Food and Agriculture Organization
of the United Nations

FARMER FIELD SCHOOL GUIDANCE DOCUMENT

Planning for quality programmes

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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
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Foreword

Every day we learn more about the global challenges facing food production: global warming, extreme weather, intercontinental invasions by pests and diseases, land degradation and water loss from over-exploitation, and price volatility. Farming, fishing and agroforestry systems are becoming more complex, but we are also learning how local agro-ecosystems provide the underlying services – soil nutrient cycling, pest and disease regulation, water capture and storage, pollination, genetic resources conservation, coastal protection for aquatic species and from storms – that enable farmers to adapt to those challenges.

The Sustainable Development Goals (SDGs), approved in 2015 by the Member Countries of the UN, aim to achieve productive, inclusive and sustainable agriculture, while strengthening rural livelihoods and ensuring food and nutrition security for all, reducing pressures on natural resources and building resilience to climate change. These represent very ambitious targets, which demand concerted efforts at global and national levels. But at the same time we know that the actual sustainability of production and natural resource use for present and future generations is in the hands and the heads of local farmers, fisher-folk and pastoralists. FAO is committed to support the more than 500 million family farmers, with special attention to rural women, to enable them to continue playing this essential role.

Farmers field schools (FFS), FAO's front-line innovation, are amongst its most fundamental field contributions to fulfill this commitment. FAO has been incubating, nurturing and promoting Farmer Field Schools for over a quarter of a century. FFS emerged during the same period as problems of climate change and accelerating international spread of pests; but they also evolved as our understanding of ecosystem services improved. So as we confront ever more complex global to national to local problems, we also understand much better how to build on local ecosystems to make agriculture and food production more sustainable. This movement has grown from the promotion within government extension programmes of a new paradigm of experiential, hands-on education and empowerment, to address complex production threats and a range of technical and livelihood issues, in both government and civil society programmes in over 90 countries. FFS enable and empower smallholders, their families and rural communities to understand and respond to present challenges and make their own critical contributions to the attainment of SDGs. FFS are earning growing support from partner governments, NGOs, researchers, international development and financing organizations, and social movements.

There are now over 12 million FFS smallholder family farmer graduates, but what drives the results is not the quantity of attendees but the empowering quality of the process and how it enables participants to continue to grow, using the new skills and knowledge. FFS provide structured opportunities and space where farmers, pastoralists and fisher-folk understand, co-create and adapt knowledge, science and technical tools; they are active participants in the process and they are respected. Their experience and thoughts are valued by the group and in their communities—a new experience for many, particularly among the women participants. These farmers and their communities make better choices, facilitate innovations and adaptation of alternative solutions when facing new problems. FFS programmes bring together different actors in farmers' fields or in pastoral or aquatic production areas, from local scientists to local governments to community

organizers, working together with small producers to analyze and address complex problems and increase resilience of local production and local communities.

FFS are tailored for farmers to understand and track local agro-ecosystems and, based on their understanding of these technical monitoring tools, improve their understanding of options and their decision-making. For example, farmers in Andhra Pradesh, India, make better decisions on which crops to grow during the dry season based on their new knowledge and monitoring of ground water availability; in Bungoma, Kenya, on the local field resistance of modern maize varieties to epidemic virus disease; in Central Java, Indonesia on the potential impact of insect pests on crop yield based on predator-pest ratios and in Himalayan Nepal on the enhancement of high value fruit and vegetable production by conserving pollination services from domesticated and wild pollinators. In the context of applying the FAO Strategic Framework in the field, FFS play an essential role to ensure sustainable food production at the local and national level. Increasing interest and demand are emerging from countries to build good quality FFS programmes and ensure their correct implementation and sustainability.

This FFS Guidance Document is an evolving tool for developing high quality programmes that are relevant to specific needs of countries and are flexible and adapted to local conditions. The document provides essential elements for setting up programmes on a solid footing of field-based and season-long training of national trainers, from Master Trainers to local Facilitators. It also provides guidance for programme growth and adaptation. This tool will be further elaborated by FFS regional networks to better serve the needs of local communities.

From a global perspective we propose a flexible approach in the implementation of FFS programmes at regional, country and local levels, encouraging an active role of FAO regional and country offices, in their direct support to regional and sub-regional FFS networks of experts and practitioners, as they provide assistance to local communities.

At the same time we encourage local/national FFS programmes to be innovative and independent, to allow their continued adaptation to be responsive to the priorities and needs of small-scale food producers and their families.

I welcome this FFS Guidance Document as the start of a constructive collaboration among FFS experts and programmes around the world, to better assist producers and their communities in the achievement of sustainable food production and improved livelihoods for their families and children.

Daniel Gustafson
Deputy Director-General (Operations)
FAO

Preface

Since the development of the farmer field school (FFS) approach in the late 80s in Asia, thousands of FFS have since been implemented across the world, in over 90 countries and across a varied range of contexts and thematic areas. Demand for FFS programmes is increasing, and in several countries the approach is now institutionalized within public extension systems and NGO programmes. It is estimated that by 2015 millions of farmers and agro-pastoralists had benefitted from the unique ability of FFS programmes to address the technological, social and economic needs of smallholder farmers and land users.

Considering the expansion of FFS, both in terms of scale and in the application of the approach, concerns have emerged around how to best ensure a minimum level of quality of FFS program implementation and harmonization across programmes and actors, while still maintaining the flexibility required for the continuous adaptation and improvement of the approach.

In response to this concern, a Global FFS Review was conducted in 2012 by FAO, including a discussion forum with over 100 participants, who explored the issue of quality in FFS and identified the essential steps and conditions required for setting up strong, solid and sustainable FFS programmes. Based on the results from the Global FFS Review, a Guidance Document for quality FFS programmes was proposed, to serve as a common reference for FFS programme development.

This FFS Guidance Document focuses on the process and critical decisions that are necessary when starting a new FFS programme, and guides the reader through the essential steps required to establish a solid basis for such programmes, in tune with the specific local conditions. It also defines the essential elements and processes required to ensure programme relevance, quality, growth and sustainability. The document differs from most of the FFS manuals and guidelines available in that it focuses on providing support to FFS programme managers and formulators, as opposed to FFS field facilitators or trainers, who are the primary target group for most existing manuals.

The document is not meant to be exhaustive, nor prescriptive, but offers a general framework, to be adapted and revised in future by FFS communities of practice at country, regional or sub-regional level, in a participatory and inclusive process. The intention is that the FFS Guidance Document will become a living text, progressively improved and enriched by local experts, adapted to local conditions and needs, and increasingly able to serve the evolving needs of its primary users.

While this document may become the basis for common understanding and constructive collaboration across countries and regions with regard to quality FFS programming, it is anticipated that the document will evolve over time, possibly resulting in various versions in different languages and with additional stories and materials, authored by local groups of FFS practitioners.

Who this document is for

This document is intended for a cross section of audiences at various levels, from government actors to FFS practitioners, students who wish to learn about FFS, or simply friends of FFS. The document provides insight into the salient aspects of FFS programming and implementation.

The document will be of particular benefit to the following key audiences:

- Government authorities will find sections of this document generally informative in understanding the potential contributions of FFS, and the educational value it adds to extension service delivery in their country, according to the prevailing context and needs. It may aid in deciding whether to use FFS or an alternative approach to enhance extension service delivery mechanisms. The document therefore provides information on requirements for setting up and starting an FFS programme, its implementation, and necessary quality assurance mechanisms, along with relevant mainstream support structures and institutions.
- Non-governmental/community-based organizations interested in the implementation of FFS will benefit from understanding the rationale for starting such a programme, as well as the required conditions for successful FFS implementation. The document details the necessary preparation in the form of staffing and budget, the appropriate implementation period, and quality assurance mechanisms at institutional level – including capacity development, monitoring and evaluation systems and technical support requirements, among others.
- FAO country and field offices will better understand the role of FAO, and the expertise required to support countries and other stakeholders to implement FFS programmes successfully. Specifically the document addresses the strategic level engagement with relevant actors and stakeholders at national level, including awareness-building of the approach, support for capacity development for FFS in the country, quality assurance mechanisms and guiding the institutionalization process. This will also help regional offices to define support roles required for FFS programmes in the region.
- The master trainers are the drivers behind quality implementation of FFS in the field. This document will guide them on: the basics and prerequisites for starting FFS, identifying capacity development needs, identifying relevant human resources for FFS implementation, the quality of training programmes, building quality assurance mechanisms in implementation, and support materials for running FFS successfully.
- Facilitators, as essential members of the FFS community, will also find this information useful in delivering their work in the field. Obviously, this document can only provide reminders and suggestions for FFS trainers, and will never replace practical training of master trainers and facilitators, and exposure to FFS in the field.
- Academics, and especially students interested in researching or learning about FFS may benefit from an in-depth understanding of the rationale, implementation and attributes of FFS.

Structure of the Guidance document

Chapter 1 (**Introduction)** describes the expansion of the FFS approach in terms of locations, topics and modalities. Chapter 2 (**Why farmer field schools?**) poses important questions about when, in which context, and for which purpose, to programme FFS. Chapter 3 (**Key elements of farmer field schools**) defines the basic features and 'non-negotiables' of FFS. This is followed by a Chapter 4 on the formulation of FFS programmes (**Designing a farmer field school programme**). Actual implementation of an FFS programme is described in Chapter 5 (**Developing human capacity for farmer field schools**) and Chapter 6 (**Defining the farmer field school learning content**). The next two chapters of the guidance document address **monitoring, evaluation and continuous learning** in FFS (Chapter 7) and **Impact assessment** (Chapter 8). This is followed by Chapter 9 on **budgeting for farmer field school implementation**. Finally, Chapter 10 (**Building**

on the basic farmer field school learning cycle) focuses on the next steps after the first FFS learning cycle, and on the institutionalization of FFS.

The opening of each chapter provides a chronological line indicating the chapter position within the publication. In the digital version, these chapter positions are interactive and can be clicked on, to navigate to each desired chapter. Likewise, these symbols in the text  and  can be clicked on, to navigate to the referenced item.

Acknowledgements

This document is the product of 30 years of practical field experience in several countries across all continents, and the work of a large number of development actors and practitioners. Farmer Field School programmes in these countries have been implemented and developed with and by farmers, with support and contributions from local and national governments, farmers' organizations, NGOs, scientists and with contributions from several development partners: Australia, the European Commission, the Global Environment Facility, IFAD, the Netherlands, Norway, Switzerland, Sweden, the World Bank and many others.

The main content of this document stems from the experiences harnessed by the Global FFS Review, conducted in 2012, which shared and analysed the accumulated knowledge of more than 100 FFS experts and practitioners around the world. The team members coordinating the Global FFS Review were: William Settle, Marjon Fredrix, Manuela Allara, Alma Linda Morales Abubakar, Deborah Duveskog, Mohamed Hama Garba, Godrick Khisa, James Okoth, Jan Willem Ketelaar, Alfredo Impiglia, Steve Sherwood, Peter Ton and Jeff Bentley. Based on the FFS Review results, an initial draft of the guidance document was developed by a cross-continental team of FFS trainers and experts under the overall leadership of Deborah Duveskog, with critical input provided during a "writeshop" held in Bangkok in May 2015 by Godrick Khisa, Marjon Fredrix, Alma Linda Morales Abubakar, James Okoth, Jan Willem Ketelaar, Konda Reddy Chavva, Delgermaa Chuluunbaatar and Suzanne Phillips.

Many colleagues in FAO and other organizations have helped strengthen the document, in particular Peter Kenmore, Winfred Nalyongo, Anne-Sophie Poisot, Lucie Chocholata, Jaap Van De Pol, Elisabetta Tagliati and Francesca Mancini. The FAO Plant Production and Protection Division (AGP) has strongly promoted and supported the development and publication of this document. Special thanks also go to the founders of the FFS approach, including Kevin Gallagher, Russ Dilts, Peter Kenmore, Andrew MacMillan, Dan Gustafson, Sulayman M'Boob and many others, for their leadership and inspiration.

Finally, this guide has been made possible by the enormous work done every day by the millions of small farmers, herders, forest dwellers, and fisher folks who produce most of the world's food and are the main drivers of FFS programmes. Together with their families, communities and supporters, they ensure the sustainability of food production and conservation of the natural resource base both in the present and for future generations.

Acronyms and abbreviations

AESA	Agro-ecosystem analysis
AIDS/HIV	Acquired Immune Deficiency Syndrome/Human Immunodeficiency Virus
ASEAN	Association of Southeast Asian Nations
CBO	Community-based organization
CGIAR	Consultative Group for International Agricultural Research
CSO	Civil society organization
DOAE	Department of Agricultural Extension
FAO	Food and Agriculture Organization of the United Nations
FBS	Farmer business school
FF	Farmer facilitator
FFLS	Farmer field and life school
FFS	Farmer field school
FO	Farmers' organization
GFRAS	Global Forum for Rural Advisory Services
ICT	Information and communication technology
IGAD	Intergovernmental Authority on Development
IPM	Integrated Pest Management
IPPM	Integrated Pest and Production Management
M&E	Monitoring and evaluation
MEL	Monitoring, evaluation and learning
MT	Master trainer
NGO	Non-governmental organization
PCE	Participatory comparative experiment
PTD	Participatory technology development
PM&E	Participatory monitoring and evaluation
SAARC	South Asian Association for Regional Cooperation
SOFA	The State of Food and Agriculture
TMT	Training of master trainers
ToF	Training of facilitators
T&V	Training and visit

1 Introduction

1 Introduction

FFS is about people, their development and their empowerment. It helps rural folks learn and develop the skills required for informed decision-making in complex domains: based on accurate problem analysis in local contexts, effective decisions can build on local knowledge, understanding of the local agro-ecology/agro-ecosystem, and existing capacities.

The ecosystem-literacy training employed in FFS is vital for enabling smallholder farmers to master the management skills required for sustainable production intensification. This is radically different from the approach used by more traditional extension systems which are designed for "technology-transfer" purposes. FFS gestated in the rice paddy fields of the Philippines and Indonesia in the late 1980s, emerging in response to an urgent problem of pest outbreaks, related to the policy-driven overuse and misuse of chemical pesticides. The initial FFS programmes focused on agro-ecosystem based Integrated Pest Management (IPM), but proved effective in managing problems in complex systems, thus empowering farmers to improve decision-making based on local conditions. At the same time FFS encouraged community development and action, with a view to adapting the learning process to different technical content, and promoted advocacy on important issues for local communities.

FAO has been heavily involved in the incubation, development and spread of FFS from the outset. From its cradle in Southeast Asia, FFS spread to other parts of Asia during the early 1990s, to Africa in the mid-1990s and subsequently to other parts of the world (Figure 1). FFS were also adapted to various technical domains, involving a range of actors and partners. The global spread of FFS could not have been possible without the dedication and hard work of experienced FFS field workers, initially hailing from Asia and subsequently from other parts of the world. The development and spread of FFS constitutes one of the most powerful examples of FAO supported South-South exchange.

Over 90 countries currently use FFS and there is increasing demand from different stakeholders, from Governments, NGOs and technical agencies to the private sector. This growing interest and demand has implications for management and support for FFS development.

There is, however, some concern about the quality of the FFS programme design and implementation, which have become rather diluted in this process of rapid growth and change. At the same time expectations are high in terms of what FFS can offer in the present context. The potential of the FFS approach is increasingly recognized but the key elements required for a quality FFS programme are often not understood and met. A Global FFS Review has been conducted by FAO to discuss these issues among FFS experts and practitioners around the world.

This Guidance Document has been prepared in order to offer support in developing new FFS programmes. The FFS Guidance Document aims to provide a framework for the development of strong and sustainable FFS programmes, beginning by building the human capacities that are the pillars of FFS

Figure 1: Evolution of the farmer field school approach

IPM: Integrated Pest Management; IPPM: Integrated Production and Pest Management; FS: Farmers School.

programmes. The present FFS Guidance Document will need to be reviewed and adapted at regional/local level to reflect the specific needs and features of local systems, to become a living document.

FAO welcomes the contribution of FFS experts in its member countries so that this document can continue to support more people – addressing new problems and ensuring food security and appropriate nutrition for the coming generations.

In the context of FAO, the Guidance Document will feature the following functions related to FFS programming:

- Provide strategic direction for engagement with relevant actors and stakeholders.
- Build awareness of the FFS approach and its relevance to national and regional programmes.
- Support quality control in FFS programme cycle management at all levels.
- Guide capacity development actions, including training and material development.
- Guide the development of effective monitoring, evaluation and impact assessment systems.
- Support institutionalization, coordination and networking mechanisms and processes.

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Why farmer field schools?

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Why farmer field schools?

WHY ARE FARMER FIELD SCHOOLS RELEVANT?

FFS are mostly constructed by smallholder farmers or land users who are resource-poor and often have limited access to education, information, extension services, market access and financial capital. Of the 570 million farms in the world, 72 percent are smaller than 1 hectare in size (FAO SOFA, 2014). Small-scale farmers and land users often lack access to the agricultural services they require to enhance their knowledge and skills in order to manage increasingly complex agro-ecosystems. In addition, they are often not sufficiently integrated in markets. Improving skills and increasing leverage in markets are core priorities to enable the rural communities to increase production, productivity and income, and escape the poverty trap. Smallholder family farmers and other rural land users manage increasingly fragile ecosystems while also being subjected to changes driven by political or economic pressures outside their control. Yet these land users are the world's largest group of custodians of biodiversity and play a critical role in efficiently managing natural resources like water, soil and biodiversity, thus ensuring that future generations can also continue to use and benefit from these resources.

Sustainable production intensification in a changing context

Due to growing populations and changing food preferences, estimates indicate that the world needs to produce up to 60-100 percent more food in 2050. However land resources, with few possibilities to expand land for agriculture and access to water, are a limiting factor for production. Consequently, farming and herding are increasingly being carried out in marginal, fragile and more risk prone areas. Climate change further complicates the management of future agricultural systems, requiring an array of adaptation and mitigation measures.

To meet increased food demands in the future, strategies are needed to intensify food production sustainably. Sustainable intensification by its nature needs to be location-specific: it must take account of local ecology as well as local socio-economic conditions in order to respond to local opportunities. The changing environment means that many farmers and other producers can no longer rely on their local knowledge the way they have in the past. For that reason, farmers must be able to access ecology-literacy training, where new knowledge is generated locally to fit specific conditions, allowing farmers to master the management skills required to play a leading role in sustainably intensifying production. FAO elaborates on Sustainable Production Intensification in the "Save and Grow" publication.

Additionally cash is becoming increasingly important among smallholders due to their needs to pay for health care and the schooling of children, etc. This has triggered a need for more market-oriented agriculture as well as diversification of income sources among rural farming communities, a major shift for the traditionally agricultural based livelihoods of communities. The nature of the challenges faced go beyond the level of individual farms and necessitate a high level of coordinated

action and cooperation among farmers, if they are to access more lucrative markets for their products.

This changing situation requires farmers, pastoralists and fisherfolk who are innovative and flexible. However, those producers will need new skills and capacities, along with new tools, processes and ways of organizing and managing farming, if they are to make agriculture more economically, socially, and environmentally efficient. With their holistic nature, in which the technical, social and financial domains of farmers lives are addressed concurrently, and their focus on developing critical decision-making capacity, FFS play a critical role in supporting farmers needs in this challenging context.

From extension services to agricultural innovation platforms

FFS programmes are often seen to fall under the domain of extension services. However, to evaluate the role and function of FFS in extension it is important to understand how the description and practice of agriculture extension has changed over the decades. From the 1980s and for more than two decades, most countries in the developing world embraced the Training and Visit (T&V) system, which was built on the concepts of diffusion of innovation and transfer of technology from scientists to farmers using an essentially one-way mode of communication.

However, in the wake of a number of large impact studies this concept is nowadays largely considered a failed system (Anderson *et al.,* 2006). In many situations the dissemination of standard packages of inputs and practices and blueprint recommendations are now thought to be inappropriate. In the past national priorities of increased production (often to feed urban consumers as part of economic development strategies) led to top-down extension systems that did not help farmers sufficiently to solve new and emerging problems, nor to improve and adapt scientific and technical innovations to their local conditions. Even less so did these commodity-centred – rather than people-centred – programmes build strong, responsive and adaptive local institutions that could improve smallholder farmers' livelihoods by better leveraging market opportunities.

There is now general recognition that sustainability of the agricultural improvement process is not necessarily to be found in the technologies introduced, but rather in the social process of active farmer-managed innovation and dissemination of ideas where farmers manage and coordinate ecological processes (Leeuwis, 2004). Appropriate technological solutions will vary depending on local circumstances and therefore understanding of the specific context is essential, requiring knowledge that is complex and diverse. While past extension was seen as mainly an act of transferring technologies to farmers, there is thus now a growing focus on farmer participation in the innovation process and on the facilitation of experimentation among communities.

