

## Local agroecological knowledge and climate change adaptation in eastern Africa

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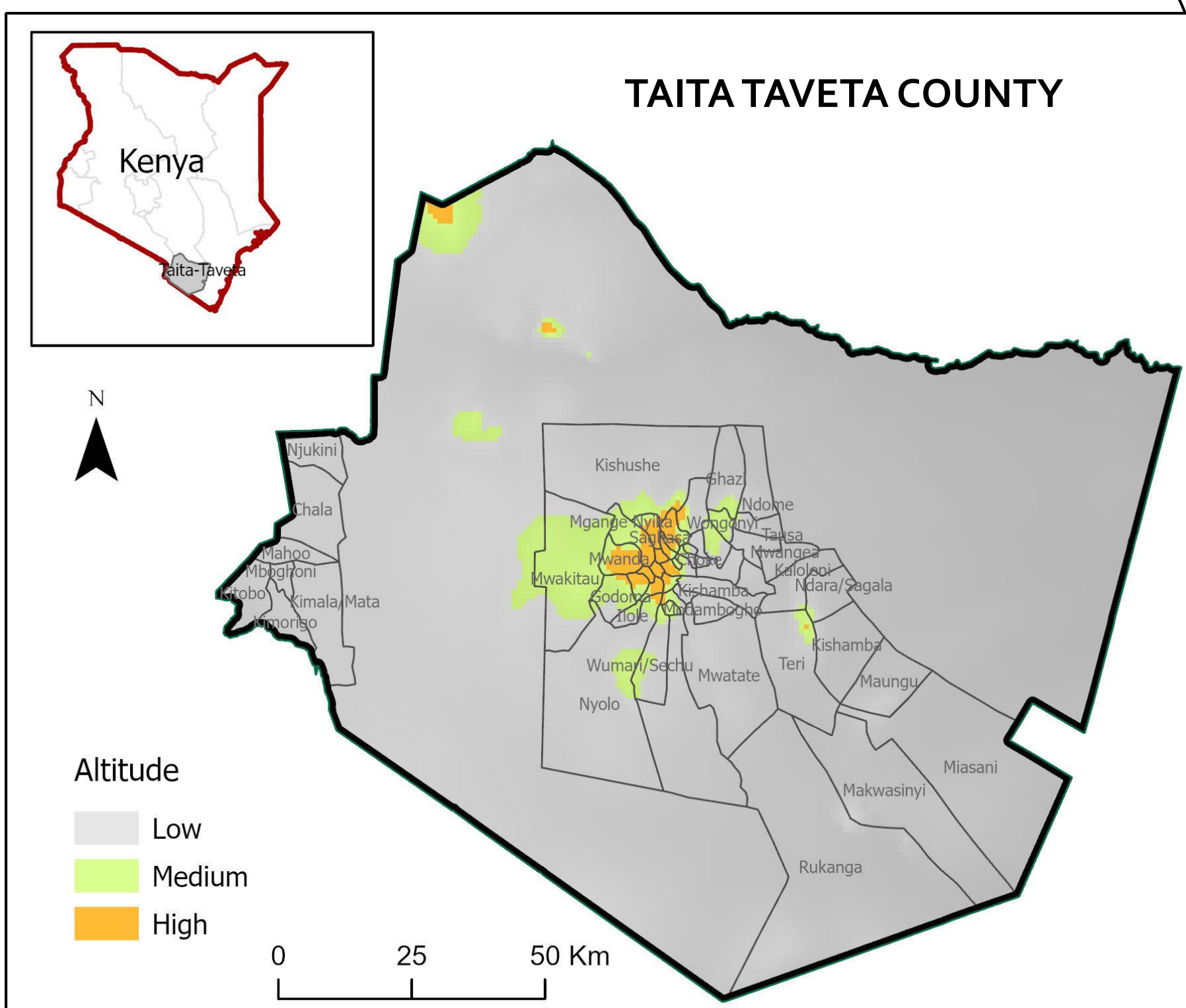
### Introduction

