

Farmer Forums for Improved Food Security: Experiences from TARP II SUA Project

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ABSTRACT

Farmer forums under the TARP II SUA, project in Tanzania have demonstrated fruitful partnership between farmers, researchers and extension agents in communicating and disseminating innovations and technologies to a wider audience. Five forums have been held in each of the zones implementing the project. Some of the themes covered under the five forums include: identification of problems faced by smallholder farmers, marketing problems for agricultural produce, local chicken: production and demand, technology adoption from farmers' perception and conflicts between crop producers and livestock keepers. During these forums, participating stakeholders identified and prioritized key issues and problems, proposed solutions and agreed on respective stakeholders' responsibilities. This paper provides an overview on the conduct, perceptions, outputs and the challenge ahead regarding this approach for the development of farmers.

Key words: Farmers' forum, participatory, problem solving, development

Introduction

The government of Tanzania accords special importance to agriculture because of two main reasons. First, the sector is of -great importance in the national economy and it contributes to the supply of food and rural livelihood. Second, the agricultural has been under-performing, and therefore slowing down the entire pace of economic development. Thus, a special emphasis has been placed on agricultural research a key inevitable driving force for agricultural development in Tanzania. Client-oriented and demand driven on-farm research coupled with on station research in processing and marketing was initiated under the Tanzania Agricultural Research Project Phase II, with the objective of reducing food insecurity and improve household incomes in two agro-ecological zones in Tanzania, the Eastern and Southern Highlands zones (TARP II SUA Project document).

It has been established that farmers have little voice in decision-making about research, extension agenda with negative effects on technology adoption. One reason for this situation is the fact that farmers are not well organized. They also do not have sufficient resources and political power to engage in linkages with

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extension and research institutions equal partners. There are also no mechanisms for accountability to respond to farmers' needs or problems.

Having strong farmer-research-extension linkage is important in facilitating and strengthening client-oriented and demand driven research. Merrill-Sands et al., (1990) defined client-oriented research as an approach that is designed to help research to meet the needs of specific clients, most often resource-poor, smallholder farmers. Under this approach, farmers, researchers and extension agents are equally involved at various stages in the research process with Smallholder farmers as well as their households, being primary and direct beneficiaries of the outcomes of the research process.

In order to enhance such collaboration among the beneficiaries in the process of technology development, the TARP II SUA project identified Farmers' Forums as an important strategy. Though this approach, the project involves farmers in the

process of problem identification, which is normally guided by researchers during problem identification and then involve farmers and extension agents in the verification of technologies, which have been developed and tested on research stations (TARP II Project Document, 2000).

This paper provides an overview on the conduct, stakeholders' perceptions, outputs and the challenge ahead of three out of the five forums carried out so far, under the TARP II-SUA Project. The paper looks at some aspects of human behavior in agricultural research and extension.

Farmer Forums

This extension approach has been successfully used by the TARP II-SUA project. It involves farmers within the vicinity of a particular locality meeting for a couple of days to discuss and share experiences on a particular common programme. An external facilitator normally guides the forum but the farmers remain key players. Farmer forums have been successfully used to forge closer working relationships between participating partners, namely, researchers, farmers, extension agents and other stakeholders in agricultural development in the two zones, where the project is operating.

At such collaborative forums farmers, extension agents and researchers have managed to show where institutional as well as knowledge and skills gaps existed and where improvement could be made to achieve full and stronger link. At such forums, the farmers' point of view is heard, ideas are discussed by all the parties and solution strategies are jointly charted out. This round table discussion approach has led farmers, researchers and extension agents to have a feeling of ownership over the research process, since all stakeholders are involved in the problem solving process

from the beginning to the end, with the ultimate aim of ensuring sustainability of the research output as well as the research process.

In order to fully solicit the participation of all stakeholders, a number of participatory methods have been used. The participatory farm management tool (PFM), tailor made PFM and selected PRA tools have been used. Furthermore, focused group discussion, targeting a particular category (such as sex or age) has also been used in order to cultural barriers, which tend to discourage the participation of vulnerable groups.

