



Challenges in Monitoring Processes of Carbon Credit Projects and their Potentials for Farmer Organizations

A Case Study from Kenya

Annkatrin Schober

*Social and Institutional Change in Agricultural Development, University of Hohenheim, Germany

Introduction

- Projects like the Kenya Agricultural Carbon Project try to increase soil carbon sequestration and generate carbon credits
 - But: carbon credit certificates depend on sophisticated datasets
 - Extension service has to train participants on farming practices AND monitoring practices
 - Carbon markets are complex and undergo price fluctuations
 - Insights in monitoring are rare, thus the Kenya Agricultural Carbon Project was used as a case study
- ❖ **RESEARCH QUESTIONS:**
How are monitoring processes set up in carbon credit projects?
Which challenges need to be overcome?
How could farmer organizations contribute to overcoming these challenges?

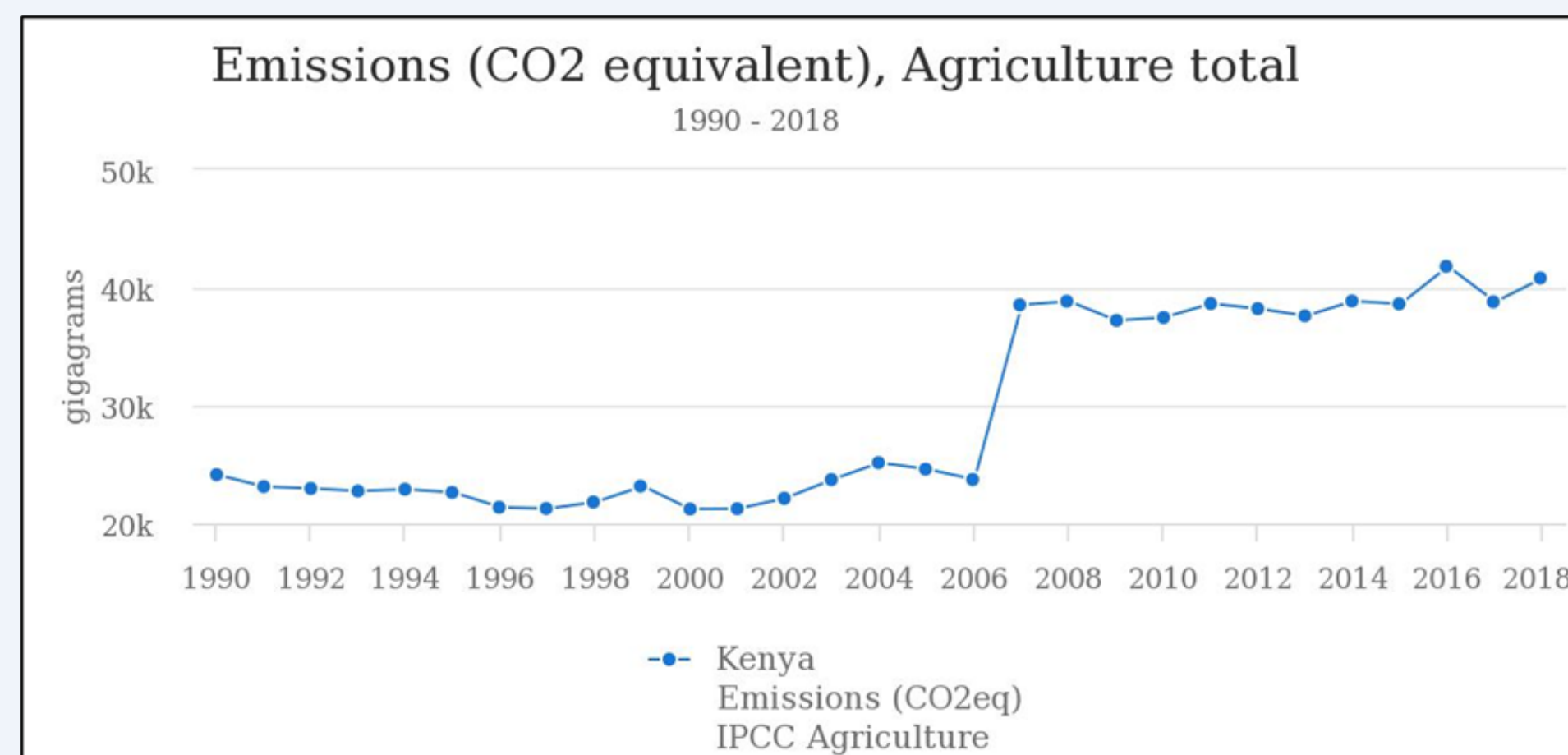


Figure 1 Emissions resulting from agricultural production in Kenya 1990-2018 (Source: FAOSTAT, 2021)

