

Learning what life is like for an insider while remaining a 'lekgowa': A Participatory Approach to Understand Local Adaptive Capacity and Resilience in Nokaneng, Botswana

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* Lekgowa: a white person or outsider (in Setswana)

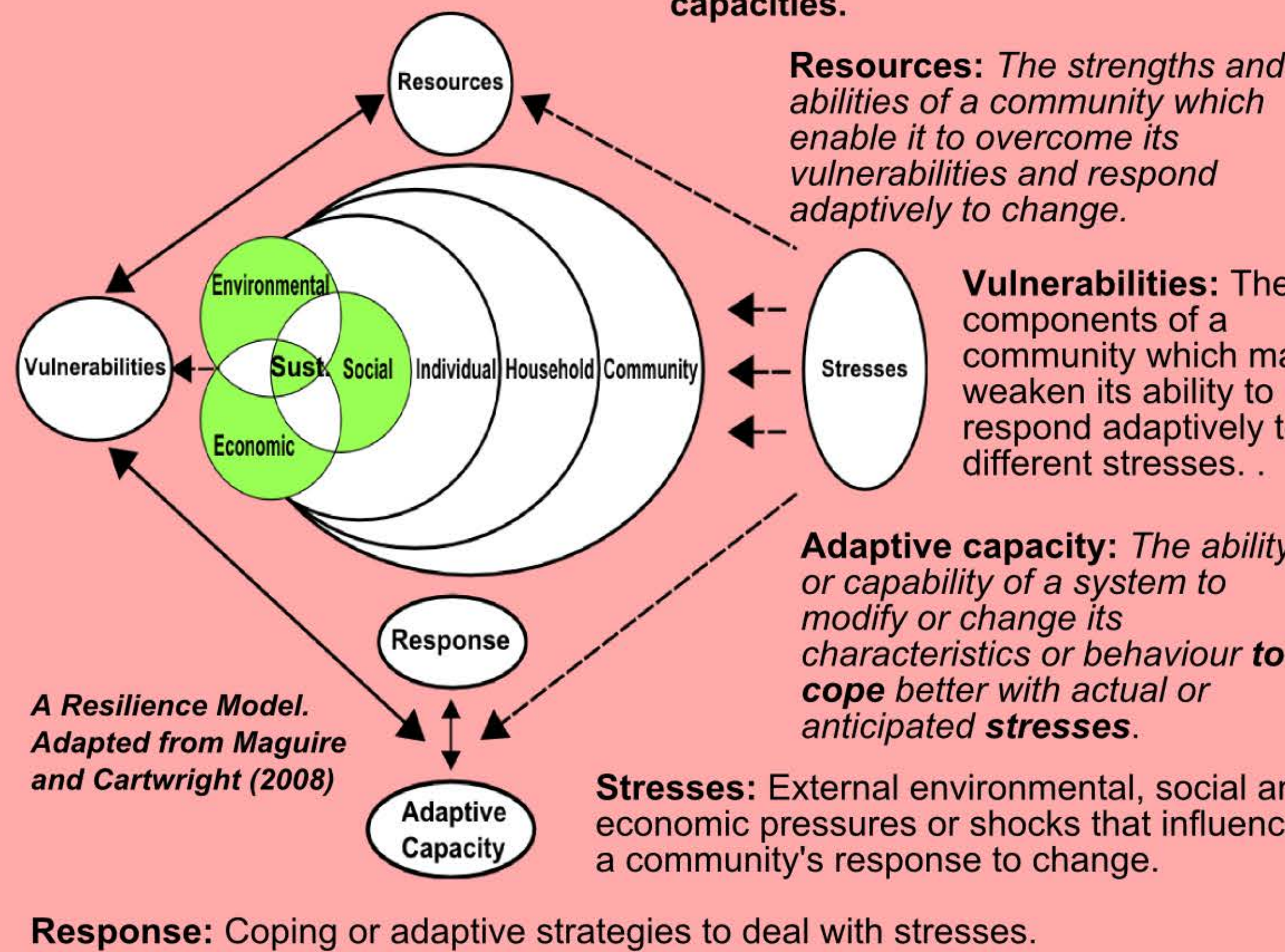


1. Introduction

The livelihood system and the interactions between its individual, household and community components in Nokaneng are very dynamic. Environmental, social and economic stresses have affected this system and its interactions, and thus the lives and livelihoods of the people. The community responds to these stresses differently, and its response depends highly on the system's **resilience** as defined by what **resources** are available, its **vulnerabilities** and **adaptive capacity** (Maguire and Cartwright, 2008).

I used a **resilience model** to frame this work which allowed me to focus on the inherent capacities and dynamic characteristics of the community and the environmental, social and economic interactions within the community. Utilizing a **participant observation approach** (in