Fostering Multi-stakeholder Co-learning for More Sustainable Resource Use and Improved Livelihoods in Mozambique

Rosana Kral^{1*}, Axel Mentler², Sebastian Postl³, Claudio Sixpence⁴, Sabine Homann-Kee Tui⁵

¹University of Natural Resources and Life Sciences (BOKU), Centre for Development Research, Austria ²University of Natural Resources and Life Sciences Vienna, Institute of Soil Research, Austria ³University of Natural Resources and Life Sciences Vienna, Media Services, Austria ⁴International Crops Research Institute for the Semi-Arid Tropics, Mozambique & Instituto de Investigação Agrária de Moçambique, Mozambique ⁵International Crops Research Institute for the Semi-Arid Tropics, Zimbabwe

*Corresponding author: rosana.kral@boku.ac.at



CENTRE FOR

RESEARCH

University of Natural Resources and Life Sciences, Vienna

Introduction

Central Mozambique: Tete province is home to the world's largest coal deposit, its tasty goats travel as far as 1.600 km to Maputo butcheries. But farmers struggle to profit adequately: markets are frequently dysfunctional; El Niño and climate change render rainfall increasingly unreliable; information and inputs are scarce. In this challenging environment, we seek to facilitate capacity building and selforganization, to strengthen relations between the actors of the agricultural value chain, and to promote conversion to more sustainable use of natural resources.







Figure 3. Concept of the Farm Health (FH) acitivites within the IP approach and zoom in on the Soil Health Training (SHT).

Farm Health Assessment



high yield healthy soil Experimentation & Innovation

experiment more on farm

to increase productivity

more confident planning,

preparing FH measures

Nutrient management

regard soil fertility as own responsibility

invest more in soil fertility techniques



Figure 1.A. Map of Mozambique. B. Study site with sites of soil sampling (yellow pins). C. Goat husbandry and expanding local markets are opportunities. D. Average temperatures and rainfall make farming challenging. Charcoal production as side business. Difficult relations between market actors.

Our Approach

An open Innovation Platform (IP) provides stakeholders with room for exchange, co-learning and co-development of sustainable, local solutions to local challenges.





Figure 4.A. The IP Farmers' definition of a healthy farm. B. Farmers evaluated how FH activities influenced their agricultural management and social networks.

Soil Health Training

Figure 2.A. Different actos in the open IP. Via joint activites, stakeholders experience each other as sources of knowledge and as partners. B. Learning is an iterative process and works in spirals: Feedback from activities informs the next steps. Activity clusters exist for crops, livestock and markets.

Can the IP help to address barriers that keep farmers from using their full potential? How can the IP facilitate this?

Figure 5. Topics and steps in each phase. A. Exploration. B. Workshop (WS). C. Workshop set-up. Feedback loops: during SHT, in seperate WS, 1 focus group discussion, 2 key information interviews.

Feedback and Conclusion

"My whole life, I have used fire to open up new fields, but it's crazy. And I could only use them for a couple of years, then I had to shift to new ones. Now that I know what happens in the soil, I would never do it again." (farmer) "Don't worry, if I hadn't thought yesterday was useful, I wouldn't have returned today!" (farmer)

"This is how we should do it, just go out to the fields."

(extension)

Link

IT'S SCIENCE

Research that makes a difference

References

(1) Instituto Nacional de Meterologia (undated) Atlas de precipitação Moçambique

(2) World Bank Climate Change Knowledge Portal (accessed online on 2018/07/04)

http://sdwebx.worldbank.org/climateportal/index.cfm?page=country_historical_climate&ThisRegion=Africa&ThisCCode=MOZ