



A Farmer Field School group doing a situation analysis. Photo: Sally Bunning

Towards a holistic Farmer Field School approach for East Africa

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The Farmer Field School (FFS) experiential learning and self-help development approach has become very successful in Southeast Asia in improving irrigated rice production, even beyond Integrated Pest Management (IPM) for which it was initially designed (see LEISA Magazine Vol 17, No 3, pp 18-20). The approach is now also being used for IPM in many other crops (e.g. potato, see Sherwood et al, LEISA Magazine Vol 16, No 4, pp 24-25), for other focussed aspects of agricultural development e.g. Integrated Soil Fertility Management and even for more holistic community based rural development. It is spreading from Southeast Asia to South Asia and Latin America and, more recently, even to Africa. Adaptations of the approach are needed for each new purpose and each different situation. In 1999, the FAO Global IPM Facility launched an East African sub-regional pilot project for farmer field schools on Integrated Production and Pest Management (IPPM) in 3 Districts of Kenya, 3 Districts of Uganda and 2 Districts of Tanzania, to adapt the FFS approach to the East African context. In this article, the field coordinators of this programme report on the first experiences.

The specific context of East Africa

In East Africa agriculture is small scale and integrated, for both subsistence and market, combining multiple crops with several animal species and increasingly, with other economic activities. In the areas of Kenya, Uganda and Tanzania, where the programme is being implemented, rain comes in two seasons bringing between 600 – 2000 mm yearly. Maize, cassava, sweet

potato, banana and beans are important food crops and maize, sugarcane, coffee, cotton and tea are the main cash earners. Most families keep some chicken, goats or sheep, and some have cattle. Population pressure is high, soils are increasingly depleted and eroded, and pests are very active. Economic opportunities outside agriculture are few and the HIV/AIDS pandemic is increasingly affecting agriculture. All this is putting a lot of pressure on farmers to find new sources of income and to adapt and intensify their farming practices.

A broad approach needed

A mono-crop (rice) and mono-focus (pest management) of the FFS, as practised originally in Southeast Asia, would not work in East Africa. Depending on the local situation, farmers have different priority issues on which they would like to work in improving their livelihoods. With integrated production and pest management as the entry point, the FFSs in East Africa have included other aspects that have a bearing on production and livelihoods in general. At the onset of the FFSs, farmers undertake a participatory prioritisation exercise during which problems are identified and available resources are mapped out holistically. This forms the basis for relevant inclusions such as: HIV/AIDS issues, basic principles of nutrition, reproductive health care, immunisation, malaria control, environmental management, financial management skills, farming as a business etc. As a result the FFSs in the region have evolved to a forum where community livelihood issues are discussed.

The IPPM curriculum includes growing a healthy crop in healthy soil, conservation of natural enemies, regular field

observation and empowering farmers to become experts. During the season-long, hands-on training process farmers are exposed to different soil husbandry and production practices, ecological pest management, post-harvest handling, value addition commercialisation and more importantly rational decision making as regards crop management.

Programme implementation

In the first phase of the programme, core facilitator field schools were created. Local governmental extension workers and NGO staff were trained as first-line facilitators accountable to the District Extension Workers. These first-line facilitators initiated Farmer Field Schools in the regions where they were based. Now, after many Farmer Field Schools have been started, more and more farmers are volunteering as second-line farmer facilitators. Their motivation coupled with a better understanding of the community makes them more responsive to farmers' needs. As the farmers take on the facilitation of FFSs, the role of extension workers is shifting to technical backstopping and linking the groups to services.

The FFSs are established following a foci model (growing outwards from a nucleus). This has increased the level of interaction among farmers, enhanced the flow of innovations across the project area and led to better co-ordination. The model has also increased community interest because impact is visible. As a result, farmers groups have established FFS networks to take on the organisational lead and advocacy role at regional and national levels..

