Research Workshop on Collective Action and Market Access for Smallholders,

2-5 October 2006, Cali, Colombia

The emergence of Farmer Field Schools Networks in Eastern Africa

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The first Farmer Field School (FFS) Networks emerged in Western Kenya during 2000 as a result of exchange visits and communication between farmers, facilitators, trainers and project staff. Similar networks have subsequently emerged elsewhere in Kenya, Uganda and Tanzania. These FFS Networks were formed by farmers who graduated from an FFS. The main reason for their formation was that FFS graduates wanted to continue activities generated by the FFS process, build local institutions for FFS implementation, continue with farmer-led FFS and benefit from becoming a larger voice in articulating their demands. The networks are characterized as FFSs clustered in a registered or non-registered association or not-for-profit company. To date, the FFS Networks in Eastern Africa support about 2,000 FFSs with close to 50,000 direct beneficiaries.

FFS networks in Eastern Africa have clearly shown how farmers themselves have been able to build bottom-up producer organizations during and after projects ended. Through this process the farmers themselves realize their own empowerment. Their leadership is well organized and as an outcome of passing through the FFS training, the networks are also well structured. This transpires into the networks being empowered to demand for services from private and public agricultural service providers, as well a, input and output market access through group bulking.

This self-emergence of FFS networks depicts FFS as an efficient and effective approach to organize and empower farmers. However, mechanisms and strategies for these FFS networks to access national and international markets have not yet been fully developed, and further training and support in business skills is required.

Keywords: Farmer Field School, FFS Networks, social capital, empowerment, group marketing, demand-driven service provision, Eastern Africa

1. INTRODUCTION

The Farmer Field School (FFS) approach[1] consists of groups of people with a common interest, who get together on a regular basis to study the *"how and why*" of a particular topic. The topics covered can vary considerably - from integrated pest management, organic agriculture, animal husbandry, and soil husbandry, to income-generating activities such as handicrafts. The FFS is particularly adapted to field studies, where specific practical hands-on management skills and conceptual understanding based on non-formal adult education principles is required. The field is the teacher, and it provides most of the training materials like plants, pests, soil particles and real problems. The FFS curriculum follows the natural cycle of its subject, be it crop, animal, soil, or handicrafts. For example, the cycle may be "seed to seed" or "egg to egg" (Gallagher, 2003).

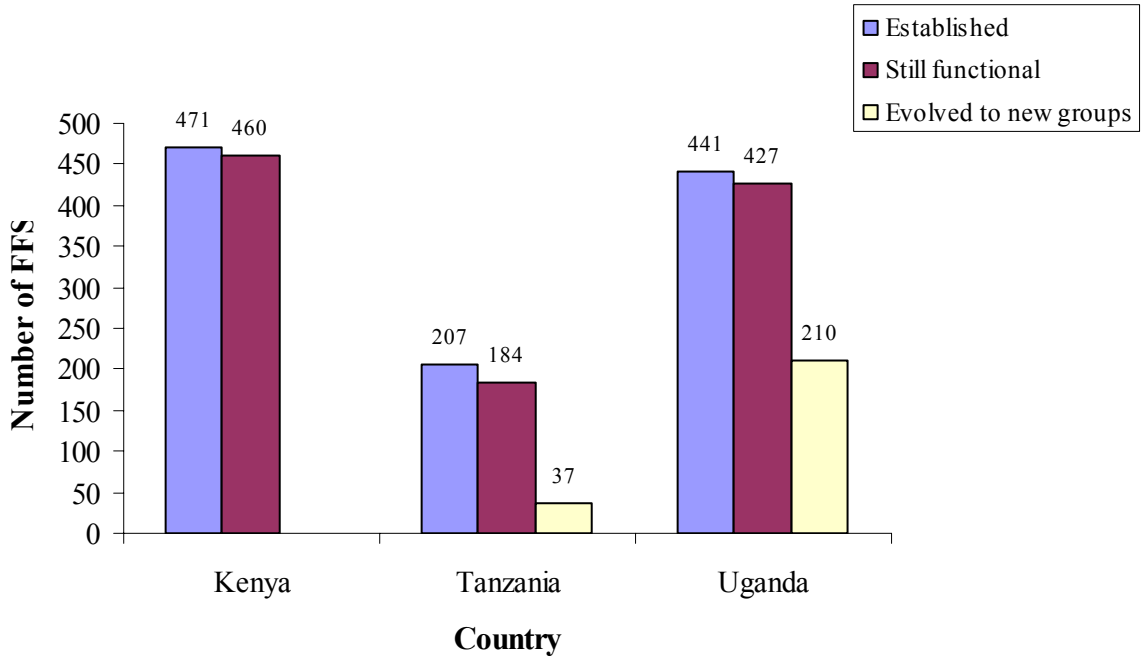
The approach was first introduced in East Africa in 1995 under the Food and Agriculture Organization's (FAO) Special Programme for Food Security in Western Kenya (Braun et al. 2006). Since then, various pilot projects have been implemented in the region using different entry points, e.g. integrated production and pest management, land and water management, self sustainability for refugee communities, integrated