Based on this new focus on dialogue and rural innovation in extension activities, Leeuwis suggests "Communication for rural innovation" as a more appropriate term for agricultural extension. Increasingly, extension services are also provided by multiple actors, including various types of producers' organizations, NGOs and private sector providers, thus creating a need for 'platforms' for learning among actors, often referred to as Agricultural Innovation Systems. Despite this positive shift in agricultural extension systems, contradictions within those systems still complicate efforts in many countries. Through its focus on empowerment of farmers through field-based experiential learning processes

FFS creates the conditions for the new trends and requirements of extension and innovation systems to be put into practice.

Farmer field schools and adult education

FFS builds heavily on the principles of adult and non-formal education, experiential learning, conscientization, and emancipatory learning. These concepts were successfully applied in the fields of public health, irrigation and literacy in a number of countries by the late 1980s. It was thus a natural but crucial development for the agro-ecosystem base of IPM programmes in Southeast Asia, where FFS first evolved, to seek partnerships with adult educators so that smallholder family farmers in their own communities could be supported and empowered in order to learn and co-produce strategies with which to manage the more complex situations arising in their local community agro-ecosystems.

Adult education approaches have been incorporated in agricultural extension programmes at local level since around 1960, when the Government of Chile invited the Brazilian educator Paulo Freire to adapt his adult education methods, especially for literacy, for use in national agricultural extension programmes.

FFS thus play a much broader role in society than simply as vehicle for agricultural development. They provide a platform for adult education more broadly and can fill a critical gap in societies with low education

THE EMERGENCE OF FARMER FIELD SCHOOLS

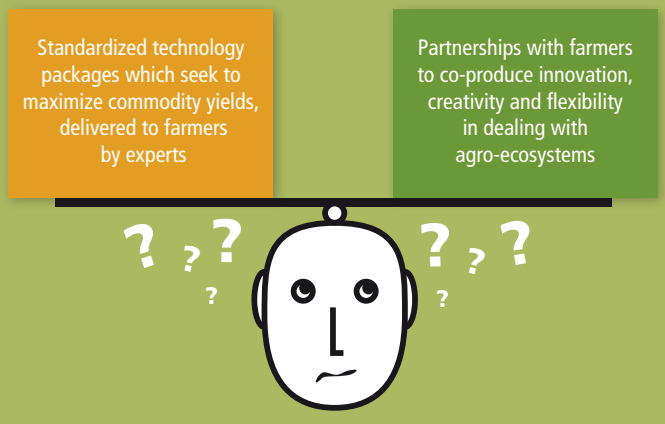
The farmer field school emerged from the ecological, political and economic crucible of massive rice pest outbreaks that threatened the national food security of a number of large countries in Southeast Asia in the late 1980s and early 1990s. Conventional extension with technical packages, including the blanket application of inputs such as pesticides, did not solve the problems, but rather made them worse.

The solution required skilled field monitoring, agro-ecosystem analyses and adaptive management responses at individual rice paddy level. Scientific conceptual tools thus needed to be distributed among millions of individual farmers, and then adapted in real time to highly location-specific agro-ecological, economic and political contexts, which themselves kept evolving. The technical contents, as well as the means of the extension strategies applied, had to be drastically re-invented from a productionist to an agro-ecological perspective.

Farmers, once empowered to diagnose, decide and act to enhance agro-ecosystem services, were then able to continue adapting and improving their tools and thereby their strategies, to grow high yielding rice in the face of complex and evolving threats to yields.

No conventional extension or research system was, or is, large and decentralized enough to supply fine-tuned agro-ecological expertise to millions of farmers. Therefore, the strategy became the first to equip and empower farmers with that expertise, but equally, to initiate or strengthen a self-perpetuating social system that would keep innovation thriving in each village community, in order to keep up with their evolving agro-ecosystems. The FFS approach emerged and evolved to respond to real and urgent needs.

Figure 2: Two differing viewpoints on agricultural support services



levels or where there are few opportunities for citizens to engage in continuous adult education.

The well-known Brazilian educator Paulo Freire worked within an FAO/ UNESCO programme, co-producing locally adapted materials and published a critical analysis of agricultural extension systems entitled "Extension or Communication?" (Freire, 1969). This called for empowering farmers to act on their own behalf, as equal partners in the creation of technical agriculture, instead of being passive, silent "objects" of the efforts of agricultural technicians to promote new technologies.

FARMER FIELD SCHOOLS IN RESPONSE TO TODAY'S FARMING CHALLENGE

Reflecting the education concepts that emerged throughout the 1980s, the idea is that farmers joining an FFS acquire skills and knowledge that enable them to take better-informed decisions on field management. As such, the first basic FFS learning cycle aims primarily to improve knowledge of field production and productivity (technical objectives) and to build a group of farmers with a better understanding of ecology and improved analytical skills, who are thus able to plan and implement post-FFS activities that will continue to enhance agricultural development. Graduates from FFS are better placed to engage in further learning about the management and coordination of larger systems and to create networks of similarly-minded groups and other stakeholders. Doing so, graduates promote common analysis and actions in order to sustainably manage larger systems (emerging social systems). Therefore, building on mutual trust, the resilience of groups to shocks and crises gradually increases.

The key guiding principle of FFS – specific to location and situation – enables the methodology to be adapted to address a wide range of issues. Engrained in this principle are important features of flexibility that allow FFS practitioners to mould FFS according to the needs, demands and challenges of the environment (communities, policy frameworks, development issues, natural environment, etc.) in which the FFS are to operate. The question is: how can FFS programmes be re-positioned to contribute to the development of the rural economy, effectively address food security and nutrition issues and leverage globalized markets amidst the myriad challenges including disasters, climate change, and associated risks? There is therefore a need for the FFS community to create responsive programmes to ensure that FFS thrive within the changing environments.

FFS allow farmers and scientists to work together to co-produce vital knowledge and localized solutions to problems. Farmers are a source of knowledge and at the same time leaders of transformation. The opportunities for farmers to transform their farming systems and environments towards not only future food and nutrition security, but also ecological security, are huge, through improving not only their knowledge and skills base but also their perceptions. Thus, the recognition and strengthening of vital partnerships with local research by FFS programmers should be pursued not as an optional add-on, but as a matter of principle.

Additionally, the FFS *modus operandi* is intrinsically "ecology-compliant". The current wave of disasters and climate variability is impacting rapidly and heavily on nature.

Ecological relationships are continuously deteriorating, resulting in degraded rangelands, soils, forests, dried up water sources, and high pest and disease incidences, which in turn are impact negatively on the rural farming populations, their food and nutrition security and their livelihoods. Yet these are community level issues that require landscape level action, with long-term solutions implemented in a coordinated and sustainable manner. FFS has proven effective in supporting resource users towards adopting and adapting appropriate practices, along with technologies for improved production and for soil, water and environmental health.

From a livelihood perspective, the FFS model provides for the transitioning of groups into higher-level institutions which, among other factors, facilitates the ability of rural farmers to leverage appropriate financial services, markets and market information, as well as engage in diversification with a strong bearing on production, productivity and incomes. This requires a higher level of coordination within and among the mostly informal FFS settings.

As we have seen, areas for consideration are: improved linkages to and leveraging of value chains, the application of value-adding elements such as literacy training, rural savings mobilization, enhancing the legitimacy of FFS structures and functioning through strengthened governance and management structures/mechanisms to build trust and confidence within and among the FFS farmer groups. This will require a level of transformation and the transitioning of FFS into resilient structures, in order to build a bridge between the informality and the coordinated set-ups. The overarching objective is to promote and improve FFS resilience and leverage within the environment in which they exist, thus contributing to sustained livelihoods.

Therefore, programmers need to view FFS in a **''system-wise"** manner and not as one-off **small projects** for imparting agricultural skills. A strategic and focused programme design is thus desirable to build in a broad and futuristic perspective to FFS programmes based on the FFSs comparative advantages in the development context. **This is a call for FFS architects, programmers and practitioners to take FFS out of the box.**

NATIONAL CONTEXTUALIZATION OF FARMER FIELD SCHOOLS

FFS programmes can contribute to and/or complement national extension delivery or community development mechanisms across the mosaic of approaches. It is therefore important to consider the role of FFS within the broader national programming frameworks, even when they may start out as small projects. This link is crucial for the alignment of programmes and to create potential for scale-up. The starting point is to assess the existing national or regional (within the country) frameworks and programmes for agricultural development and specifically for extension service delivery. Does FFS fit within these frameworks and programmes? If so, what contribution will FFS make to the attainment of broader government goals? This link is important because it ultimately forms part of the rationale for FFS implementation, whatever the level. The second step involves the mapping at national level of existing supportive structures for agricultural advisory service delivery, using appropriate tools. Is the structure elaborate? Is it centralized, or decentralized? What are the staffing capacities? What are the main research institutions and what is their operational status? What role can they play if FFS are initiated? What are the dynamics between the public and private sector institutions?

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This mapping will contribute to an appropriate grounding for eventual FFS processes, linkages and institutionalization, should the final decision be made to apply FFS.

The next level is to conduct an in-depth analysis of the specific operational environment. FFS has a number of strengths, but also some limitations. When designing and/or managing a programme it is important to consider whether an FFS is the most suitable intervention, considering the nature of the problem to be addressed in the specific context.

THE FARMER FIELD SCHOOL DECISION TREE

When designing a project or programme that envisages using FFS as an education approach, it is important to consider whether an FFS is the most suitable solution in a given context (what is the educational goal to be addressed), the expected time-frame and the budget available. FFS are not the only option – in some cases other options might be preferable or more practicable.

The decision tree (Figure 3) will guide programmers and practitioners through a set of questions and considerations in order to assess whether the FFS will work in a specific context, what capacity is in place, what additional training needs to be done, and what organizing needs to be done at community level.

LIMITATIONS AND CHALLENGES OF FARMER FIELD SCHOOLS

The sections in this chapter highlight a number of advantages of using FFS. However, field practice has also demonstrated a number of limitations and challenges that need to be taken into consideration when deciding on the potential use of FFS, as outlined below.

- The quality of learning, which is heavily dependent on the quality of the FFS facilitator and the training/mentoring of good facilitators, is based on the time and funds invested in activities.
- FFS require the investment of time and commitment. Season/cycle long learning programmes are not a quick fix and building teams is a long-term process.
- FFS programmes require space and time for the unexpected, for innovation (based on planning and feedback from communities). This space is often not provided by projects/programmes, whether government or NGO, unless more attention is paid to farmers' organizations and the social movements supporting them.
- Institutions are often not well prepared to adapt to or accommodate change, or to embrace a growing diversity of activities, so that relationships among and between communities and institutions (like extension) are a central source of tension.
- Top-down tendencies to simplify and/or standardize curricula, tend to make FFS mechanistic (especially when scaling-up), leading to poor quality programmes that overlook the local place-based agro-ecology.
- It is not always easy to attribute changes in behaviour or practice solely to the FFS, because FFS impacts can be found in a range of domains (see chapter on impact). Impact assessment of FFS is thus highly complex and inter-sectoral by nature.

Figure 3: The FFS decision tree

CONSIDERATIONS FOR PLANNING FARMER FIELD SCHOOLS

3
Key elements of farmer field schools

3
Key elements of farmer field schools

FARMER FIELD SCHOOL: BASIC LEARNING CYCLE AND FOLLOW-UP ACTION

An FFS brings together a group of farmers to engage in a process of hands-on field-based learning over a season/production cycle as a time-bound activity, with a beginning and an end. For crop-based FFS, activities may cover "seed to seed" while in livestock-based FFS they may cover "egg to egg" or "calf to calf". This initial basic learning cycle aims to strengthen farmers' skills and knowledge for critical analysis, to test and validate new practices and to assist in making informed decisions on field management. The learning process in the FFS reinforces the understanding of complex ecological relations in the field. The basic learning cycle also aims at enhancing participants' group cohesion so that they can better work as a group, analyse questions or problems critically, draw on their own experience and observations and the experience and knowledge of others, create a consensus, and prepare for follow-up action once the FFS learning cycle finishes. Through group dynamics exercises and discussions, FFS helps create a basic understanding of how groups function. The FFS also includes activities that encourage participants in critical analysis and evaluation, and planning for further action once the FFS basic learning cycle is completed.

When designing an FFS programme, it is important not only to plan for the FFS basic learning cycle, but also to allow space for potential follow-up actions once an FFS basic learning cycle is completed.

In practice, the basic FFS might often be focused on addressing specific technical problems and opportunities and therefore be confined to a limited number of issues or topics. However, follow-up actions will be more diverse in nature, since they build on ideas identified by the FFS participants towards the end of the FFS. The project needs to reflect which ideas can be accommodated and which go beyond the project scope – see Chapter 10 'Building on the basic FFS learning cycle'.

Flexibility will need to be built into the design to allow emergence of bottom-up innovations. Follow-up actions will also entail providing additional skills to facilitators, ensuring adequate support for these activities, ensuring the quality of activities (monitoring) and defining what indicators are crucial for monitoring and impact, once the nature of the activities is clear.

NON-FORMAL ADULT EDUCATION, ADULT LEARNING, LEARNING GROUPS

As described earlier, the FFS approach emerged from the recognition that conventional extension based on simplified messages was largely inadequate to support farmers dealing with complex problems from an agro-ecological perspective. The team[1] that first initiated FFS in Southeast Asia in the late 1980s drew upon lessons and examples from

1 The core team who initially began exploring Adult Education strategies in Southeast Asia in the late 1980s and early 1990s comprised Lou Setti, Russ Dilts, David Kahler, Kevin Gallagher and Dada Morales Abubakar.

new thinking in adult and literacy education and civil rights movements among others.[2]

Emerging pedagogical science on how adults learn and relate to each other formed the building blocks for initial FFS programmes. Experience is acquired through a continuous and cumulative process of resolving problems in everyday life and conflicts with the environment. This "learning by doing" approach means that learning can be quickly applicable in the field. Adults value their own experience and respect that of their peers.

The theory of Jurgen Habermas played an especially critical role in the formation of the initial FFS educational strategy (Habermas, 1984). His theoretical model presented analysis and learning as a communicative process among freely speaking adults who respect and support each other. They learn through practical exploration of technical knowledge, involving experimentation and analysis, coupled with peer-to-peer communication and discussion, in order to resolve contradictions.

A self-sustaining village community, scientific society or "club", which observes, discusses and converges on decisions using agro-ecosystem language and experience, is able to evaluate critically and more confidently the risks associated with the appearance of new potential threats as well as the claims of inputs suppliers whose primary objective is sales, not sustainable agro-ecosystems.

With high quality educational processes, larger and complex ideological questions, such as whether to apply insecticides in a specific agro-ecosystems, can also be resolved among farmers themselves. When this process enables farmers to change perspectives and move from one view of their world to another – then farmers have emancipated themselves and

2 FFS development was influenced by Paulo Freire, Brazilian literacy educator, Myles Horton at the Highlander Folk and Research Center engaged in the US civil rights movement, and the Danish Folk High Schools, local literacy campaigns, and village public health workers.

Table 1: Three domains of learning: technical, practical and empowerment/emancipation

Domain of learning	Characteristics
Technical	1. Aims at technical control of environment 2. Characterized by instrumental action 3. Goal: effective prediction and control of reality 4. Use of hypotheses, experiments, critical discussion as in empirical sciences
Practical	1. Understanding and meaning of social processes with others 2. Characterized by communicative action 3. Goal: the meaning of interactions and patterns 4. Use of discourse, metaphor and critical discussion as in historical hermeneutic sciences
Empowerment/emancipation	1. Internal and environmental factors that inhibit our control over our own lives 2. Characterized by self-reflective action 3. Goal: able to differentiate between factors that are beyond our control and those falsely assumed to be beyond our control, in order to expand our area of action 4. Self-reflection, critical thinking

are able to face new problems by investigating their specific situation from an agro-ecosystem perspective, rather than submit passively to advice from external sources, including farm input suppliers. Agro-ecosystem thinking, applied through an emancipating educational process by a local group of people who learn to trust each other's science language and practice, is the core of the FFS.

The critical theory analysis of Habermas elaborates on why adults are motivated to learn, distinguishing three areas of social existence: work, social interaction and power. These relate to three domains of learning: technical, practical and empowerment/ emancipation (Table 1).

Habermas' theory inspired the design of the first FFS focusing on rice IPM in Indonesia in 1989. The **technical** domain focuses on growing a healthy crop in a complex agro-ecosystem and thereby also minimizing pest outbreaks. The **practical** domain is addressed by encouraging farmers to improve their vocabulary and articulation through participation in critical analysis and presentation of their observations.

"To freely and fully participate in discourse, learners must:

- have accurate and complete information;
- be free from coercion, distorting self-deception or immobilizing anxiety;
- be open to alternative points of view – empathic, caring about how others think and feel, withholding judgment;
- be able to understand, to weigh evidence and to assess arguments objectively;
- be able to become aware of the context of ideas and critically reflect on assumptions, including their own;
- have equal opportunity to participate in the various roles of discourse;
- have a test of validity until new perspectives, evidence or arguments are encountered and validated through discourse as yielding a better judgment."

(Mezirow, 2009: 92)

FFS strive to provide and protect an environment where these basic rules and rights are available to all farmer members.

Below are some examples of emancipatory outcomes, directly related to FFS programmes in Asia, which successfully challenged prevailing ideologies and thereby changed fundamental perceptions following long argumentation:

- Over two million farmer graduates of FFS recognized predators and parasitoids naturally occurring in their own rice fields, and therefore regarded insecticides as risks to rice production, since those chemicals kill the natural enemies that control pests. These FFS farmers were capable of defending their strategies from criticism by pesticide industry sales agents.
- The most widely distributed pesticide in India, Lindane or gamma BHC, was banned throughout the country by the mid-1990 and specific commercially successful pesticides were banned from the entire planet when the legally binding global Stockholm Convention on Persistent Organic Pollutants was adopted and ratified.
- Hundreds of women in villages in Bangladesh and India were consulted and, in many village communities, paid in cash by their neighbours, for correctly diagnosing domestic animal diseases and successfully treating the animals with veterinary medicines and vaccines.
- FFS alumni clubs contributed actively at local level to the removal of the apparatus of General Suharto's regime in Indonesia after 30 years of *de facto* military dictatorship.

Group dynamics exercises are integrated into the FFS to increase participants' understanding of social exchange and interaction. A constant process of self-reflection, critical thinking and critique contributes to the empowerment of learners in the FFS. Thus, FFS farmers have strengthened their own knowledge and skills, which allows them to make better informed decisions. Stronger social cohesion coupled with better analytical and planning skills form the basis for continued action.

CHARACTERISTICS OF THE FARMER FIELD SCHOOL BASIC LEARNING CYCLE

Building on a set of non-negotiables listed on pg. 23, the basic FFS learning cycle in Figure 5 has the following characteristics:

- working in groups (15-25 farmers);
- season-long activities (following the season of crops or development cycles of animals);
- regular meetings/sessions during the season;
- study/learning plots/experiments to compare current practices with improved/ alternative practices;
- each FFS meeting/session includes:
  - agro-ecosystem analysis;
  - a group dynamics exercise;
  - a special topic;
  - feedback on the session;
- facilitation not teaching.

Length of learning cycle and frequency of meetings

FFS participants meet on a weekly (most annual crops and livestock), bi-weekly (some long–term crops like cotton) or monthly (most perennials) basis according to regular schedules defined and agreed by the group members. The length of the FFS cycle depends on the focal activity. For example, with livestock, a full year cycle or more is usually needed to allow for all seasonal variations to be studied, FFS tailored towards building resilience with a focus on disaster risk reduction or climate change adaptation start from a minimum of 18 months, IPM vegetable FFS range from 2-6 months, while farm forestry FFS range from 12-18 months, etc.

Once the FFS has started and group and study fields have been established, a regular meeting session will include: agro-ecosystem analysis, a group dynamics exercise and a special topic.

Agro-ecosystem analysis

The cornerstone of the FFS methodology is agro-ecosystem analysis (AESA), a field-based analysis of the interactions observed between crop/livestock and other biotic and abiotic factors co-existing in the crop/livestock field (e.g. between plant/animal growth and pests, diseases, weeds, water, soil and weather conditions).[3]

The purpose of the AESA is for FFS participants to appreciate the value of frequent field observations, and analyse ecosystem developments, problems and opportunities encountered in the field and improve decision-making skills regarding farm management, building on critical group discussion to reach improved shared understanding of different components and their interactions in agro-ecosystems.