which I lived and learned with the community and actively participated in their daily activities) provided me a better insight into the lives of **men and women** in the village and how they responded to various stresses.

2. Conceptual Framework



3. Objectives

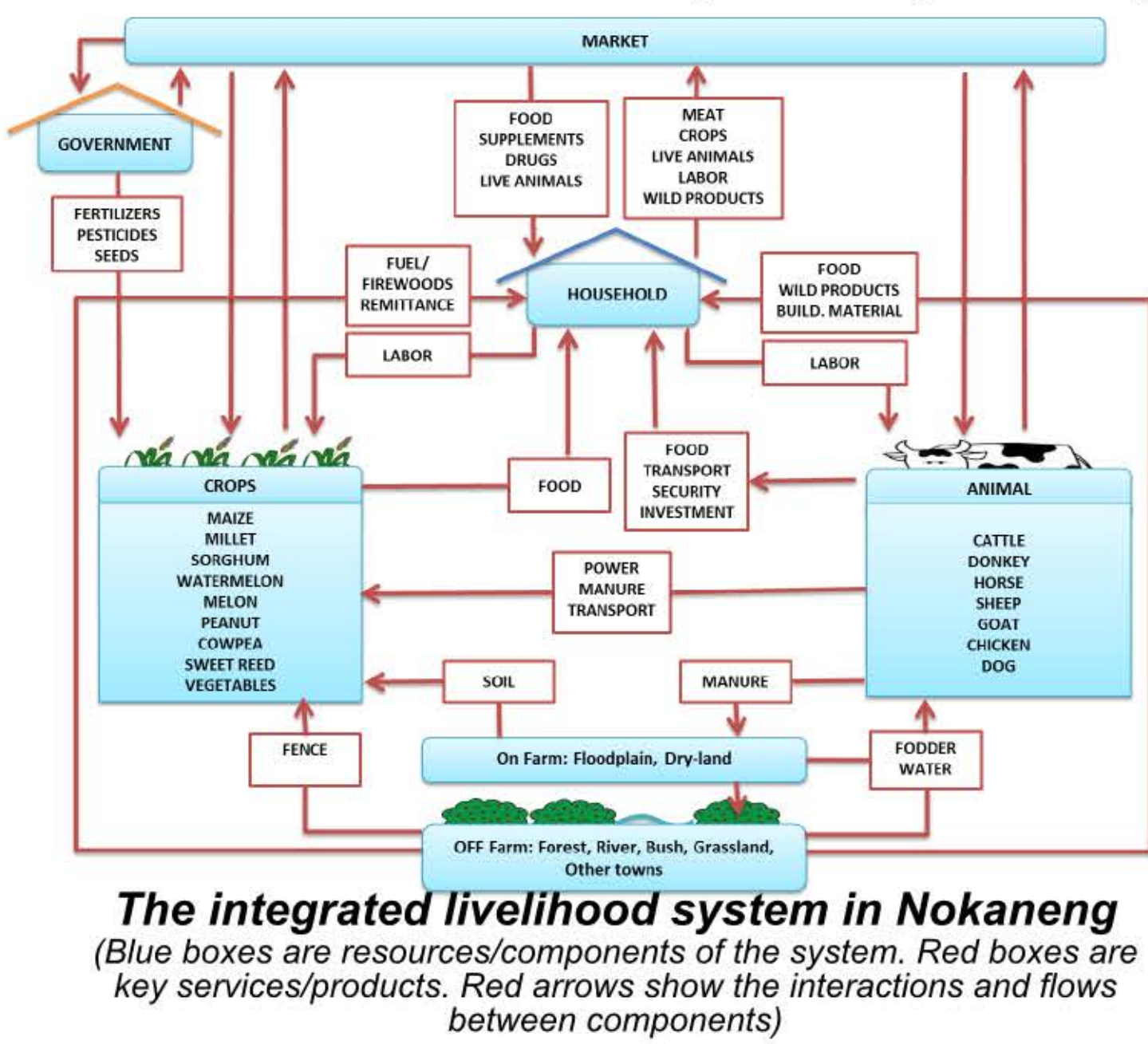
- To better understand local adaptive capacity to manage stresses from a resilience perspective at individual, households and community levels.
- Specifically, this field work aims to:
1. Better understand the integrated (crop-animal-forest) livelihood system where different **resources** interact with each other.
 2. Compare the **mobility** and **access to resources** between men and women.
 3. Compare the **vulnerability** of men and women through analyzing their current **livelihood strategies**, historical **exposure** to stresses, and level of **sensitivity** (intensity of impacts).
 4. Identify the **environmental, social, and economic stresses** experienced by the community and their **responses (coping/adaptive strategies)**.
 5. Assess the potential use of a participatory approach as a tool to understand resilience