[1] See Gallagher (2003) for a more elaborate but short description of the FFS approach.

crop management of sweet potato, promotion of farmer innovations, livestock, social forestry and control of banana bacterial wilt. Over the last decade, the approach has been successfully adapted from a typical rice mono-crop farming system to a highly diverse resource-poor smallholder farming system with strong interactions between crop and livestock components. The underlying reason for this success has been the involvement of farmers themselves in identifying their problems, and in selecting, testing and evaluating possible solutions. Several innovations gearing towards ownership and sustainability of the FFS process by the community have been and continue to be trial blazed for integration in ongoing and subsequent FFS programmes by many other organizations inside and outside the region.

As an experiential-based approach, close engagement and inclusion of farmers in the decision making process ensures that use of their limited resources builds on local knowledge and priorities, and brings about commitment to change. Regardless the entry point, at the start of the FFS, farmers identify their problems and opportunities and map out resources available as a basis of selecting relevant activity areas and topics in the season-long training and post FFS follow-up activities. By design, the FFS approach is set-up with complementary activities with standard features and was not intended for creating long-term organizations, but it has become apparent that most of the groups after the season-long FFS process continue working together to address problems within their community. Illustrative are the alumni FFS groups established between 1999 and 2002 under the East African Sub-regional Pilot Project on Integrated Production and Pest Management Farmer Field Schools (IPPM-FFS) supported by IFAD and the FAO Global IPM Facility. Figure 1 shows that only only 4.3% of the FFSs established between 1999 and 2002 disintegrated before maturity and by May 2006, all the other groups were still functional and are accessing services as groups from the various institutions and service providers. In Uganda, close to 49% had newer groups emerging based on more specific commodity or enterprise interests.

Figure 1 – Status of alumni FFSs established between 1999 – 2002 under the East African FFS pilot project



Source: FAO. 2006a

Whereas the technical component of the season-long curriculum is developed around a selected key entry point, key livelihood issues that affect the community are blended into the curriculum as special topics, e.g. HIV/AIDS issues, reproductive health care, nutrition, gender issues, malaria control, child immunization, environmental control, basic financial management, simple credit management skills and farming as a business. This responsiveness to farmers' needs has transformed the FFSs to popular community fora in which farmers discuss their problems within their own local context and seek local solutions with minimal external influence. This phenomenon has been a fundamental factor in developing the farmers' confidence to determine their destiny (Okoth et al. 2002).

The inherent attributes of the FFS approach of cultivating cohesion and a willingness among farmers to learn together while solving problems that affect them as a community, build their social capital as an individual amongst communities. As a precursor to transformation, the level of empowerment and organization developed in a FFS is critical and can have significant impact on the marginal returns of a subsistence-based farming system. This strong intra- and inter-group cohesion within and among FFS groups has led to the emergence of higher level associations like the FFS networks in the East African region.

2. FARMER FIELD SCHOOL NETWORKS

EMERGENCE

FFS networks are defined as an informal or formal grouping[2] of a number of FFSs with a common interest within well-defined geographical boundaries such as sub-counties, divisions or districts. FFS Networks were pioneered in Western Kenya as early as 2000 as an outcome of exchange visits and communication between farmers, facilitators, trainers and project staff. As the number of FFSs grew and alumni groups broadened in their level of operation, new issues and challenges emerged that could not be solved effectively by the individual groups. Similarly, there were increased opportunities for the FFSs to take advantage of and enjoy economies of scale necessitating more interaction and coordination among themselves. Subsequently the idea of FFS Networks was developed further in 2001 during an East African regional farmers' forum held in Uganda that brought together close to 300 farmers from Kenya, Tanzania and Uganda. Since then various FFS Networks have been established in all three countries bringing FFSs together within well-defined geographical boundaries such as sub-counties, divisions or districts. Initially FFS Networks were established in the IPPM-FFS project districts, but as a consequence of networking the idea spread to other geographical areas. Table 1 shows the characteristics of the District FFS Networks in the pilot districts.