The process is holistic and farmers work in sub-groups of four to five persons making detailed field observations, discussing results and analysing the field situation by producing a summary graphic chart on a poster. Each sub-group presents to the plenary for further critical discussion in order to reach a consensus group-decision for field management for the week to come. Usually this exercise takes about two to three hours and is done at weekly intervals throughout the season or learning cycle so that the problems and decisions being studied overlap with similar issues in the participants' own fields, thereby increasing the motivation for learning and the possibility to test the practice.

AESA is a four-stage process of distinct activities that align with the experiential learning cycle as described in Figure 4.

Group dynamics exercise

A regular session in an FFS includes a group dynamics exercise, which entails a short activity that provokes discussion on teamwork, problem-solving, leadership skills and other group development processes. In some cases it also serves as an ice-breaker.

Special topic

In addition to AESA and group dynamics each FFS session determines a special topic of interest for the group at the particular crop growth stage. Special topics often involve small experiments to highlight particular technical issues (e.g. an insect zoo where studies are set-up to understand predation through direct observation). Topics of socio-economic interest can also be included in a session in this way,

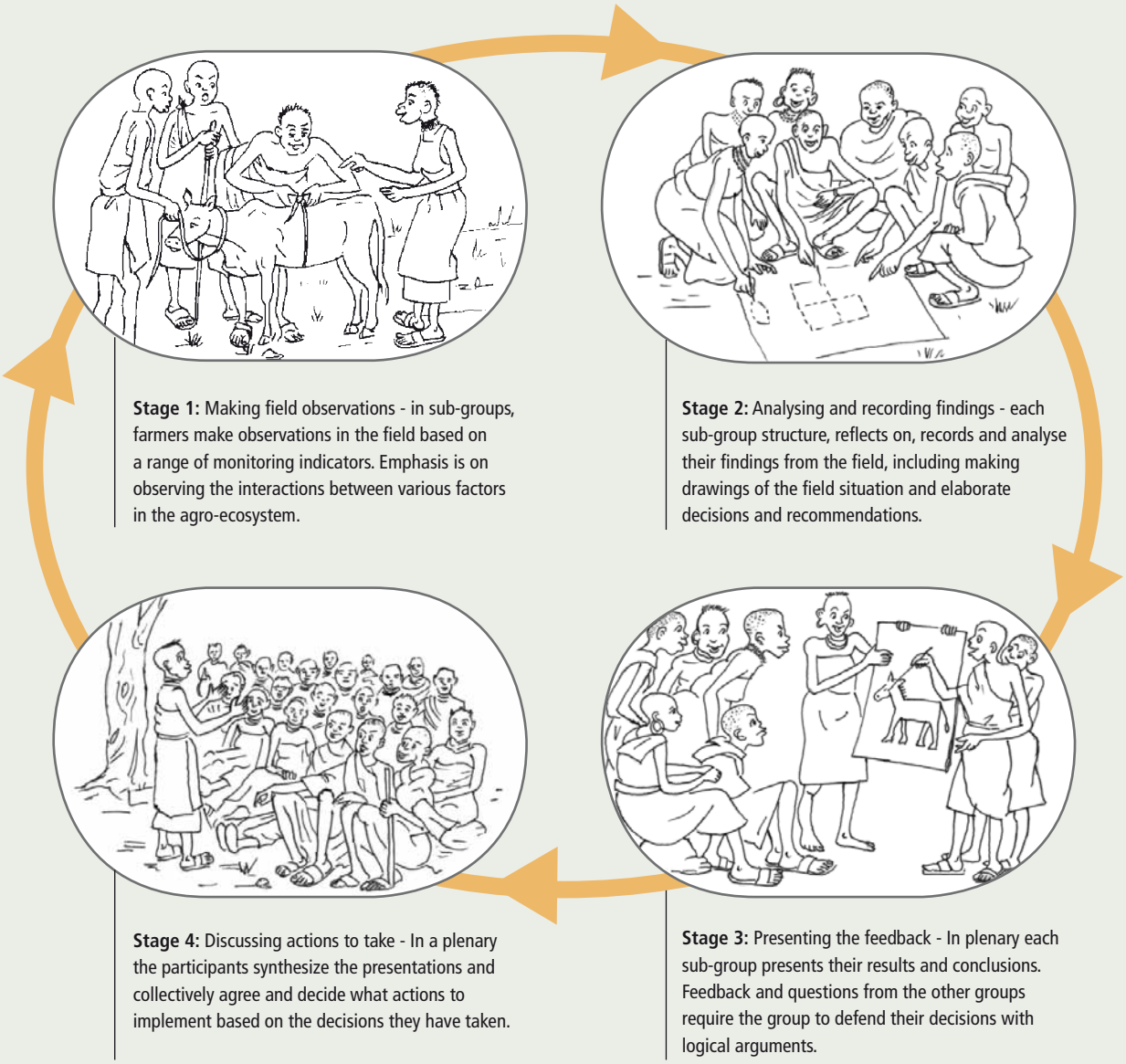
3 The use of the term agro-ecosystem analysis above encompasses variations of the exercise depending on the topic, for example in the case of Pastoral Ecosystem Analysis (PESA).

depending on the needs of the FFS group and the wider community.

FARMER FIELD SCHOOL IMPLEMENTATION PHASES

Starting and developing FFS and FFS programmes consists of three phases: the preparatory phase, the first basic FFS cycle and the post-graduation phase. Each phase has a set of associated steps and activities.
The preparatory phase activities include a precondition survey, selection and training of facilitators, ground working and FFS group formation – see also Chapter 6 for more information. This period entails

Figure 4: The agro-ecosystem analysis (AESA) four-stage process



Stage 1: Making field observations - in sub-groups, farmers make observations in the field based on a range of monitoring indicators. Emphasis is on observing the interactions between various factors in the agro-ecosystem.

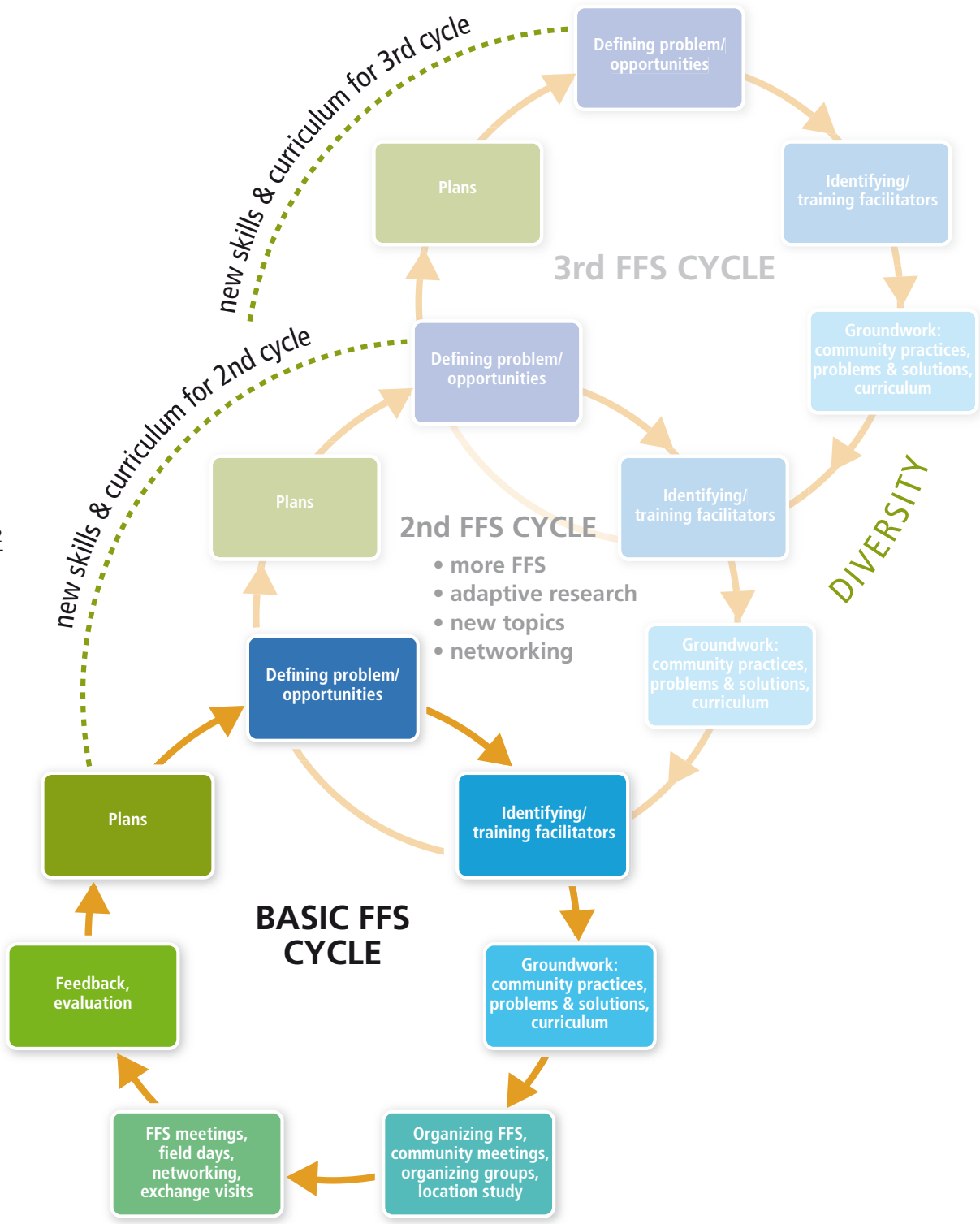
Stage 2: Analysing and recording findings - each sub-group structure, reflects on, records and analyse their findings from the field, including making drawings of the field situation and elaborate decisions and recommendations.

Stage 3: Presenting the feedback - In plenary each sub-group presents their results and conclusions. Feedback and questions from the other groups require the group to defend their decisions with logical arguments.

Stage 4: Discussing actions to take - In a plenary the participants synthesize the presentations and collectively agree and decide what actions to implement based on the decisions they have taken.

Source: Modified from 'Pastoralist Field Schools Training of Facilitators Manual', FAO 2013.

Figure 5: The basic farmer field school cycle



group formation and organization, problem identification, selection of learning activity/enterprise and the design and setup of the FFS experimental fields or herds. This phase takes between one and three months. The basic FFS cycle is based on regular learning cycles/sessions and includes conducting field days, exchange visits and graduation (Figure 5). This period takes 3 to 18 months depending on the learning activity/enterprise. Post-graduation activities include follow up activities, networking, income generation and setting up second generation FFS, especially when new livelihood opportunities or challenges arise.

Quality is the key to FFS programme development. Chapter 7 on monitoring, evaluation and learning (MEL) contains more information about the importance of ensuring and enhancing quality, in terms of both process and content.

NON-NEGOTIABLE ELEMENTS OF QUALITY FARMER FIELD SCHOOLS

By now, more than 25 years after the first FFS were implemented in Indonesia, FFS have been set up in many different ecological, socio-economic and cultural settings, working on a wide range of topics. The main topics for FFS include crops (annual, perennial), animal husbandry, and increasingly, climate change. Other topics are integrated into the basic curriculum, depending upon their relevance, or are addressed in depth in a follow-up activity. Based on global lessons FFS practitioners have defined a set of non-negotiables that inform and drive FFS learning and follow-up world-wide (CIP-UPWARD, 2003) and are needed for most FFS programmes to be successful. These were recently revisited and updated by a small group of experienced practitioners when peer-reviewing this guidance document in Bangkok in 2015, as outlined in the box below.

Non-negotiables for FFS and FFS programmes

- Farmers' needs define and drive FFS and FFS programmes.
- Farmers' local knowledge co-produces and co-creates new knowledge, science and public services [i.e. extension] alongside science-based knowledge.
- The learning process and knowledge generation are central to FFS and FFS programmes:
  a. FFS are based on fields (or animals) through which to learn and experiment;
  b. structured hands-on, experiential learning is primarily used;
  c. adult learning cycles emphasize observation, critical analysis, sharing and debate, conclusion/decision and implementation to enhance knowledge and decision-making skills that combine local and science-based knowledge;
  d. learning is a continuous process – regular meetings are held at critical crop/enterprise development stages to correspond with the decision-making of farmers/pastoralists;
  e. the practical and critical development of skills and competences is the main focus;
  f. diversity in age, gender and experience enriches FFS when all are involved in production.
- Building trust and strengthening groups in order to develop:
  a. critical analysis skills;
  b. feedback and evaluation skills;
  c. planning skills;
  d. basics of group work and collaboration (group dynamics exercises).
- Facilitation of the learning process: competent master trainers and facilitators (technical, methodological and organizational skills).
- Situation/location-specific activities, i.e. locally appropriate learning curriculum.

For a basic learning cycle, all of the elements listed in the box on pg. 23 should be observed. For subsequent learning cycles, the non-negotiables still inform the activity but some specific points might not apply. For example, when strengthening skills on marketing and enterprise development, setting up a field study will not be relevant but a practical learning space should be used. While FFS activities might take various shapes and forms, the boxes below detail how non-negotiable principles underpin FFS and should be in place for quality FFS programmes.

FARMERS' NEEDS DEFINE AND DRIVE FFS

The learning topics for the FFS should be defined with inputs from the community and group members. The FFS curriculum should reflect existing gaps in the community's knowledge and skills, and opportunities to improve. The content builds on local knowledge systems and creates opportunities to test and validate scientific concepts, addressing location and situation-specific learning needs in a local context.

KNOWLEDGE GENERATION IS CENTRAL IN FFS AND FFS PROGRAMMES

Hands-on experiential learning

The FFS creates a space for active hands-on practical learning, following the crop/enterprise through the critical development stages. Direct observations and active experimentation guide intensive discovery learning over a season. Theories and assumptions can be tested and analysed to enhance skills and competences.

The field or herd is the learning ground

In an FFS sometimes called a "school without walls" the field setting and practical experimentation is central to the learning process. Each group designs and sets up a learning trial (plot, herd, fish pond or landscape depending on the specific focus of the FFS) that allows for a comparison of practices or technologies on a locally appropriate topic, often combining indigenous and expert knowledge. The experimentation in FFS allows farmers to learn from empirical observations and puts the emphasis on testing and validating new concepts and technologies under local ecological and socio-economic conditions. This builds critical thinking and allows local and science-based knowledge to merge.

A process of observation, critical analysis, sharing and debate, conclusion/decision and application to enhance knowledge and decision-making skills

The FFS process encourages learners to actively improve their competencies through observation, analysis and examination of the experiences and ideas of others through interaction. This enables learners to strengthen their skills and make informed decisions.

LEARNING IS A CONTINUOUS PROCESS

In FFS, learning follows the natural cycle of the study topic, for example, from "seed selection to harvesting". This is normally referred to as "season-long" (or "cycle-long" in the case of non- crop enterprises such as livestock). This allows farmers to understand complex relations in agro-ecosystems over critical development stages. They learn in real time as problems occur, by organizing learning events and meetings at critical crop/enterprise/trust building development stages.

DEVELOPING SKILLS AND COMPETENCES

In FFS the focus is on developing skills and competences rather than assimilating information regarding new technology options. The focus is on understanding the basic science behind various aspects of the agro-ecosystem so that farmers can carry out their own innovation processes, i.e. understand the "why" behind the "how" and the "what".

SYSTEMATIC TRAINING PROCESS

All FFS follow the same systematic training process where the cornerstone is to observe and analyse field experimental activities. Every FFS session includes at least three activities: agro-ecosystem analysis (AESA), a "group dynamics activity" and a "topic of the day". The group dynamics activity leads towards team building and organizing skills for the group itself. The "topic of the day" usually includes technical information to complement the "learning by doing" and "field experimentation" in FFS. This is a farming related topic connecting to observations in field experiments, but could also be any other subject of concern to group members, such as nutrition, gender equality, micro-finance, price spikes, etc.

If the facilitator lacks the specific expertise, external specialists or other community members can be invited to lead discussions. The entire FFS learning session is usually held for a half-day period.

FACILITATION OF THE LEARNING PROCESS BY COMPETENT FACILITATORS

Trained and competent (technical, methodological and organizational skills) FFS facilitators (usually government, NGO extension workers or community members) guide the learning process. They mentor and assist the participants to take responsibility for their own learning through the use of participatory appraisal tools, among others. In the discussions, the facilitator contributes and helps the group to reach a consensus on what actions need to be taken. One or two facilitators are assigned to an FFS group for the full duration of the FFS learning cycle and will be present at the scheduled FFS meetings.

The facilitators are trained in a formal training of facilitators (ToF) course developed and run by experienced FFS master trainers before the start of an FFS. Researchers, subject matter specialists and external experts are occasionally invited to provide technical support to FFS groups as needed. Farmer facilitators emerge from FFS and are critical for scaling-up programmes locally.

BUILDING TRUST AND STRENGTHENING GROUPS

Towards the end of a basic learning cycle the FFS participants will evaluate the activity, and define what follow-up activities are relevant. This is the basis for planning for continued action, in support of broader community development.

4
Designing a farmer field school programme

4
Designing a farmer field school programme

The previous chapters addressed the essential elements and suitability of the FFS approach. Where FFS are deemed to be applicable, the ultimate design of the programme needs to be aligned with the prevailing policy and institutional environment. However, it is also necessary to understand the operational environment at the field /community level towards which the FFS programme is targeted.

Programme formulators and practitioners should work with the communities who will co-produce the FFS to evaluate the local/field level context for which the FFS programme is being designed, including the problems to be addressed, the short and long-term implications, the general development entry points such as poverty eradication, disaster risks, demographic trends, potential past or existing programmes to build on, timelines for implementation and so on.

The design also needs to consider mechanisms for implementation. Scenarios vary from country to country, as do stakeholder institutions and the roles they can play (NGOs, private sector, research). Generally, FFS may either be spearheaded and run by the mainstream relevant ministry (agriculture, fishery, health, etc.) or championed by institutions who work in collaboration with the ministry and other relevant government departments, institutions or bodies. In some cases, FFS have been spearheaded by FAO country offices and delivered through implementing partners. The design process and the roles of actors may also both vary.

Identified stakeholder institutions, both public and private, for support such as research, and other specialized service providers, local government departments, etc., need to be brought on board to discuss the implementation modalities, and define roles and obligations where relevant. This will involve discussion and agreement on the geographical scope/FFS coverage/spread, considering location and numbers, beneficiary targeting, FFS trainers and facilitator identification and training, FFS linkages with relevant government structures and research, among other aspects. These are important elements that will keep the FFS programme alive and provide opportunity for its sustainability and institutionalization at lower levels.

The following sections describe a number of considerations/actions that are required to define a relevant intervention.

TIME DIMENSIONS OF FARMER FIELD SCHOOL PROGRAMMES

Timelines are an important aspect of FFS programming. They influence the quality of FFS and the nature of interventions, and may shape the objectives of the FFS. They may be dictated by the context or available funding/budget and the nature of the problems to be addressed, or a combination of factors. As elaborated in Chapter 2 the contextualization and understanding of the general environment for implementation, accomplished in consultation with smallholder farm communities, will guide the nature of activities that can be delivered through FFS within the available timelines and resources. Programmers need to structure the planning for FFS in a way that does not compromise the goals co-created with farmers, and that ensures quality.

The practice is usually to begin by designing FFS to suit given timelines. However a better option may be to begin the other way round, by designing a larger programme to address the bigger objective, and then fitting in the FFS as a means to achieve both the technical and practical goals. Considerations will then determine what activities can effectively be implemented by FFS within the time limits and prevailing environment. This creates space for future consolidation without having to design a new FFS 'project', but rather building on and strengthening the existing and ongoing FFS programme. Figure 6 notes some considerations for FFS and programme/project development and implementation.

Figure 6: Considerations for FFS and programme/project development and implementation

<6 months

Too short – consider something other than FFS

6-12 months

Not recommended unless the use of FFS is the most feasible tested solution under the prevailing circumstances.

If the problem identified can be addressed in the short term or short-term activities can contribute to addressing the bigger problem (e.g. addressing an outbreak of a crop disease, etc.), one FFS season of activities might be implemented. However follow-up may not be possible and linkages to other established interventions are thus critical. The use of relevant qualified staff from agricultural colleges or extension units as facilitators is recommended since there will not be time to develop farmer-facilitator capacities, unless they already exist in the locality. If/when follow-up funding streams are available, ensure the inclusion of follow-up support to consolidate the initiated FFS.

Up to 2 years

This is the recommended minimum duration for acceptable quality FFS implementation.

During this period, identified and emerging problems may be addressed to a certain extent; learning activities may be covered comprehensively and programming may consider the vital integration of both short and medium-term aspects in the design. How fast a programme can expand depends on what is already in place. Enough time may be available to build or expand capacity to implement the identification of farmer facilitators, and mentoring is possible, but this timespan will not allow for their full capacity development. The duration is very limited in terms of support for FFS follow-up activities.

