



UNIVERSITY OF
HOHENHEIM

Transdisciplinary Knowledge Transfer for Accelerated Sustainable Transformation of Agri-Food Systems



Marcus Giese¹, **Maria Oguiche**¹, Katrin Winkler¹, Sintayehu Mersha², Tesfaye Abebe Amdie²

¹ University of Hohenheim, Institute of Agricultural Sciences in the Tropics (Hans-Ruthenberg-Institute), Germany – ² Hawassa University, Ethiopia

INTRODUCTION

- Agricultural production in African Communities are constrained by natural factors such as climate variability and change, but also policy and governance, economy and adoption of technologies.
- Concepts such as nature-based solutions and agro-ecological approaches offers a holistic approach to sustainable agriculture.
- We use the extensive experience of our Alumni to discuss the concepts in terms of their suitability for everyday use in the African context.



DAAD AgriAlumniNet Workshop,
Ethiopia, Addis Ababa - Hawassa, 21.-29.03.2024



*'Nature-based Solutions
and Agro-ecological
Concepts for Sustainable
Transformation of
Agri-Food Systems'.*

WORKSHOP AIM, DESIGN AND METHODS

The aim was to explore and analyse the current practices in the agricultural sector and what this holds for the future of sustainable agricultural transformations in the perspectives of the various stakeholders.

Workshop activities and Field visits

- ❖ Travelling workshop with on-site visits and specialized seminars in Addis Ababa, Debre Zeyt, Hawassa, Arba Minch and Chench
- ❖ State of the artwork-shop contributions of international scientists CGIAR centres (CIMMYT and ICRISAT Ethiopia offices at ILRI Campus) – Addis Ababa
- ❖ Ethiopian Agricultural institutions such as EIAR and ATI
- ❖ Introduction of exchange opportunities and tools for German-African Alumni-Networks

Participants



Join AlumniNet on LinkedIn



Webpage



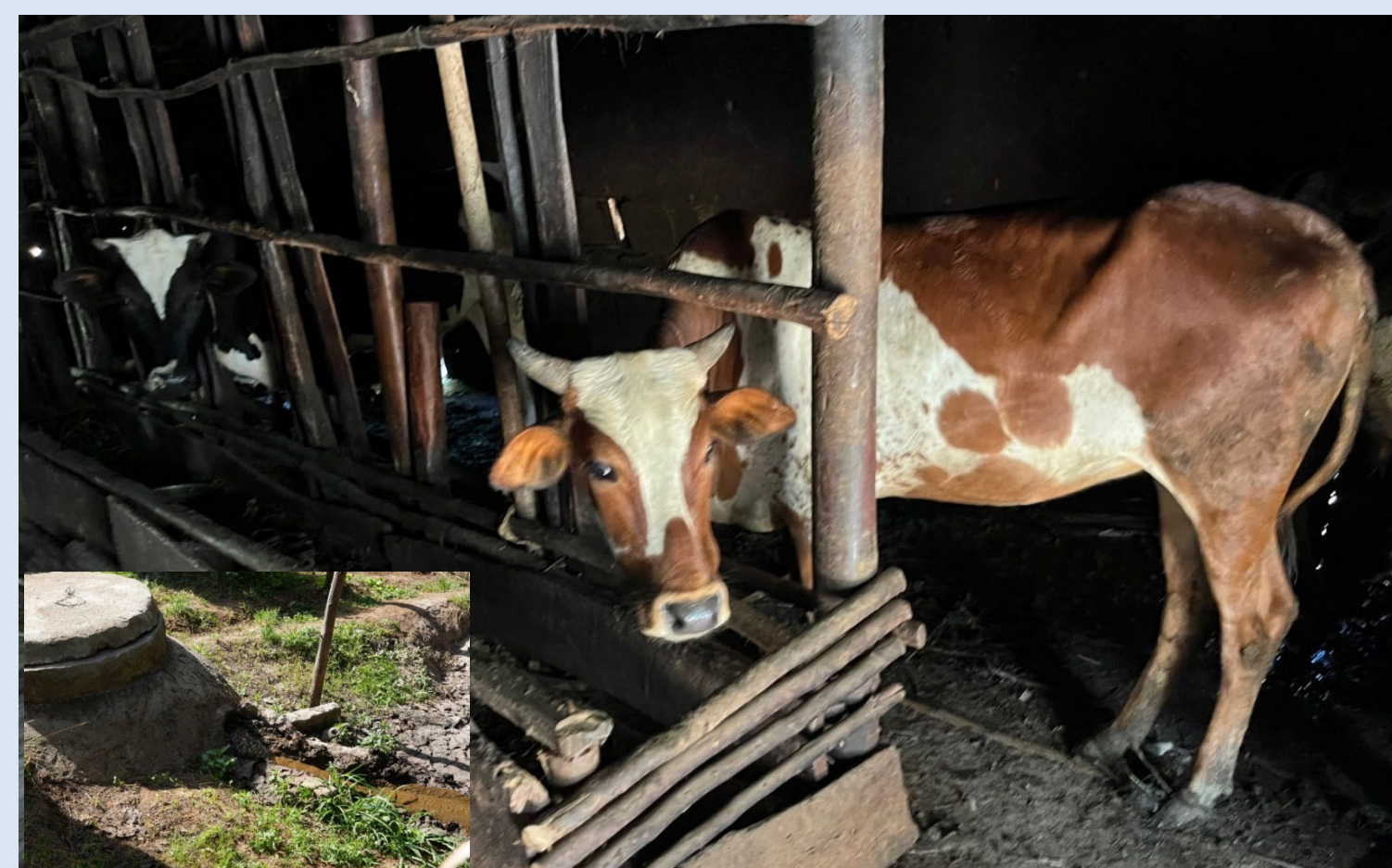
Contact:

agrialumni@uni-hohenheim.de

KEY FINDINGS

Livestock sector

Smallholder farmers use animals for traction, manure, organic fertilizer and bio-gas production while the government have focus on dairy cattle.



Crop production

The use of neglected, underused, cover and drought tolerant crops for erosion control, dryland rehabilitation of landscapes, soil water management.



Agriculture Engineering

Adapt existing technologies and use potential for digitalization.



Socio-economy

The sale of Vermin compost by smallholder farmer, and empowerment of local communities during land rehabilitation programmes.



Cross-cutting issues

- Traditional knowledge and cultural heritage
- Digitalization & Technology transfer
- Governmental interventions
- Integrated farming systems
- Increase system's diversity
- Gender and equity

SUMMARY AND OUTLOOK

- **Multifunctional landscapes:** trees for fertility, fodder and habitat; crops for diversification and organic matter; and livestock for manure.
- Increasing synergies and **collaboration between stakeholders.** Governments, private sector, scientists, communities and farmers for more effective policies and interventions.
- The **associated trade-offs** in **scalability**, impact and viability of these approaches in the context of sustainability need to be addressed.
- Exploring **existing data and potential for digitalization.**
- Increased efforts and **investment in education** and information for actors along value chains.

ACKNOWLEDGEMENTS



Deutscher Akademischer Austauschdienst
German Academic Exchange Service



Federal Ministry
for Economic Cooperation
and Development



Hohenheim Tropics
tropics.uni-hohenheim.de