

Why farmers choose to migrate under changing environmental conditions in the Ethiopian highlands – A Qualitative Comparative Analysis

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FONA

Social-Ecological Research

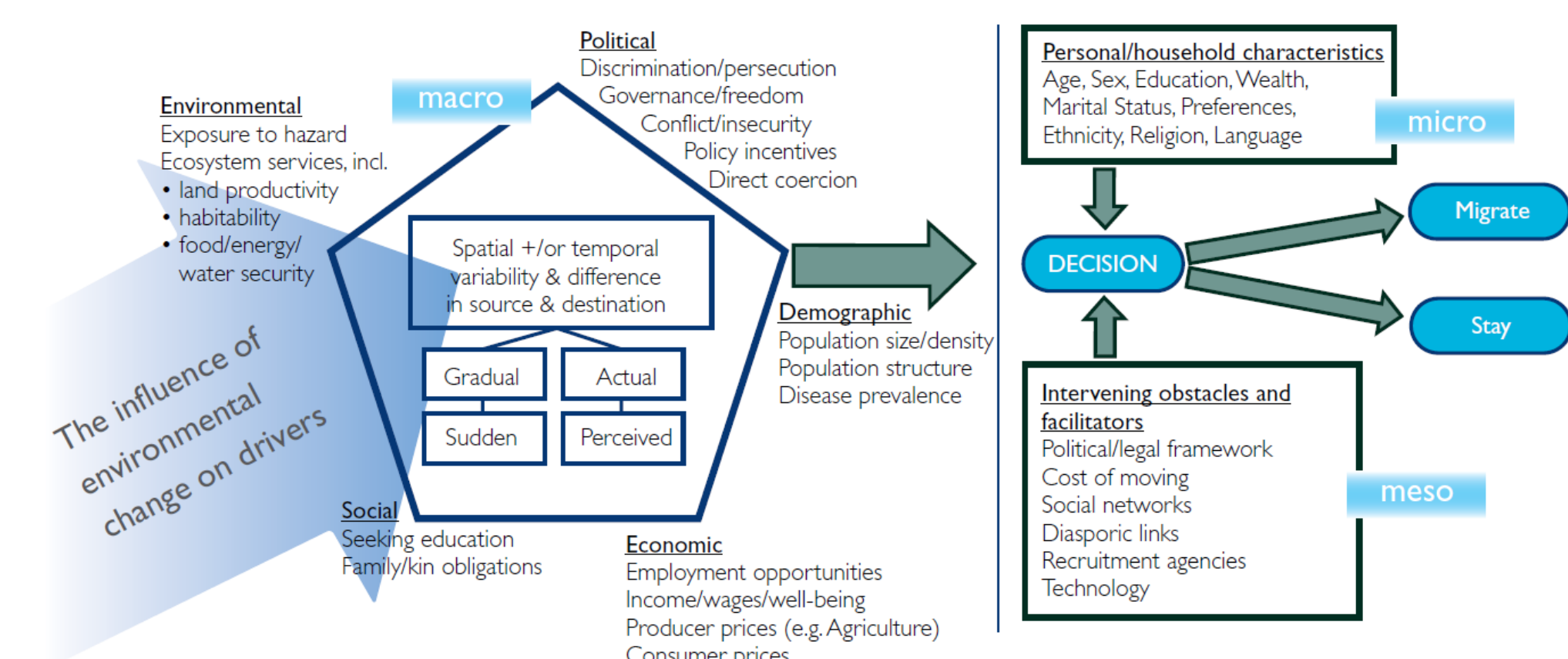
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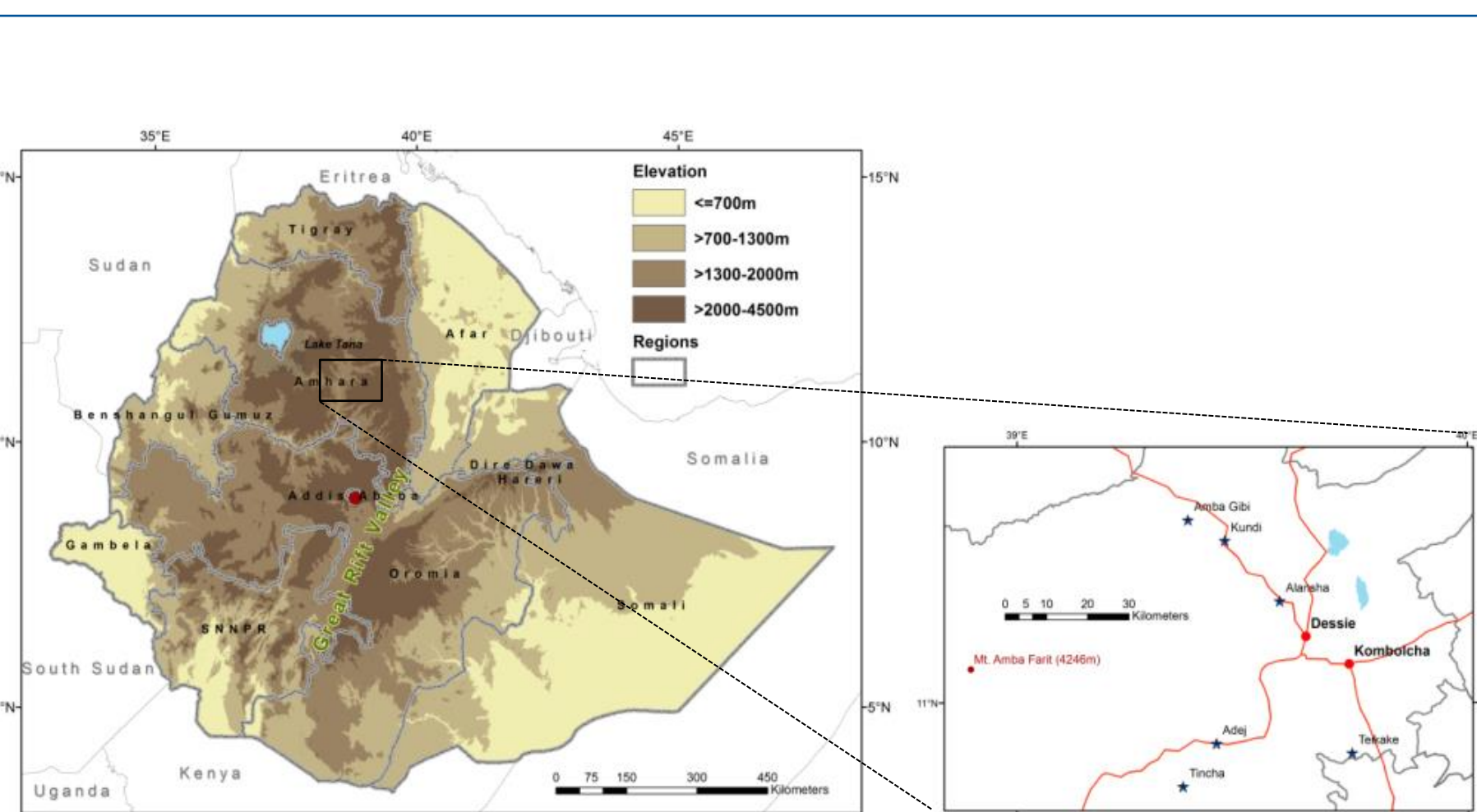
Motivation