Over 2 years

This longer duration is ideal and will allow basic cycles of FFS to be implemented, as well as follow-up activities.

Programming may consider building FFS to address short, medium and long-term problems of a development nature, including complex issues. The design should consider the development of FFS groups so that they grow and transform into viable higher level coordinating institutions and can thus embrace other opportunities. The duration provides space for development of a critical mass of facilitators as well as master trainers, as may be required; it also provides opportunity to develop farmers' capacities as facilitators – critical for continuity.

See Chapter 5 on developing human capacity and Chapter 7 on monitoring, evaluation and learning (MEL) for additional information and considerations on FFS and FFS programme development.

ASSESSING THE LOCAL CONTEXT[4]

The checklist below outlines FFS preparatory actions to be undertaken prior to FFS programme design:

- ☑ Hold consultations with local stakeholders, for example farmers' organizations, government ministries (relevant departments such as those of agriculture, livestock, gender equality), NGOs, and others; during consultations present the FFS approach/concept, seek collaboration and participation; explore intervention areas into ongoing plans that could form a basis for FFS implementation.
- ☑ Gather and review secondary data, such as statistics, census reports, workshop reviews and demographic studies. Identify where the need is strongest using indicators such as poverty, food insecurity, poor nutrition, low productivity.
- ☑ Work with local communities to design, conduct and interpret a baseline survey and/or context analysis related to both biophysical and socio-economic conditions in the prospective target areas, including the assessment of cultural practices that might hinder or facilitate technology uptake, and participation by certain gender or ethnic groups, etc.
- ☑ Hold discussions with local communities and authorities to identify the specific geographical focus of implementation of an FFS, based on indicators similar to those above.

ESTABLISHING THE NECESSARY PARTNERSHIPS

FFS should not be used in isolation but rather be seen as complementing broader service delivery systems, and part of a longer-term multifaceted strategy articulated around complementary and reinforcing interventions. Partnerships and synergies should therefore be built with other forms of development initiatives, institutions, NGOs and government agencies, depending on the opportunity. For example, links should be built between FFS programmes and/or groups with research to ensure the technical soundness of experiments, etc. Technical resource persons from local government or educational institutions should be brought in to support facilitators on specific topics, as necessary.

STAKEHOLDERS AND STAKEHOLDER ANALYSIS

Stakeholders refers to all the women, men, groups and institutions (informal and formal) that are interested in, or affected by, a development activity such as an FFS. By this time the national-level stakeholders are known and the focus is now on the potential programme area. A **stakeholder analysis** is always beneficial to identify potential partnerships or conflict and learn about the different interests, needs, constraints and opportunities that people and groups face. The most common stakeholder groups of FFS interventions, apart from community members and male and female direct participants are listed below, together with considerations for their involvement in the FFS process:

- Community-based organizations (CBOs) and village leadership structures such as community committees, customary institutions, traditional leaders, etc.:
  - Key local institutions play a role in building the trust of the communities in themselves through programme interventions and supportive mobilization efforts. Their structures and participation are important for critical local-level institutionalization processes.

4 Adapted from Junior Farmer Field and Life Schools (JFFLS)"Getting Started" manual.

- Government authorities such as local administration extension departments play a monitoring and supervisory role, and it is therefore important to engage them in the planning:
  - FFS interventions should be planned together with local administration from the outset, because they provide a link between groups and other actors in the locality.
- Technical resource units or officers, both in agriculture and livestock-related issues, but also in cross sectoral issues such as nutrition, human health, gender equality, etc.:
  - A continuous process coordinating group needs and demands with available technical expertise in the locality is needed in order to ensure harmony between supply and demand for technical support to groups.
- Other ongoing similar or complementary projects, programmes and interventions:
  - In order for synergies among programmes to go beyond simply sharing information, real-time joint programming efforts may be necessary, whereby actors examine and reshape programme implementation procedure and activities as necessary.

In a way, FFS might be perceived as a socially inclusive approach because of its focus on smallholder farmers who are often among the more vulnerable. But even within the context of rural communities and smallholders, social inclusion/exclusion needs to be reflected on carefully, analysed and translated into an appropriate setting of an FFS programme. A set of interconnected questions should be answered during the preparatory phase and the formation of groups: "Who receives the information about the possibility of participation? - What channels are used to disseminate the information? – Who is giving the information?" And another one, not less important: "Who can participate? – Who is allowed to participate? – Who is able to participate?" and "Is there somebody to whom FFS experience would be helpful but is left behind?" Some of the categories to be taken into consideration when focusing on social vulnerabilities may include sex, ethnicity, nationality, age, health, family status, belonging to a particular social group, or income.

FRAMING PROGRAMME OBJECTIVES

The FFS programme should be aligned to relevant national or regional programmes in the country. The goal and objectives formulated should therefore contribute to provincial/regional or national priorities as required.

The first step in formulating an FFS programme or FFS components of existing programmes usually relates to defining the programme objectives and key components of the programme, i.e. the outcomes in logframe terminology. When this is clear, activities can be defined. The objectives might vary according to the context in which the FFS is implemented and whether the FFS is the focus of a particular intervention or merely one component in a larger programme. Table 2 shows sample objectives and outcome statements of an FFS programme.

Other potential ways of phrasing objectives and outcomes depending on the focus of your programme might be:

1. **Improved livelihoods and enhanced opportunities for income generation:** a programme that aims to emphasise the uptake of commercially viable farming practices and support farmers

to strengthen their group's leverage in a more market driven agriculture may be formulated as per objective sample 2.

2. **Holistic community development:** a programme that clearly wishes to emphasize the blending of agricultural knowledge with life skills, and which is implemented in a society affected by HIV or other human health threats, or where social structures are weak, may be defined as per objective sample 3.
3. **FFS in a disaster risk management context:** in situations where emergencies and disasters are frequent, the focus of the

Table 2: Sample objectives of FFS programmes and examples of corresponding outcome areas

Objective sample 1	Application of improved and locally adapted farming technologies		
Outcome areas	Capacity built among extension providers on the FFS approach.	Farmer decision-making capacity strengthened through FFS cycle-long learning. XX FFS groups established and engaged in season-long learning.	Locally appropriate and ecologically sustainable technology solutions tested and documented.

Objective sample 2	Improved livelihoods and enhanced opportunities for income generation		
Outcome areas	Capacity built among extension providers on a market leverage- oriented FFS approach.	Successful co-creation and application by target communities of commercially viable technology solutions.	Village savings and loans systems established and used and farmers' groups linked to micro credit.

Objective sample 3	Enhanced wellbeing and holistic development within community development		
Outcome areas	Co-creation and application by target communities of locally adapted technology solutions.	Inclusive social support structures, trust and collective action strengthened.	HIV, nutrition and gender equality mainstreamed in community education.

Objective sample 4	Strengthen the resilience of communities and their support structures in disaster risk management		
Outcome areas	Target communities are more resilient in the face of disasters through improved community planning and action (i.e. CMDRR etc.).	Co-creation and application of drought resistant, flood-tolerant, or agro-ecological farming practices improves and diversifies livelihoods.	Enhanced social safety nets and diversified incomes established through village savings and loans systems.

Objective sample 5	Up-scaling of farmer-driven and participatory extension in the country		
Outcome areas	Farmers' co-creation, adaptation and application of locally appropriate and environmentally and financially sound farming practices.	FFS approach is implemented in a coordinated and harmonized manner, where lessons learned and shared improve the quality of interventions.	FFS approach is effectively promoted, discussed and appreciated at policy and donor levels.

programme may be on building farmers' capacities and capabilities to prepare for, respond to and recover from disasters, and to ensure the involvement of the whole community in such efforts, as per objective sample 4.

4. **Institutionalization of FFS at country level:** a country-wide programme in situations where the approach is already well established might aim to bring the FFS approach to the attention of policy and decision-makers as well as support enhanced coordination and harmonization of the approach across a multitude of actors. See objective sample 5.

In FFS programme documents it is important to consider how the narrative defines the object and thus to try to be consistent with the terminology used to describe FFS and FFS programmes. Below is a table suggesting which words to avoid and to use in order to align with the core principles of FFS.

Words to avoid	Words to use
Technology adoption	Technology adaptation/ co-creation
Technology transfer	Validation/co-production
Demonstrations	Experimentation and critical discussion
Training/teaching	Facilitation
Dissemination/diffusion	Sharing, spreading or secondary impact
Increased specialization	Diversified/holistic
Access to market	Leverage in market

AVOID DEPENDENCY!

Field School is a learning-oriented activity. To further the learning certain inputs might be provided by the programme. However, caution needs to be taken to ensure that potential dependency syndrome is not embedded in the programme. The provision of inputs should be conditional on an accompanying contribution by the group members, to prevent it becoming the primary motivation factor for farmers to participate in the FFS activity, rather than the envisioned learning gains. This might particularly be the case in emergency and rehabilitation contexts.

Several options exist to reduce the risk of dependency and programme designers/ managers should assess which of these are most suited to their particular scenario and context (see Chapter 6 ▶ and Chapter 9 ▶ for further guidance).

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DEFINING THE GEOGRAPHICAL SCOPE

The distribution and geographical scope of FFS interventions are key considerations when starting up. The number of groups planned or desired is often determined based on the availability of funding, political support or limitations in the sourcing of potential facilitators.

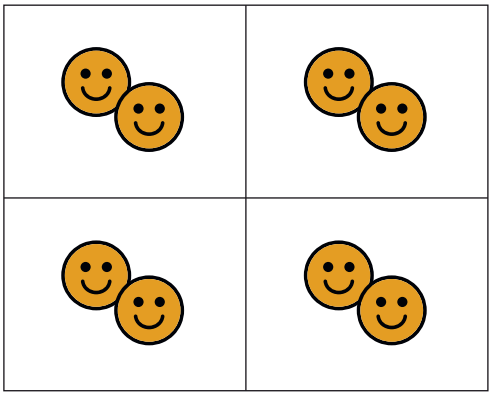
There is a general tendency for programme managers to want to distribute FFS groups fairly equally across the geographical zones covered, i.e. spread thinly over a bigger area.

Political pressure to cover many administrative zones and equal sharing of scarce resources and support by local government authorities is often the reason. However, experience has shown a number of benefits from clustering FFS interventions i.e. many groups within a certain locality, the so called "foci model", shown in Figure 7.

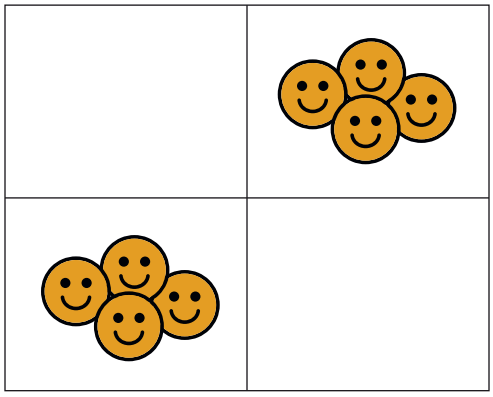
The benefits of the foci model are:

- more likely to ensure a lasting impact through behaviour and practice change in a given locality by ensuring involvement in FFS-related activities by sharing and interaction within a critical mass that is focused on similar ecosystems;
- easier and more cost-effective monitoring and mentoring support of FFS groups and facilitators;
- easier to ensure peer-to-peer support among local facilitators, a key to quality maintenance;
- greater closeness of groups enables group-to-group inter-visits and exchanges, which enhance a feeling of togetherness and a positive competitive spirit across groups;
- the closeness of groups facilitates coordinated collective action and group network formation across groups, which often translates into better leverage for success in produce marketing and collective efforts post FFS, etc., it also promotes quicker spill-over effects to the rest of the community;
- recent developments in FFS show that the foci model provides a good setting for engaging FFS members in championing broader coordinated development actions, such as watershed management activities due to the concentration in numbers of like-minded people with similar conceptual tools.

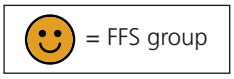
Figure 7: The FFS foci model where FFS groups are clustered in selected geographical sites as opposed to spread out equally across the broader target area.



Even spread of FFS groups



FFS group clustering – Foci model



TAKING STOCK OF CAPACITY NEEDS

Capacity building in FFS has heavy cost implications because FFS programmes hinge on the quality of learning experienced by master trainers as well as that experienced by the facilitators. There is a need to identify appropriate and adequate expertise to undertake the interventions, and to invest in quality capacity building programmes for FFS success. The design process should make provision for adequate resources for the development of the requisite capacity throughout FFS programme implementation. Tables 3-5 provide basic considerations on analysing the capacity needs to facilitate planning and budgeting.

Table 3: Availability of farmer field school trainers and technical expertise

Are there MTs available? Do MTs have the right skill set for the task? Is there enough time to run an MT course?

ARE THERE ALREADY MASTER TRAINERS IN THE COUNTRY?

YES	
Are MTs readily available and do they have the required technical expertise?	
YES	**NO**
Use these for running of programme training of facilitators (ToFs) and technically support the programme.	Make budget provision for a master trainer course.

NO	
The programme is large in scale (more than 50 FFS groups) and of long duration (min. 3 years).	
YES	**NO**
Make budget provision for a master trainer course.	Consider using external MTs for programme start up and mentoring.

IS THERE A PUBLIC EXTENSION SYSTEM IN PLACE?

YES	
Is it supportive of participatory group-based learning?	
YES	**NO**
Consider using the public extension system as an entry point for your FFS programme intervention.	Consider using other actors, but involve public extension system actors so as to develop their capacity.

NO	
Are NGOs or other civil society actors available?	
YES	**NO**
Consider using these as an entry point for your FFS programme intervention.	Consider direct implementation at community level for farmer-led interventions, or shift programme to another area, or support NGOs in opening offices in the area if feasible.

ARE GOVERNMENT EXTENSION STAFF AVAILABLE AT LOCAL LEVEL?

YES	
Is the programme of longer duration?	
YES	**NO**
Consider using govt. extension staff in the first phase and later transit into more farmer-led FFS.	Use Govt. extension staff as FFS facilitators.

NO
Consider using farmer/community facilitators.

Table 4: Availability of farmer field school learning materials

The availability of manuals and learning materials in a suitable format and language needs to be assessed at programme start-up. If unavailable, the process of developing materials may need to be an integral part of the programme.

IS TECHNICAL EXPERTISE AVAILABLE ON THE FFS TECHNICAL ENTRY POINT?

YES	NO
Consider using the available technical experts.	Source/recruit technical expertise from adjacent regions or foreign experts.

ARE FFS MANUALS AND RESOURCE MATERIALS ON THE ENVISAGED TECHNICAL FOCUS AREAS AVAILABLE?

YES		NO
Are the manuals adapted and in a language/format suitable for the facilitators?		Invest in manual development processes.
YES	NO	
Use existing FFS resource materials.	Invest in manual adaptation or translation to local languages.	

Table 5: Gender dimensions in farmer field schools

Assessing gender dimensions, i.e. the potential for mixed groups vs. single-sex groups, the potential for sourcing female facilitators and female participants, possible cultural, religious or taboo rules that might impact FFS, etc.

IS SOCIAL INTERACTION BETWEEN RURAL WOMEN AND MEN IN PUBLIC POSSIBLE?

YES		NO	
Men and women are generally involved in or can relate to similar farming activities.		The cultural or religious system generally discourages or prohibits male-female joint interaction.	
YES	NO	YES	NO
Mixed FFS groups are recommended.	Mixed FFS groups are recommended but care needs to be taken to ensure gender-disaggregated curriculum planning processes. If farming activities. are very different across genders, single gender FFS groups may be formed.	Mixed FFS groups are recommended, but great caution needs to be taken to ensure respect for local cultural norms. In extreme religiously prohibitive cases single sex groups may be formed.	Mixed FFS groups are recommended.

SCALING-UP

"Scaling-up" is meant as the growth in FFS programmes, in terms of number of FFS groups, graduates, etc., while maintaining programme quality. Programmers should evaluate the conditions for scaling-up FFS and begin planning for this prior to FFS implementation. The design should make provision for building requisite capacities at all levels, including national, regional and local levels, and relevant support institutions. It should include provision for developing the requisite support mechanisms, including monitoring and evaluation, feedback pathways by relevant stakeholders across the board, lesson-learning and documentation. For implementation, a sufficient pool of expertise and human capacity at various levels needs to be planned.

Provided that the necessary structures and capacities are in place, a large number of farmers can be reached in a short timeframe. Figure 8 and Figure 9 present two different examples of scaling-up: one from Asia in a context with extremely strong FFS capacities in terms of master trainers and logistics; and one from Africa in a country with limited to average capacities.

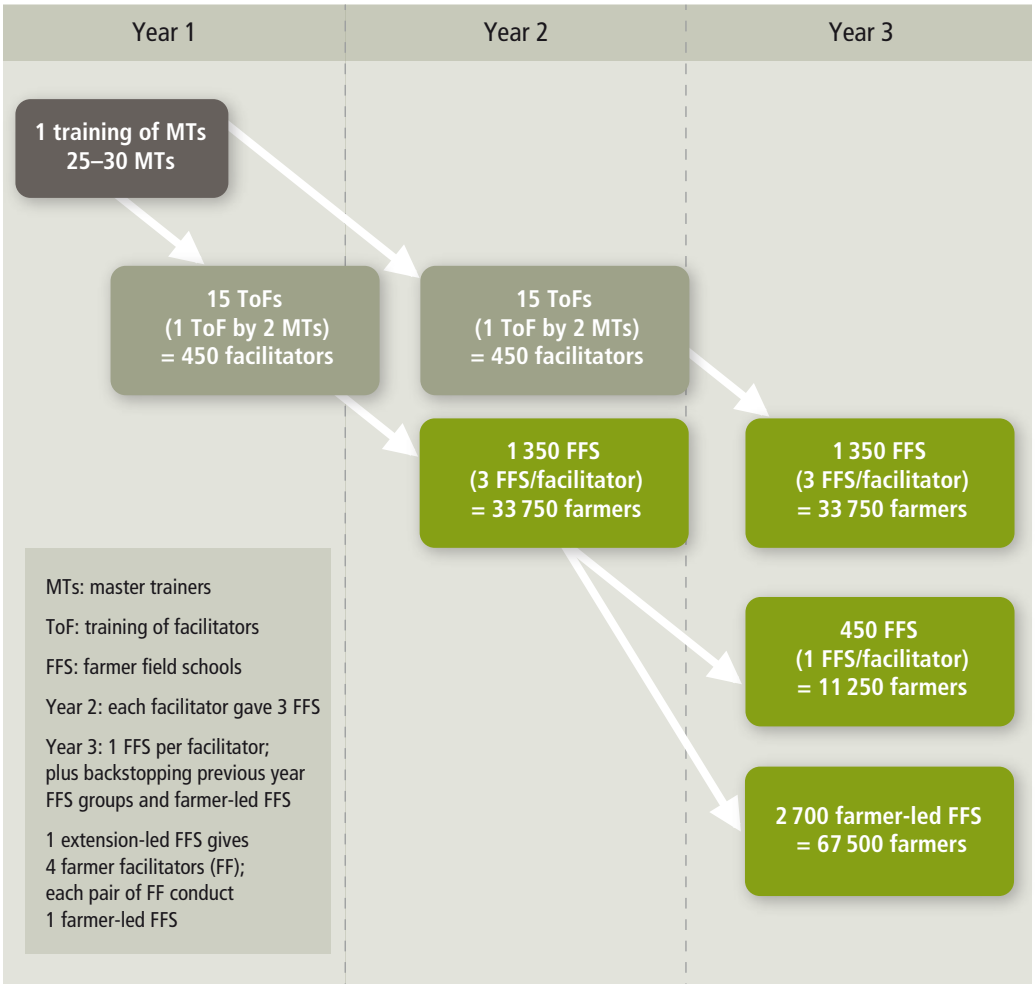
The Asia example is a highly ambitious scenario which assumes ideal prevailing conditions in terms of a sustained and high-quality human resource base, as well as accompanying investments in staff capacity building and mentoring support. In practice, such conditions are seldom all met, and a more feasible way of reaching a larger scale without compromising quality is gradually using the lessons learned to strengthen the next phase, while taking the time to build the necessary human capacity, as well as systems and mechanisms for scaling-up.

The example in Figure 8 assumes that:

- All candidate master trainers trained in Year 1 will effectively qualify as MTs at the end of their season-long training, and will be available, interested and immediately operational to become MTs. In practice, this will not be the case for all the 'candidate MTs': probably only some trainees will graduate as MTs, while others, who have not demonstrated sufficient mastery of technical or methodological requirements, will act as FFS facilitators or as field supervisors, but not as MTs. Other candidates might drop out during or at the end of the season due to time commitments or the conflicting priorities of their employer. MTs are the cornerstone for the quality of future training of facilitators, and therefore of the FFS, and they significantly influence any impact that an FFS project might have. Not every individual is cut out to be an MT because it requires significant flexibility, technical skill, people-orientation and creativity. A selective process of MTs among trainees must therefore be factored in during the planning phase.
- The project has the capacity to organize 15 ToFs simultaneously in Year 1. However, given the typical length of a ToF, the logistics involved in organizing ToF learning plots and the FFS associated as pilots with the ToFs, and the challenges of securing adequate resource people, this is not likely to happen in most FFS projects.