Under the TARP II SUA project, there are farmers who are directly involved, in on-farm research activities, working with researchers and extension agents for on farm testing of technologies. Such farmers are the main constituents in the Farmer Forums. However, other farmer groups and NGOs have also been involved when considered resourceful in a theme of interest. Male and female smallholder farmers are targeted in the selection of forum participants. Also considered is the relevance of the theme to the participating farmer. For example, in a forum on resolving conflicts between farmers and pastoralists, farmers from areas with such conflicts were selected. Selection of farmers is done through zonal research and extension linkage officers, District extension officers, researchers in the respective zones and representatives of relevant NGOs.

Table 1 below presents a summary of Farmers' Forums, which had been conducted under the project, by June 2004.

Table 1. Farmers' Forums under TARP II-SUA

Title	Date & Zone	Objective	Participants						
			Farmer	VEO	NGO	Research	Total		
							M	F	To
1. Farmers' forum on food security	November 2000 (EZ & SHZ)	<ul style="list-style-type: none"> Identify problems that small holder farmers in EZ & SHZ face Explore possible solutions and identify responsible persons for implementation 	35	9	7	11	35	27	62
2. Technology adoption: Farmers' perceptions	June 2001 (SHZ)	<ul style="list-style-type: none"> Identify & evaluate technologies adopted by farmers 	17	4	3	5	16	13	29

Title	Date & Zone	Objective	Participants						
			Farmer	VEO	NGO	Research	Total		
							M	F	To
		<ul style="list-style-type: none"> Identify factors that determine adoption & non-adoption of technologies Identify institutions that serve communities & their roles Identify constraints to crop & livestock development 							
3. Farmers & pastoralists: Strengthening relations	October - November 2001 (EZ & SHZ)*	<ul style="list-style-type: none"> Establish current state of relations between farmers & pastoralist Identify main problems & their causes Propose solution strategies & responsible persons for implementation 	35	10	8	10	51	12	63
4. Market problems facing smallholder farmers	June 2002 (EZ & SHZ)	<ul style="list-style-type: none"> Identify problems in crop marketing Identify causes of the problems Recommend appropriate strategies & responsible actors for implementation 	34	8	7	9	38	20	58
5. Local chicken: Does production meet demand?	November - December 2002	<ul style="list-style-type: none"> Determine the value that participants put on local chicken & their involvement in management Identify gap between demand & supply of local chicken Identify causes for the gap Propose strategies to improve local chicken production 	34	7	5	10	34	22	56

Title	Date & Zone	Objective	Participants						
			Farmer	VEO	NGO	Research	Total		
							M	F	To
6. (a) Leguminous crops: Their contribution to food security in the SHZ.	June 2003 (SHZ)	<ul style="list-style-type: none"> Identify different types of leguminous crops produced in SHZ. Analyze the state of leguminous crops production & causes for low productivity Recommend appropriate strategies for improving productivity of leguminous crops 	12	4	5	4	13	12	25
6. (b) Roots & tubers	June 2003 (EZ)	<ul style="list-style-type: none"> Discuss the role of roots and tubers in household food supply, as sources of cash income and for animal feed Assess the current status of production of roots and tubers Identify production constraining factors Recommend solutions to identified problems 	11	4	3	12	23	7	30
7. Impact of environmental degradation on food security	November - December 2003 (SHZ)	<ul style="list-style-type: none"> Identify effects and impacts of environmental degradation on household food security and income Recommend appropriate strategies to conserve the environment and ensure food security and improved household income 	19	5	1	4	18	11	29
Total			197	51	39	65	228	124	352

* EZ stands for Eastern Zone

* SHZ stands for Southern Highlands Zone

Source: SUA Records of Outreach and Extension(2005)

Stakeholders Perceptions

From these studies it has become apparent that farmers, researchers and extension agents have high perception regarding development of the agricultural sector in Tanzania. In the first forum, which was conducted using the participatory farm management approach (PFM), the participants were asked to state major problems, which small-scale farmers in Tanzania faced. Problems were listed and possible solutions were proposed. As it is reflected in Table 2, during their first forum, farmers in both Eastern Zone (EZ) and Southern Highlands Zone (SHZ) were all concerned about similar issues of food and income at the household level. They further recognized that poor income was caused by food insecurity.

