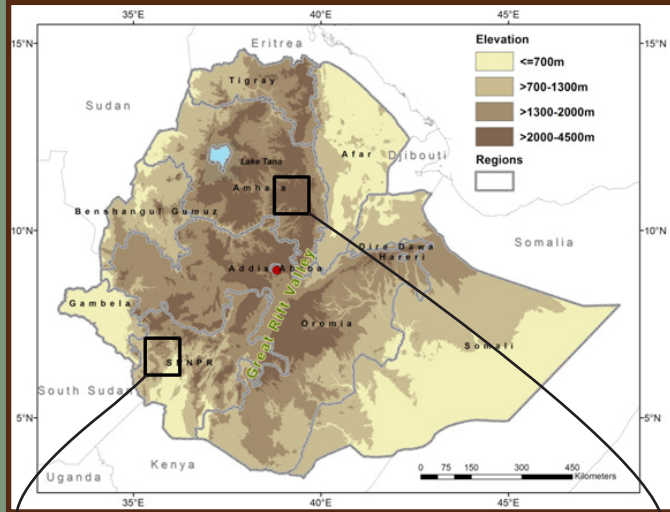


ETHIOPIA

We conduct our place-based research in two distinct regions in Ethiopia. Vast stretches of the country are characterized by severe land scarcity and high population pressure, resettlement programs initiated by the government, and major environmental consequences of clearing natural vegetation for agriculture.



In-migration hotspot:
Southwest Ethiopia,
Bench Maji



Out-migration hotspot:
Northern highlands,
South Wollo



The study region is located in a global biodiversity hotspot which experiences significant changes in resource use of the constantly growing population and significant forest cover decline. Agriculture expansion and increasing wood extraction are the foremost causes for deforestation. Our research in three rural communities examines the linkages between in-migration and the use of forest resources by diverse population groups.

The region is highly exposed to rainfall variabilities and land degradation. The subsistence farmers living here are considered one of the most vulnerable in the country, given severe land scarcity, population pressure and food insecurity. Our research covers six villages accounting for several agro-ecological zones to unravel the interactions between environmental and non-environmental migration drivers.

CONTACT



Kathleen Hermans

+49 (0) 341 235 - 4754

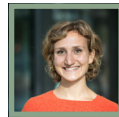
kathleen.hermans@ufz.de



Jule Thober

+49 (0) 341 235 - 1951

jule.thober@ufz.de



Charlotte Wiederkehr

+49 (0) 341 235 - 1948

charlotte.wiederkehr@ufz.de



Juliane Groth

+49 (0) 341 235 - 1948

juliane.groth@ufz.de



Hanna Friedrich

+49 (0) 341 235 - 1970

hanna.friedrich@ufz.de

Helmholtz Centre
for Environmental
Research (UFZ)
Permoserstr. 15
04318 Leipzig
Germany



<https://www.ufz.de/migsoko>

https://twitter.com/mig_ko



ENVIRONMENTAL CHANGE
AND HUMAN MIGRATION -
A VICIOUS CYCLE?



ABOUT US

We are a **research group** co-funded by the Federal Ministry of Education and Research (BMBF) and the Helmholtz Centre for Environmental Research (UFZ) aiming to understand the **causalities between environmental change and human migration**. We are based at the Computational Landscape Ecology (CLE) Department at the UFZ Leipzig, Germany.



We aim at...

- detecting and explaining **spatial pattern** of migration and environmental change
- understanding the **causality between environmental change, population pressure, human migration, and environmental consequences of migration** in the Global South
- identifying and understanding factors that contribute to a **positive feedback loop** between environmental change and migration

PLACE-BASED RESEARCH

We use multisite qualitative and quantitative approaches, including semi-structured farmer interviews, standardized surveys, focus group discussions and workshops for data collection. Therewith, we aim to dive deep into rural migrant sending and receiving places and to include the concerned population in our research. We utilize qualitative comparative analysis (QCA) and regression models to disentangle the multiple and complex pathways on which the natural environment influences rural livelihoods, migration and vice versa.



MODELLING

We use agent-based modelling and Bayesian networks to simulate natural resource use and migration decisions of subsistence farmers. In these models, farmers' individual decisions and their social interactions on the micro-scale lead to the emergence of regional patterns of resource use and migration. Thereby, modelling enables us to analyze the complex interplay of multiple influence factors and the impact of migration on the environment and the livelihood of migrants. As input of models we integrate interview data from our place-based research with existing household surveys and satellite data.



META-ANALYTIC APPROACHES

In order to provide a trans-regional perspective on the topic, we apply meta-analytic approaches (including systematic literature review and QCA) and integrate a wealth of existing qualitative and quantitative data. With this research, we focused on the relevance of migration as a household adaptation strategy and, more specifically, the role of environmental factors in the migration decision of individuals. In addition, we examine relevant scope conditions for resource use conflicts in various immigration areas in the Global South.



OUR APPROACH

SYNTHESIS

Results from our various research activities are synthesized systematically. The main goal is to identify potential factors that contribute to a vicious cycle of environmental change and migration as well as levers for slowing down (or disrupting) a positive feedback loop. Driving factors and mechanisms are identified at the local, regional and global level and illustrated in a framework. Building on this, transformation pathways towards sustainable natural resource use and adaptation to environmental change – including various types of migration – are developed.