

Research Application Summary

Evaluating the benefits of action learning processes in driving integrated soil fertility management benefits among smallholder farming communities in Zimbabwe

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Abstract

The widespread fragmented adoption of improved soil fertility management options among smallholder farmers can partly be attributed to poor diffusion of acquired knowledge. Using participatory action research approaches, a study was conducted in eastern Zimbabwe to evaluate potential benefits accrued by different farmer resource groups participating in integrated soil fertility management (ISFM) co-learning processes. Preliminary results indicate that farmers participating in collective action realized improved grain yields and had ease of access to grain and fertilizer markets than their non-participating counterparts. These findings suggest that farmers may stand to benefit from cumulative economic gains by participating in joint action.

Key words: Economic benefits, co-learning processes, participatory action research, resource endowment

Résumé

L'adoption généralisée fragmentée des options améliorées de la gestion de la fertilité des sols parmi les petits agriculteurs peuvent en partie être attribuée à une mauvaise diffusion des connaissances acquises. L'utilisation des approches de recherche-action, une étude a été menée dans l'est du Zimbabwe pour évaluer les avantages potentiels courus par les différents groupes de ressources des agriculteurs participant à la gestion intégrée de la fertilité des sols (GIFS) co-processus d'apprentissage. Les résultats préliminaires indiquent que les agriculteurs participant à l'action collective ont réalisé les rendements en grains améliorés et avaient la facilité d'accès aux marchés des céréales et d'engrais que leurs homologues non participants. Ces résultats suggèrent que les agriculteurs

peuvent tout à gagner en cumulant des gains économiques en participant à une action commune.

Mots clés: Les avantages économiques, co-processus d'apprentissage, de recherche-action participative, la dotation en ressources

Background

Conventional linear research and extension approaches have generally failed to stimulate adoption of new and improved agricultural technologies, particularly those aimed at addressing poor and declining soil fertility in smallholder farming systems. It has often been argued that the conventional methods do not address the complexities of smallholder socio-economic and institutional environments (Stoorvogel and Smaling, 1998). Development of alternative participatory approaches such as participatory action research (PAR) has generated scope for addressing the challenges related to these poor adoption rates. However, there is still a paucity of empirical evidence to demonstrate the effectiveness of these approaches in driving soil fertility management benefits across different resource group smallholder farmers. Overall, the study seeks to evaluate how multi-stakeholder mobilization of smallholder farmers and co-learning groups could influence their participation in collective processes that drive ISFM benefits for improved livelihoods

Literature Summary

Integrated agricultural research approaches recognize that smallholder farmers are the owners and shapers of their own development (www.ifdc.org). Participatory methodologies were found to create an atmosphere conducive for community-based learning processes (AGRITEX, 1998). PAR, based on the understanding that reality is socially-constructed and viewed in different ways by different actors in a system, points to the need for external researchers to be engaged in joint learning processes with those directly affected (Baum and Tolbert, 1985; German *et al.*, 2007). The approach offers an opportunity for the less powerful actors of the community to participate in the identification and analysis of their concerns and in the definition of activities to be carried out. This helps to stimulate local ownership of interventions (Wollenberg and Buck, 2000). When intended beneficiaries participate actively, they increase the chance that they will benefit from the project on their own terms and it also enables extension of benefits to more people (German and Stroud, 2007).

Study Description

This study is being conducted in Nyahava ward of Makoni district, in eastern Zimbabwe, through mobilization of farmers into

collective learning alliances with key stakeholders in agriculture (input-product market chains) where they are able to access and share information and knowledge on integrated soil fertility management (ISFM). Farmers are expected to translate this information and knowledge into action, through joint diagnostic surveys of core issues through PAR approaches, before jointly monitoring and evaluating the quantifiable and associated ISFM benefits. One of the key objectives is to determine main factors influencing farmer participation in learning alliances, quantifying relative transaction costs of farmer participation in action learning processes by subjecting costs to gross margin analysis. The overall spread of ISFM benefits among PAR participants are then subsequently measured against randomly selected non-participating farmers under corresponding categories. Collected data, through questionnaire survey, direct observations, key informant interviews and focus group discussions will be analysed using Stata.

Research Application

Reconnaissance studies and preliminary surveys with service providers and farmers have indicated that only 10% of the farming households produced enough maize for marketing during the 2008/09 cropping season which was considered normal in terms of rainfall. Previous efforts for active inputs acquisition and marketing of the dominant crop, maize, was undermined by lack of access to market information, poor knowledge sharing mechanisms and mistrust among farmers within the same community as well as between farmers and agro-service providers. A cycle of PAR interventions by the Soil Fertility Consortium for Southern Africa (SOFECSA) Zimbabwe team has however, indicated that facilitation of broader partnerships among service providers can attract farmer participation in collective learning and decision-making. The on-going work therefore builds on these initiatives and preliminary findings. It is hoped that the study will lead to;

- Development of approaches that facilitate wider and sustainable adoption of ISFM technologies among smallholder farming communities
- Improved investments from major players in agricultural input and output markets towards smallholder agriculture

Recommendation

Use of PAR approaches that consists of iterative cycles of action planning, reflection and evaluation could strengthen the capacity of smallholder farmer groups to participate in market oriented crop production schemes and promote uptake of ISFM technologies.

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