4. The field work

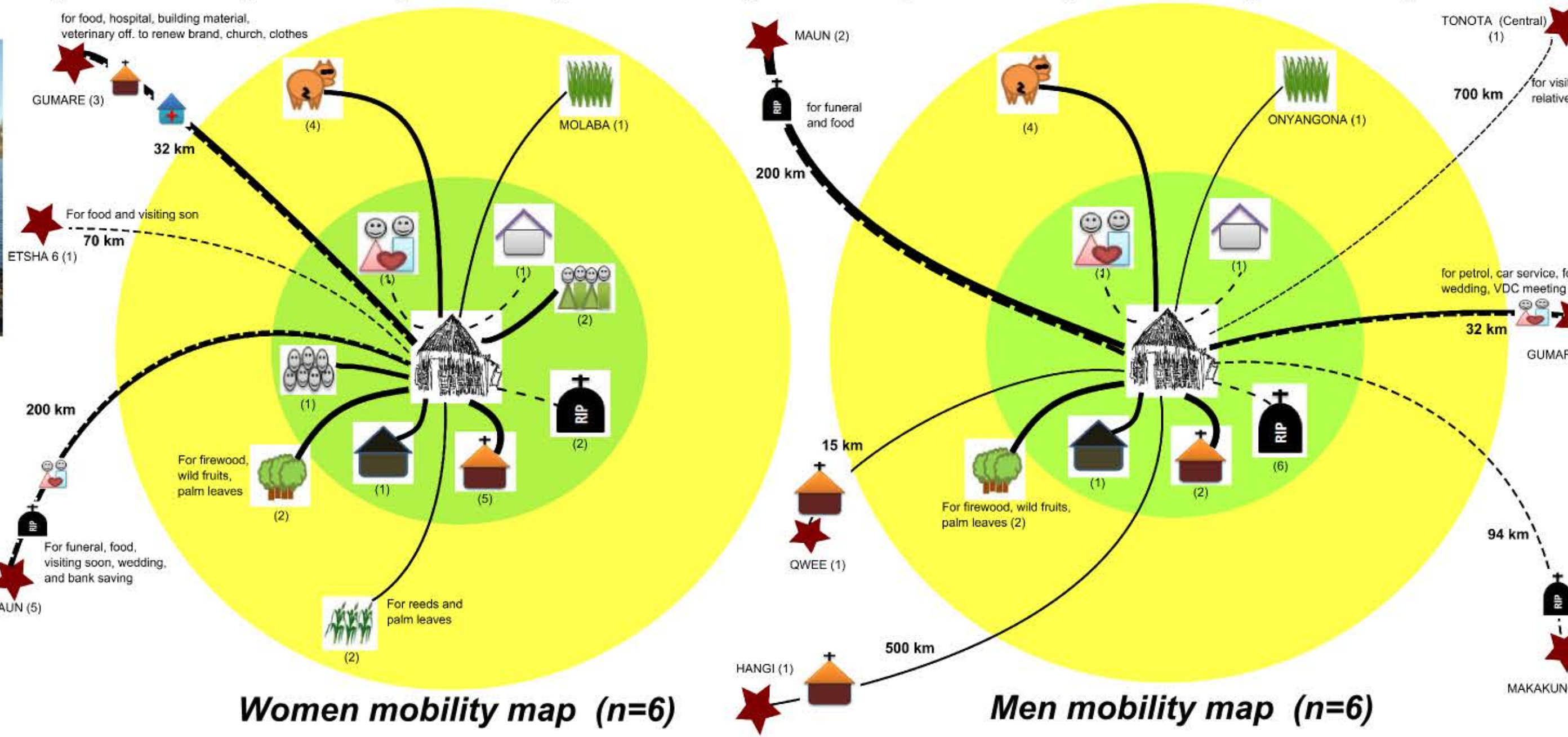
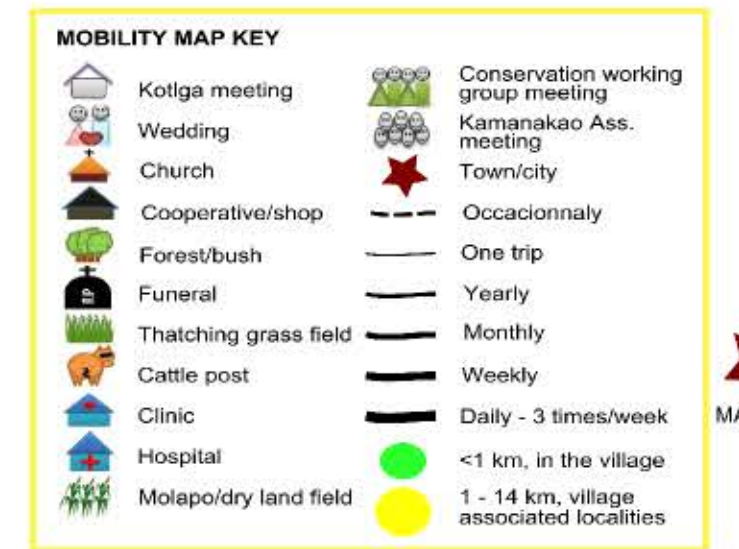


Methodologies:
Participant observation
Focus group discussions, In-depth interviews, Mobility mapping, Seasonal activity calendar

5. Resources



The integrated livelihood system in Nokaneng
(Blue boxes are resources/components of the system. Red boxes are key services/products. Red arrows show the interactions and flows between components)



7. Vulnerability

Gender division is clearly defined in several livelihood activities in Nokaneng.

- Most of the reproductive activities are carried out all year around by women.
- While men commonly hunt, other extractive activities are dominated by women.
- Even though both women and men participate in productive activities, differences can be seen in the types of animals they keep (men tend to keep big livestock and women smallstock).

Analyzing the current **livelihood strategies** and linking it to the **historical exposure to changes and level of sensitivity** provides an insight into the **vulnerability** of the community, household as well as individual women and men.