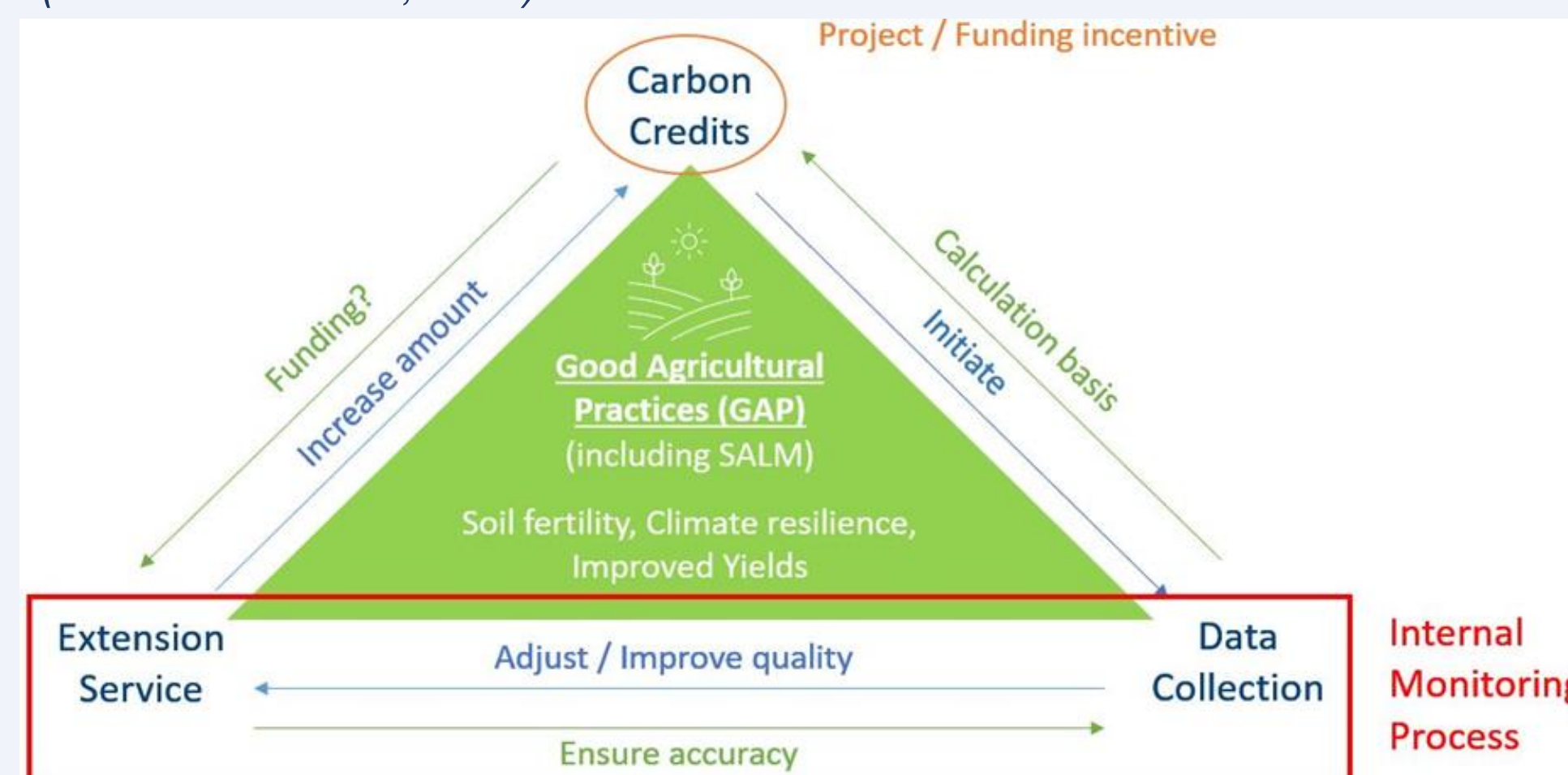


Figure 1 Ideal set-up and linkages within a carbon credit project (Source: Own compilation)

Focus on internal monitoring, meaning data collection of project activities for carbon amount calculations
→ Later verification and certification via third party

Methods

- ❖ Mixed-method approach
- Literature review
- Field research March 2021
- Kenya Agricultural Carbon Project panel data review (data set from Farmer Group Monitoring 2012-2019)
- Process Net Maps
- Semi-structured expert interviews (in Kenya, Germany and online)