The emergence of FFS Networks has also been attributed to the "foci model"[3] that was adopted for the establishment of the FFSs. In this model successive FFSs are established in the immediate neighborhood of existing ones in order to form a cluster. This has enhanced the frequency of interaction, experience sharing and horizontal flow of information among the different groups. As a result, innovations and the rich resources of indigenous knowledge can be transferred faster. The model also fosters coordination

[2] Such as an association, a federation, a cooperative, a company limited or any other means of formal or informal grouping.
[3] Growing from a nucleus outwards.

within the cluster, reducing the overall cost of implementation because the different FFSs are able to procure inputs and market their produce in bulk.

In an attempt to address the financial sustainability of FFSs, the East African FFS programme has trial blazed several innovations. Okoth et al (2003) describe the emergence of self-financed FFSs as a result of the provision of grants for the FFS process through joint savings accounts of the respective beneficiary groups. Initially, groups received US$ 400–500 to cater for all the inputs, stationery and facilitation costs for at least 30 sessions spread across one or two seasons. This is supported by proceeds from commercial enterprises that were managed alongside the study plots. Case studies with alumni FFSs showed that groups were able to recover the total grant with proceeds from their commercial plots after one or two successive growing seasons; as such the grant has now evolved into an educational revolving fund. In order to operationalize the revolving fund with minimal overhead costs, a functional FFS Network needed to be in place.

Table 1 – Characteristics of FFS Networks supported by the IFAD/FAO supported FFS programme

Country	**District**	**Year of Establishment**	**# FFS (2006)**	**Major activities since establishment**
Kenya	Busia	2000	383	• Farm input supply • Facilitating linkages with other stakeholders • Marketing • Bulking of produce • Managing FFS implementation • Promotion of improved technologies • Training on quality control, farming as a business, value addition, use of internet and email
	Kakamega	2001	186	
	Bungoma	2000	228	
Tanzania	Bukoba	2001	137	• Credit fund in place • Certified as seed growers • Group marketing • Commercial piggery
	Muleba	2001	120	
Uganda	Soroti	2001	164	• Processing of sweet potato • Group marketing • Savings and credit • Managing a revolving fund • Two storage structures in place
	Busia	2001	204	
	Kaberamaido	2001	81	

Source: FAO. 2006a.

ORGANIZATION

The FFS Network draws its membership from all the FFSs within a given geographical boundary. Each FFS elects one representative to the next network level. These representatives then elect the next network level representatives. FFS Networks usually have a core executive committee, which is also elected, comprising a Chairperson, Treasurer and Secretary and at least three working committees including: the finance and planning committee, the loans committee and the market information service committee (FAO, 2006). The membership to the executive committees and working committees is on a specific

period basis as specified by the network constitution. All capable members of the FFS are eligible, thus representation is not limited to the executive members of lower order networks only.

Individual FFSs have constitutions, bye laws and are registered as community based organizations with the respective District Community Development offices. Similarly all FFS Networks have constitutions that bind together the respective FFS membership and are also required to register as a community based organization, association, cooperative or not-for-profit company. This is important for recognition, safeguarding members' rights and vital for arbitration purposes.

The operations of the FFS Networks are supported by the constituent FFSs through annual or monthly contributions in the form of subscription fees[4]. Other sources of income include interest charged on the revolving fund, commissions on bulk network sales, registration fees, fines or penalties netted, donations and grants, shares from FFS members and profit from sale of farm inputs. However, these sources are inadequate for the effective operation of the FFS Networks and increasingly, many are engaging in commercial activities like agro-processing, produce trading and village phone booths.

MARKET LINKAGES

While individual FFSs are capable of conducting their own business, they are too small to engage in meaningful negotiations compared to the FFS Network that brings together over 25 FFSs. However, FFS Networks can only take advantage of the critical mass if the production among FFSs is coordinated. As business units, FFS Networks are directly involved in the pre-season planning and enterprise selection process to ensure some uniformity for collective marketing. Similarly, after ascertaining projected levels of production, FFS Networks initiate negotiations with potential buyers. For example, the FFS Networks in Eastern Uganda have initiated discussions with the World Food Programme (WFP), one of the largest cereal buyers, to supply maize directly to its collection points without any other intermediaries. In a second example, the district Networks of Busia and Soroti have constructed permanent agro-processing and storage structures with support from Sasakawa Global 2000 and the Northern Uganda Social Action Fund.