Table 2: Indicators and Manifestation of Low Income and Food Insecurity as stated by Farmers' Forum Participants

Reason	Eastern Zone	Southern Highland Zone
Poor housing	√	√
Poor education level	√	√
Poor dressing	√	√
Poor health status	√	√
Poor agricultural practices	√	
Subsistence production	√	√
Being indebted	√	
Food insecurity	√	√
Begging		√
Poor health	√	√
Malnutrition and related diseases	√	√
Unbalanced diet	√	√
Low productivity of labour	√	√
Lack of harmony in households	√	
More theft of food in fields	√	
Decline of philanthropy		√

Source: TARPPI-SUA Forum Reports (Various)

Following the identification of major problems, the participants of these forums agreed that the main problems which farmers face revolve around poor income and food insecurity as basic underlying factors. They further identified the indicators of poor income and food insecurity as presented below.

It was stated by participants in both the Eastern and Southern Highlands that low income is indicated by poor quality of housing while food insecurity, which is the result of a subsistence production mode, that is characterized by poor agricultural practices. Low income is further indicated by inability of most households to meet education and health expenses, which lead to poor education and health standards. Low income also leads to the villagers' inability to contribute to development

activities. Participants further mentioned that poor dressing among villagers is a manifestation of low income.

The issue of food security was discussed further during the second forum, where it was reported that this factor is indicated in both zones by inadequate intake of food as well as unbalanced diets, which result into malnutrition and related diseases, as well as poor health, especially among women and children. This also leads to low productivity of labour. Other effects as mentioned in the Eastern zone are; lack of harmony within households, and increased theft of food crops in the fields. In the Southern Highlands, they added having an unreliable food supply and vanishing of philanthropic norms in as far as sharing food with visitors or the needy are concerned.

It was noted that low income also leads to villagers' inability to contribute to development activities. Participants further stated that poor dressing among villagers was a manifestation of low income. From the Eastern zone the aspect of being indebted was also added to the list, while from the Southern Highlands they mentioned the inability of villagers to buy appropriate farm tools, which is directly related to poor farming methods mentioned earlier. Begging was also listed as an indication of low income levels.

Problem of Marketing Agricultural Produce

During the forums held in the EZ and SHZ to tackle the problem of marketing of agricultural produce, the participants identified several problems. The most common (and probably most important) was low prices of produce in relation to actual production costs, while prices for inputs and agricultural tools are high.

This is related to the second most mentioned problem, which is lack of reliable market and poor productivity attributable to poor grade seeds and substandard inputs, poor agricultural tools, outdated husbandry practices, lack of crop rotation system, poor environmental protection practices, plus others. Poor quality of produce, which is due to several factors, including low use of inputs due to high prices, lack of availability and sometimes, poor quality of the inputs themselves. In general, the participants contended that existing policies and laws do not safeguard the interests of smallholder farmers.

It was further noted that several taxes and levies are instituted on agricultural products and the free market operations are unnecessarily loaded with bureaucracies. Consequently, investors have not been attracted to agricultural production and the agro-processing industry.

Moreover, lack of gender equality causes women to spend most of their time in carrying out household chores and production activities. As such, they have little time to look for markets, improve production, and attend educational forums.

Poor infrastructure in rural areas makes transport of crops to markets difficult. Districts Councils and the Central Government have the mandate to maintain roads. While farmers can undertake such maintenance work for road sections within their areas, often, community efforts can only handle minor works and often, at the expense of time and energy away from family productive activities.

The farmers complained that responsible Government Departments have not established offices at Districts, Divisions and Wards, levels to address the problem of marketing or to provide market information, which is seriously lacking in many rural areas. Even the village based Extension officers are often ill-equipped as far as marketing and market information is concerned.