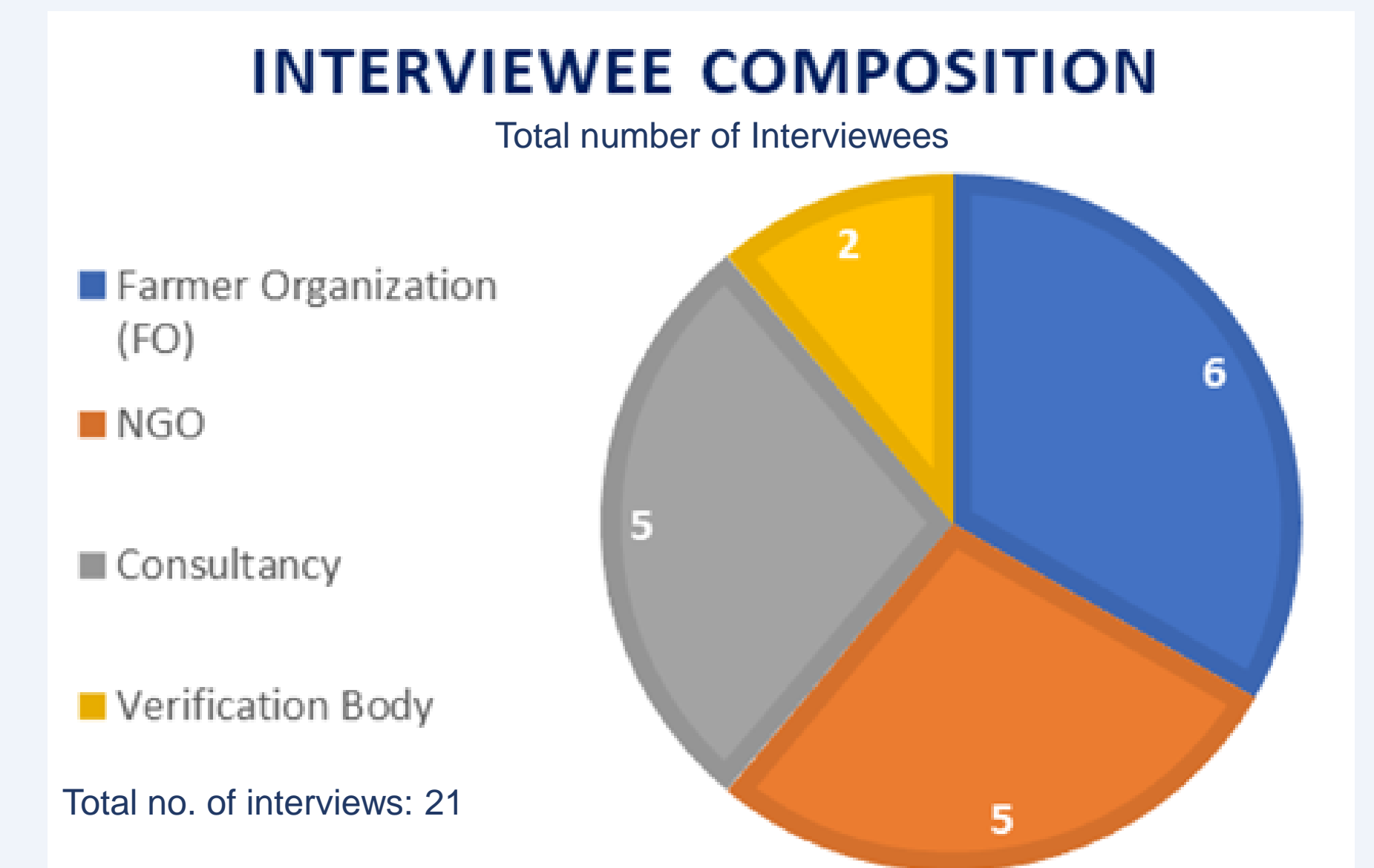


Figure 2 Expert interviewee composition (Source: Own Compilation)