In Western Kenya the Kakamega FFS Network has been pioneering in accessing the national market in Nairobi, particularly for sweet potatoes (KIT/Faida MaLi/IIRR, 2006). Initially the Network attempted to sell fresh orange-fleshed sweet potatoes with limited success. However, value addition training and certification through Kenya Agricultural Research Institute (KARI) has enabled them to find a market through the Kenya Agricultural Commodity Exchange (KACE) for dried orange-fleshed sweet potato chips at Kirinyaga Millers, a flour producer offering higher prices for the value added product than for the fresh product. The Network is also looking for diversification opportunities with cash crops and has currently entered into a contract with an Eldoret-based private company to grow and supply chili peppers. A survey for potential national markets for passion fruit, moringa and chili peppers is also underway.

In a similar attempt, the sweet potato association under the Soroti District FFS Network briefly ventured into the processed orange-fleshed sweet potato market in Nairobi before settling for local millers. The cereals association is benefiting from a huge demand for epuri-puri (a variety of sorghum used for brewing) from Nile Breweries Company. The citrus association on the other hand is in advanced stages of finalizing a deal with one of the local beverage companies, Jakana. All these market- and commodity-orientated advances in the FFS Networks in Uganda can be traced back to a market linkages trade fair held

[4] Annual subsription fees vary between $30 and $40

in April 2006. The workshop, the first of its kind in Soroti, brought together the FFS Networks and other commodity based groups to identify different market chains and possible areas of collaboration. The most important lesson was that by providing a communication platform among the scattered pockets of producers triggers more realistic dialogue across the market chain.

In Kenya, the Kakamega FFS Network realized that as a Community Based Organization, its business opportunities were limited and closed out more lucrative markets. As a consequence they have opted to register a Limited Liability Company.

To ease coordination and in order to take care of the diversity of interests among the constituent FFSs, commodity associations within FFS Networks are emerging. For instance, the Soroti District FFS Network in Uganda has five upcoming commodity associations including citrus, cereals, honey producers, root crops, and oil crops so far. The associations are not limited to FFS members only but tend to accommodate other farmers. This informal relationship is functioning well at the moment but may pose organizational challenges as the membership grows.

INFORMATION BROKERAGE

Poor families living in rural East Africa have an astonishing set of skills. Given half a chance at earning some regular money from the proceeds of their own agriculture, they are capable and willing to produce more and better and earn themselves the money they need. However, they have little control over what happens with their crops, whom to sell, under what conditions, etc. Information is so poor, that under the traditional setting distrust is widespread and everybody cheats everybody along the marketing chains, leading to huge inefficiencies. So the most crucial bottleneck to market access for poor rural people is information on the existing and potential options for selling the things they can produce. Under these circumstances it is almost impossible to climb out of the poverty trap.

Likewise, most FFSs are established in remote rural settings with limited contact to their potential markets, the Realizing that good communication is vital to small farmers within the FFS who need better access to markets and to reliable information about prices, product quality and market conditions the FFS Networks have taken on the role of information brokerage and increasingly provide basic market information like markets, prices and volumes required to FFS members. This has also been boosted by an IFAD-supported initiative, the Linking Local Learners (LLL) programme (LLL. 2006) on demand-driven services which started in 2004 in Kenya, Uganda and Tanzania. The LLL methodology is an internet learning support and knowledge management system that integrates face-to-face action learning of local groups with peer-to-peer sharing of experiences between local groups that are separated by large distances. Action learning or learning-by-doing provides local groups with real world experiences in trying out new technologies or ways of working. Sharing these experiences using the LLL internet learning support tools stimulates new thinking and quickens the spread of effective locally relevant practices. LLL allows groups of local learners to use email and internet to stay in contact and exchange experiences with each other over distance and time. Learners use the service to conduct ‘virtual’ distance workshops on learning topics of their own choice. It enables horizontal learning and peer exchange between local farmers and service providers to explore how demand driven services can be improved (Lightfoot et al. 2006).

As a result of the LLL initiative, all FFS Networks in Uganda and Kenya have a market information service and joint email addresses. Much as connectivity still remains a limitation, at least all the towns within the programme area have an internet kiosk and some of the FFS Networks are looking at this

service as a potential business. The recent introduction of cordless terminal sets by some communications companies in combination with solar panels may an option for the FFS Networks.

