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**Farmer Field Schools: An Alternative to Existing Extension Systems?
Experience from Eastern and Southern Africa**

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Abstract

Many extension education approaches have been tried in Eastern and Southern Africa with varying degrees of success. Extension approaches that contribute to the reduction of poverty in this region are needed. One important model right now is farmer field schools (FFS), based on adult education principles such as experiential learning. Farmer field schools are usually an intensive, season-long program where farmers meet weekly to learn and experiment on a given topic. Using document analysis, key informant and group interviews, and personal observation, this paper reviews the FFS philosophy, history, and experiences of applying FFS methodology in the region. It discusses whether FFS could be an alternative to existing extension systems in Eastern and Southern Africa. The paper concludes that FFS are not an alternative to existing systems, but that certain principles of FFS could be picked up and incorporated into various systems, including agricultural extension, research, and even health, to make them more effective at reaching small and marginalized farmers and in alleviating poverty and food insecurity.

Keywords: Extension, Education, Africa, Farmer Field Schools

Introduction

Improved agricultural production coupled with protection of the natural resource base is the key to reducing poverty and malnutrition in rural areas, especially in Africa, with most people living in rural areas, and with agricultural production declining. Agricultural extension has long been seen as a key element for enabling farmers to obtain information and technologies that can improve their livelihoods (Purcell & Anderson, 1997). However, extension has been criticized for failing to deliver such results in a satisfactory manner. At the same time, governments have drastically reduced budgets in the agricultural sector, making it even more difficult for the public sector to deliver extension services. Another critique of extension is that it does not effectively reach marginalized farmers including women, minorities, and people in very remote areas (Alawy, 1998).

There have been six major extension models experimented with in Eastern and Southern Africa (ESA) (Gemo, Eicher, & Tecler, 2005). This includes the public extension model started by colonial governments, commodity extension, training and visit (T&V), the non-governmental organization (NGO) model, the private sector model, and the farmer field school (FFS) model.

Most public agricultural extension services in Africa, including T&V, are now in crisis (Rivera, 2001). In most countries research-extension linkages are problematic due to (in part) the collapse or the poor state of agricultural extension. This has helped to fuel the search for other approaches, including increased provision of extension services by non-governmental organizations, civil society organizations, and the private sector (Rivera & Alex, 2005). A number of options have been tested but no apparently promising alternative has yet emerged (Gemo, et al., 2005). Up-scaling the limited success stories tend to be difficult and often prohibitively expensive. Unfortunately,

there is little systematic rigorous research and analysis on the performance, cost effectiveness, and sustainability of the alternative extension models.

Due to the reforms taking place within the agricultural research and development (R&D) arena, ESA is facing a transition period in which R&D systems will need to restructure themselves, confront new demands, and adjust to new political, scientific, institutional, and economic environments. In most developing countries, a new institutional and economic framework is emerging where R&D becomes an economic activity and knowledge is an important source of innovation. "A paradigm shift is needed towards an innovation, information, knowledge, and education quadrangle coalition in place of the outmoded linear and top-down research-extension-farmer framework that has failed in Africa" (InterAcademy Council, 2004, p. 217). There is a need to substitute traditional extension systems with participatory, pluralistic knowledge systems that are more gender sensitive and pro-poor (InterAcademy Council). The key elements of the new paradigm put emphasis on people rather than "things," decentralization, empowerment, voice for farmers and their priorities, and co-learning with beneficiaries. A greater diversity in information and technology delivery systems is being called for, as well as more stakeholder participation. Such participatory approaches call for a fundamental shift in the attitude of the change agents. For extension, this means instead of being agents imposing concepts or technologies from outside, they are instead catalysts, facilitators, and knowledge brokers, helping communities achieve their defined and perceived goals (Anandajayasekera, Mweri, Zishiri, Odogola, Mkuchu, & Phiri, 2001).

In the recent past, a number of reforms have been attempted within the extension arena in ESA to address some of these emerging issues. The reform agenda includes privatization, decentralization, cost

sharing, commercialization, contracting (in and out), pluralism, and enhanced participatory processes. Running parallel to and often complementing, but not officially part of the reforms, is the FFS model. The FFS model is “increasingly being seen as a possible future for mainstream extension practice in a growing number of African countries” (Simpson & Owens, 2002, p. 29). However, in spite of the scale of implementation, there is limited evidence on the impact of FFS (van den Berg & Jiggins, in press).