Absence of or weak farmers' organizations, which could negotiate for better produce prices is also a serious problem. Such organization could develop into marketing firms in future. Examples given include: Producer Marketing Groups (PMGs) in Iringa and vegetable producers Cooperative of Ubiri in Lushoto. These were mentioned as being instrumental in solving farmers' group marketing problems. It was further established that lack of capital among farmers' is the result of not knowing how to organize themselves to establish self-financing facilities for marketing of produce and purchase of inputs, which is further exacerbated by poor leadership at the village level. These leaders are not innovative. They also lack skills to motivate others and initiate self-help activities.

In addition, corruption emanating from the notion that one has to give something in order to get services was cited as an impediment affecting marketing and development in general. The Strategic Grain Reserve (SGR) was mentioned as an example where corruption in marketing farm produce is common. In order to address this problem, the participants agreed to start fighting against corruption for any service they are supposed to get as their rights while also fighting fair market transactions. The problem of strong beliefs in witchcraft was also cited as a hindrance to development, but no specific strategies were defined to address it.

The third forum dwelt on the problem of conflict between crop producers and livestock owners, which is becoming chronic in many areas. Farmers in both the EZ and SHZ recognize the importance of co-existence among crop farmers and pastoralists. They noted that there existed many aspects, which were of mutual importance, for example farmers get manure, meat and milk from pastoralists while pastoralists get cereals and pulses from the crop farmers, which they used as food. Also there was an indication that their interaction was beyond commodity exchanges. Socially there was also some intermarriage that was taking place.

Despite those good relationships both crop farmers and pastoralists pointed out aspects, which promote bad relationship between them. For example, among pastoralists it was noted that farmers were cultivating in areas that are earmarked for grazing. At the same time crop producers expressed outright hate towards pastoralists and they stated that any relations that seem to exist between them is superficial. This they said was because pastoralists had no respect for cultivated land. Consequently they damage crops as they graze their animals in crop fields without any remorse. In addition, often pastoralists were not cooperative when there were problems within the villages. It was also pointed out that the pastoralists had too many livestock compared to the carrying capacity of the grazing land.

Both groups made suggestions on how best they should co-exist in the villages and minimize conflicts. Members of the group of pastoralists at the forum in the eastern Zone were of the opinion that crop farmers should strive to cooperate with the pastoralists communities during periods of problems or special needs, to respect areas designated for grazing or crop production. They suggested that efforts should be made by leaders of both groups and at various levels in the village to train their community members on how to bring harmony among different ethnic groups. The crop farmers on the other hand felt that harmony could evolve through respecting one another, developing a common leadership in the village whereby both parties would play a part, creating conflicts resolution committee, having special areas in the village earmarked for grazing, demarcating livestock paths in the village to allow passage of animals with minimum destruction of crops, respecting village boundaries, improving livestock production without increasing their numbers, avoiding grazing in and around water catchments, having in place livestock management centers in the villages and, applying the existing laws scrupulously when conflicts occur among communities.

When analyzing this problem further, it became evident that there were areas within Tanzania where crop farmers and pastoralists coexisted peacefully. Such areas include Mwanza, Shinyanga, Mara, Dodoma, Arusha and Singida Regions. While there are more farmers in these regions than any other part in the country, such conflicts are not common and when they occur, their magnitude could be equated to those that occurred in Kilosa districts for example, which have resulted in loss of lives. The participants observed that areas, which are in conflict, would have one or more of the features presented below.

It was noted that new areas, which neither farmers nor pastoralists had occupied, previously are prone to conflicts, since they traditionally do not belong to any of the groups. Such areas include neglected large state farms, and areas that have been completely unoccupied in the past. The coastal forests of Bagamoyo were mentioned as an example. In some cases, conflicts between these two groups have occurred because some farmers invite pastoralist on their land, which has traditionally been used for crops only and vice versa. It was noted that not all pastoralists were conflict

mongers. The Maasai were pointed out as the major ethnic group that caused more conflicts compared to the Barbaig, Mang'ati and Sukuma tribes. Later during the course of the forum, participants worked out ways and means of mitigating this problem. The solutions to these problems have already been discussed above.