- Agriculture is the mainstay of the Kenyan economy and supports food security and rural livelihoods and dependent on smallholder production.
- Climate change set to impact agricultural sector, resulting in yield losses and food insecurity
- Whereas adaptation strategies are needed to ensure continued production, contextualized response strategies are necessary to ensure sustainability
- Agro-ecological strategies proposed as a sustainable solution; important to understand context of their implementation in smallholder farms

### Objectives

1. To identify existing agro-ecological practices in the Taita Hills
2. To determine the context of their implementation by smallholder farmers
3. To identify barriers to implementation of the strategies

### Study Area

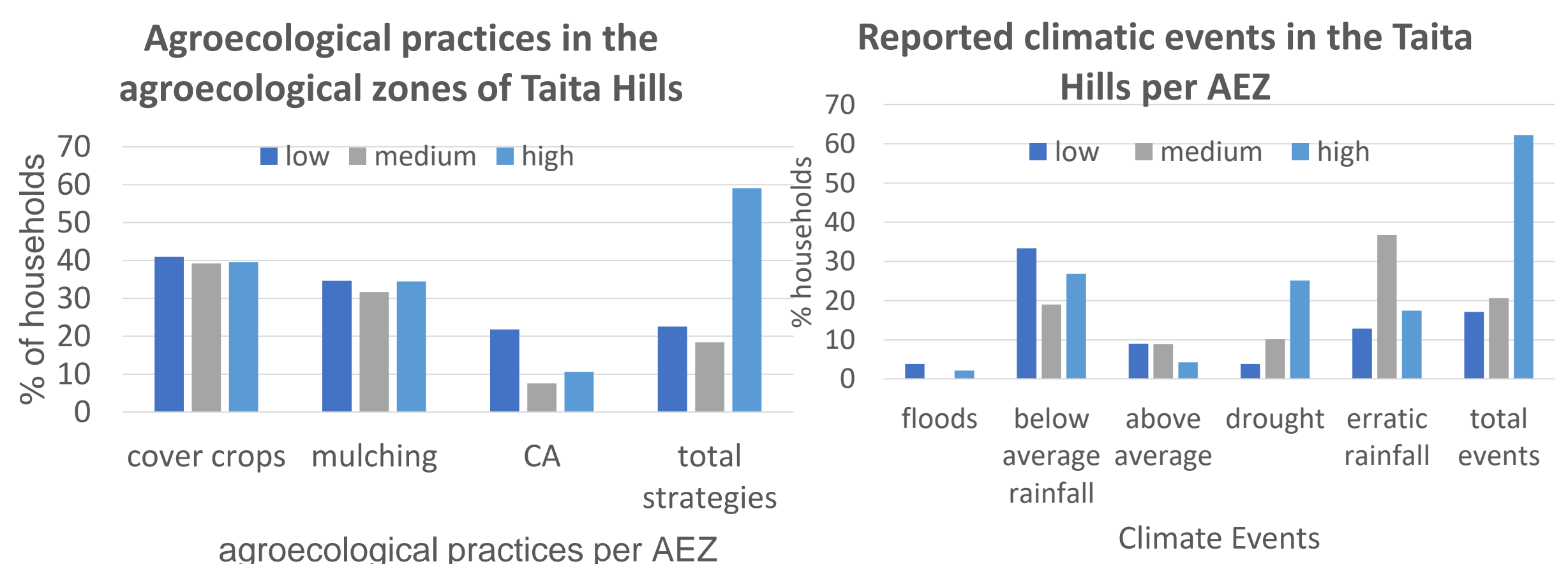


### Methods

- Mixed-methodology combining both quantitative and qualitative research methods
- Household survey of 600 households
- Farms selected through a simple random sampling, then divided into three strata (low, mid and high altitude)

### Results and Discussion

- **Mulching, cover cropping & conservation agriculture** identified as **agro-ecological farming practices** practiced in the Taita Hills.
- **40%** of farmers in the low and high agro-ecological zone use **cover cropping** on their farm; related to reported below average rainfall.
- Practice necessary for preservation of soil moisture



- **Conservation agriculture** is not widely practiced on the surveyed farms, despite **79%** of the respondents reporting **below average rainfall** as the key climate event.

### NEXT STEPS

- FGDs to elucidate the barriers to implementation of agro-ecological practices on the farm