Methods

This paper is a result of documentary analysis, key informant and group interviews, and personal observation of FFS in the region. The material reviewed is based on case studies and impact assessments of FFS carried out in ESA, complemented by related studies. Most of the empirical data from this study comes from five in-depth case studies of FFS by a program of the Food and Agriculture Organization (FAO). This program was FAO’s Farm-level Applied Research Methods Programme for Eastern and Southern Africa (FARMESA), which helped to identify, test, modify, promote, and institutionalize improved and proven farm-level applied research methods. The FARMESA program was a regional collaborative initiative of Kenya, Malawi, Tanzania, Uganda, Zambia, and Zimbabwe in association with Botswana, Mozambique, and South Africa, with the goal of contributing to better living standards among smallholders in ESA through improved food security, increased incomes, and appropriate management of resources. Preliminary participatory diagnostic work by the FARMESA program in almost all member countries identified lack of know-how and poor linkages as constraints to adoption of the available improved technologies. As a result several FFS “mini projects” were developed and implemented in FARMESA member countries during the 1998–2001 period. These mini projects

covered five countries: Kenya, Tanzania, Uganda, Zambia, and Zimbabwe.

In 2001, the FARMESA program attempted to survey the national experience from the mini projects. Country case studies were conducted by team leaders of the pilot projects. Data were collected from the pilot sites and from on-going FFS. Primary data from the pilot projects—obtained through key informant and group interviews—and secondary data from other projects were used. Following national workshops in each of the five countries, team leaders were then invited to a review workshop, which included experience-sharing and identification of key issues. The consensus at different levels and outcomes of this workshop are shared in a synthesis paper by Anandajayasekeram, et al. (2001).

Background

The FFS is a method to educate farmers in an informal setting within their own environment. FFS are “schools without walls” where groups of farmers meet weekly with facilitators (Davis & Place, 2003). FFS are a participatory method of learning, technology development, and dissemination (FAO, 2001) based on adult learning principles such as experiential learning (Davis & Place). The defining characteristics of FFS include discovery learning, farmer experimentation, and group action.

The approach is an interactive and practical method of training, and empowers farmers to be their own technical experts on major aspects of localized farming systems. It assumes that farmers already have a wealth of knowledge. Farmers are facilitated to conduct their own research, diagnose and test problems, and come up with solutions. FFS training programs “help farmers develop their analytical skills, critical thinking, and creativity, and help them learn to make better decisions” (Kenmore, 1996, cited in Feder, Murgai, & Quizon, 2003, p. 6). Such an approach, in which the trainer is more of a facilitator than instructor, reflects

a paradigm shift in extension work (Röling & van de Fliert 1994, cited in Feder, Murgai, & Quizon, 2004; Van de Fliert, Pontius, & Röling, 1995). “Through group interactions, attendees sharpen their decision making abilities and their leadership, communication, and management skills” (Van de Fliert, 1993, cited in Anderson & Feder, 2004, p. 20). “A typical FFS entails some 9-12 half-day sessions of hands-on, farmer experimentation and non-formal training to a group of 20-25 farmers during a single crop-growing season” (Anderson & Feder, 2005, p. 20).

A Training of Trainers (TOT) workshop is held before forming groups, to teach government extension agents or other facilitators topics such as FFS methodology, participatory techniques, inter-personal skills, and group dynamics (Davis & Place, 2003). During the FFS period, the farmers hold field days for other FFS groups and neighboring farmers. This is a chance for each participant to teach others what they have learned (Davis & Place). The FFS ends in a public graduation ceremony, where farmers receive certificates. The occasion is also used to bring in the policy makers, senior research and extension managers, leaders of civil societies, and non-governmental organizations to share experiences and to mobilize community and government support to continue FFS activities. At the end of the FFS cycle, certain farmers may be chosen by the group to be farmer facilitators. They can then lead their own FFS in the next season (Davis & Place).

The FFS itself is a relatively new concept, but is based on adult education and experiential learning methods that have been employed for some time, such as study circles used after World War II in Europe (Gallagher, Braun, & Duveskog, in press). “The Integrated Pest Management (IPM) FFS emerged out of a decade of experimentation in implementing participatory farmer training activities in the Philippines, beginning in the late 1970s”

(Simpson & Owens, 2002, p. 30). The refinement in the Philippines program and a new major effort in Indonesia in the late 1980s led to the birth of FFS movement (Pontius, Dilts, & Bartlett, 2000). The method was introduced in Indonesia in 1988, through Food and Agricultural Organization (FAO) support to the Indonesian IPM Programme in rice (Asiabaka, n.d.). During the 1990s, FFS research, education, and extension methodology spread rapidly to other Southeast Asian countries. The apparent initial success of this methodology brought the concepts and practices to the African continent. The first ESA FFS were held in Kenya in 1995. On a wider scale, FFS were first used in Zimbabwe in 1997. A number of organizations began implementing pilot case studies after 1997.