The case in Figure 9 reflects a typical situation in West Africa. It should be noted that here each cycle is a "season", not a "year". Because there are typically two growing seasons a year in the sub-region, the Figure spans 1.5 calendar years approximately. The Figure also includes "practice FFS", which are run by facilitators as practice, in parallel to their own ToF (facilitators run the FFS in

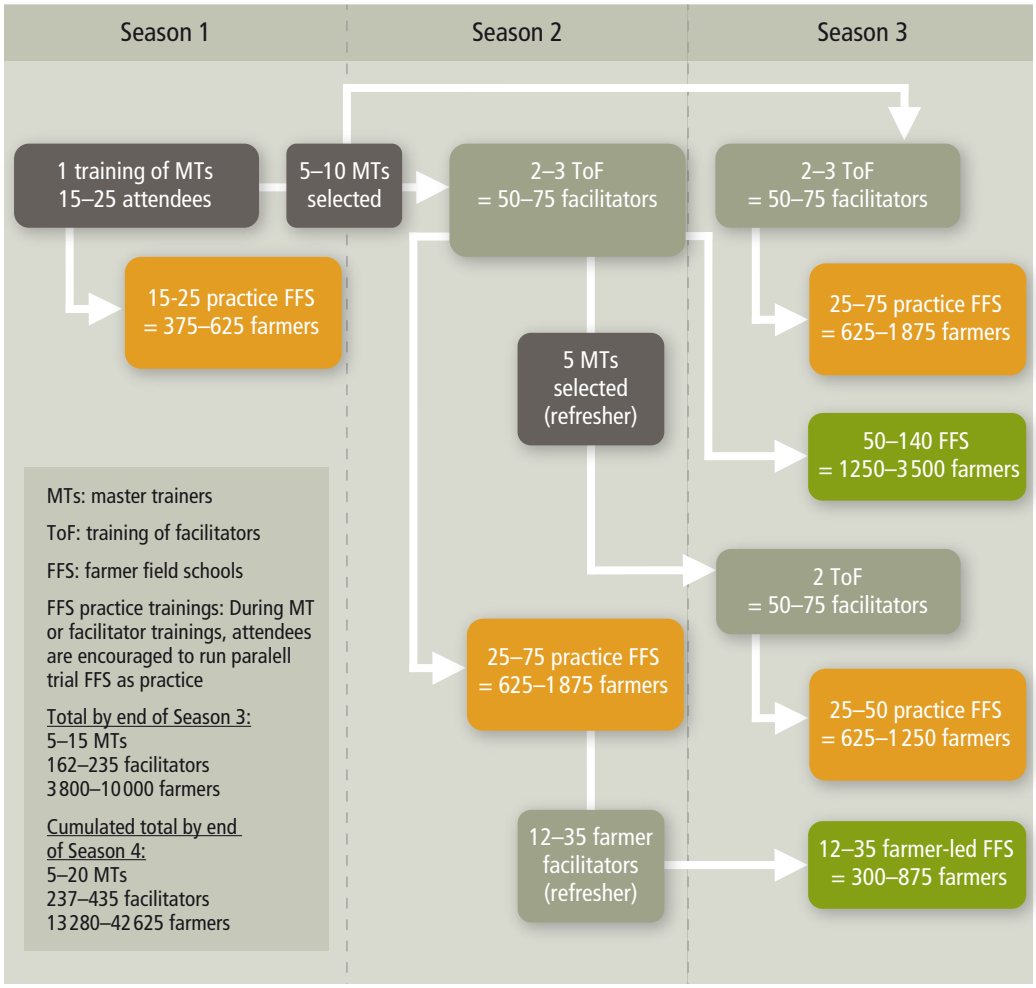
Figure 8: Scaling-up FFS – a case from Asia



their villages in the weeks in-between their monthly ToF sessions). Such "practice FFS" enable facilitators to learn facilitation by doing "hands-on" actions and to receive coaching from their MTs during the ToF about the difficulties they face as they go along. It also allows the project to train farmers from Season 1 without waiting for the ToF to be fully completed.

A full-time FFS facilitator facilitates between 1 and a maximum of 3 FFS in Year 1, but only 1 new FFS from Year 2 onwards, to allow for time for the facilitator's documentation/ reporting, reflection, backstopping farmer-led FFS and providing ongoing support for FFS groups that have graduated. Assigning more FFS per facilitator may undermine their ability to function effectively; and have implications for FFS quality. Factors to be considered when determining the number of FFS per facilitator include: the facilitators' skills and whether they are farmer-facilitators or extension advisors; the time duration between FFS sessions; the distance between different FFS sites; and transportation to sites where a facilitator is facilitating and backstopping farmer-led FFS.

Figure 9: Scaling-up FFS – a case from Africa



When planning feasible numbers the following factors need to be taken into consideration:

- The level of experience of FFS in the country and level of institutionalized support structures for FFS mentoring, supervision and quality control. If the approach is new in the country, a slow and gradual scaling-up plan may be needed, including mentoring from abroad, usually from the same region.
- Field facilitators require frequent and high-quality supervision and mentoring. As one supervisor may effectively support approximately ten facilitators, these need to be budgeted and planned for along the field implementation scaling plan.
- Systems and mechanisms for monitoring FFS/facilitator/programme performance and progress, and conducting training tailored for facilitators and stakeholders should be part of this programming aspect.
- Logistics need to be considered if this is to be implemented by government under its extension system: government staff may not necessarily reside in the area of operation. Even those who reside within the same locality require some basic

facilitation to move from one village to another.

- In Figure 8, during the first year, the facilitators should concurrently prepare and mentor farmer facilitators to begin to take over FFS implementation in the following year. However, this assumes that all the initial facilitators are of high quality and have the capacity to implement quality FFS as well as the skills to mentor farmer capacity building which is not always the case.
- At this point the FFS programme should have the relevant checks and balances in place on the performance of the facilitators, and a robust monitoring system to address hiccups along the way. This is not very easy in practical terms and requires a number of capacities to be in place – and time is always of the essence.

It is evident that maintaining quality during scaling-up is only possible when based on solid development of human capacities, which is described in the next chapter.

5
Developing human capacity for farmer field schools

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5
Developing human capacity for farmer field schools

For high quality FFS programme implementation, there is a need to build a sufficient pool of expertise and human capacity at different levels. Any FFS intervention, whether under a smaller project or a larger national programme, needs to ensure that competent and experienced intervention managers, master trainers, supervisors and facilitators are associated with or embedded in the programme. The key groups of trained experts needed for successful FFS implementation are listed in this chapter.

FARMER FIELD SCHOOL PROGRAMME MANAGERS

Adequate preparation undertaken in the previous stages and an appropriate design process should pave the way, with the right grounding, for FFS implementation. Nevertheless, this preparation per se does not necessarily lead to high-quality implementation. It is the role of the programme managers to define and organize the necessary processes and mechanisms, as well as the requisite human resources that will translate the programme into tangible outputs in a timely manner. Managers further need to ensure that the implementation does not lose track of the overall objectives of the FFS programmes and that it involves the rational use of financial, human and time resources.

In addition to a solid technical background and field experience related to the programme's main topics, FFS programme managers require basic understanding of FFS programmes and their operations, including the stages of implementation, the deliverables expected from implementation, and the relevant staff under their supervision; the manager should understand the necessary logistical support required by facilitators and FFS groups to function effectively, in order to provide appropriate guidance and timely support to the implementation. Whether these are government or NGO workers, a dedicated orientation on the concepts, principles of FFS and its functioning, monitoring and evaluation requirements is vital. Sensitization and short training courses of 2-5 days should be organized, alongside exposure through guided field visits and study tours.

FARMER FIELD SCHOOL MASTER TRAINERS

FFS master trainers require thorough and extensive experience and education on FFS programme organization and implementation. Ideally MTs will undergo a season-long master training course on the FFS methodology, and additional relevant technical content outside their field of qualification.

If there is not a sufficient pool of MTs, or when an FFS programme is started in a new geographical location and/or country, it is recommended that MTs be trained through a comprehensive season-long MT field course to build national and/or organizational capacity to backstop and mentor FFS interventions before FFS field activities begin. MTs can also be sourced from other organizations or countries with experience in FFS implementation. Suitable MTs should be available to provide technical support to FFS programmes in the field. They should be able to commit time to

supporting project activities, have advanced skills, knowledge and experience in agriculture/livestock, and be willing and able to share experiences and help other people learn and develop. It is essential that they have strong facilitation, participatory training and mentoring skills, and the right mindset.

The main role of master trainers

...includes, among other things:

- mentoring of FFS activities in the field, especially supporting facilitators on-site;
- running ToF, including preparation and follow-up in the field;
- monitoring, evaluating and documenting FFS experiences and results;
- advocating for FFS approaches to farmer education;
- managing, designing and budgeting FFS programmes;
- assisting in the development of training curricula and materials, such as the innovation of new FFS facilitation exercises;
- exploring opportunities to move forward with FFS-related activities and programmes;
- being an active member of the FFS network and supporting linkages across programmes/countries;
- being a general resource person for FFS.

It is recommended that organizations implementing FFS at significant scale should have a designated FFS master trainer closely affiliated to and/or working for the FFS implementing organization. Where there are several organizations implementing FFS, it is recommended to have a mechanism for coordination among the different MTs and institutions to ensure that standards – including cost norms – are followed across projects/organizations, to avoid issues such as competition for FFS trainers' services.

Sourcing and training of master trainers

MTs are educated through a comprehensive season-long course (see Table 6 for considerations). Such training, apart from building capacity around FFS methodology, also includes substantial elements of project management, participatory approaches, M&E and training/curriculum design skills. The duration of the training is a biological season (for instance a cropping season), taking a minimum period of 3-4 months of intensive learning with limited breaks; or 6 or more months following a more relaxed pattern as described in the models. If the focus is on

Table 6: Considerations involved in deciding whether to run a master trainer course

SCENARIO 1 RUN OWN MT COURSE	SCENARIO 2 MAKE USE OF EXISTING LOCAL OR FOREIGN MTs
• The programme is of longer duration (4-5 years). • The funding is substantial and scale of programme is big, i.e. more than 1 000 FFS groups envisaged. • The programme is regional or national in geographical scope. • There is commitment by donors and implementing actors to sustainably build long-term capacity for FFS, within their own organization or/and among other partners. • There is capacity and trainer support available to run an MT course. • Etc.	• The programme is of short duration (less than 3 years). • Funding is limited and only a small number of FFS groups envisaged, less than 1 000. • The programme is local (district, provincial) in geographical scope. • The intervention is on a pilot or trial basis, substantial commitment for FFS is lacking. • There is a rush to have a bulk of the FFS groups in place quickly i.e. within half a year. • Etc.

CHEAP CAN BE EXPENSIVE

Experience from several countries and programmes has shown that it is worthwhile to invest in FFS capacity building at the start of FFS programming, if the need for running an MT course is commensurate with the needs of the programme, i.e. the scale of operation and therefore the number of training of facilitator (ToF) courses would require it. Attempts to save time and finances by omitting MT courses usually have a negative impact on quality, which eventually leads to recognition of the need for such courses. If these MT courses are held at programme start, it will be cheaper in the long-run for the programme and help to avoid many unnecessary frustrations for programme teams.

However, it is critical for managers to make an informed decision on conducting an MT course based on needs – taking into consideration the number of ToFs that are planned and the scale of operations – due to the high investment costs involved in terms of capital and the range of human expertise required, along with the time taken to develop the MT courses. If these prove to be redundant after the course because of reduced needs, valuable resources will have been wasted.

crops, the training should last throughout the growing season, with critical training moments aligned with the crop calendar and production season.

Models that have been used for MT training include: continuous season-long residential training without breaks, covering the entire duration of the focal activity; and zig-zag or sequential season-long training where participants have breaks in between, such as 3 weeks on and 3 weeks off, 2 weeks on and 2 weeks off, etc. An MT course requires practice with FFS groups, i.e. field implementation affiliated to the MT course, to provide hands-on experience for the participants to work with actual FFS groups in co-producing FFS, testing the technical contents, agreeing on priorities, etc. When FFS are new to an area or country many opt for using external or foreign MTs to support programme start-up.

FARMER FIELD SCHOOL MENTORS, FIELD COORDINATORS OR FOCAL POINTS

Experience has shown that the gap between MTs and field facilitators can be wide, and that it is difficult to ensure adequate backstopping and support by highly qualified MTs for field implementation, especially when programming at scale (i.e. for large number of groups). A middle layer of local support expertise is thus needed, which can be available to support facilitators on a day-to-day basis and help solve problems at short notice. These are supervisors of FFS facilitators (varied titles are used in different countries including "mentors", focal points, provincial coordinators, or simply coordinators). These must be better qualified than the facilitators. They may undergo the same course as the facilitators, or may need more comprehensive training and experience but without necessarily taking a full MT course. Alternatively, they may be experienced facilitators who are promoted to a higher level, or programme staff whose capacity has been built through tailor-made training or field study tours.

FARMER FIELD SCHOOL FACILITATORS

An FFS facilitator is charged with the day-to-day responsibility of facilitating FFS groups and must have undergone a training of facilitators (ToF) course organized and facilitated by competent MTs.

The context of FFS implementation and the complexity of the FFS programme, as well as the time available for implementation, will determine the calibre of the facilitators to be used. FFS programmes implemented by the government may use government extension staff alongside farmer facilitators to run the FFS. Programmes implemented by organizations (NGOs, CBOs, and others) may use government extension staff if they

are available, or hire facilitators outside the government domain. Local government leaders, however, should not be facilitators.

The competence of facilitators used will determine the number of FFS they can handle. Usually, government extension staff and/or NGO staff are generally in charge of at least the first round of FFS in an area. Once farmer facilitators have been trained, these staff take charge of backstopping and mentoring the farmer facilitators. Farmer facilitators are graduates from an FFS: they are experienced in FFS, motivated, and preferably suggested by the FFS participants. Selection is based on their performance, knowledge, skills and attitudes expressed during the FFS cycle.

Facilitators should understand FFS principles and have good oral, listening and facilitation skills. They must have charisma and understand participatory learning processes, although some of these skills are also strengthened in training. These attitudes and capacities may be improved with good training, but it is also important to consider them as a basis for selection.

The common selection criteria for facilitators are:

- have agricultural training of some kind, formal or informal, or have some level of advanced skills, knowledge and experience in agriculture/livestock/fisheries;
- be technically competent for the agro-ecosystem at hand;
- be available to facilitate the FFS process;
- be able to share experiences and connect well with other community members;
- have good people skills and an aptitude for informal and participatory ways of working;
- have at least some reading and writing skills;
- speak the local language;
- live in the local community;
- have a dynamic and confident personality.

Training of facilitators

FFS facilitators need to be identified and educated before commencing FFS activities. FFS facilitators are trained through a formal FFS training of facilitator (ToF) course developed and run by experienced FFS master trainers.

The FFS ToF courses aim to build capacity among facilitators for FFS in general (e.g. approach/methods, as well as organization and facilitation skills). The ToF should use the FFS approach/methodologies so that ToF participants learn by doing: participation, group work, developing facilitation, communication, organizational and personal skills. These courses

MAKE SPACE FOR WOMEN !!

As women often have problems staying away from home for long periods, the mode and duration of training of master trainers or training of facilitator courses applied may have implications on the ability of women to attend the training. Sequenced training with breaks allows space for women.

vary in length, depending on the target group and the range of technical topics included.

A minimum of two MTs experienced in FFS methodology should conduct the ToF on a daily basis for the duration of the training course. Technical specialists should be invited where necessary.

It is recommended that there be a minimum of 15 and a maximum of 30 participants for each ToF course to ensure maximum participation in practical activities. Ideally, the ToF should also be attended by a few extension supervisors/coordinators/managers, who will oversee the field implementation and support the trained facilitators. The ToF should include daily evaluation of the trainees by the trainers, on key aspects of the training, and a final evaluation report should be produced. This should be shared with the supervisors of the facilitators – and perhaps managers – to enable focused backstopping and mentoring as necessary where weaknesses have been recorded.

ToFs are not TMTs!

Programmes tend to confuse training of facilitators (ToFs) with training of master trainers (TMT), assuming that ToF trainees should be capable of running subsequent ToFs after their course, in order to quickly disseminate the training to more staff.

THIS IS NOT ADVISABLE!

Facilitators are not meant to run ToF courses until they have attended a specific TMT course and acquired adequate practical field experience.

The ToF should be complemented by regular refresher training and on-the-job mentoring of the facilitators during FFS implementation. Various models for ToF have evolved around the globe: 1) continuous season-long training, covering the entire duration of the focal activity, as practised commonly in Asia; 2) zig-zag or sequential season-long training courses of 3 weeks on and 3 weeks off, 2 weeks on and 2 weeks off, etc. or even of a few days per week over many months, if the training is local in geographical scope; and 3) short-intensive training courses varying between 2 and 4 weeks. However, when conducting short-intensive ToF courses, based on the East Africa experience, it is recommended that there be a minimum of 22 actual training days on FFS methodology. An example of scheduling of capacity building components is shown in Table 7.

Table 7: Example of scheduling of human capacity building components in a 4-year time span

Year 1	• MT training • Training of programme supervisors /coordinators.
Year 2	• Training of facilitators (extension-led) • Training of field mentors/ coordinators.
Year 3	• Refresher training of extension led facilitators.
Year 4	• Training and mentoring of farmer facilitators (in some cases this can start much earlier especially in crops like rice where there are 2-3 seasons a year).

Season-long training is very important for new facilitators in particular and to build strong local and national capacity. The pros and cons of the various ToF models applied are summarized in Table 8.

Table 8: Pros and cons of various training of facilitator models

Pros (+)	Cons (-)
Continuous season-long training of facilitators	
• Strong, competent and practical facilitators are developed. • The course can include the running of a full cycle of a field enterprise, managed by trainees. This maximizes learning by doing. • Develops cohesion and strong team work among teams of facilitators. • Conducive to the nurturing of changed attitudes and behaviours among trainees. • Low dependence on pre-developed training materials, since enough time for participants to generate own materials.	• May be more costly. • Difficult to secure the necessary MT trainers to run the course. • Not compatible with other duties. Takes time away from other work duties. • Agencies are reluctant to send personnel off for long periods and may send lower-quality candidates. • Long stays away from home disrupt family and community life, especially for women.
Zig-zag/sequential season-long training of facilitators	
• Cheaper compared to continuous season-long training, unless travel costs are high for trainees. • Time away from family life and normal work duty is limited, thus more acceptable for trainees.	• Fewer days spent solving field problems. • More emphasis might be put on the initial block/s while the follow up blocks risk losing momentum or being cancelled. • Participants may drop out from some blocks and miss part of the training. • It might be difficult to secure training venues and course trainers in this mode • Field enterprises needs to be managed /supported by non-trainees, thus reducing evolving learning opportunities and ownership.
Short intensive training of facilitators (with on-the-job follow-up)	
• Cheap to implement. • Easier to get women trainees. • Easy to get MT trainers to run the courses. • Allows for rapid field implementation start-up.	• Less practical and less skilled facilitators developed. • Needs to be accompanied by extensive follow-up training and mentoring in the field. • Needs better quality training materials at hand, hand-outs, etc. to complement the brief sessions.

6
Defining the farmer field school learning content

6
Defining the farmer field school learning content

Farmer co-created and farmer-owned study curricula are at the core of the FFS approach. However, to achieve this in practice means balancing the needs of farmers with the skills of facilitators. In addition, the desire to ensure the technical quality of learning topics requires thorough planning.

UNDERSTANDING THE COMMUNITY'S NEEDS

The first step in developing an FFS study plan is to understand the needs and demands of the partner community. A number of tools and processes are commonly used in FFS programmes, as described below.

Pre-condition assessment/survey

Before establishing FFS in a new region or area, a simple assessment should be performed by an FFS specialist or MT, using participatory tools to assess the local conditions for FFS implementation and to define the suitability of FFS within the particular local context. This process is often referred to as a precondition assessment. It involves discussions with local communities, institutions, and authorities, asking them about their agro-ecosystems, knowledge and innovations, and what they would like to see at the end of the project. A precondition assessment also helps in defining the community's consent and willingness to participate in the FFS. This process is mostly qualitative in nature, but can also include quantitative data.