In the Southern highlands, the sixth and seventh forum dwelt on leguminous crops and their contribution to food security, and Impact of environmental degradation on food security respectively. For the Eastern zone the topic for the sixth forum was on tuber crops as presented in Table 1.

General observations

Experience under the TARP II-SUA project has shown that farmer forums under the TARP II-SUA project promote fruitful partnership between researchers, extension agents and farmers in communicating and disseminating innovations and technologies to a wider audience. By following a more holistic, ecological approach, many farmers seem to come closer to their own perception and understanding of how they should increase household income as well as ensure food security through better management of their crops and livestock. The problem which has faced farmers' forum members and organizers alike has been how to get other players such as researchers, policy makers and educators involved in this approach to form local platforms for real transformation of agricultural production including processing, storage and marketing.

Farmer forums have shown the capacity to improve initiatives that bring about improvement in research approaches where client-oriented or demand driven research can be designed and implemented by all stakeholders for the solution of specific problems that have been jointly identified, with the ultimate objective of improving the livelihoods of farmers and pastoralist. The interests, which has been expressed towards such forms by researchers, extension and farmers (including those who did not participate) is a good indicator of how useful the forums are to smallholder farmers' problems.

Through these forums the TARP-II SUA project has been able to attract farmers' attention and initiate a change in attitudes among some of them. This was observed through their active participation in the course of sharing experiences, identification of problems that they face, proposing solutions aspects, which they can take up the responsibility of solving the identified problems. In addition, the forums were able to capture contributions from female participants through women only focus group discussions. This approach effectively broke the usual traditional cultural barriers that would otherwise discourage females' voice in the presence of men.

Forum resolutions have led to fruitful exchange visits that enhance learning of new technologies as well as hands on activities, which enhance the adoption of the learned technologies. Examples of such resolutions include:

- Issues of environmental degradation, and poor soil fertility
- Low crop and livestock production,
- Poor quality of products,
- Inefficient equipment for farming (hand hoes),
- Poor storage structures
- Inadequate water for livestock and irrigation
- Gender relations at household level
- Weak link between farmer, researcher and extension agent

These resolutions were recorded by the facilitators and strategies for addressing the farmers' concerns were planned. In this respect, exchange visits have been organized within and outside the two project zones. Researchers have also made on farm follow-up visits. Moreover, researchers and extension agents had the opportunity to learn first hand about such technologies, some of which have been locally improved or adapted, and therefore providing new insights even to the professionals. At the end of such exchange visits participants normally pledged to adopt and carry on their acquired knowledge and skills in their respective homes/villages (TARP II-SUA Exchange visit reports 2000-2003).

The TARP II-SUA project takes up the task of monitoring such activities, which has proved to be very rewarding and motivating to farmers who have participated in the visits. Some of the farmers have changed their way of looking at agriculture as simply a way of life, to a positive economic activity, and they have started to implement production and marketing strategies that are already improving their living standards (TARP II-SUA Annual report, 2002).

During the first form participants ranked two problems that required high priority. First, they expressed concern regarding the prevailing low nutritional status and having low or lacking nutritional education. This came as a surprise to the facilitators, who had assumed that farmers did not consider this matter highly. Second priority went to farmers' organizations. Participants reported that they hear about such organizations from news media and other sources, but they do not have enough knowledge on how they could start or how to manage existing farmers' groups. Other priorities, which were mentioned include;

- Analysis of market problems facing smallholder farmers
- Assessment of farmers and pastoralists relationships
- Technology adoption from farmers perspectives

Based on these priorities, the project developed the themes into subsequent topics for further discussion or into research agenda, which are currently being addressed by researchers under the project.

By June 2004, the project had currently completed six farmer forums in each zone in the Southern Highlands and six in the Eastern zone. The proceedings are prepared in a simple language both in Kiswahili and English. The proceedings are then distributed to all stakeholders for information as well as for undertaking their responsibilities (where applicable) as proposed by farmers.