Results

The classical FFS in South East Asia focused on IPM technologies and rice, but in the African case study countries, FFS were extended beyond pest and disease management to include all aspects of husbandry practices on a number of enterprises as shown in Table 1. While the original FFS focused on monoculture, many of FARMESA-supported FFS worked on intercropping and multiple cropping systems and enterprises. By necessity, the various FFS implemented under FARMESA by the case study countries shown in Table 1 made a number of changes to the classical FFS model. They are discussed below.

The classical IPM as well as the FAO-funded schools worked on season-long TOT workshops, and expected the national system to use these trained facilitators to establish FFS in the rest of the country. Due to time constraints FARMESA either used the existing trained facilitators (most were trained by FAO), or exposed the research and extension staff to a quick and basic training on the concepts and principles of FFS, and utilized them as facilitators. In the case of Kenya, trained trainers were used to

spearhead the FFS activities. In all other cases, FFS concepts and principles were covered during Farming Systems Approach Training workshops, and schools were established based on this exposure. Since the FARMESA mini project team leaders were exposed to participatory technology development and dissemination, they were in most cases familiar with the technical subject matter area, and with working with farmer groups. Introduction of the concepts and principles of FFS within these projects was considered to be the logical extension of on-going field activities. Once the priority

enterprises and key constraints were identified through the participatory diagnostic and planning process, a very short (2–3 days) refreshment orientation training was provided to the extension staff on the current “best bet” husbandry practices of the priority enterprises. Subsequently, the research staff worked with the extension staff in the field, ensuring the proper application and follow-up. This modification to the classical model proved to be cost-effective and workable within the local environments.

Table 1

Year of Introduction and Enterprise Coverage as of 2001: Case Study Countries

Country	Year	Enterprise/Technical Aspect Coverage
Kenya	1995	Maize, beans, poultry, coffee, vegetable, goats, soil and water conservation, seed production (maize, beans, sorghum, millet, cowpeas, pigeon peas)
Tanzania	1995	Tomatoes, Irish potatoes, cabbage, beans and maize
Uganda	1998	Cassava, beans, ground nuts, maize, coffee, sorghum, millet, yams, sweet potatoes, cattle, goat, poultry, husbandry, feed resource management, livestock feeding, fish farming and fish fry production, irrigation, soil and water management, and micro credit
Zambia	1996/97	Maize, ground nut, sunflower, peas, cabbage, tomatoes, cotton, irrigation, fertility management, and soil and water management
Zimbabwe	Mid 1997	Integrated production and protection management on cotton, maize, and ground nut

Frequency of the group’s meeting was determined by the group, instead of meeting by rote every week, and the participants met only during the critical periods (i.e. the group did not meet every week). In addition, the same meetings were also used to discuss with and train farmers on other aspects, such as farm-level seed multiplication and distribution, group based savings-credit schemes, simple planning and budgeting techniques, and so forth. The facilitators also strived to incorporate the

key principles of FFS with the other existing participatory extension methods and principles.

Problems Encountered in Implementing FFS in ESA

The problems encountered by the various teams in ESA in the implementation of the FFS concepts and procedures in the mini project are summarized below.

- Inadequate exposure of research and extension staff to the concepts and

- procedures of FFS (Zambia, Zimbabwe, Kenya, Tanzania, and Uganda)
- Competition between different donor groups and conflict of interest at the farm level, especially when some donors were committed to specific extension methods (Zambia)
 - Misconceptions about the wider application of the concepts of FFS (all five countries)
 - Sharing of proceeds from the school activities (Zimbabwe and Tanzania)
 - Scheduling conflicts between schools and other local activities, or in some cases local administration and chiefs scheduled meetings at the same time (Kenya and Tanzania)
 - Lack of coordination of FFS activities at the national level (Kenya)
 - Predetermined content of the FFS, especially the IPM focus, although the countries have decided to focus on broader management aspects where IPM receives undue attention (Zimbabwe)
 - Conflict of interest between facilitating agencies on the use of methodology (Tanzania and Uganda)
 - Gender balance in FFS, that is, predominant participation of female farmers in some countries and much lower in some other countries (Kenya, Tanzania, and Uganda)
 - Lack of national-level commitment to the FFS concept. As a result many FFS are donor funded (all five countries)
 - Use of complicated designs in field demonstrations (Tanzania)
 - Low level of participation and involvement of policy makers from village up to regional level (Tanzania)

Lessons Learned in ESA

FFS procedures have built-in flexibility, so the concepts and procedures can be modified to suit local conditions and be effectively integrated into the existing

pluralistic participatory research and extension methods. Most of the case study countries in ESA have already embraced system-oriented participatory approaches. The FFS were seen to be complementary to the other participatory approaches to enhance learning and development of functional expertise.

