



Agricultural Technology Transfer under Relief and Recovery Programs in Zimbabwe: Are NGOs Meeting the Challenge?

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Technology Transfer in the Context of Relief and Recovery

Drought relief programs have been implemented more or less on an annual basis in some parts of Zimbabwe's smallholder agricultural sector since independence in 1980. Seventy-five percent of this smallholder sector is found in the semi-arid regions of the country (Natural Regions IV and V).

The most common response to drought by the government and humanitarian relief programs is to distribute food, seed of new crop varieties and, in some instances, fertilizer, with a view to address the short-term nutritional requirements and production constraints faced by farmers. This is based on the assumption that when food supplies are so limited,

farm households will consume their planting seed. In fact, this assumption is generally wrong. A growing amount of evidence suggests that most farmers carefully save their planting seed despite food shortfalls. Recent ICRISAT surveys clearly show that the factors that most impact the food security of smallholder farmers in drier areas is access to fertilizer and technologies that overcome the draft power problems faced by many rural households (Figure 1).

A recent response to this survey work has been the incorporation of a recovery component into humanitarian relief programs. It is envisaged that the provision of food, seed and fertilizer handouts coupled with the development of farmers' skills and knowledge with respect to simple technologies that ensure proper

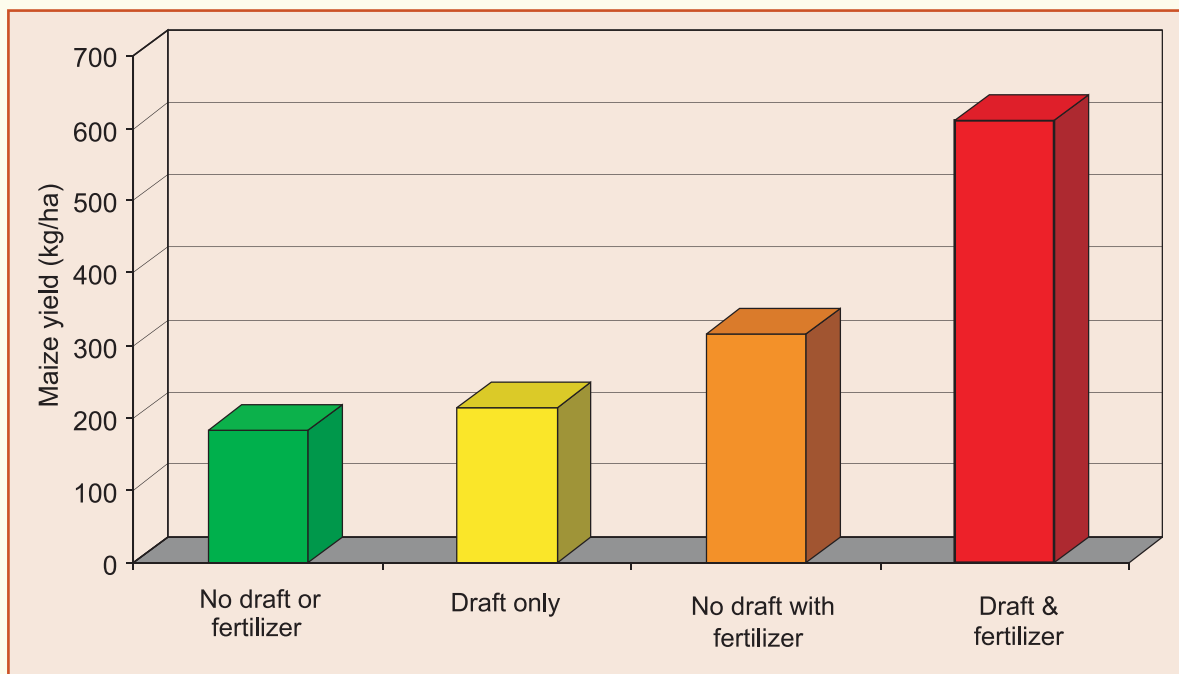


Figure 1. Production factors contributing most to food security in the drier areas of Zimbabwe (ICRISAT survey data 2003–2006).

