

FARMER INNOVATION CONTESTS

Tapping the Innovative Potential of Smallholder Farmers

Generating agricultural innovations has traditionally been attributed to research organizations. The farmer's own potential for the development of innovative solutions has largely been neglected. Our experience with Farmer Innovation Contests in Ghana shows that farmers can be a promising source for locally adapted innovations which may be suitable for rapid and cost-effective dissemination.

Farmer Innovation Contests – Concept and Implementation

Farmer innovations include technologies or practices which can be applied along the value chain, are different from common or traditional practices, and are developed by a farmer or a group of farmers without external assistance. They stem from modifying existing technologies, inventing new practices or experimenting with new ideas. Such innovations could play a critical role in addressing the challenges facing agriculture because the local farmer innovation process leads to the creation of site-appropriate technologies. Also, perhaps more importantly, if the innovation capacity of local farmers can be further stimulated, their ability to autonomously adapt to changing conditions can be increased. Efforts to encourage farmers' innovativeness also reduce the responsibilities of formal research systems to manageable proportions.

In this light, a **Farmer Innovation Contest** was initially conceived at the Center for Development Research (ZEF) in an effort to identify and stimulate high-potential farmer innovations which lend themselves to easy adaptation and dissemination. The approach puts farmers at the center of the competition by rewarding innovations from farmers for farmers. The first such contest was organized in Northern Ghana in 2012, the second in 2013. The contests were held in collaboration with local partners from government, research and civil society and accompanied by ZEF researchers to assess the suitability of the contest to solicit farmer innovations. The partners participated in the conceptualization of the contest and the local agricultural ex-

tension service was involved in scouting for and documenting eligible innovations.

Entries submitted to the contest were evaluated by an independent committee of representatives from local stakeholder groups, namely farmers, the Ministry of Agriculture, non-governmental organizations and researchers. The evaluation was based on: innovativeness or originality, economic potential, dissemination potential, and social and environmental sustainability. The innovations were ranked according to their overall sum of scores. The best innovations were then short-listed and the innovators were visited by the committee members in order to get detailed information on processes involved in developing the innovations. The visit also allowed further confirmation of the original innovators of the reported innovations.

Among the 92 eligible innovations received in the two contests, most addressed problems in animal husbandry, such as new formulations of animal feeds and the discovery of ethno-veterinary medicine for the treatment of livestock diseases using local herbs. Also important were post-harvest techniques for the storage of grain and seeds and for processing into higher level products. Innovations in crop management included the use of local and low-cost plant extracts to control weeds, pests and diseases. A large share of the identified innovations was developed to save production costs, such as pesticide, storage and veterinary costs. The top three innovations from the 2012 contest were: storing of onion seeds using a local herb; using onion residues to control striga; and designing an integrated aquaculture–agriculture system.

Findings from the accompanying research

The contest provided an incentive for sharing innovations. Awards offered through the innovation contest encouraged innovators, who may have kept their innovations in secrecy, to reveal their practices. The innovators were also willing to share their innovations with other farmers and stakeholders as it builds their reputation and social capital.



Many farmers developed their innovations by adapting existing practices, largely using local resources. Most of the innovations are not necessarily new inventions. Rather, they are extensive modifications of existing practices and externally introduced techniques. The changes were motivated by the desire to solve production constraints, save costs and adapt to changing conditions.

The contest strengthened the partnership between farmers, extension officers and scientists. The close collaboration with the extension system facilitates dissemination of the innovations through established channels. The contest also offered a platform for further improvements of the innovations through joint research and increased the appreciation for farmer innovations among the stakeholders involved.

The contest unearthed existing rather than stimulating new innovations. Most of the innovations submitted had already been developed and implemented around a decade before the contest. Many had been adopted by a few farmers located nearby. Further research should investigate whether repeated contests may also stimulate new innovations.

Recommendations

Recognize farmer innovations as an important contribution to agricultural development, and provide incentives for their stimulation and incorporation into more formal research activities and agricultural extension systems.

Facilitate access to successful innovations through detailed documentation and by making them available through the local extension systems. This can only

succeed if farmers, researchers and extension officers work closely together. Online sources and training modules can also facilitate dissemination.

Implement follow-up activities, such as scientifically validating the innovations, adding value, linking farmers to small- and medium-sized agribusinesses and commercializing the most promising products. It will be important to ensure that the innovator benefits and that the intellectual property right is respected.

Incentivise broader participation to encourage more women and younger farmers, who made up a small share of applicants in Ghana, to participate and share their innovations.

Expand the scope of submitted innovations beyond technical to institutional or managerial innovations, including by raising awareness among farmers and extension agents about the diversity of potentially relevant innovations along the entire value chain.

Our experience to date has proven that smallholder farmers go beyond adoption of externally-promoted technologies to experiment and develop adaptive and remarkable innovations. These innovations contribute significantly to household welfare. There is, therefore, the need to recognize and empower farmers to develop, share and adapt innovations. The described contests in Upper East Ghana will now be replicated in the 12 African PARI partner countries. Starting in Eastern and Southern Africa (Kenya, Malawi and Zambia), they will be rolled out in 2016 and 2017. The PARI team will continue to accompany the contests through national-level and cross-country research.

IMPRINT

This Policy Brief is based on the book chapter: Wünscher T and Tambo JA (2016) Identification and Acceleration of Farmer Innovativeness in Upper East Ghana. In F. Gatzweiler and J. von Braun (eds.) Technological and Institutional Innovations for Marginalized Smallholders in Agricultural Development, Springer, pp. 163-180.

Available at www.research4agrinnovation.org

PARI is funded by the German Federal Ministry for Economic Cooperation and Development (BMZ).

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