In the FFS groups farmers learn to make an agroecosystem analysis, a crop management decision process, a participatory problem and needs assessment and how to develop a vision on improving their livelihoods. They also learn how to write grant proposals for the activities they select to work on. On acceptance of the proposals by the programme small grants are transferred to the bank accounts of the groups. With this money farmers are able to "hire" extension workers and other resource persons who can provide the information and skill training they need. Farmers are motivated to create a culture of saving to refund the working capital of their FFS groups.

A questioning, sharing and learning attitude is stimulated to enhance participatory farmer experimentation and innovation. Exchange visits link FFS groups with other farmer innovators who provide farmer-to-farmer training on their innovations.

First results

In this way more than 1000 FFS groups of 20 to 25 persons each have been started. They are now very coherent, empowered to request services and to start up commercial activities that are partly self-financed. Farmers, resource persons and facilitators have shared their indigenous and scientific knowledge which has increased the farmers' understanding on, for example, the impact of pesticides on human health, how to apply pesticides in a safe way, integrated pest management or on integrated soil fertility management

Earlier, farmers tended to keep their knowledge to themselves and did not share it with extension workers. As the attitude of extension workers has changed, from top-down teachers to equal partners, farmers have started to trust and appreciate them for their contributions and willingness in solving problems. Thus many more farmers have been reached.

FFS groups are also being used by other government services as platforms for diffusing of information, e.g. on malaria and AIDS prevention. There also have been Field Schools on food security and health. So, the initial narrow focus on pest management has widened to a broad problem solving approach, and the network of FFS groups and innovative farmers is growing fast.

Practical applications and future plans

Some groups are working on the 'push and pull' system as developed by ICIPE in Kenya (see LEISA Magazine Vol 17, No 4, pp17-18) to increase their maize and bean production. Small farmers who did not have animals were not willing to replace beans by Desmodium or to include Napier grass in the system. Adaptations were therefore needed.

Other groups are looking at the locally available sources of nutrients, improved fallow, the use of Mucuna as green manure and compost making. The soil is observed routinely, and soil, plants and animals are analysed as an interactive and interdependent whole.

Groups working on mitigating the impact of HIV/AIDS increased their awareness of the problem, the need to take care of the sick and available coping strategies. They have developed ways of farming with less labour, e.g. shifting from banana production to other crops. Women's groups have started to work together and indigenous farming knowledge is being transferred to orphans who are expected to take care of the family plots.

In Uganda farmers are working on the extraction of oil from sunflower seed with the use of hand presses. In the next programme phase, the business aspects of farming and marketing of surplus production will be given attention. Marketing groups will be started, market information exchanged and the quality of the products improved, among others, by reducing pesticide use. In this way, groups will try to get higher prices for their products.

Constraints

The FFS approach is very new in East Africa and there are still some serious constraints. The necessary attitudinal change takes time and many facilitators still have limited participatory skills. Process documentation necessary to improve the Field School methodology is time consuming and often is not given enough attention. Practical information for farmers is lacking and the internal information flow of the programme often does not reach the facilitators and farmers. When the relations within the groups are not good, groups do not function well.

Prospects

Training of the professional FFS trainers is expensive. But overall, the approach is relatively cheap and cost-effective as the farmer facilitators are basically volunteers. Compared to the ineffective old extension system the results of the FFS approach are much better not only in terms of the numbers of farmers involved and increased production, but also in terms of education of the rural population. The good results are being acknowledged and appreciated by the governments but they cannot afford the costs of 300 – 700 USD/ Year (2 seasons) necessary for each FFS group. External funding therefore is needed. With financial support from the World Bank, GTZ, UNDP and IFAD, the programme will now be extended to seven other Districts in Uganda, five in Tanzania and seven in Kenya.

Even after this short pilot phase, the experiences in East Africa show that, where funding is available, broad-based Farmer Field Schools certainly are a very promising approach for farmers in Africa to increase and improve their agricultural production and livelihood conditions.

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