Sample questions for the programme team to ask themselves following the consultation may include:

- What remarkable innovations, knowledge, experience has the community produced?
- Is the local farming system based on knowledge systems and practices that will benefit from learning and experimentation?
- Are there any cultural barriers for FFS implementation, gender norms, traditions etc?
- Are the ministry (agriculture/livestock) and other intervention actors supportive of the FFS approach, and will it complement rather than compete with existing extension approaches/ programmes applicable in the area for FFS implementation?
- Are there any other FFS or similar programmes in the locality (or country and region as appropriate) with which links could be established?
- Are there any FFS specialists or master trainers available in the region?
- Is FFS the most suitable approach for tackling existing problems and/or learning needs?
- Who are the suitable FFS facilitators (e.g. government or non-government extension workers, farmers, etc.)? Are they willing to engage as FFS facilitators?

The results of the assessment will help determine the rationale for starting FFS in a particular region, and identify the partner communities.

Baseline information

FFS programmers should include comprehensive baseline studies in their designs to form a basis for the eventual evaluation of the impacts of an FFS, based on comparisons between existing knowledge and practices before the start of an FFS and after its implementation. The baseline helps establish priorities and identify entry points for the field school curriculum as well as defining indicators for MEL (see Chapter 7 for more details). Furthermore, it should provide information about the social context, its challenges and opportunities, about gender dynamics and potential social vulnerabilities within the community (reflecting factors such as sex, ethnicity, nationality, age, health, family status, belonging to a particular social group or poverty, as well as gender and social patterns in cropping).

Community Consultation

Taking stock of community demands and the framing of technical entry points for FFS interventions can either take place before ToFs or after, but is better undertaken as the first step after educating the facilitators. During the consultation, FFS facilitators with assistance from the project staff, determine the actual needs and demands of their community through a participatory assessment at community level. Basic area information should be collected using participatory tools in order to better understand the local production and livelihood system based on which the study focus is defined. These activities should begin at least two months ahead of the planned start of the FFS, and this period is often referred to as a "ground working" period. The following steps are recommended:

1. **Establish contact with the partner community:** initial contact with the partner community is needed to understand the area and characterize the production and livelihood systems. In most places, partner community leaders should be contacted first to seek their advice and authorization.
2. **Identify the focal activity (FFS learning enterprise):** sufficient time should be spent on identifying the focus of the FFS to avoid involving farmers in activities that are not of interest to them. The selection of the FFS activity depends entirely on local people's needs and interests, if for example yields are low of the commonly planted crop variety due to lack of rain, planting of drought-resistant new varieties might be suggested. Or if poultry is a main source of protein but production is low due to the poor survival rates of chicks, poultry housing systems might be explored. The problems farmers are facing and their motivation to look for solutions should form the basis for determining the content.
3. **Analyse problems and identify solutions:** a number of exercises are used to analyse and rank community problems. This might entail identifying problems faced by FFS participants, analysing them and identifying solutions. Identifying solutions involves listing, analysing and identifying the best options.

DEVELOPING THE FARMER FIELD SCHOOL CURRICULUM

Once the FFS group is established, the facilitator together with the programme team develops a group study programme i.e. the FFS curriculum, based on the focal activity (FFS learning enterprise) and gaps identified. The initial curriculum should be for one season or cycle, knowing the curriculum for the subsequent season/cycle are developed based on the priorities at hand.

In collaboration with the FFS group, the facilitator suggests what activities need to be undertaken to further explore the problems and to test solutions. They also identify what kind of outside assistance is needed in terms of facilitative learning approaches or external technical expertise. Key activities to facilitate learning in the FFS are the AESA, field-comparative experiments and topics of the day, where group discussion and short- and medium-term learning exercises are conducted. The study plan thus needs to be clear on how the defined topics will be delivered through these core learning processes. A written curriculum defining the FFS season and outlining the dates of meetings and topics of discussion/activities needs to be discussed, drafted and made accessible to all.

Whatever the FFS participants perceive as a priority or as emerging problems of key importance to them should be the subject of a follow-up activity, such as a field-comparative experiment, participatory learning exercise or topic of the day in FFS. The learning curriculum should link activities to objectives and sequence them in a logical order that works towards addressing priority problems in the field. To ensure that all key topics are dealt with in the FFS cycle, the topics for learning are derived from the participatory planning of activities.

Most FFS facilitator's manuals from national programmes provide guidance on drafting a group learning programme, often in the format of the following sample exercise.

Facilitator's note — Display the list of priority problems identified or discussed; this is the Facilitator's Contract with the FFS farmers' group.

1. Each priority problem is discussed in order. The FFS group in collaboration with the facilitator decides what types of activities need to be undertaken to further explore the problem and test the solutions.
2. Each FFS core activity is discussed and the FFS group decides which is most appropriate for each problem. Sometimes a series of different activities can be planned. Plan in which session's key topics (topics of the day) need to be addressed.
3. Prepare a matrix including all the key topics and activities to be covered and the methodology to be used based on the main problem and solutions identified (see Table 9).
4. Develop a schedule of activities: this entails development of a programme outlining the dates of meetings and the topics of discussion in a matrix. Field days, field exchange trips, and the invitation of innovators/experts, etc. should also be planned. The schedule covers topics such as when the FFS will start and when the graduation will take place. The group should also discuss when the sessions will begin and end, and when each host team is on duty. The programme should also include participatory M&E activities. The programme is not fixed but should be regarded as a flexible guideline that tracks the progress of the FFS and

Table 9: Example of a topic matrix

Topic	Sub-topic	Training methodology	Time
Soil fertility management	1. Understanding soil properties 2. Understanding organic materials 3. Compost making	1. Soil pit analysis exercise 2. Topsoil comparative activity 3. Special topic: compost making	3 hours 2 hours ½ day
Etc.			

enhances learning and participation. The programme should be made available for all to consult when needed (see Table 10).

5. Develop a session guide: Such a guide for each individual session might also be developed using the topic matrix. The session guide clearly spells out the facilitation process and serves as a reference for the facilitator. This might be particularly important in the case of external technicians who are not familiar with the field school type of participatory learning.

INCLUDING LIFE SKILLS, GENDER EQUALITY AND NUTRITION

FFS is a platform for holistic learning, and should address issues and aspects that directly or indirectly contribute to the performance of the local farming system, even if these issues are not agriculture-based as such. Human issues that have a major impact on the lives and wellbeing of farming communities in general, such as; water and sanitation, malaria, HIV/AIDS, etc. can also be included in the FFS learning schedule. All FFS programmes, wherever they have been implemented, have shown the need to integrate programming on gender equality and nutrition in FFS.

Gender norms, roles and customs play out in every aspect of FFS implementation such as selection of facilitators, composition of an FFS group, the active participation of men and women in the group activities, and the additional observations made – for example of complementary agrobiodiversity due to different sampling times. Moreover, additional knowledge created by women differs from men's due to their life experience; ensuring that both co-create the FFS thus significantly enriches the entire group; there can be potential biases in selecting learning focus, etc. Both programme staff and FFS facilitators thus need to have a certain level of gender awareness in order to address potential gender barriers as well as to be familiar with concepts of social inclusion and social vulnerability. If such training has not been provided for within ToFs or programme FFS training events, separate gender mainstreaming training events might need to be scheduled.

Terminology guide

FFS curriculum/study plan: The FFS weekly session plan for one season or cycle defines what topics will be covered, when and how.

FFS focal enterprise: The main FFS study topic on which the group will carry out actual field experimentations and AESA.

FFS special topic (topic of the day): Extra topics outside the main learning topic that the group will cover in short sessions.

Likewise, nutrition issues affect all FFS communities. The farming knowledge generated through FFS will, directly or indirectly, most likely have impact on the household food consumption or sale patterns.

Table 10: Example of a schedule of activities

Week/ Session	Date	Activities	Topic of the day	Resource required
1	02/04/14	Site layout & PCE setting	PCE Establishment	
2	09/04/14	Planting	Planting fertilizer application	
3	16/04/14	AESA	AESA	

This needs to be considered by the project team to ensure that the FFS curriculum not only contributes to enhanced production levels but also to the improved nutrition of members and their families, especially children, the elderly and the disabled. There are cases where improved production among FFS members has had negative consequences on family nutrition.

Here are some suggestions for the mainstreaming of life skills:

- Inclusion should be integrated as a special topic and also emphasizing the issue at different points in the field school learning sessions.
- References to synergy between crop-livestock or crop-aquatic and human systems should be encouraged. For example, when covering crop diseases you may talk about zoonotic diseases affecting humans, plant and livestock nutrition to human nutrition, etc.
- A holistic curriculum at field level should be accompanied by a multi-sector support system at programme or zone level in order to draw on the necessary expertise around the various topics.

Don't forget Nutrition!

Whether farmers sell or consume their extra produce generated from FFS learning, it will impact on their household nutritional status, by changing their food consumption patterns or purchasing power.

It is important to consider this in FFS programming!

7 Monitoring, evaluation and continuous learning

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7 Monitoring, evaluation and continuous learning

CONCEPTS AND OBJECTIVES OF MONITORING, EVALUATION AND LEARNING

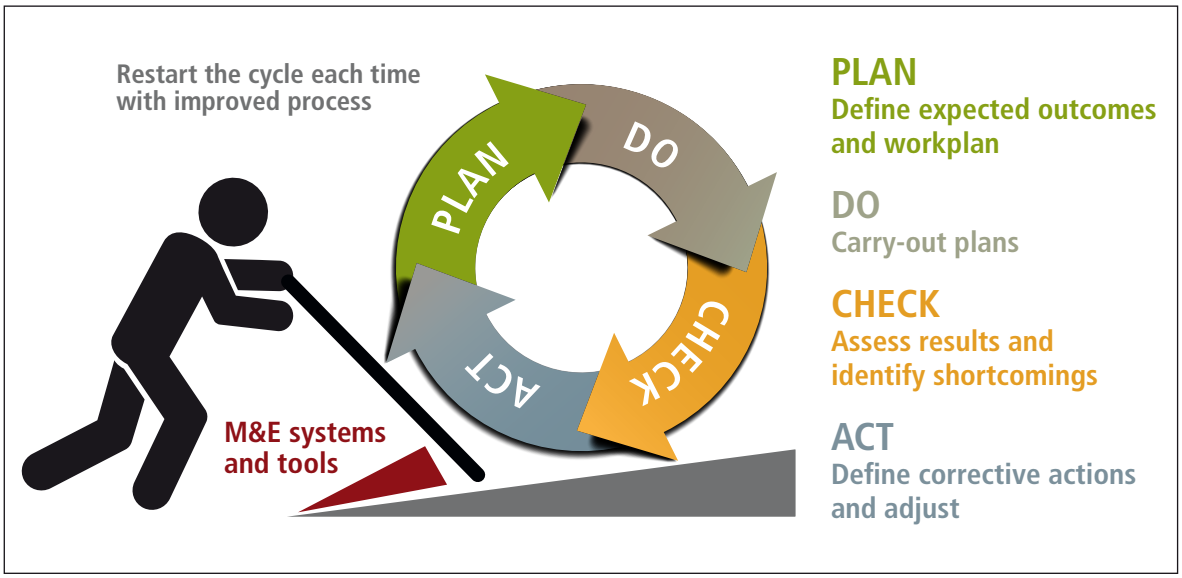
Monitoring is the regular collection of information in order to determine the extent to which the implementation of FFS activities is being conducted according to the work plan. Introduced from the beginning of a project and involving all stakeholders, the aims are to assure the quality of the process, keep the FFS learning on track and adapt to circumstances that may arise along the way. Monitoring should be conducted systematically and continuously throughout the project implementation process.

Evaluation is a process for assessing the overall results and performance of an FFS programme. It is conducted at the end of an FFS season, or mid-way, or at the end of an FFS programme. Results in this case refer to the outputs, outcomes and impacts generated as a consequence of the activities. In particular, the evaluation should detect whether or not the learning process has led the participants to gain the intended knowledge, attitudes and skills related to their training. Evaluation is also a means for identifying the strengths and weaknesses of the learning approaches / methodologies used and the relevance of the contents covered. Evaluation data are very helpful for strategic planning on how to improve the quality of subsequent learning cycles or other FFS programmes.

MONITORING, EVALUATION AND LEARNING AS A CONTINUOUS, PARTICIPATORY CYCLE

Planning FFS activities and monitoring and evaluating them should be strongly linked. Monitoring, evaluation and learning (MEL) in

Figure 10: Planning, monitoring and evaluation as a continuous cycle



FFS should allow both farmer participants as well as the programme team to analyse and reflect critically on their experiences, and plan for future goals and activities – see Figure 10.

MEL should be participatory, i.e. engage all programme stakeholders who are actively involved in the FFS activities either as participants, facilitators, programme managers or policymakers, and collaborate closely with them on constantly trying to find solutions. The aim is to improve the quality of all aspects of the FFS activities, including planning, the choice of quality indicators, data collection and feedback.

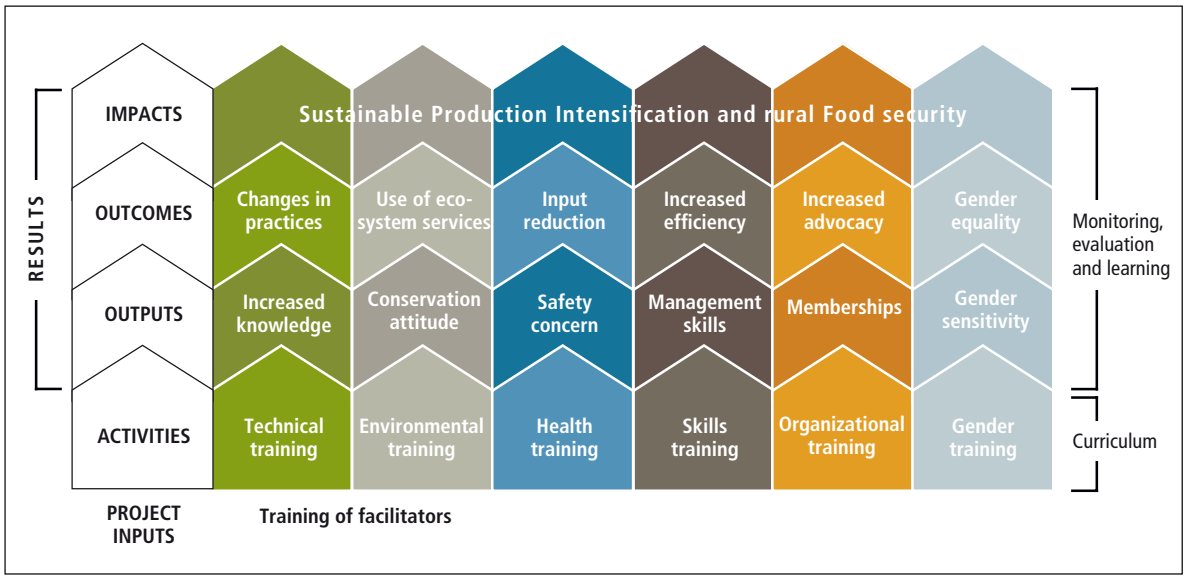
Adopting a participatory approach to MEL serves both to increase the efficiency of the programme being evaluated by providing useful feedback, and to strengthen the FFS learning process by giving community a sense of ownership and responsibility in running the affairs of the project. Participatory MEL also fosters a richer narrative, building on observations and interpretations from all local stakeholders to construct a better, more holistic description of the FFS process in that place and season. This will enable FFS stakeholders in other places, countries, or regions to find and adapt useful solutions to programme problems from the experiences of different but comparable FFS programmes.

RESULTS CHAIN AND INDICATORS OF A SUCCESSFUL FARMER FIELD SCHOOL

The starting point for MEL is the project's or intervention's objectives. A results chain, developed during the formulation of the intervention or at the onset, summarizes how inputs and activities are intended to lead to outcomes and impacts. An example of a results chain is provided in Figure 11. A project logical framework (or logframe) details the elements of the results chain to enable action. The logframe should also include performance indicators, means of verification, and the risks and assumptions involved.

FFS are instruments of change. However, results can only be achieved if the required inputs are delivered and if activities and outputs are designed to steer changes towards the desired outcomes or impacts. MEL, guided

Figure 11: Example of a results chain for an FFS programme



by sound quality indicators, is essential in order to ensure the quality of results of FFS and FFS programmes.

Deciding upon a list of key indicators of a successful FFS is an important process which needs to be part of every FFS programme. Table 11 provides a list of key quality indicators of successful FFS cycles and programmes, as defined through a number of consultative events, which can serve as a guide for FFS stakeholders for monitoring and supervision of FFS field activities. **Highly critical indicators are highlighted in bold.** A diverse set of indicators is required to capture the wide-ranging impacts that can result from FFS activities, including the environmental, social, financial and political impacts at various levels (see Chapter 8 on impact assessment).

MAIN ACTORS IN MONITORING, EVALUATION AND LEARNING

The primary implementers of MEL are facilitators and farmers (FFS group level). They have the primary responsibility for monitoring and evaluating the farmers' performance as well as the facilitators' own performance throughout the FFS learning season. The information on whether the learning cycle is working lies with the facilitator and the farmer. MEL needs to capture that information and use it for improvement.

Master trainers and programme managers comprise the second MEL Team (project level) whose role is to provide backstopping support to facilitators, help strengthen their capacity and provide feedback on and coaching/ mentoring to improve their performance.

Table 11: Key indicators of successful FFS

Group profile	Plans
• Group registered with relevant authority • **Ideal membership: 20-30** • Common interest and fairly homogeneous group • Group by-laws & constitution • Gender, age and literacy mix is locally appropriate	• **Clear objectives and goals of the group** • Stated / known "mission" and "vision" of the FFS • **Availability of activity plan and implementation** • Well planned daily timetable
FFS facilitator	**Good management and discipline**
• **Trained in FFS methodology by qualified FFS master trainer** • **Trained in facilitation and participation skills** • **Facilitating not lecturing sessions** • Facilitator must be available and accessible for the farmers • **Peer to peer interaction and with good attitude towards farmers opinion** • Creative and innovative • **Facilitator technically capable** • Resourceful • **Accountable to farmers**	• Good time keeping • **Attendance (70-80%) minimum by all members** • Good attendance during each session • Learning and group norms-available and strictly followed • **Equal treatment of women within the group** • **Transparency in financial management and decision-making** • Time table of sessions being followed • All members understand group rules

Equal rights and mutual respect	Group Experimentation
• Roles of members, officials and facilitators well understood • Good leadership and structure • Democratic practices during elections of officials • Timeliness of special topics	• **Should have a learning site including field trials** • **Demand driven enterprise choice** • **Agro-ecosystem analysis (AESA) carried out regularly** • **Comparative studies (not demonstrations)**
Learning Process	**Signs of Empowerment**
• **Curriculum agreed on by farmers based on their preferences** • **Curriculum should allow for cross cutting issues and special topics** • **Curriculum fitted to real life situation** • **Curriculum should be all inclusive and flexible** • Include health issues • Environmental concerns should be addressed • Training on cost of production and gross margins included • Marketing training included • Well balanced group activities	• **Farmer confidence** • **Farmer ownership of process and participation in decision making** • Able to seek and share information (within and outside group) • **Farmer understanding FFS concepts and technical issues** • Active, motivated and confident members • Active participation by all FFS members • Sense of innovativeness • Well informed decision making capacity
Sustainability	**Documentation**
• Ability to mobilize local resources • Group cost sharing • Linkages with other approaches / projects • Availability of income generating activities (IGA'S) • **Have in-build participatory monitoring and evaluation system** • Developed exit plan	• **Good documentation of planned activities** • **Membership records** • Enterprise records well-kept • **Attendance-records/register well kept** • **Monitoring and evaluation-documented** • Minutes/records of each session well kept • **Using documented observations and results for decision-making**
Outcome trends	
• **General improvement in members households (housing, increased incomes, food and health etc.)** • **Financial empowerment** • **Dynamic trend created in community or individual** • **Adoption and adaptation of improved practices by members**	

Projects should invest in creating a set of documents supporting MEL activities. Funds need to be planned for putting together (new or based on existing) MEL formats and manuals, translating them into local languages (when needed) and for MEL templates and other guiding documentation to be disseminated. This exercise can start through a stocktaking exercise of existing material (see key resources section).

Facilitators (group level) and the MEL team (project level) need to be able to exchange regularly, as well as on as needs basis (if problems arise). Key information on activities can be included in a shared database at project level to facilitate regular exchange of information and reflections on M&E data. A functioning feedback system enables timely troubleshooting and ensures continued development of the FFS programme.

