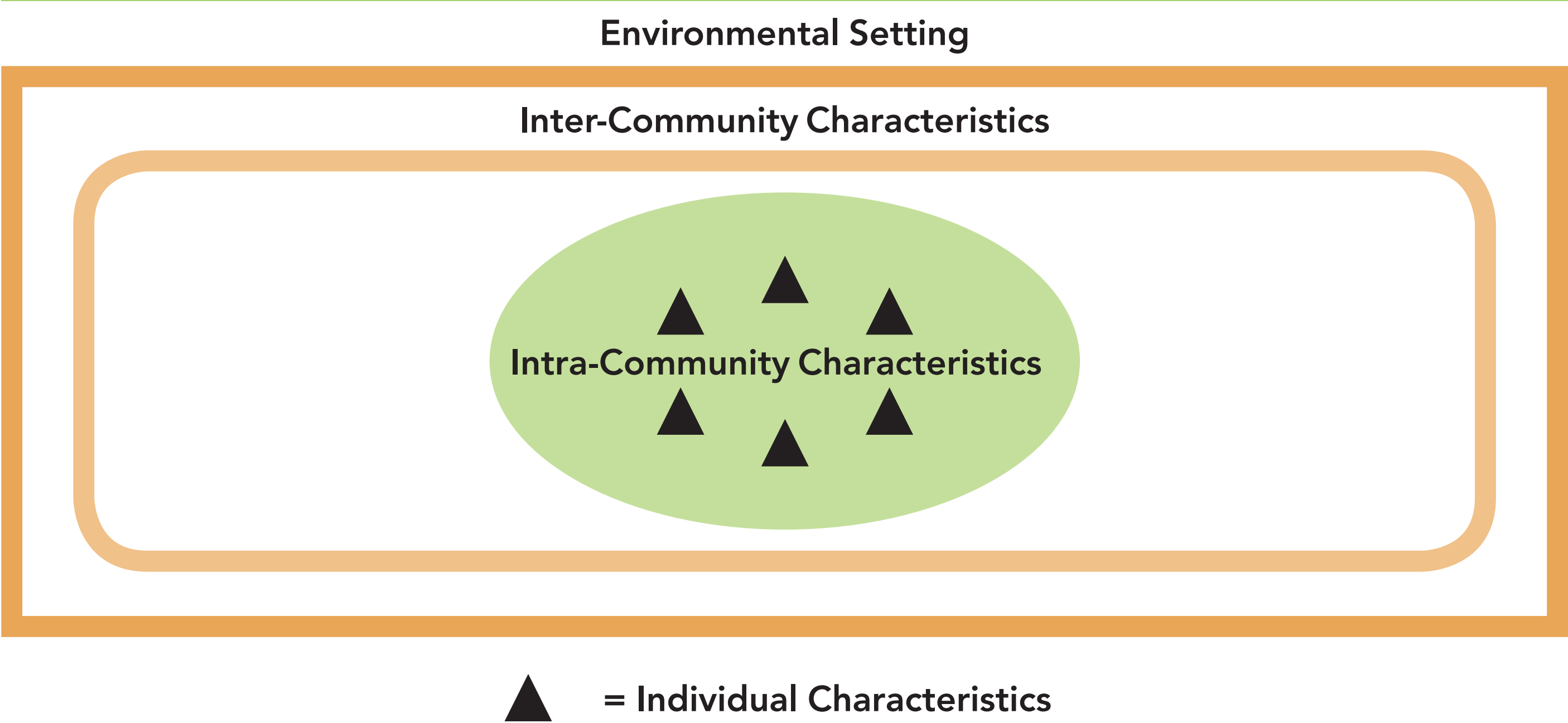
How is risk perceived in rural communities in the Guinea Savanna?

Dagomba Communities		Kassena Communities	
Within the communities	Between the communities	Within the communities	Between the communities
Differences based on resource endowment and gender exist <ul style="list-style-type: none">› Gender more influential than resource endowment	General differences regarding financial risks The women’s stated risks in the two communities vary widely	Generally very few differences Small differences regarding financial risks	No differences They separate risks during dry season and rainy season farming
Variations of risk perception is high: How can that be explained?		Community and individual characteristics influence risk perception.	