In Tanzania, there is a similar initiative, the First Mile[5] pilot project of IFAD supported by the Government of Switzerland and implemented in the framework of the Agricultural Marketing Systems Development Programme.. Technical assistance is being provided by the LLL consortium to help small producers, processors, traders and others in the market chain to communicate better, form partnerships and learn from each other so they can have better access to market information and negotiate fairer and more collaborative trade.

CAPACITY GAPS

All farmers in the FFSs are eligible to be elected in any position within the FFS Network leadership structure. As a consequence the FFS Network leadership may be having limited formal education. To effectively match the responsibilities of the FFS Networks as the size and level of sophistication of their operation grows, poses new capacity challenges that have to be dealt with. Realizing this, the current focus of the FFS Programme in the region is to build the necessary capacity and put in place a system that can be independently managed by the farmers themselves with minimal external assistance. The curriculum at the FFS level is increasingly being adapted to incorporate farming as a business, simple financial management, marketing aspects, leadership skills, and savings and credit. In Uganda, two separate draft manuals, a Facilitators' Guide and FFS Network Operational manual addressing all these aspects have been developed together with the facilitators and members of the FFS Networks respectively and are currently being field tested.

Regular tailored trainings on request or purposively selected by the programme are conducted for the various FFS Networks on specific concepts. The content is usually simplified into applicable guidelines and formats that can be operationalized within the FFS Networks, e.g. the programme in Uganda is working very closely with a local NGO, Poverty Alleviation and Community Development Foundation (PACODEF) which has had a long experience in developing rural savings and credit groups with strong market orientation.

Despite the fact that the basic required capacity to conduct their own business with relative independence has been built within the various FFS Networks e, capacity building is continuous. This is even nd more critical in circumstances where turn over in the leadership structure is high due to the set duration for office bearers being short. Some of the commonly demanded aspects for capacity building have included; planning, conducting feasibility studies, market research, records and financial management, and contract farming.

To boost confidence and mentor the process, facilitators resident in the community[6], community development workers or farmer facilitators are used. Experience has shown that use of resident facilitators and especially involving the farmer facilitators, has increased the ownership of the process. Their motivation coupled with a better understanding of the community makes them more responsive to the farmers' needs. While the farmers are increasingly taking on the direct role of facilitation, extension staff

[5] The term "first mile" refers to bridging the connectivity gap that separates a village with no electricity and no telephone line from the nearest online computer. It emphasizes rural communities as the starting point of connectivity, not the end point.
[6] Which may be retired extension workers

slowly broaden their community development role of linking the groups to services beyond agricultural training. These informal linkages have been significant in addressing diverse problems for which expertise from other stakeholders like NGOs, CBOs or even other farmers is required. Consequently, this change of roles and provision of a "coordinated vehicle" in which other players can incorporate their activities, has led to the saving of farmers' valuable time. Else, the same farmers would be confronted by different players at different times with similar messages and at the expense of their time.

3. CONCLUSION AND WAY FORWARD

With modest budgets, FFS programmes in the Eastern African region have successfully shown that FFS Networks are an effective way of organizing and empowering smallholder farmers with common interests and increase their access to markets. It is also apparent that market information for rural smallholder farmers has enhanced farmers' access to markets. However, mechanisms for facilitating market opportunities are still weak within FFS networks. As the FFS Networks grow and take on more complex initiatives, there is need for more investment in capacity building in the fields of financial management, marketing, standards and quality and ICT. A pool of competent and innovative facilitators and mentors should be in place to ensure sustainability of the process. More investments in training and equipping the FFS Networks with the relevant information and communication technology will bridge the information gap and enhance the diversification of business opportunities and improve efficiency of transactions. The revolving funds that have been operationalized within some of the FFS Networks need to be natured into a more sustainable and long-term investment venture by supporting the FFS Networks to identify viable income generating activities. Better documentation of the lessons learned will also be necessary for scaling-up the process of establishments of FFS networks. Lastly, there is a need for much more investment in FFS Networks in the rural areas of Eastern Africa. The potential for investments has not been fully exploited and farmers will still require external investments (grants or loans) to be able to move away from poverty. In this context a statement from a Kenyan taxi driver is illustrative: "you need money to make money"!

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ACKNOWLEDGMENTS

The authors would like to thank all FFS networks in the Eastern African region for sharing their experiences with the authors for the benefit of other FFSs around the world. The rich experiences gained from the East African FFS networks will ensure that FFS networks will evolve around the world and prevent others from reinventing the wheel. Initiatives such as LLL and the Global Farmer Field School Network and Resource Center will also contribute towards this goal.

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