Given the current R&D structure and research and extension philosophy, FFS may not require much institutional change for effective integration or institutionalization, but there is a definite need for additional training or orientation toward FFS methodology at all levels. Continuity and sustainability require effective integration of the concepts and principles into the academic curricula of learning institutions.

As in many other cases, most FFS are implemented through externally funded programs, which provide inputs for the FFS and sometimes refreshments for farmers when attending field days. Both these aspects are not sustainable in the long run beyond the project period. Therefore, in the future, arrangements should be made with the farming community so that there is some cost sharing in order to enhance the sense of ownership and responsibility, contributing toward continuity and sustainability. This is already taking place in Eastern Africa, where self-financed and semi-self-financed schools are in place, and schools use commercial plots to repay loans to run the schools (Khisa, 2003). In one of the mini projects in Malindi District in Kenya, the group members covered the cost of travel of the extension staff (Anandajayasekeram et al., 2001).

There is an implicit assumption in the FFS approach that there are significant multiplier effects through farmer-to-farmer training. In the case study countries, it was observed that farmers are willing to share information with other farmers, but an internal mechanism was not put in place to compensate for their time. Trained farmers often require logistical assistance. Therefore in order to harness the multiplier effect, this

aspect should be explicitly addressed during the institutionalization process.

In a number of cases, the trial comparisons were only made on pre-determined experimental plots. Thus opportunities for further learning were lost by not including the rest of the host farmer's field or visits to other participants' fields, thereby expanding the scope for learning in the field. The FFS approach can be effectively combined with "look and learn tours." Therefore, farmers' experiential learning could also be enriched by study observation tour or visit to other areas.

The FFS approach used in the mini projects did not pay much attention for the need to actively involve local institutions such as farmer organizations, churches, business people, councils, and chiefs. If local institutions and leadership are to support the innovation, then their active involvement in the process will create a common understanding of the objectives from the very beginning to assure local sustainability, funding, and support.

To be cost effective, the classical FFS approach requires location-specific modifications. The FFS should also provide comprehensive and integrated husbandry practices of crop/livestock or any other enterprises, and not deal with isolated components of production processes.

Impact assessment of the FFS approach is also critical, and has to be increasingly conducted by farmers themselves as the ultimate owners of their development. The abilities of extension staff to facilitate effective impact assessment by and with farmers are as crucial as the array of technical skills and practices that farmers are facilitated to learn. Although attempts have been made to assess farmers' knowledge about the technology/production packages taught in the FFS (through pre- and post-tests), farmers' perceptions about the concept and the cost of running FFS and a comprehensive assessment of FFS as an alternative method for extension and empowering communities has not been

attempted systematically. The participatory evaluation method should be increasingly used to obtain the impression of the various stakeholders. A carefully developed needs-based monitoring and evaluation system is vital for performance assessment, and should be an integral part of the pilot testing phase.

Attempts were made to estimate the cost of running FFS and the common alternative methods used for education and technology dissemination. The most common alternative method in most countries at the time of this study was modified T&V. It was extremely difficult to compare costs across countries, as the basis of cost estimation used is not standardized. However, the available preliminary cost estimates indicates that the FFS approach is relatively cheaper than T&V in terms of cost per farmer, assuming that both resulted in similar output and outcome (Anandajayasekeram et al., 2001). Although the initial development cost for both training of facilitators and field extension methods is high, with appropriate modification to suit local environment and if conducted effectively, the long-term cost of FFS could be relatively low and returns potentially very high. For example, in Kenya the cost of running FFS was reduced from 385,000 Kenya shillings (about 5,000 USD in 2000) in the first year to 68,000 (890 USD) in the subsequent year (Mweri, 2001). "Estimates of costs per farmer for FFS training in several East African programs vary between US\$9-35 depending on whether extension agents or farmer facilitators are used" (Dragun, 2001; in Simpson & Owens, 2002, p. 34). Simpson and Owens (2002) also reported that "innovations such as the use of a decentralized FFS approach in Ghana... have achieved cost levels of US\$8-10 per farmer" (p. 34).