Results

- ❖ On monitoring process set up

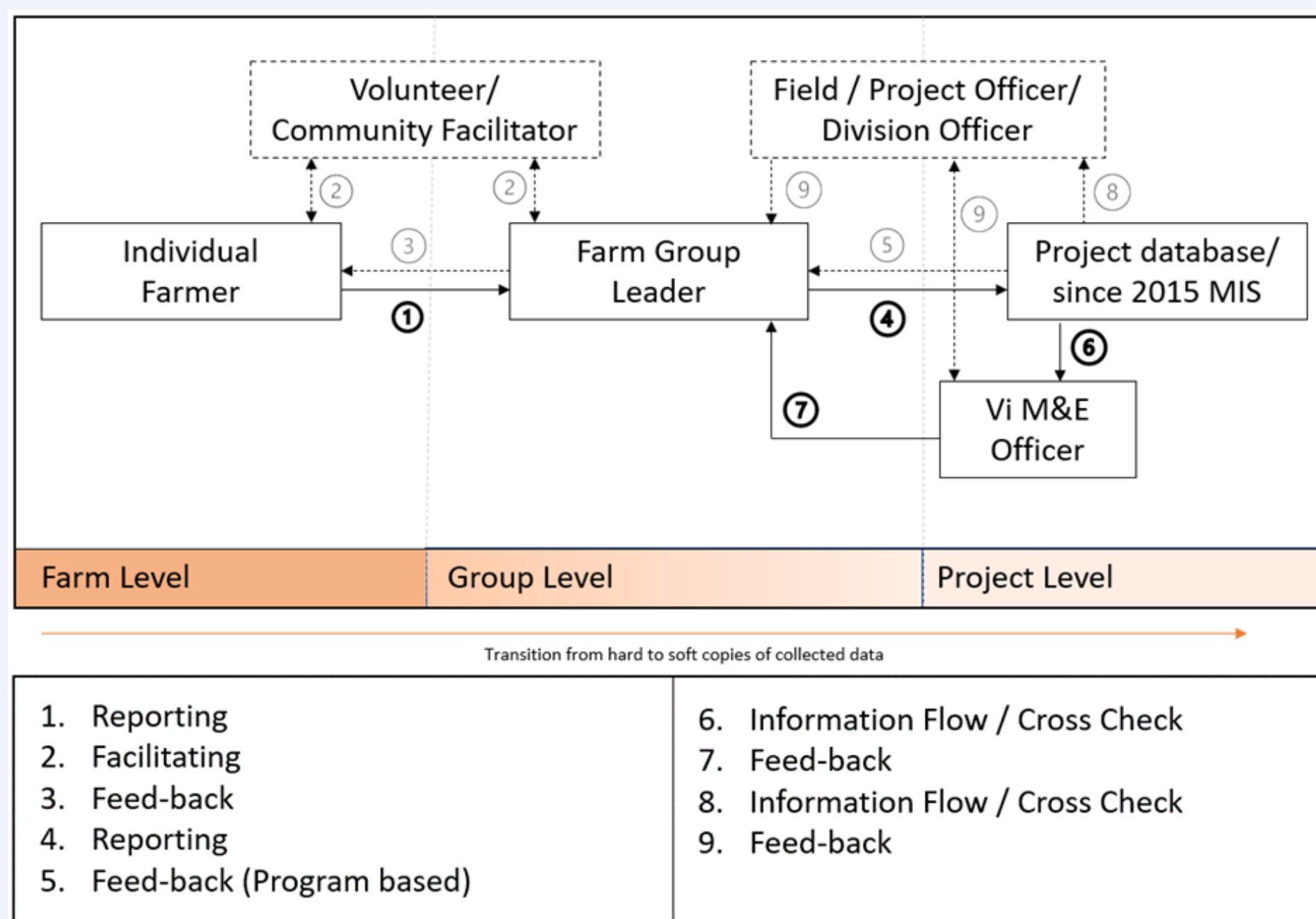


Figure 3 Process Net-Map of internal monitoring process (Source: Own compilation)

Vi= Vi Agroforestry; dotted lines where linkage or actor remained unclear

- Full-sample, self-reporting, group monitoring process with unclear facilitating actors and number of cross checks
- Implemented online database with automated cross checks still leaves open questions regarding data quality and training effects

- ❖ On challenges in monitoring

- A critical level of **trust** was necessary to ensure participants willingness to share information
- Time** – amount of time necessary to collect all the data plus specific moment of data gathering during project duration
- Too high **project pressure** could lead to biased results

- Expectation towards data collecting institutions** can influence and bias data quality for self-reported approaches
- Extension service is influenced by the **advisor's interest**, the **complexity of carbon credit concept**, its **capacity** and potential **governmental support**