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use of the seed and fertilizer, and the development of rural markets for these inputs, will assist farmers achieve food security in the long term.

Historically, national research and extension systems have been solely responsible for agricultural technology promotion and development in smallholder farming systems. The promotion of technologies by NGOs is a recent development, necessitated by changes in the broader political and economic environment, especially in Zimbabwe. Under the Protracted Relief and Recovery Program (PRP) funded by DFID, NGOs are facilitating the dissemination, testing and adoption of conservation agriculture among smallholder farmers in the dry areas of Zimbabwe. Such efforts require NGOs to go beyond the traditional investments in relief programs. There is a need for more skilled staff with better understanding of the technology options on offer, as well as the capacity to resolve a shifting array of implementation problems. Technology transfer also generally involves multi-year commitments to work with farmers and communities to test and adapt technology options. Such commitment is inherent in the efforts of local government extension staff, but not so obvious in many NGO efforts.

As a technical partner, ICRISAT was concerned that staffing levels, high turnover, and multiple demands on staff time, training levels, and relations between NGOs and the agriculture and extension service (AREX) would affect implementation of conservation farming programs. Two surveys were undertaken to better understand the modus operandi of NGO field staff

and the implications for successfully implementing conservation farming and micro-dosing programs by NGOs in the dry areas of Zimbabwe. The objective was to identify the changes needed to improve NGO contributions to technology change in the context of relief and recovery programs. NGO staffing levels, AREX involvement in conservation farming and micro-dosing programs, as well as support provided to field staff by management were identified as important determinants of successful and sustainable programs and are discussed below.

Determinants of Success

Staffing Levels

High staff turnover invariably results in the recruitment of inexperienced staff, negatively affecting the implementation of conservation agriculture and micro-dosing programs (Figure 2). These technologies are knowledge-intensive and farmers require training and extension support to understand, appreciate and implement the practices successfully. This can only be achieved with more frequent and sustained farmer-NGO interactions than is common for relief programs. NGO staff need to understand the technologies and build good rapport with AREX staff and farmers to ensure successful implementation of the programs. This cannot be done in less than six months. Survey data show that NGOs with field staff who stayed less than six months on the job at the time of the interview, had less success in establishing conservation farming and micro-dosing demonstrations compared to those