Environmental Change – Human Migration Nexus (Foresight, 2011)



- Add knowledge on the **interlinkages** between non-environmental and environmental factors driving migration by **investigating the influence of agro-ecological and socio-economic features**
- Employing a **systematic analysis of in-depth qualitative household data** located along an agro-ecological gradient
- Utilize **qualitative comparative analysis (QCA)** – a **novel approach** in the field of environmental change and human migration – which allows tracing complex causal links

Northern Ethiopian Highlands

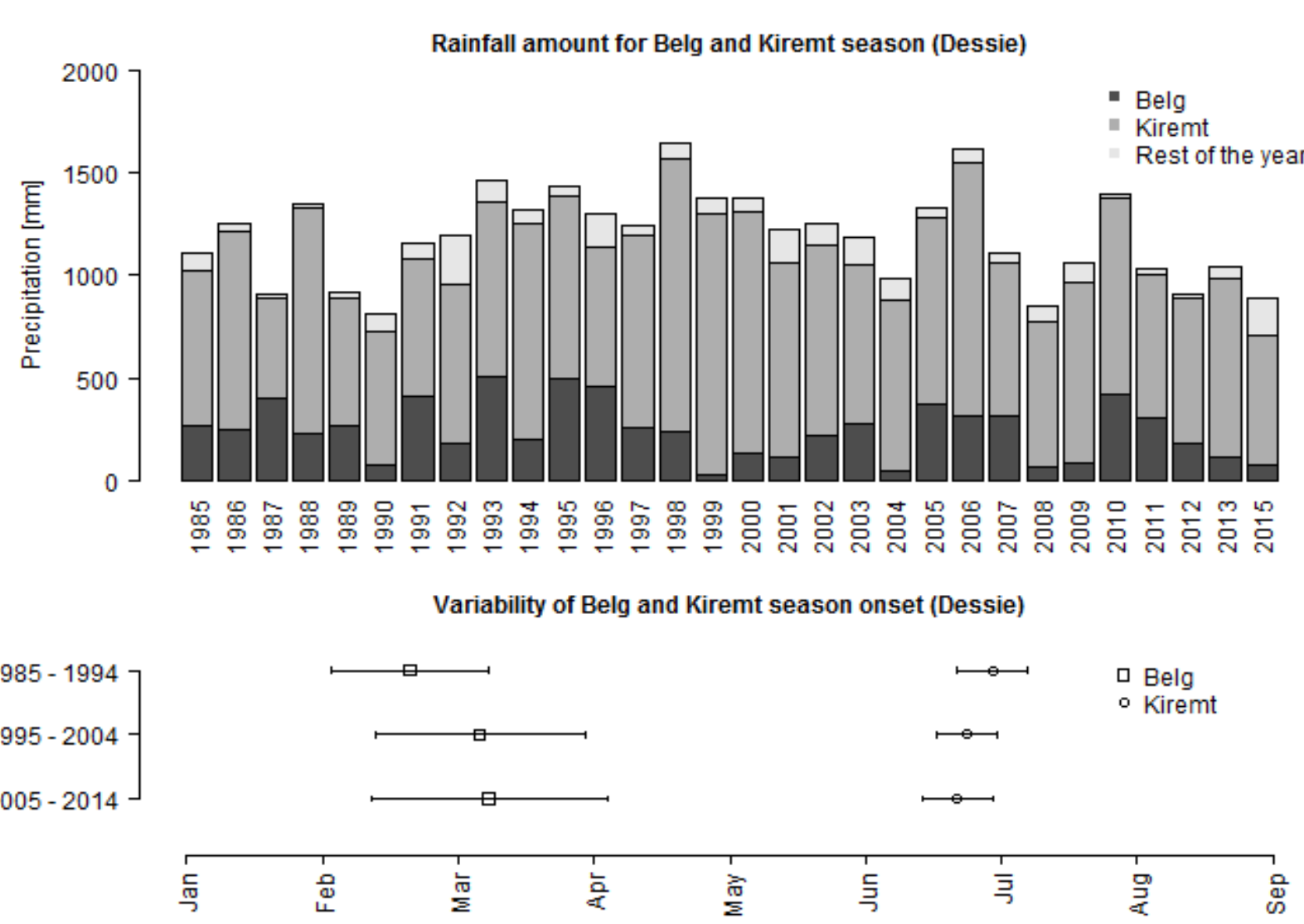


Location map of the six research sites in South Wollo

- Magnitude, frequency and intensity of **droughts** have significantly increased (since the mid 1970's)
- Severe **land degradation** as consequence of climate change and mismanaged land use
- **Population grows** rapidly (2,5% in 2017)
- Land scarce and food insecure region
- **Migration** occurs in all forms