- ❖ Potentials for Farmer Organizations

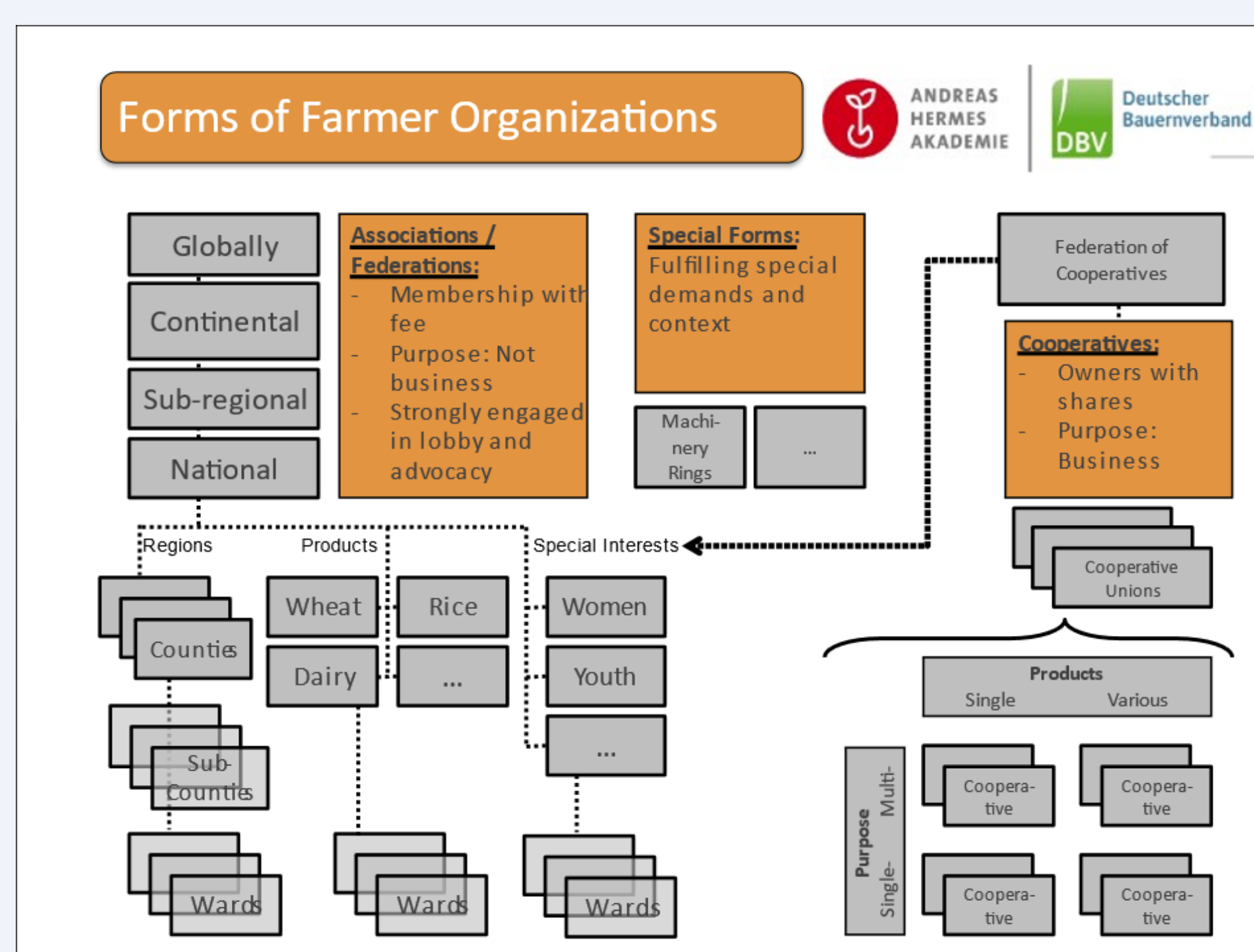


Figure 4 Andreas Hermes Akademie's perspective on organizational structure of farmer organizations in Kenya (Source and © Andreas Hermes Akademie)

- Analysis of farmer organizations in project location regarding their core business and network structure
- Associations with focus of lobby and advocacy result in changed expectations of farmers when it comes to data sharing
- Potential to balance out price fluctuations in carbon credit markets

Conclusion

- Voluntary carbon markets provide a complex environment, entry requirements need to be considered in projects
- Specific monitoring approaches result in unique challenges for extension service
- Crucial role of trust and high sensitivity regarding data collection has to be taken into account for project approaches
- Farmer organizations differ significant in their organizational characteristics but could contribute to overcoming monitoring challenges while also profiting from carbon credits

Highlights

- Insights in VERRA's Verified Carbon Standards requirements and monitoring reports
- Collaboration between scientific research and practical learning through exchange with UNIQUE forestry and land use, ProSoil team of Deutsche Gesellschaft für Internationale Zusammenarbeit (giz), and Andreas Hermes Akademie
- Learning from yearlong experience of working with Kenyan farmer organizations from Andreas Hermes Akademie
- Further potential exchange and research between involved parties with practical outcome