Evidence from the five case studies in ESA (Anandajayasekeram, et al., 2001) shows that FFS have contributed to changes in attitudes and perceptions of participants, and facilitated the development of new

relationships between farmers, researchers, extension workers, and community development personnel. During the regular monitoring and evaluation of field activities, there was much interaction among stakeholders, according to the country case studies.

Experience in all five countries also revealed that there is immediate uptake of technology by participants because trainees discover, learn, then integrate positive ideas into their own production system; and spread information on new improved technologies in a community (Anandajayasekeram et al., 2001). The immediate uptake of poultry production technologies (vaccine, housing, and feeding) by farmers in the poultry FFS in Kakamega, Kenya is a good example of such farmer behavior (Mweri, 2001).

Based on the ESA case studies, pre-conditions for a successful FFS include

- Organized, committed, and willing communities and participants;
- Well-trained, motivated, and dedicated facilitators with a good understanding of the local community environment and circumstances, including familiarity with local customs and terminologies;
- Well-defined prioritization of problems and availability of appropriate technologies to address these problems;
- Adequate resources and logistical support for the facilitator;
- Clear understanding of the concepts, principles, and procedures of FFS by all stakeholders;
- Support and goodwill of the authorities at various levels, especially civil societies at the local level and the research and extension administrators at all levels; and
- Capabilities by farmers and communities for internalizing complex knowledge systems and bio-physical relationships.

Conclusions

As with all extension and education approaches, there are both strengths and weaknesses. Some of the issues or controversies surrounding FFS include participation by poor and marginalized farmers, institutionalization, and the financial sustainability of up-scaling. These key issues of relevance are discussed in the following section.

Participation: Simpson and Owens (2002) warned that “there is a chance that FFS may develop an ‘elite bias,’ favoring those who are literate, leaving out the often majority of illiterate farmers” (p. 35). However, evidence from East Africa suggests that most FFS members are from the middle and poorer strata of wealth levels (Khisra & Wekesa, n. d.). There have also been differences as far as gender balance of FFS groups (Anandajayasekeram et al., 2001). Nevertheless, in determining the future course of action with respect to scaling up, it is critical to conduct independent, comprehensive, and systematic analyses by multiple stakeholders, with the results of such studies being made available widely to all decision makers.

Institutionalization: The term “institutionalization” in this context refers to the permanent integration of FFS into the national agricultural research and extension system as a means for technology dissemination, empowerment, and capacity building of the rural communities. Since their inception in Indonesia, FFS have remained a separate activity in addition to regular agricultural extension activities undertaken nationwide in most countries. Farmer field schools have impact at the local level; however, ability to replicate to the national scale is still in question. One example of up-scaling is the Agricultural Services Support Programme in Tanzania (Gallagher et al., in press).

Issues that require greater attention and integrated planning in ESA include: “ensuring continued relevancy, establishing greater local involvement in knowledge

generation, establishing a means through which more broad-based intra-and inter-group sharing of knowledge and experience can be achieved, [and] sustaining improved relationships with outside stakeholder groups” (Simpson & Owens, 2002, p. 35). Therefore, alternative strategies and approaches need to be explored to effectively integrate the key principles of FFS into the existing pluralistic framework.

Financial sustainability: Although there is every indication that the FFS concept is spreading beyond the original pilot areas, and a significant amount of the spread is due to demand from below, it is noticeable that many of these initiatives are still supported by external funds. Are FFS an affordable extension and education model for farmers and governments? When are they the most appropriate model to use? The FFS are designed with an exit strategy: the formal program ends at graduation (Gallagher et al., in press). Although external funds may be needed at early stages to “kick start” the process and demonstrate their utility, this dependency should be gradually reduced. Gallagher et al. (in press) argue that FFS should be sustainable not only financially, but in terms of economic, social, environmental, and political impacts.

Other ways of addressing sustainability include the semi-self financed FFS model (with a grant), and self-financed model (revolving fund), and use of commercial plots. These approaches are currently being tested (Gallagher, 2001; Okoth, Khisa, & Julianus, 2002). Other suggestions to enhance the economic viability include review of curricula, reducing the frequency of meetings, combining with mass media and other dissemination approaches, shortening training periods, having multiple objectives of FFS, and effective integration with other approaches (Feder et al., 2004; Anandajayasekeram et al., 2001).