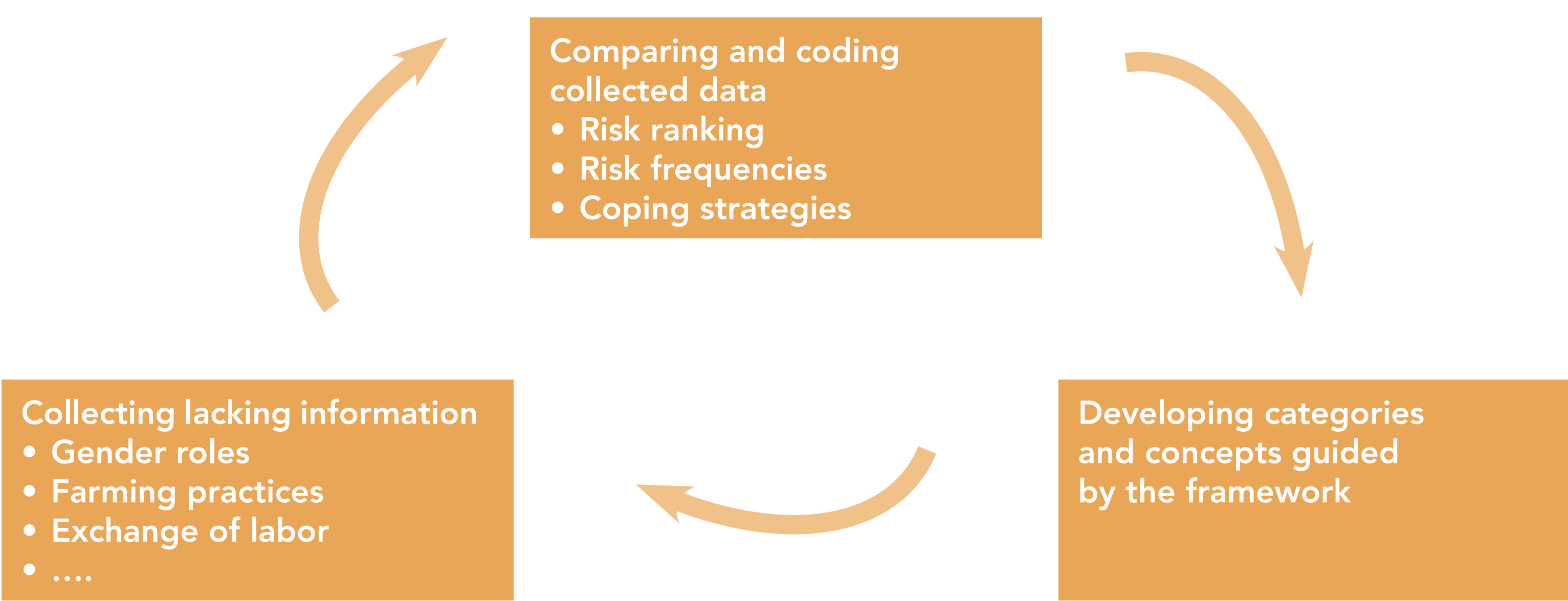
Existing Research

- Risk Perception: Slovic (1987) finds significant differences in perceived and objective risk evaluation.
 - › The perception of risk of an individual involves more factors than experts use to evaluate risks
- Risk Perception in Communities: Studies from Baird et al. (2009), Doss et al. (2008) and Smith et al. (2000) identify variations of risk perceptions in a variety of communities. They find different factors which are responsible for the local risk perception.
 - › Inter-community characteristics
 - › Intra-community dynamics (such as sharing mechanisms, gender specific tasks, and coping strategies)
 - › Individual characteristics such as (wealth, status, and gender)

Risk Perception Framework
Factors influencing risk perception on the community level



Which community characteristics are relevant for risk perception?



Conclusion

Monetization of agriculture has an impact on risk perception within the communities:

- Risk lowering traditional community based coping strategies (e.g. shared/community labor) depend on the purpose of the harvest
- The Kassenas separate between dry season (for profit) and rainy season (for subsistence) farming. Trad. coping strategies only occur during the rainy season.
- The Dagombas don’t clearly separate between farming for subsistence and profit. High resources endowed men disintegrate themselves from traditional coping schemes. If needed they prefer to hire help without being obliged to return the favor

Gender norms have an impact on risk perception within and between communities:

- The Kassena women have to help their husbands on his farm and sell the harvest on the market.
- Women and men have the same risk perception
- The Dagomba women are responsible for producing or acquiring non-staple crops, “soup ingredients”.
- Women and men have a different risk perception

Good market access enables rewarding entrepreneurial activities for Dagomba but not for Kassena women. Dagombas withdraw time from farming and focus on those activities.

- The women of the Dagomba community with good market access perceive risks in farming as not severe due to their fallback position.
- With a bad market access the importance of farming rises. Financial and environmental risks are perceived as more severe.

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