Study region South Wollo

- Altitude ranges between 1400-3700 masl (high agro-ecological heterogeneity)
- **Mixed subsistence, rainfed agriculture**
ø land size: ~ 0.5ha, ø household size: 5-6
- In higher elevated areas cropping is only possible during belg season
- **Bimodal rainfall pattern** and **increasing variability**, especially for belg onset



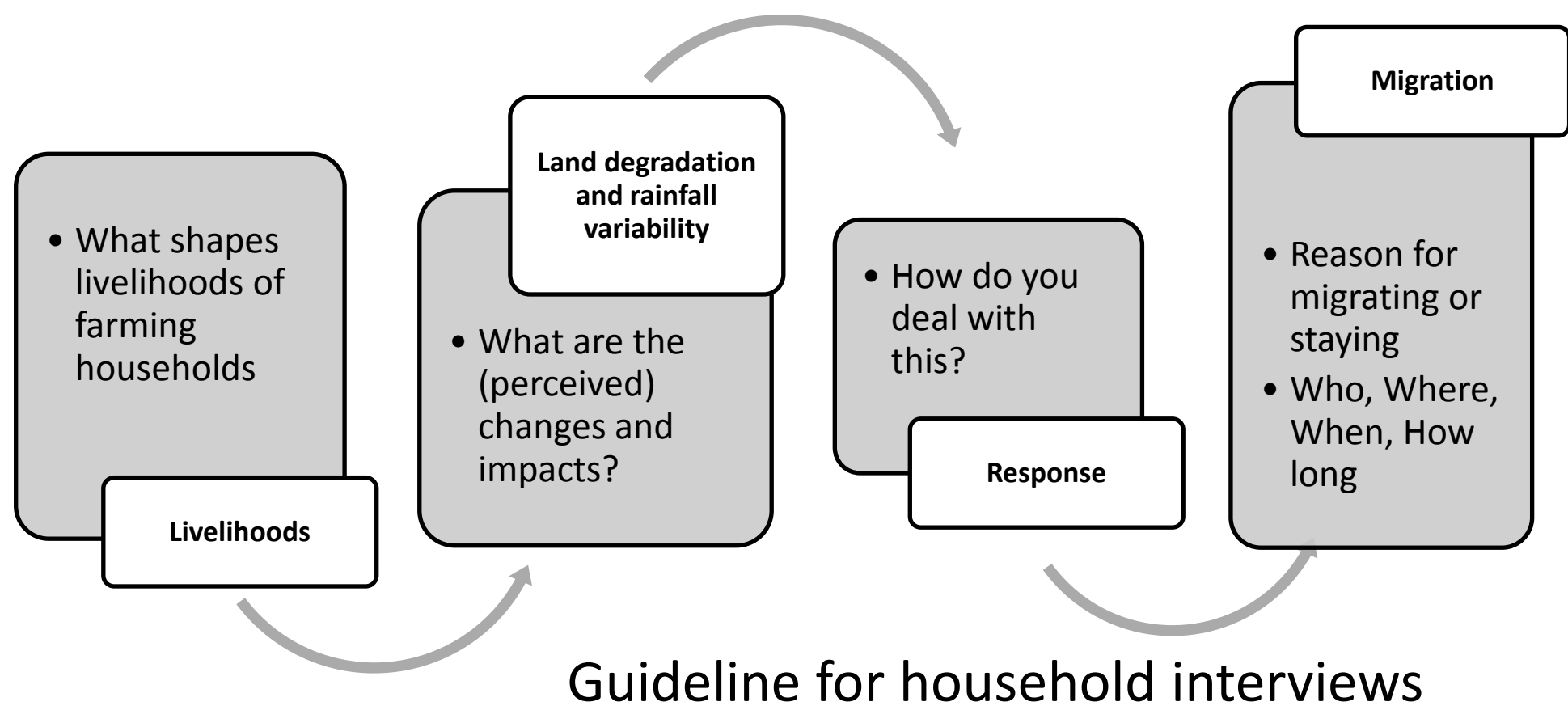
Methods

Data Collection

- A **multi-site approach** covering 6 villages along an agro-ecological gradient ranging from lowlands to highlands
- Villages differ in terms of severity of land degradation, type of rainy season used for cropping, road connection and market access