To strengthen the MEL process, facilitators will benefit from having continuous access to information on technical contents and process areas of FFS and FFS programme development. This can be achieved by linking them to researchers, resource persons and networks of facilitators within and outside the country, as well as providing opportunities for them to participate in regional meetings. Information sharing gives rise to new ideas and encourages innovations and sustained learning.

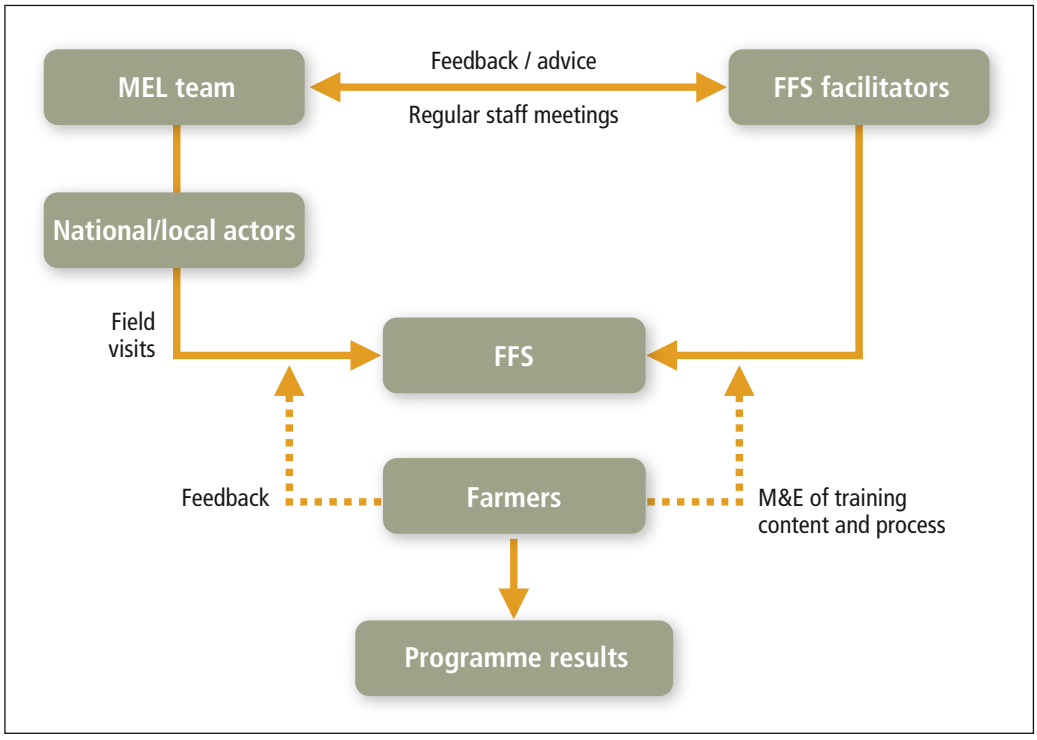
DEVELOPING A MONITORING PLAN

MEL needs to be carried out at all stages of the FFS cycle.

A monitoring plan should be developed based on indicators in the logframe, describing what will be monitored, how, by whom, and when.

Ideally the monitoring plan should be developed with project stakeholders including

Figure 12: Monitoring flow chart



farmers, extension staff, local partners and project team. While defining the plan, it is important to emphasize the importance of the **process** (the discussion) as much as the **product**; to avoid placing too much emphasis on detailed target specification during planning stages ; and to be prepared to revise the plan as new information comes to light.

The plan can be presented in a monitoring matrix (Table 12), based on the indicators which were included in the project logframe or refined at a later stage. The monitoring plan will include guidance on:

1. **What** indicators will be monitored.
2. **How** to monitor them (tools or methods).
3. **Who** should participate in the monitoring, and roles and responsibilities of various stakeholders.
4. **Where** the monitoring take place will; in which location and at what level.
5. **With what** resources (financial, facilities and materials, manpower and expertise).
6. **When and how often** indicators will be monitored in relation to the FFS cycle and the project cycle.

CHOOSING APPROPRIATE MONITORING AND EVALUATION METHODS

There are many methods and tools to choose for monitoring and evaluation purposes.

At the most basic level, record-keeping of training activities needs to be ensured through a simple database. Gender-disaggregated data on FFS attendance, training of trainers (both season-long training of facilitators and shorter refresher courses) and training of farmers is collected for all project areas.

Much of the MEL for progress monitoring in FFS programmes is based on supervisory and monitoring visits to FFS groups by stakeholders, local administration officials, or programme coordination team members, in addition to information recorded in facilitators'

Table 12: Example of a monitoring plan matrix

WHAT (indicators)	**HOW?** (tools and methods)	**WHO?** (stakeholders and roles)	**WHERE?** (location and level)	**WITH WHAT?** (resources and logistics)	**WHEN?** (timing and frequency)

TIPS FOR AN EFFECTIVE MEL

Monitoring at any level requires time and resources. When designing the MEL, consider trade-offs between the time and resources that monitoring takes away from activities and the expected usefulness of monitoring results. For instance, if you are asking facilitators to complete an FFS diary at the end of every session for every field school:

- How long does it take for people in charge to carry out this activity?
- Out of the information collected how much information can be used to improve quality of the learning cycle implementation?
- How and when will the people involved (e.g. facilitators and farmers) receive feedback?
- Who will those results be useful for?
- Is a framework or mechanisms in place to ensure that monitoring results are accounted for in a timely manner?

Extractive monitoring activities which do not result in timely feedback or learning can take away time from activities and demotivate the actors implicated.

USING "LINE" APPLICATION DURING TRAINING AND FFS

In the Lao People's Democratic Republic FFS trainers for integrated pest management have started to make use of the mobile phone application "LINE" during training of trainers (ToF) and FFS. Purposes of using LINE application are to:

1. Encourage training of facilitators participants to access to and make use of additional and relevant information and materials available in Lao and or Thai language (because most Lao trainers can read Thai well, but do not read English).
2. Share their work-in-progress, achievements and implementation challenges through messages and photos.
3. Exchange information, help identify field problems and seek answers to questions.
4. Maintain networks among trainers, trainers/assistant trainer/master trainer and project staff after ToF completed.

Pictures of FFS, field problems (pests, diseases, natural enemies found in the field) and work related info is often shared, exchanged and actively discussed. In addition, LINE also serves as channel for members to keep each other informed about planning, personal issues, movement of group members. Members – some active posters, other more interested readers - have become comfortable with discussing, interacting and asking questions daily.

Advantages of using this tool include: easy, informal, visual and free of charge tool for sharing information, quick responses to questions, great networking tool. Access and use of a smartphone is necessary, but increasingly common among facilitators (and farmers).

IPPM Zambia uses WhatsApp platform for problem flagging, technical feedback and innovation exchange

As part of the EU-ACP cotton project on integrated production and pest management, a WhatsApp network of facilitators was set up by the project coordinator and master trainer in Zambia. The network includes 80 percent of the facilitators trained as part of the project. The group allows information on activities to be exchanged. The project management provides information on major events and deadlines (e.g. reminder and acknowledgment of receipt for monthly reports, information on allowances and field days) and receives direct feedback from facilitators (e.g. pictures of field days).

In addition, the platform serves as a coaching device through which coordinator and master trainer can continue to support capacity building of facilitators. This support follows the principles of FFS and as such knowledge is only facilitated: no direct answers given but rather the process of getting to the correct answer is highlighted. Every member of the group can interact in this learning process.

Finally, information is exchanged among the different members of the group regarding IPPM cotton. Pictures on pest observed in fields across regions, new ideas for alternatives to pesticides, ways to run field days. The process allows for innovation to spread rapidly.

As any facilitators' network the overall impact is an increase in technical capacity accompanied by a strengthened sense of being part of a group of FFS practitioners.

reports and FFS diaries. As a programme, a decision has to be made on which information to extract from each of these sources, such as the FFS diary, based on information needs at field and programme levels. The information collected and consolidated needs to be made available both to those for whom it will be most useful, and to those who provided it. In order to make them as useful as possible, the results are produced in a format suited to each audience and at a time when they can be used to correct some of the weaknesses and/or harness opportunities.

Some of the information collected during monitoring can be used as raw data for impact assessment, for instance: FFS attendance rates, information on practices at different stages of the FFS (pre, during, post), and self-evaluation surveys assessing training quality by farmers. This is to be taken into account when first designing the MEL system to ensure efficient data collection (and avoid duplication of efforts).

Gender considerations need to cut across all indicators and MEL efforts by ensuring that information can be easily gender-disaggregated, by making sure the tools, methods, and indicators/questions used are gender-sensitive, i.e. they do not exclude women from being able to give their opinions, and by including questions that directly address gender inequalities in the context of implementation.

Setting up mechanisms for information exchange between FFS, peer-learning, and the continuing training of facilitators, is essential. To maintain the effectiveness of FFS in an ever-changing physical, social and economic farming context, learning materials and messages should be continuously updated, based on the feedback received. Feedback and updating processes need to be included in the budget.

Whenever presenting results of evaluation, it should be clear how and under which circumstances the information was gathered, taking any potential methodological flaws in consideration to nuance the results and make them more unreliable. Other most commonly used methods in FFS monitoring and evaluation include questionnaires, interviews, record keeping and participatory group exercises.

- **Questionnaires;** baseline and impact surveys, targeted surveys, etc. Especially baseline surveys administered before or at the start of an intervention are critical to understand the starting point towards which changes later on can be measured.
- **Interviews;** interview with FFS farmer participants or local facilitators is a commonly used modality for capturing information related to intervention progress, usually in connection to monitoring visits.
- **Record keeping;** record formats applied both at group level, local administration/ program unit, or at national levels, documenting mainly output delivery and basic information about program progress and basic facts about deliverables of participating farmers.
- **Participatory group exercises;** PM&E is usually carried out during FFS sessions and based on tools such as maps and sketches, drama and role plays, photographs, transect walks, various forms of proportional piling or matrix scoring and ranking.

For details on Impact Assessment, see Chapter 8

By combining quantitative and qualitative MEL tools, a more complete and accurate picture of project progress and quality can be drawn. For instance, survey results can be complemented by case studies. It is often difficult to understand the real quality of activities and

output levels using a single source or type of information. Open-ended qualitative methods are key to capturing unexpected areas of impact relevant to farmers, and to steering the project in the right direction when unexpected problems arise. As such, Information Communication and Technology (ICT) systems can ensure interactive and timely feedback is provided in case of need.

ICT has been increasingly used for the MEL of FFS and FFS programmes. This especially addresses concerns when FFS programmes become very large and cannot be readily accessed by master trainers and programme managers. Using ICT, facilitators and farmers are able to access important information such as for field problems, where technical expertise is needed, as well as report on the quality of FFS activities.

LINKING THE MONITORING OF FARMER FIELD SCHOOL GROUPS AND PROGRAMMES

A holistic PM&E system will require action by a number of stakeholders at various levels: farmers, pastoralists or fisherfolk; facilitators; local partners; and project managers, etc. Table 13 summarizes M&E activities across the various FFS stages both at group and programme levels.

Table 13: Overview of Participatory M&E events in the FFS cycle

Stages of the FFS cycle	Monitoring and evaluation events	
	...at FFS group level	...at project level
Training of facilitators (ToF)		• train FFS facilitators on PM&E tools and record keeping during ToF
FFS ground working activities: sensitization at community level; identification of FFS participants; selection of field school site; problem identification; identification of focus enterprises	• group exercises with participatory rural appraisal tools (PRA) for identification of problems, constraints and opportunities • record baseline information about members (survey) • assess existing farming practices and perceptions and factors influencing decisions • Identify farmers expectations	• review secondary data and existing baseline data • commission study of local farming system among FFS members and non-members • implement stakeholder workshop to: a) revise project log-frame; b) develop PM&E framework; c) agree on tools and record/report formats, etc. • compile, analyse and document baseline survey data
Initial stage of FFS implementation: design of participatory technology development (PTD) trials (crop or animals); establishment of plots for crops; decision on FFS curriculum	• carry out "initial" farmer knowledge test (through 'ballot box' or 'transect walk') • define indicators for monitoring of trials • review and adapt agro-ecosystem analysis (AESA) sheet and indicators • record initial trial (AESA) basic information • discuss and adapt the PM&E framework • develop FFS record system	

Stages of the FFS cycle	Monitoring and evaluation events	
	...at FFS group level	...at project level
Regular FFS implementation (weekly meetings): field work on group trials; AESA; special topics; field visits; group dynamics; field days	• weekly record keeping of activities carried out • monitoring of budget (expenditures & income) • weekly feed-back exercises • recording of AESA information • carry out a mid-term evaluation of FFS and facilitators performance (PRA tools) • FFS experience shared and discussed with other farmers during field days	• regular supervision, backstopping and preparation of progress reports • regular FFS facilitators meeting to discuss and review progress of FFS • implement corrective action as needed
End of FFS trial cycle (at harvest, etc): end of enterprise cycle; planning for the next season/ cycle	• final trial evaluation: yield analysis, labour input analysis, 'cost-benefit analysis' or 'partial budget' • final assessment of AESA data gathered • discussion and assessment/ranking of preferred options/practices (PRA tools)	• compile and document AESA and FFS trial info
End of FFS activities: Graduation; planning of future activities	• carry out a final evaluation by farmers of FFS and facilitators performance (PRA tools including maps and sketches, drama and role plays, photographs, transect walks…) • carry out a "final" farmer knowledge test (ballot box etc) • record basic FFS achievements and info (survey) • record end of activity "baseline" data and compare with initial data • planning exercises based on lessons learned	• carry out internal assessment of project performance and efficiency of project management; define improvements as needed • preparation of progress reports • compile and analyse FFS survey • document outcome of FFS PM&E exercises and tools
Post-FFS activities: FFS graduates continue activities with regular backstopping from facilitators; FFS follow-up activities (networks, marketing, continued PTD research, etc.); implementation of farmer-run FFS	• FFS groups continue with their own activities with their own PM&E systems • farmer reporting to facilitator on farming options practiced on individual farms	• stakeholders meeting to review experiences • carry out external impact study on FFS impact and change in farming system • preparation of project reports • improve project processes as needed for the next cycle/season of FFS

8
Impact assessment

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8 Impact assessment

Impact assessment activities aim to inform various interested groups about whether an FFS or FFS programme has brought about the desired effects, and whether these effects can be attributed to the programme. Impact assessments of FFS have always been a challenge because of the wide range of impact parameters and because evaluation can be conducted at different levels (farm-level, programme level, policy level, etc.).

SETTING UP THE IMPACT ASSESSMENT FRAMEWORK

Different frameworks have been designed to assess FFS impacts. The framework for impact assessment of FFS and FFS programmes used widely in Asia, for example, covers major impact target areas in a matrix of impact levels (following the cause-effect logic for the impact of the programme framework) vis-à-vis three impact domains (see Figure 13). In other settings, the sustainable livelihood framework has also been used. These impact domains include:

- the natural-human impact domain: the agro-ecosystem is the natural component of this domain, while the human component is the farmers. In FFS implementation, the two components are inherently and explicitly connected by virtue of the farmer being the manager of the agro-ecosystem;
- the financial impact domain: this reflects the economic indicators of the new practices (e.g. IPM);
- the socio-political impact domain: the social and political indicators related to FFS learning, implementation and dissemination.

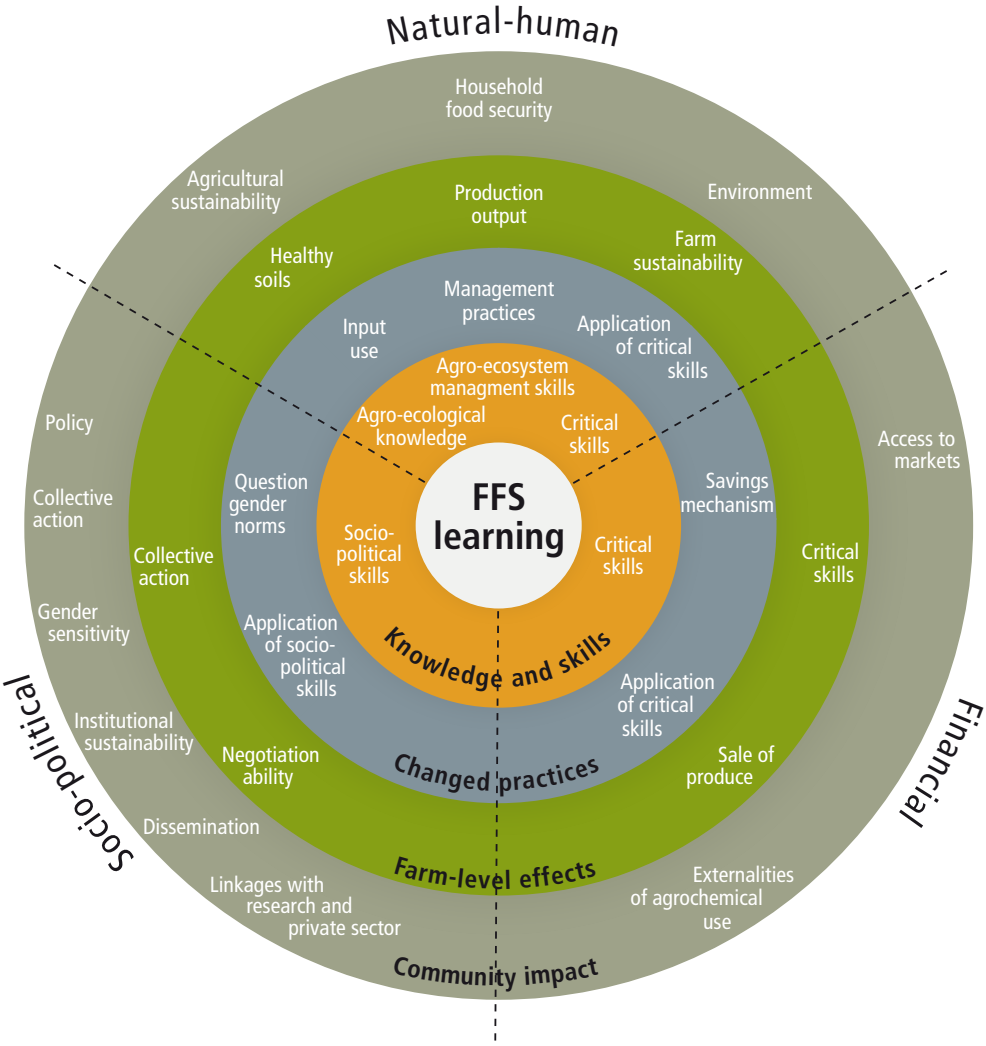
The assessment needs to be set up in a way that captures changes and impacts in selected thematic areas, reflecting the complex social context, the community, its members (women and men separately) and other social groups or aspects if relevant.

WHO SHOULD DESIGN AND CARRY OUT IMPACT ASSESSMENT?

The use of external institutions is advisable if an authoritative study is needed. This will address the question of credibility liable to arise if the study is carried out only by stakeholders involved in the FFS programme. Such external institutions could be universities or research institutions. On the other hand, choosing to use a participatory impact assessment engages stakeholders at various levels (e.g. participating farmers, project/programme staff, etc.) to conduct the study. The advantages of using a participatory approach include ownership and opportunities for learning, particularly if this also involves farmers. The investigator who designs and carries out the impact assessment should have a good understanding of FFS programme features, plus expertise and practical experience in carrying out impact assessment.

Furthermore, the designer or implementer of impact assessment needs to reflect on their own position in regard to the study subject (who am I, where I am coming from and with what cultural background and experience, what paradigm do I adhere to, what is my

Figure 13: Framework for the impact assessment of FFS and FFS programmes



relation to the people I am interacting with) in order to minimize the potential subjective bias of the study.

DESIGNING IMPACT TARGETS

Impact assessment should be built into the project/programme design. This process starts with defining impact targets in the design of FFS and FFS programmes. Impact targets determine the project/programme design and most importantly the curricula that will prepare farmers (and other stakeholders) to achieve the desired effects. MEL ensures that activities are geared towards achieving the impact targets.

Success indicators for impact assessment are selected that can measure the extent to which the FFS programme has achieved its objective(s).

IDENTIFYING INDICATORS

The main success indicators of FFS are determined following the impact target areas provided in the framework within the three domains. The selection of indicators is determined by the various stakeholders (e.g. farmers, project/programme staff, governments, donors, etc.).

Sample indicators for each target area are provided in the web version of this Guidance Document. These include parameters such as input costs, yields and profits, as well as effects on agricultural biodiversity, soil quality, occupational and public health and the environment, social effects and impact on policy development.

The creation of gender-sensitive indicators accounting for the diversity of ethnicity, gender, age, class, religion, and culture in the impact assessment, must be given special consideration. It is important to construct specific indicators that are able to measure the achievement of gender equality among programme participants. This may require disaggregation of data by gender and their analysis to identify functional relations and effects..