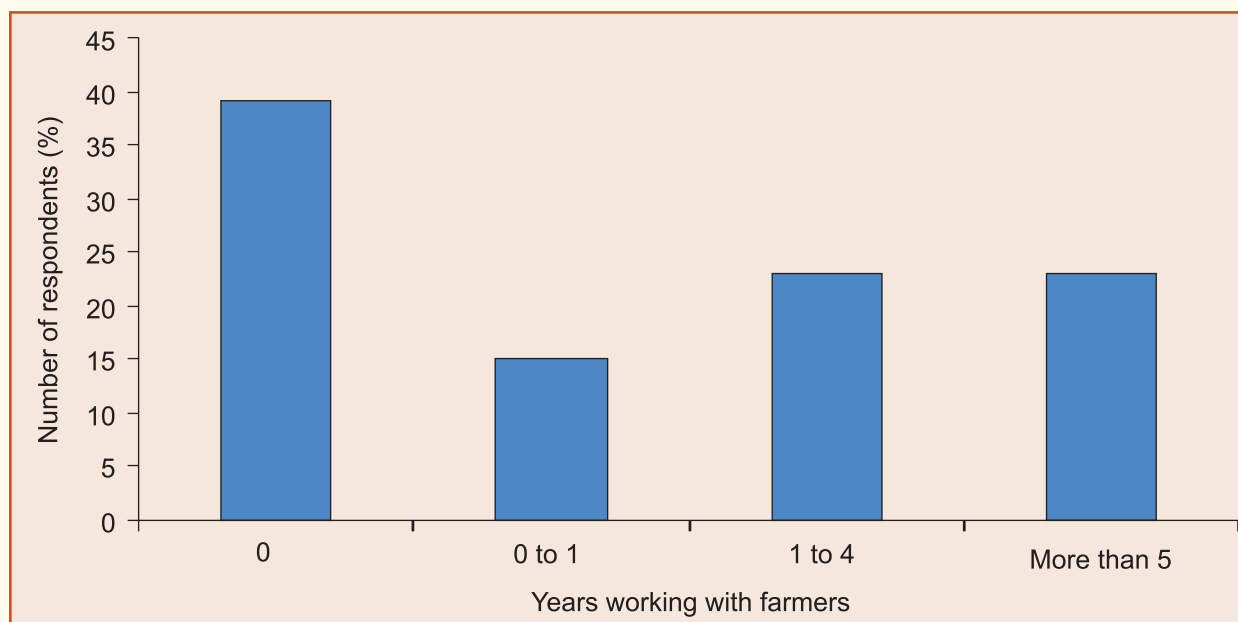


Figure 2. Years of experience of NGO staff in working with farmers prior to joining an NGO.



Figure 3. Relationship between length of employment of field staff and the success of conservation farming and micro-dosing programs during the 2005/06 season.

NGOs with staff who had more than 12 months on the job (Figure 3).

This calls for NGOs to examine their recruitment and retention policies in order to retain their field staff for implementation of long-term programs such as conservation farming and micro-dosing. It was surprising that 40% of the NGO staff interviewed were on contracts that lasted six months or less, despite the fact that PRP was initially funded for two years, with an option for a third year of funding depending on performance.

Support to NGO Field Staff

Field staff need support in terms of resources and advice from the NGO staff at the head offices. These interactions and support become extremely important in cases where the implementing NGOs are not the direct recipients of donor funds. Interactions between headquarters and field staff with respect to planning and budgeting must be improved. Of the field staff interviewed, 58% indicated that they had no role or felt that there was limited collaboration with the head office or partner NGO. Given the fact that

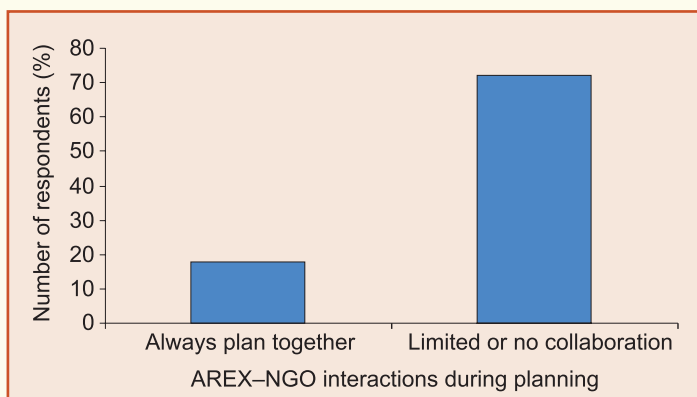


Figure 4. AREX field staff views on AREX-NGO interactions during planning of conservation farming programmes, 2005/06.

conservation farming and micro-dosing are only a small part of the headquarter staff project portfolios, it is likely that the special requirements of these programs may be overlooked during planning and budgeting process. Efforts should be made to ensure effective participation of field staff in the planning and budgeting for conservation farming and micro-dosing programs.

Effective Participation of AREX

Good working relations between AREX and NGOs are essential for effective and sustainable promotion and adoption of conservation farming and micro-dosing programs. It is important that NGOs and AREX send the same messages on the technologies being promoted. The current scenario, depicted in Figures 4 and 5, will lead to the cessation of these programs once the NGOs leave.

NGOs should allocate resources for the participation of AREX staff in the planning and implementation of conservation farming and micro-dosing programs. AREX will facilitate the adoption of the technology by farmers who do not fit the targeting requirements of PRP, thus significantly improving food security.

