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Perception of smallholder farmers on efficacy of ecological farming in Chiradzulu district, southern Malawi

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Abstract

The majority of sub-Saharan countries, including Malawi, heavily rely on cereals such as maize as their staple food. However, climate change and poor farming practices have led to soil degradation, hindering smallholder farmers' ability to increase maize production. This problem is compounded by the escalating costs of inorganic fertilisers, which smallholders are forced to use. This practice also leads to high transaction costs within the value chain system, and increases food prices. Malawi, like many other sub-Saharan countries, is dependent on inorganic fertiliser imports from the global North. Any supply chain disruption, such as the Russian-Ukrainian war, creates a bottleneck that makes fertiliser scarce and expensive, exacerbating food insecurity in the region. To address this issue, there is an urgent need for a radical sustainable option for the farmers. Ecological farming has been proposed as a cost-effective and sustainable alternative to conventional farming that can improve soil health and reduce the dependence on increasingly expensive inorganic fertilisers. However, despite the potential benefits, smallholder farmers in many sub-Saharan African countries, including Malawi, have been slow to adopt ecological farming practices. To understand why this is the case, we examined the perception of smallholder farmers on the efficacy of ecological farming in Traditional Authority Mpama, Chiradzulu district in Malawi. Our study involved five focus group discussions and structured interviews with 120 smallholder households, and we analysed the data using qualitative approaches and the principle of weighted average index. Our findings indicate that at least 60% of smallholders perceive ecological farming technologies as retrogressive and non-productive. Furthermore, we identified a significant association between socio-economic characteristics of respondents and community perceptions on efficacy of ecological farming. To overcome these barriers, we suggest implementing interventions that improve knowledge levels, attitudes, and behaviours of farmers through capacity building, sensitisation, and mobilisation. We believe that these interventions can effectively promote the adoption of ecological farming among smallholders, leading to increased food security and reduced dependence on expensive and lethal technologies.

Keywords: Capacity building, ecological farming, food security, land optimisation, perceptions, smallholder farmers