- Most stresses are environmental (8 droughts) that affect both women's and men's productive activities (growing crops and rearing cattle).
- Any pressure on natural resources will affect women the most because of their dependency on extractive livelihood activities.
- Crop disease and pests (elephants) are the leading cause of crop failures and have been increasing in intensity of damage.
- Lung disease and FMD are two major stresses that significantly affect cattle production from time to time.
- HIV/AIDS killed almost half of the village population from 2000-2005 and infected many young women and men. This condition not only reduces their livelihood productivity but also disproportionately affects women who bare most responsibility for reproductive activities.

Months	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Season	Dikgafololo (Spring)			Selema (summer)			Lethatlha (Autumn)			Mariga (Winter)		
Reproductive activities												
Collecting firewood												
Housekeeping												
Preparing food												
Caring children												
Productive activities												
Preparing field for planting (cutting trees, build shelter)												
Planting												
Harvesting												
Rearing livestock (cattle)												
Raising smallstock (goat, chicken)												
Selling/bartering harvested crops												
Making basket												
Making traditional chair												
Making new kraals for cattle												
Making cooking (ngodide) oil from sour milk (Baherero)												
Making traditional ropes from animal skin												
Extractive activities												
Gathering reeds												
Gathering thatching grass												
Gathering wild fruits												
Collecting palm leaves for basket material												
Hunting												
Cultural/social activities												
Celebrating the Independence day												
Celebrating cultural events (Bayel, Baherero, Baherero)												
Celebrating religious event (Christmas)												
Wedding												

Seasonal and gender disaggregated livelihood activities



6. Mobility and access to resources

The integrated livelihood system refers to the household, its resources, and the dynamic resource flows and interactions. The resources include **human, social and institutional capitals** that are manifested in social relationship and participation in organizations. Together, the individual diversity (women and men) and the resource endowment plays a significant role in determining access to resources and livelihood strategies.

The following differences in mobility and access to resources between women and men can be seen in Nokaneng:

- While men travel farther than women, women's mobility is more intense inside the village. This shows the **spatial difference in the human, social, and institutional capitals** between women and men.
- Women's mobility inside the village is driven by more **diverse social functions and involvement in organizations**.
- Women have higher mobility and access to natural resources which illustrates **greater dependency on natural resources**.

8. Adaptive capacity

Stresses such as droughts, crop pests, cattle and human diseases have occurred at varying level of intensities in Nokaneng. Using its resources and adaptive capacity, the community has developed coping strategies to adapt to these stresses.

The following responses from the villagers, government, and local institutions can be observed:

- **Villagers resort to eating wild fruits and depending more on milk** when crops fail, **slaughtering cattle** during time of drought, and **migrating** when conflicts or diseases occur.
- **Government provides support** through programs such as food aid, drought relief, pensions, and employment schemes in the event of major droughts and disease outbreaks; **prevention measures** such as awareness campaign and medical check-up for HIV/AIDS; **emergency measures** such as killing pest-bearing trees and cattle extermination; and **policy approaches** such as cattle restrictions to control disease outbreaks.
- **Local institutions** solve conflicts within the community, promote community support to children who have lost their parents through HIV/AIDS and **sustain traditional knowledge on edible wild fruits** that allow community members to survive through droughts.

9. Conclusion

I found resilience is useful for framing the complex set of system components and interactions and a participant observation approach was valuable for understanding the role of gender and varying livelihood strategies pursued in times of stress. **Integrating a resilience perspective and participatory approach provide me a better understanding on the local adaptive capacity and resilience.**

Nokaneng has been relatively resilient in responding adaptively to stresses over time. This rural community is characterized by a high dependence on natural resources for subsistence and livelihood strategies (some with a very clear gender division) and a strong sense of community in which local institutions and knowledge are embraced by its members. This together with active government support has allowed them to survive a number of serious stresses.

In the context of sustainable development, this understanding is critical to address the cross-scalar environmental, social and economic changes on a system caused by stresses and/or implementation of development initiatives.

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