Analysis of Agricultural Advisory Services Methods to Drive Agroecological Transition in Rwanda

Shu-Wei Chow

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Agroecology, an integrative approach that transforms agri-food systems through sustainable farming practices and participatory methods, has gained prominence in Sub-Saharan Africa as a response to agricultural challenges. Given that agroecological transitions require intensive knowledge exchange, advisory services are crucial to facilitate this transformation. This research evaluates current agricultural advisory methods in Rwanda, identifies key features of these methods that support agroecology adoption, and provides guidelines for designing advisory service methods driving agroecological transitions. A mixed-method approach was employed in this study, including focus group discussions with farmers, interviews with advisors and key informants, and a literature review. Qualitative data were analysed using content analysis by MAXQDA, while structured survey responses were assessed using frequency counts by Excel. Findings underscore the importance of farmer participation and knowledge co-creation in designing advisory services that effectively support agroecological transitions. Empirical results highlight farmers' strong preference for group advisory, particularly farmer-to-farmer advisory, demonstrations, and Short Messages Services (SMS)-based communication. Evidence from interviews and literature indicates that demonstrations, farmer meetings, radio, Interactive Voice Response (IVR), videos, Unstructured Supplementary Service Data (USSD), and mass SMS are widely used in Rwanda's advisory system. Group advisory fosters peer-to-peer learning, creating an interactive, participatory environment that aligns with agroecological principles of participation and knowledge co-creation. Demonstrations enable hands-on learning, which is particularly important for new practices such as compost-making. Digital tools, including radio and mass SMS, serve as effective timesensitive reminders, supporting iterative learning processes. IVR and USSD allow for twoway interaction, reinforcing engagement, while videos provide multisensory learning experiences, making them especially effective for showcasing agroecological practices. However, limited digital knowledge and top-down content design pose challenges to scaling digital advisory services, highlighting the need for institutional support and digital training programs. Findings suggest that advisory and training efforts should be embedded within farmer groups and emphasize farmer-to-farmer learning to foster a participatory environment tailored to local needs. Digital advisory tools hold great potential for scaling agroecological knowledge, but their effectiveness relies on participatory content cocreation with farmers. Integrating information and communication technology tools with group advisory approaches could pave the way for a citizen science platform, enhancing knowledge exchange and co-creation, thereby accelerating Rwanda's agroecological transition

First supervisor: Prof. Dr. Andrea Knierim Second supervisor: Dr. Maria Gerster-Bentaya