

Highlights

CIAT in Africa

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Farmer research group dynamics in Eastern Africa

"If we are serious about fostering the external forces to make research organizations client-driven (...), investments will have to be made in developing local farmers' associations".¹

There is increasing interest in community-based approaches to catalyse farmer participation in research, and to widen the impact of participatory research. Notable examples of group-based participatory research approaches that are spreading widely include the local agricultural research committees "CIALs" in Latin America, Farmers Field Schools "FFS", and Farmer Research Groups "FRG" in eastern and southern Africa.

However, the issue of assessing their performance and impacts is of central concern. This is critical to building more effective ways of organising and working with farmers, building farmers' capacity to innovate and experiment, facilitate the sharing of experiences, knowledge and skills among farmers, and strengthening their human and social capital.

This paper highlights the results of an empirical study of farmer research groups in three benchmark sites (Kabale in Uganda, Emuhaya in Western Kenya and Lushoto in northern Tanzania) in the African Highlands Initiative (AHI) in collaboration with the Future Harvest Centers' systemwide program on Participatory Research and Gender Analysis (PRGA). The study aimed at



¹Bebbington, A. J., D. Merrill-Sands and J. Ferrington 1994. Farmer and community organizations in agricultural extension: Functions, impacts and questions. Agricultural Administration Research and Extension Network paper 47. London, ODI.

understanding FRG dynamics and processes, and assessing the impacts of farmer participation in research.

Trend of participation in FRGs

Our initial hypothesis was that farmers' participation in groups tends to follow the normal adoption curve, rising slowly at first, accelerating to a maximum, and then increasing at gradually slower rates. Analysis of the trend of participation in FRGs at the different stages of the experimentation process show that, typically, farmer participation in FRG tend instead to follow a "U" shaped curve, with high participation at the initial stages of the process, followed by dramatic decrease as many farmers drop out, and slow increase towards the end of the first season.

Many farmers who joined FRGs expecting free handouts (fertilizers, seeds, pesticides and credit...) later dropped out when they discovered that there were no immediate personal benefits and free handouts. This farmers, research and development organisations.

Who participates in FRGs

It is often argued that FRGs may exclude certain categories of local people (i.e. women, poor farmers...) who may not be able to absorb the cost of participation and experimentation. The identification of the specific characteristics of the participants thus is important in assessing the quality of participation, as it determines who participates and how the process is managed. Gender and wealth are basic determinants of representation and expertise, and need to be used as criteria for distinguishing who participates. Results in Figure 1 show that there is a significantly higher participation of male farmers at the beginning of the process, compared to women. However, as the process progressed, the proportion of men decreases while the relative proportion of women increases significantly.

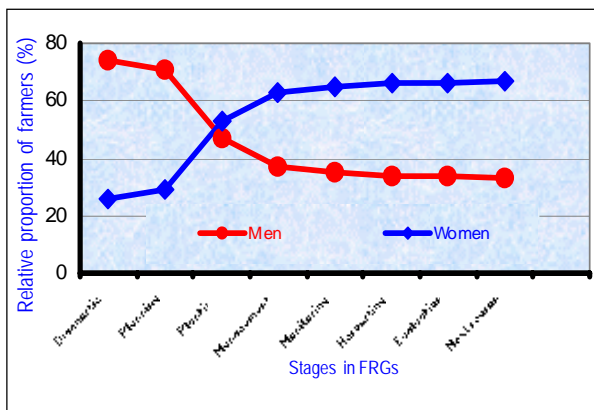


Figure 1. Farmers' participation in FRGs by gender

The higher participation of women can be explained by their dominant roles and responsibilities in crop production. Further, groups are known to provide women with a legitimate social space to foster a sense of solidarity and collective action. We did not find evidence to support the hypothesis that resources-rich farmers are likely to dominate FRG as they have resources to absorb the cost of participation and of experimentation. As poor people also successfully participate in research and conducting experiments, FRGs also benefit poor farmers. A proper gender and stakeholder differentiation is important to understand who participates, who benefits and the distribution of benefits among different categories of farmers.

Performance Criteria	Performance Indicators
Group Organisation	Group formation, group objectives, leadership, group structure, norms, decision-making, group activities, record keeping, group dynamics.
Experimentation/Research activities	Number of options or technologies, number of people with experiments, extent of experimentation, expansion to other crops and plots, extent of own experiment, feedback to research, technology outputs (yields, diseases, soil fertility).
Participation process	Number of people attending group activities, extent of participation, type of participation, participation of women in decision-making.
Human capital	Knowledge of technical options, new farming methods, self-esteem, self-confidence acquired in FRG, skills in implementing options, attitudes, innovativeness.
Social capital (Bonding)	Cooperation, trust, collective action, group cohesion, compliance to norms and rules, diversity of membership, heterogeneity/homogeneity of members, collective action.
Social capital (Bridging)	Vertical linkages; contacts with external organizations, with other groups and local institutions; exchange visits; collective action.
Reach or dissemination	Relations with rest of community, sharing of information and technology, farmer-to-farmer dissemination, field days.
Sustainability	Financial contribution, diversification of activities, vertical linkages, own initiatives, plan for future, dependence upon external organizations.

Factors affecting group performance

These include:

- Group size: larger FRGs have lower participation rates, higher rates of drop out, and a higher number of inactive members, which adversely affect group performance and cohesion. Leadership conflicts were common in larger groups.
- Social capital (relations of trust, cooperation, norms and sanctions, group cohesion, networks, group dynamics and collective action) was higher in smaller groups having a stable membership and leadership.
- FRGs are likely to be more successful in communities where there is local commitment to collective action and strong social capital.
- The successful FRGs are those that broaden the scope of their activities well beyond experiments, and gradually become self-sustaining by diversifying their activities.
- Personal commitment of researchers, group leaders and regular monitoring are key in explaining FRG success.
- Simple and short-term experimentation on crop variety evaluation, seed multiplication and fertilizer applications are good entry points to build farmer participation.

Effects of FRGs

- Reaching women and the poor: FRGs prove to be an effective mean of reaching rural women and rural poor, who are often neglected by formal research and extension services.
- Building social capital: FRGs are increasingly becoming the vehicle through which farmers pursue wider concerns, initiate new activities, organize collective action, and extend link with external organisations.
- New groups and "second generation" farmers' organisations are emerging as a direct influence of FRGs.
- Enhanced human capital and farmers' innovation: Farmers collectively acquire new skills and new knowledge, gaining confidence and self-esteem.
- Learning with spill-over effects: Technologies (seeds, etc) and skills are gradually shared with other community members, through farmer-to-farmer exchanges and sale of seed. Yet there can be a tendency to exclude non-group members, in reaction to ridicule from other community members at the initial stages.

Farmer research groups provide an approach having great potential for catalyzing the participation of farmers as partners in research and development activities. However, achieving such potential requires investments in managing and facilitating group dynamics that broaden the scope of participatory research from a functional consultative type to a more collegial and empowering type, and from variety selection to broader natural resources management research.