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Flood Based Farming Systems in South-Eastern Africa: Smallholder Farmers' Choice

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Agriculture is critical for human welfare and economic growth in Sub-Saharan Africa (SSA). However, especially rainfed agriculture remains vulnerable to the impacts of climate change in the region. This has generated increasing interest in practices such as Flood Based Farming Systems (FBFS) which enable turning flood water into an opportunity for crop production for smallholder farmers living in flood plains. Despite this interest, there is limited knowledge about farmers' preference in terms of choices about a specific FBFS and therefore about which specific FBFS needs improvements for realizing its full benefits. The present study characterizes FBFS in Balaka District, Eastern Malawi, in order to develop a pilot approach for gaining knowledge and insights about farmers' preferences. Data were collected from a sample of 398 questionnaires, direct observations, focus group discussions and key informant interviews, and they were analyzed through SPSS. Results show that Flood Recession Agriculture (FRA) was predominantly practiced (54%), together with other FBFS such as Depression Agriculture (DA), Spate Irrigation (SI) and Dug Outs (DO). Low capital investment and low level of awareness of farmers were referred to be critical for FRA adoption with ($p < 0.00003$) and ($p < 0.004$) respectively. Therefore, investing on FRA, which has already proven to be used in the area, could be a key to improve food security in the area.