Lessons learnt

While farmers' forums have proved to be very effective means of enticing effective involvement of farmers and pastoralists in problem solving through farmer oriented research, there have been some hitches in the course of implantation. First there has been poor participation of female farmers. This was during the third forum, which addressed the theme of relations between farmers and pastoralists, where women constituted only 2% of all the participants coming from that group. Thus view and ideas from female farmers and pastoralists did not contribute to the problems being proposed. However the situation has now changed, following gender specific sensitization, which targeted community leaders, both formal and informal. We now have more female pastoralists participating in the research projects.

It has also been observed that forum participants often do not provide feedback to their colleagues (farmers, pastoralists, traders etc.) or to their leaders regarding the knowledge and skills they acquire during such forums or exchange visits. Consequently, some leaders may not take critical follow-up action on responsibilities that may have been assigned during such forums, because they are not aware. In order to address this problem, the project has undertaken close follow-up on researchers and extension workers as well as some policy makers who are assigned specific duties at each forum. However, one of the key obstacles to getting the necessary attention from policy makers has been the confusion or conflicts in responsibilities between the central government and the local government.

Way forward

From the evaluation results of the few farmer forums, which have been carried out under the project, it has been concluded that the forums have been instrumental in identifying underlying factors to farmers' problems, proposing solutions as well as responsible parties in solving the problems. The challenge to those working with farmers is to understand the importance of having farmers voice in research and extension through farmer forums or other similar forums. At these initial stages, researchers and extension staff have a lot to offer to the whole process, as farmers and other stakeholder engage in problem identification, because the systematic manner in which it is done is new to most participants, and therefore involves a learning process for further improvement in future and application in similar or slightly varied scenarios.

The experience from TARP II-SUA project also provides a lesson to Ministries that are responsible for agricultural development. These forums should continue to be

used for the purpose of strengthening the farmer-research -extension linkage. This can be realized under the current institutional set up, through the Zonal Research and Extension Liaison Officer (ZRELO).

Conclusion

Over the years a lot of effort by many people has been directed at finding means of forging effective links between farmers, extension agents and researchers. Due to poor links, which have dominated in the past and continue to prevail in many parts of the country today, the rate of technological adoption and agricultural transformation in general has been very very slow, if at all. The TARP II-SUA project has used Farmers' Forums as an outreach approach in an effort to forge effective links to enhance communication between the three key partners in the Eastern and Southern Highlands zones.

The results have been very encouraging. Through discussion and follow up exchange visits, pertinent farmers' problems have been identified based on which research agenda and other practical solutions, such as appropriate outreach material have been developed. In the areas where Farmers Forums have been organized, the level of farmers' awareness to crystallize their researchable farm problems for transmission to research institution has been enhanced and their awareness as well as their confidence in collaborating with researchers and extension staff has been strengthened because of the tangible solutions they have witnessed during this process. The challenge remains for administrators of research and extension systems to expand and institutionalize the application of this development instrument for wider application.

References

- Casley, D. J. and Kumar, K. (1988). *The collection, analysis and use of monitoring and evaluation data*. Baltimore and London. The John Hopkins University Press.
- Merril-Sands, D.; Kaimowitz, D.; Sayce, K.; and Carter, S. (1990). *The technology triangle: Linking farmers, technology transfer agents and agricultural researchers*. The Hague: ISNAR.
- TARP II SUA project (2000a). "Food security and household income." Project document.
- TARP II SUA project (2000b). "Farmer forums for food security. Proceedings of the 1st Eastern and Southern Highlands Zones farmer forums.
- TARP II SUA project (2000-2003). "Exchange visit reports."
- TARP II SUA project (2001). "Farmers and pastoralists. Strengthening relationships." Proceedings of the 3rd Eastern and Southern Highlands Zones farmer forums.
- TARP II SUA project (2002). "Annual report."
- TARP II SUA project (2002a). "Market problems facing smallholder farmers." Proceedings of the 4th Eastern and Southern Highlands Zones farmer forums.
- TARP II SUA project (2002b). "Local chicken: Production and demand." Proceedings of the 5th Eastern and Southern Highlands Zones farmer forums.