Recommendations

The FFS approach is “increasingly being seen as a possible future for mainstream extension practice in a growing number of African countries” (Simpson & Owens, 2002, p. 29). Studies show that FFS are “capable of being highly responsive to local needs over a wide range of conditions and enterprises” (Simpson & Owens, 2002, p. 35). The schools are a useful approach to situations where farmers must learn in-depth skills. They have succeeded in their objectives of imparting knowledge and reducing pesticide use. However, several recommendations can lead to better use of the methodology within ESA.

Integrate FFS into mainstream extension where appropriate. Although the FFS concept is spreading in a number of countries, many, if not most of these initiatives are still supported by external funds and remain as separate activities from mainstream extension. In many ESA countries, the FFS approach is in line with the existing government policy of decentralization, democratization, beneficiary participation, and socio-economic emancipation of smallholder farmers. The learning and discovery mode brings about permanent and sustainable development of farmers to mobilize skills and resources to address their own needs and to make the R&D process truly participatory and demand driven. The positive attributes of FFS can be effectively integrated into and are compatible with other participatory approaches such as the Farming Systems Approach and Participatory Extension Approach, without replacing them. In the evolution and transformation of mainstream extension, the T&V field demonstrations have been replaced with farmer group-controlled study plots on which participants meet regularly. Research and extension staff are running on-farm trials and field demonstrations in farmers’ fields. Depending on the crop management needs, extension staff are retrained from their previous top-down

message and delivery methods toward technically sound participatory study methods and independent group building skills. As a result, in ESA countries, most of the ingredients needed to integrate the FFS concepts and procedures are already in place. Thus the FFS concept and philosophy is a logical extension of the existing approaches to enhance the effectiveness and efficiency and experiential learning by farmers. Therefore, the most cost-effective way of institutionalizing FFS concepts, principles, and procedures is not to consider FFS as a separate activity, but to integrate it into the existing pluralistic participatory development and dissemination procedures; to create a cadre of trainers within the research and extension services to offer training to staff and include new developments in participatory approaches, including FFS into the academic curricula of agricultural learning institutions.

Increase support to training of farmer facilitators and other facilitators.

Furthermore, the level of training activities conducted by TOT is rather limited (see also Quizon, Feder, & Murgai, 2001, p. 18). The assumed multiplier effect of FFS through farmer-to-farmer extension is currently low and unlikely to happen unless explicit provisions are made to support such activities.

Conduct rigorous studies on farmer field schools to provide evidence to policy makers and other studies on the effectiveness of FFS. Worldwide the available evidence on the benefits of FFS has been mixed and is therefore inconclusive (see, for example, Dieu ne dort, Julius, Gockowski, & Isaac, 2006; Godtland, Sadoulet, de Janvry, Murgai, & Ortiz, 2003; Mancini, 2006; Mutandwa & Mpangwa, 2004; Mwagi, Onyango, Mureithi, & Mungai, 2003; Praneetvatakul & Waibel, 2006; Quizon et al., 2001; Tripp, Wijeeratne, & Piyadasa, 2004; van den Berg, 2004; and Yamazaki & Resosudarmo, 2006). There is therefore an urgent need for the careful documentation of FFS processes,

sharing of information and a thorough independent critical appraisal of the method and its impacts in order to facilitate institutionalization where appropriate. A carefully developed needs-based monitoring and evaluation system is vital and should be an integral part of pilot studies for performance assessment. This type of documentation can convince policy makers of the developmental and longer term cost-effectiveness of participatory processes, including FFS, so that such initiatives are supported through adequate national budgetary support.

There is no proven model in Africa today to replace T&V (Gemo et al., 2005). However, a recent study of the evolution of extension in Mozambique argues that the challenge is not to develop one extension model in Africa, but rather to develop particular modes that meet the particular needs of the country (Gemo, et al., 2005). Here, FFS plays a key role where suited.

The FFS approach in FARMESA case study countries is a useful methodology and has produced good results. The FFS programs are an important innovation, but not an alternative to existing extension systems. They are surely only one part of a very complex strategy for building local agricultural organizations and institutions. Certain principles of FFS could be incorporated into existing pluralistic systems, to make them more effective at reaching small and marginalized farmers and in alleviating poverty. While no universal remedy, FFS is certainly an important component of education and empowerment for smallholders, to increase income and food security and ultimately reduce poverty in Eastern and Southern Africa.

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