Qualitative case study design with fieldwork done between Nov 2017 and Feb2018

- Interviews with regional experts (n=6)
- Focus Groups within villages (n=18)
- **Household interviews (n=42)**
- Interviews with returnees (n=20)



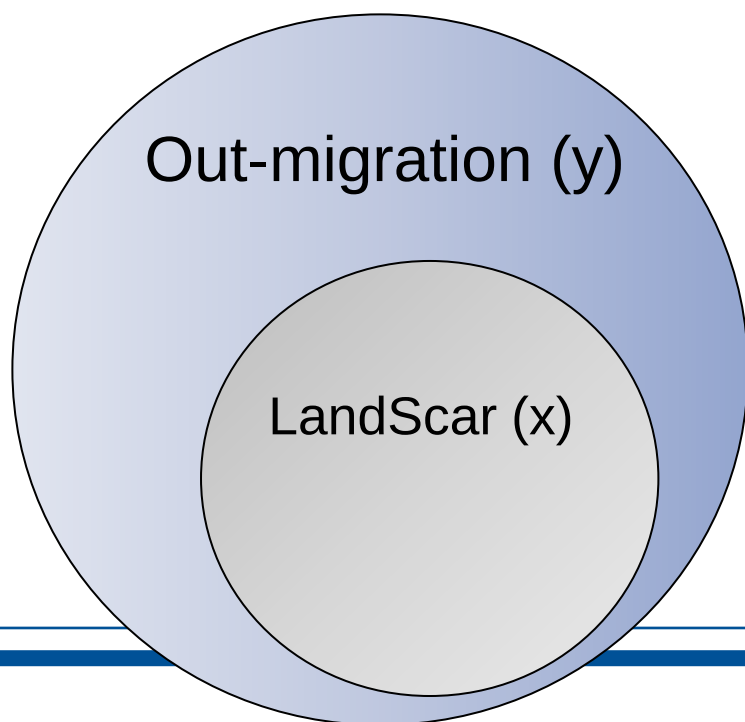
Qualitative Comparative Analysis

... is a **set-theoretic approach to compare causal patterns** for a medium number of cases in a systematic way (Ragin, 1987)

1. **Defining the conditions** (aka variables) and the **outcome of interest** based on theoretical knowledge and empirical evidence through an iterative process

▪ Household engaged in off-farm activities (OffFarm)	▪ Perceived land size is too small for household needs (LandScarc)
▪ Household is fully belg dependent (BelgOnly)	▪ Village has own market or asphalt road (MarketRoad)
▪ Migration experience within household (MigratExper)	▪ Outcome: Out-migration in past 5 years, > 1month

2. **Calibration:** Assignment of set-memberships on cases (households)
3. **Identification** if a **conditions** (x) is sufficient for out-migration (y) (e.g. LandScarc is a subset of out-migration -> LandScarc is a sufficient condition)



Results

Solution term	MigratExper * (~BelgOnly + OffFarm) → Out-migration	
Solution coverage	85 % (17 out of 20)	
Causal pathway	MigratExper * ~BelgOnly	MigratExper * OffFarm
Cases covered	75% (15 out of 20)	70% (14 out of 20)

* = AND + = OR ~ = absence of → = sufficient for
Migrating households (positive cases) : n = 20
Non-migrating households (negative cases) : n = 22

- Households with migration experience AND which are not only depend on belg seasons choose to migrate
- Households with migration experience AND activities outside agriculture choose to migrate

Summary

- Migration as **important livelihood strategy** (adaptation) in all agro-ecological zones
- More **diversification options** through usage of additional rainy season or available activities outside agriculture enable migration
- **Social factors** are key to migration decisions
- Importance of the **local context** in migration processes

... **social networks and diversification options for livelihoods are crucial for the ability of people to migrate**



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Ragin, C.C., 1987. The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies. University of California Press, Berkeley.