Training of Field Staff

Tremendous progress has been made with respect to training NGO and AREX staff in conservation farming and micro-dosing. Since the inception of PRP in 2004, ICRISAT has trained more than 200 AREX and about 60 NGO staff. However, the AREX numbers are still inadequate. Furthermore, refresher courses are required to keep the field staff up to date with developments in the field. A survey undertaken in April 2006 showed that most of the AREX and NGO staff interviewed were not confident about planting basins, the technology most promoted. In addition, the high staff turnover in both NGOs and AREX requires that

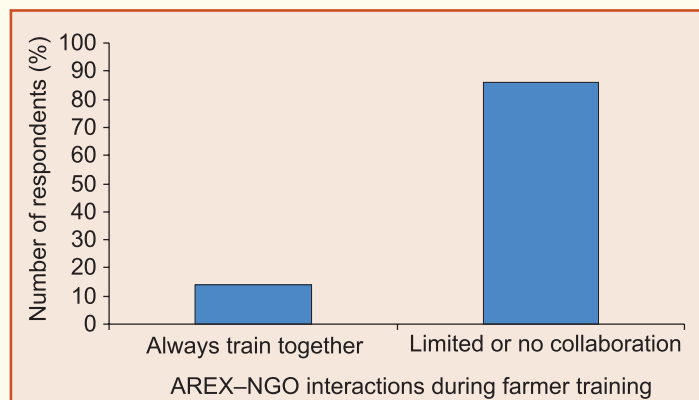


Figure 5. AREX field staff views on AREX-NGO interactions during farmer training in conservation farming, 2005/06.

ICRISAT continue with capacity building efforts in the next one or two years. Focus will be on providing the extension staff with knowledge and skills on the management of the technologies as they develop with the participation of the farmers.

Field Level Support to Farmers

Conservation farming and micro-dosing require more investments from NGO extension staff compared to relief programs. Contacts between farmers and extension staff need to be more frequent and timely. More importantly, as PRP progresses, there is need to quantify impacts of the technologies on households and identify and evaluate technology adoption constraints and opportunities. Figure 6 shows that there are benefits to investing in community-based field assistants who provide frequent and timely extension advice and materials to farmers implementing conservation farming and micro-dosing programs.

The role of such agents will diminish as more and more farmers use the technology and are able, with experience, to exchange information and ideas on the technology among themselves. It is recommended that NGOs recruit community-based agents who can provide timely extension and advice support to the farmers in the coming season.

Conclusions

Most NGOs have recognized the changes that are required of them to effectively implement conservation farming and micro-dosing programs and some have made the necessary adjustments to their staffing levels and modus operandi. However, more changes are required.

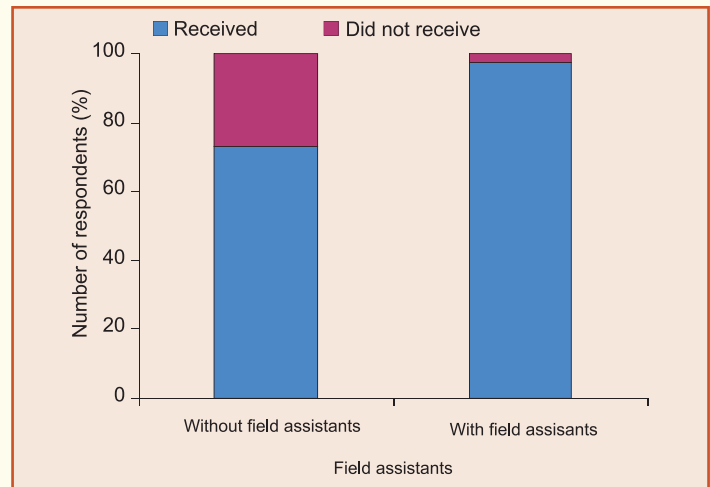


Figure 6. Influence of community-based assistants on dissemination of conservation farming and micro-dosing extension and training material to farmers participating in PRP in some districts, 2005/06.

- NGO staff in charge of conservation farming and micro-dosing should have qualifications in agriculture and should be contracted for at least 12 months.
- Closer collaboration between head office and field staff is required during planning, budgeting and implementation.
- Close collaboration between AREX and NGO staff is a prerequisite for scaling up the technologies. NGOs should budget for effective AREX involvement in their programs.
- Capacity building within NGOs and AREX needs to be continued, focusing on increasing the number of AREX staff and developing skills in managing the evolving technologies.
- NGOs should consider providing operational funds to AREX field staff so that they can provide timely and effective support to the farmers implementing conservation farming and micro-dosing.



More information about this work can be obtained from
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