CHOOSING TOOLS AND METHODS TO ASSESS IMPACT

Rigorous impact assessments are necessary, and should be planned from the beginning with project stakeholders. However, previous impact assessment studies of FFS and FFS programmes were often designed to be either statistically rigorous or comprehensive, but rarely both, which made it difficult to compare results. For this reason, the "double delta" approach is currently used. This approach is scientifically sound and qualified and includes baseline information, thus yielding valid and comparable results. Its basic idea is to model the effect of FFS training by estimating the difference between success indicators before and after the training for FFS participants, FFS-exposed individuals and non-participants, and then comparing the difference between the three groups.

In general, it is recognized that mono-disciplinary studies with pre-determined objectives are no longer considered sufficient to evaluate development interventions centred on people's empowerment, such as the farmer field schools. Contributions from several disciplines and the use of a combination of tools to carry out quantitative and qualitative assessment are needed to address the overall values of the FFS programmes as shown in Table 14. For instance, the findings from formal surveys using the "double delta" approach can be supported by in-depth case studies focusing on selected aspects, which cannot be done with formal surveys.

Participatory impact assessments are also used to assess FFS and FFS programmes. However, the credibility of the findings may be questioned if the study is carried out by stakeholders involved in the programme. On the other hand, formal surveys can be costly depending on the design of the study, the number of respondents and the credentials of the external institution that will be contracted to implement the impact assessment.

ADDRESSING STAKEHOLDER ISSUES IN IMPACT ASSESSMENT

It is important to address the interests of different stakeholders in impact assessment. However, programmes must ensure that they are not driven only by the agenda of specific stakeholders but should rather provide accurate reporting on various aspects and the impact levels of the project/progress.

FFS projects/programmes should always be careful when attributing a given change to project activities. Changes external to the

Table 14: Tools and methods for qualitative and quantitative impact assessment of FFS and FFS programmes

Impact level	Impact target area	Type of study	Tools and methods	
			Qualitative	Quantitative
Knowledge and skills	• Agro-ecological /livestock/ fisheries knowledge • Agro-ecosystem/livestock/ fisheries management skills • Critical skills • Socio-political skills	Field-level study	• Questionnaires • Use of specimens • Simulations/scenarios • Observation of ecosystems (e.g. AESA) • Field visits; demonstrate decision making process • Specimens	• Ballot box tests • Observation of experimental plots
Changed practices	• Crop/livestock/fisheries management practices • Input use • Pest control cost • Application of critical skills • Application of socio-political skills	Field-level study	• Field observation • Questionnaires	• Cultivation records • Local sales figures • Environmental assessment tools • Residue measurement
Farm-level effects	• Agro-chemical load • Production output • Farm sustainability • Economic benefits	Field-level study	• Records • Questionnaire • Focus-group discussions	• Data analysis
	• Collective action • Gender aspects – active participation in decision-making	Social impact study	• Case studies • Focus group discussions • Individual interviews	
Livelihood impact	• Dissemination • Producer health	Field-level study	• Interviews with groups and individuals • Records • Questionnaires • Focus-group discussions • Observation of exposure	• Community health self-reporting • Data from clinics
	• Collective action • Community empowerment • Social inclusion • Gender equality • Individual empowerment (wellbeing, self-esteem)	Social impact study	• Case studies • Individual and focus group discussions • Storytelling • Participant observation • Photo visioning	
	• Agricultural sustainability • Gender sensitivity of programme • Externalities of pesticide use	Analysis of field study and M&E data	• Participant observation • Case studies	• Stratified analysis of general data for women/men
	• Environment	Environmental case study	• Analysis of farming practices • Risk assessment models	• Case studies over time + control; measuring background variables
	• Policy • Linkages with and impact on research and private sector • Institutional sustainability	Mid- and end-of-term programme reviews	• Documentation	

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project/programme can have a strong effect on project/programme results.

Various options exist to mitigate the risks of attribution:

- triangulation of results using different sources of feedback;
- result validation with stakeholders at different levels - including feedback of the results to communities;
- use of participatory impact evaluation methods, explicitly exploring drivers of observed changes within communities.

Impact assessments require resources (human, financial, etc.). They can more easily be included in the design of large and long duration project/programmes. However, there are also smaller and shorter duration projects/programmes with fewer resources to support impact assessment. This should not be a deterrent to including plans for impact evaluation as alternative tools, methods and approaches exist that could also be considered. Budgets for impact assessment should be included in projects/programmes. The results can be used as the basis for decision making on the continuation or scaling-up of a programme. Impact assessment results can feed into advocacy and into the development of policies in support of FFS and the FFS programme.

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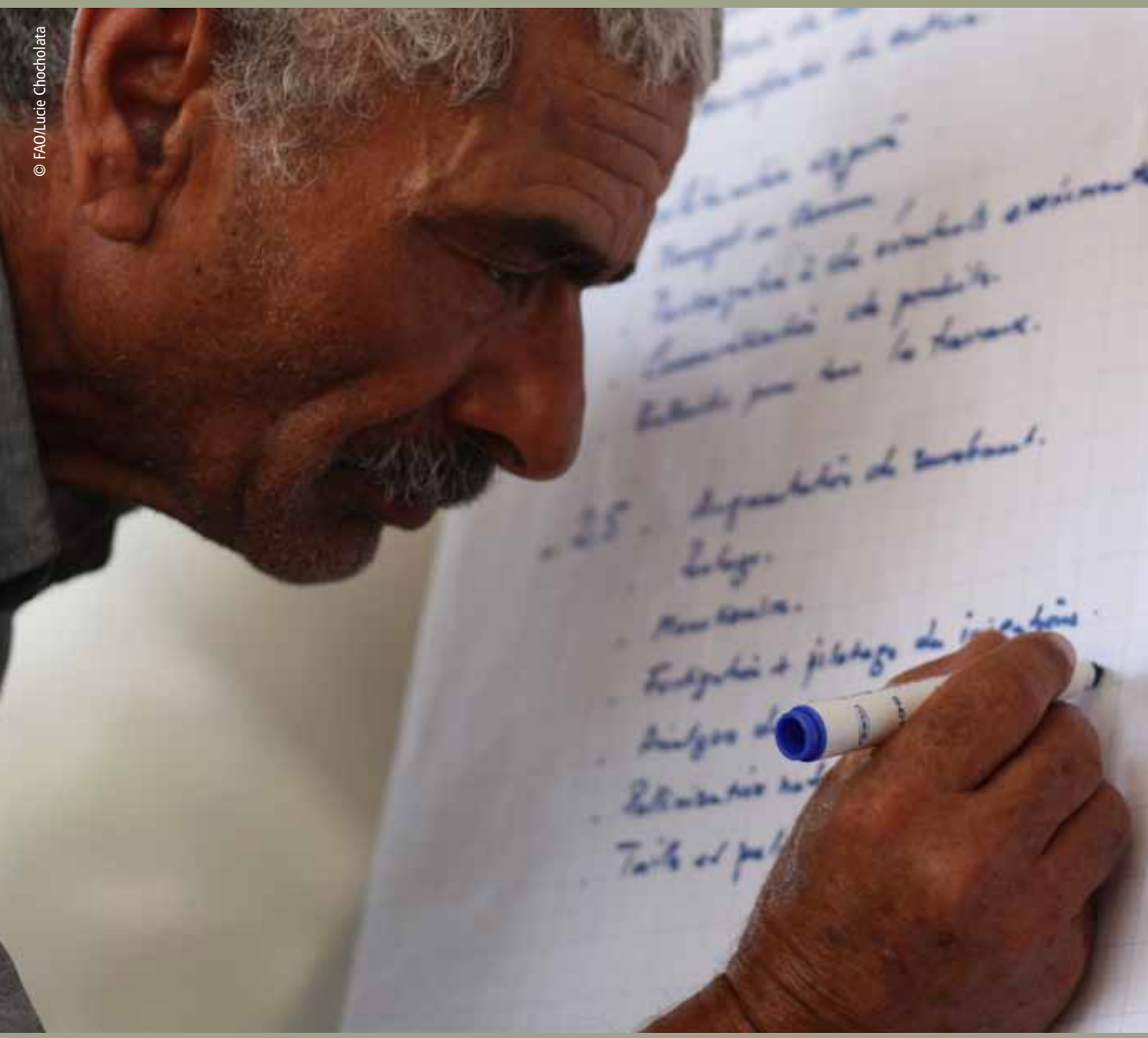
Focus on personal stories to understand impacts on society

Beyond the technical or economic benefits of FFS, changes at individual and community level are often overlooked in M&E or impact assessments. Important aspects on which FFS frequently impact, such as changes in gender dynamics, human empowerment and community cohesion, thus remain hidden. If we are to maximize the potential of FFS to contribute to social change and empowerment, a deeper understanding of the social impact of FFS is critical. It is therefore important to capture changes both at the personal level of participants and within the broader community.

Various qualitative methods can be used to gather such information from communities and individuals. For example, focus group discussions designed to gather collective experience and opinions can be complemented by individual in-depth interviews, which will provide insights at a more personal level. Story telling is another powerful tool, whereby participants share their stories in their own voice.

Such participatory methods are empowering in that they enable people to reflect more deeply on their own experience, thus encouraging greater awareness of their own power and potential. However care needs to be taken to ensure inclusiveness. This means reflecting on who is involved, and the gender and wealth composition of those who speak. It also requires a conducive environment in which people feel safe and free to share their personal experience and life changes – including questions of social vulnerability/inclusion – without negative repercussions.

9
Budgeting for farmer field school implementation



9 Budgeting for farmer field school implementation

An FFS programme involves considerable investment in human resources, capacity building, equipment, supplies, and monitoring, evaluation and learning. The various costs involved in implementing FFS programmes should be budgeted for smooth roll-out and scale-up. These costs are categorized in Table 15 (a, b, c, d, e) and Table 16.

Table 15: Budget categories required for FFS programmes

a) MT and ToF courses and refresher training events	
Personnel	Trainers' fees and allowances – normally a minimum of two main trainers throughout the training assisted by short-term support by technical experts.
Travel	Travel of participants, key trainers, support staff and short-term experts to and from venue, field travel to practice groups, incidental allowance for participants, exchange visits and tours.
Training	Workshop venue – hall and boarding/lodging, field day/study tours, graduation costs and certificates.
Equipment/supplies	Inputs for practice fields, rental of practice field (if necessary), stationery supplies for the trainings and for the practice groups.
Other	Administrative support for logistics and documentation, coordination.

b) Other training events: curriculum development and review, group mobilization and sensitization, etc.	
Personnel	Trainers' and resource persons' fees and allowances.
Travel	Travel of participants and trainers to venue.
Training	Venue and accommodation if applicable.
Equipment/supplies	Stationery, supplies.
Other	

c) Project coordination and technical support		
Personnel	Programme support staff	Programme coordinator, technical advisor, monitoring, evaluation and learning (MEL) officer, etc., as appropriate.
	MT support	Full/part time recruitment according to size of programme.
	Technical short-term expert	Varies from travel allowance only to daily rate.
	FFS facilitators	Maybe token amount or part/full time employment according to context, but should be harmonized across programme sites and ideally across actors.
	Administrative support	Driver, secretary, administrative and financial support, etc., depending on the scale of the programme.
Travel	Field travel	Fairly substantial allocation for field travel costs.
Equipment/supplies	Office equipment	Laptops, printer and mobile phones as necessary.
Other		

d) Monitoring, evaluation and learning (MEL)*	
Personnel	MEL officer if appropriate/possible. Survey enumerators (if applicable), hire of external expert (research), data entry and analysis. Field allowances for staff incl. government if applicable.
Travel	Sufficient amount allocated for frequent visits to FFS groups.
Training	Training of enumerators, consultative field meetings. Initial MEL framework development workshop. M&E training workshops as necessary (for instance facilitator refresher course on MEL). Periodic review/sharing meeting.
Equipment/supplies	ICT and other data collection/analysis tools incl. software and apps, group inputs/stationery for participatory monitoring and evaluation.
Other	Documentation, printing and dissemination.

** MEL includes supervision and mentoring.*

e) FFS implementation and group budget	
Personnel	Facilitators' field allowance – in kind or cash (if appropriate).
Travel	Exchange visits, travel allowance for participants to sites (if distant).
Training	Field days, graduation event and certificates, refreshment during sessions (if applicable), rental of study field (if applicable).
Equipment/supplies	Learning stationery (flipcharts & pens, diary book etc.), field inputs for experimental trials (inputs & tools), group observation kits (metre scale), start-up contribution for income generation activity.
Other	Cap, t-shirt, etc. (if appropriate).

The costs involved in implementing an FFS can vary depending on local factors. Table 16 shows examples of average FFS costs for running one FFS group in different regions.

Table 16: Example of costs in three countries

Costs for the running of 1 FFS group (average 20 members) (USD)			
Budget item	Kenya IPPM (30 weeks)	India rice* (14 weeks)	Cambodia vegetables (15 weeks)
Facilitation	300	200	375
Participant travel	0	400	0
Field input/supplies	150	80	85
Learning materials	100	30	130
Field day/graduation	250	640	230
Snacks	0	0	140
Total	800	1550	960
Average cost per member	40	77	48

** Cluster field school with participants from several villages, thus requiring transport to site.*

THE ROLE OF GROUP CONTRIBUTIONS

In many contexts, it is appropriate to assume a certain level of co-financing or self-contribution by FFS groups and individual members. Common elements for contribution may be the provision of inputs for experiments (seeds, manure, chicken etc.), materials for building the learning shed, a field study plot for experimentation, labour, and snacks. Practice in this respect varies from region to region, so it is important to find out what is typical of FFS programmes in the country, and move towards suggesting group contributions when this is not common practice.

FINANCE DELIVERY SYSTEMS

FFS and free inputs

Distributing free inputs should be discouraged within FFS. Even when conditions and resources exist for the distribution of free inputs, alternative mechanisms exist that will preclude dependency syndrome in the communities. Inputs are usually distributed under emergency settings to desperate and desolate communities affected by war, in camps or those affected by floods, landslides and earthquakes.

FFS are not the first point of intervention in these circumstances. Humanitarian aid agencies will always provide aid to alleviate immediate problems. Some of these include agricultural inputs: mostly seeds and tools in huge quantities. However, the communities often misuse the inputs, some selling them for cash instead of household use. Initiating FFS at this point is not the most feasible option. However, as communities begin to settle and come to terms with post-disaster reality, FFS may be initiated to provide some basic skills to enable the communities to utilise the inputs; but also to provide a social safety net for individuals to discuss and support each other in a group, and engage in part-time activities that distract them from their distress. In most instances, the households operate on extremely strained budgets, if any. Through FFS, certain inputs may be provided to put cash in the hands of the communities and trigger small commercial activities.

Direct injections of cash can distort the functioning of both the market system and the social system in such communities. However, whether under emergency conditions or not, known strategies have been deployed that can also be used by FFS practitioners under similar circumstances to deliver inputs.

Through the FFS process, members will discuss and identify an activity or important infrastructure that they need for rehabilitation or set-up. Cash for work may be used to have the members establish the structures; however, the cash paid will not all go to the individual members, a percentage will be saved in the group based on a consensus reached by the group members.

For seeds and tools, or re-stocking actions, voucher systems are operated whereby members receive vouchers upon completion of a piece of work. The vouchers are used in exchange for inputs of choice and redeemed by the traders at agreed periods. These are healthy mechanisms for the conditional distribution of inputs.

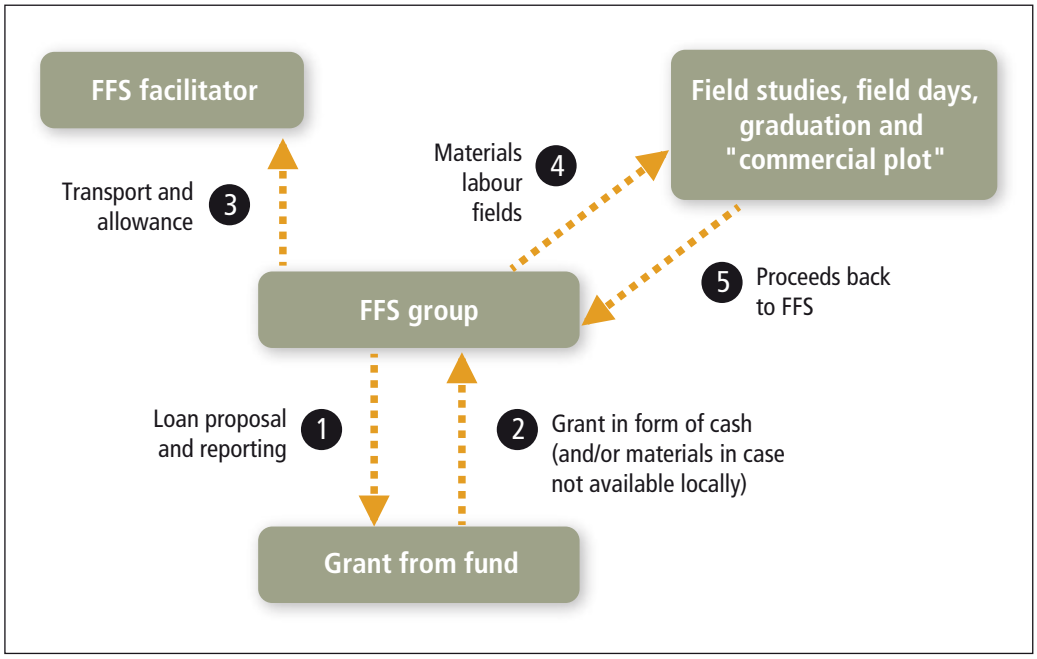
The grant system

FFS programmers should evaluate the prevalent conditions in their context to design an appropriate grant system for the FFS. Whichever system is designed, it is important to ensure that it cultivates ownership of processes and does not create community dependency on external support.

Important aspects for design consideration include the purpose of the grant or other financing mechanism, its operation (whether on a cost-sharing basis or not) and management modalities.

In several countries grant systems for basic FFS costs have been successfully implemented. Below is a summary of how the grant system operates. FFS grant systems are originally designed to create ownership of the field school process by giving FFS members responsibility for planning for and managing resources for field school activities. These include drawing up work plans, budgets, organizing field days, and paying the facilitators based on effective delivery of the services expected of them. The decision to pay lies with the farmers, based on known relevant criteria and expected standards of performance by the facilitator. Figure 14 shows an example of how a typical grant system operates.

Figure 14: Example of how a typical grant system operates



10

Building on the basic farmer field school learning cycle

10 Building on the basic farmer field school learning cycle

EXPANDED LEARNING ELEMENTS AND FOLLOW UP ACTION

As the iterative FFS learning cycle progresses and trust among farmers grows, new ideas and demands for follow-up activities naturally emerge. These activities are often triggered by the outcomes of the basic learning cycle and link technical, social and financial actions in a mutually reinforcing way. This frequently contributes towards strengthening the impact and sustainability of the FFS interventions within the framework of a broader development agenda in the target communities and is therefore a process that should be encouraged.

However it is important to remember that this necessitates flexibility and space within the programme to allow for and enhance innovation and the emergence of new directions. It may also necessitate additional skills, time, and financing, which need to be carefully catered for in order to ensure quality and successful implementation among groups.

Some of the expanded and follow-up activities frequently seen in FFS programmes are explained below.

- **Adaptive research:** In circumstances where the FFS group wishes to take a stronger leadership to co-create more in-depth understanding of certain concepts from their study topic after the initial learning cycle. This may involve setting up experimentation or validation studies on group plots or in different parts of the community on farmers' own fields.
- **Expanded curricula:** Curricula can be expanded into new enterprises following the basic FFS learning cycle or a broadening of content. This includes for example introducing additional topics as in the case of farmer business schools, with more focused study on farming as a business or farmer field and life schools where additional content on psycho-social aspects is included. Literacy and numeracy are also increasing in importance as follow up activities, especially in pastoral communities.
- **Livelihood diversification:** Where the goal for FFS groups may be to use skills and knowledge gained from the learning programme for more tangible livelihood benefits contributing to livelihood or income diversification. In this case the group addresses other factors that affect production, like incomes, low savings or market access and leverage. This may take two forms:
  - Translation of the FFS learning topic into actionable outputs that transform lives. For example, skills in poultry production could translate into FFS members taking up such enterprises in a more market oriented manner; skills in soil and water management through agroforestry could translate into the setup of tree nurseries to produce seedlings for sale to other members and the public.
  - Engagement in alternative income generation activities not related to the focus of the learning curriculum in order to quickly leverage their abilities to implement the skills acquired. This may include engagement in

group savings or community banking activities, agro-processing or collective group marketing of produce. This might take place alongside the core learning cycle or appear as a follow-up activity post FFS.

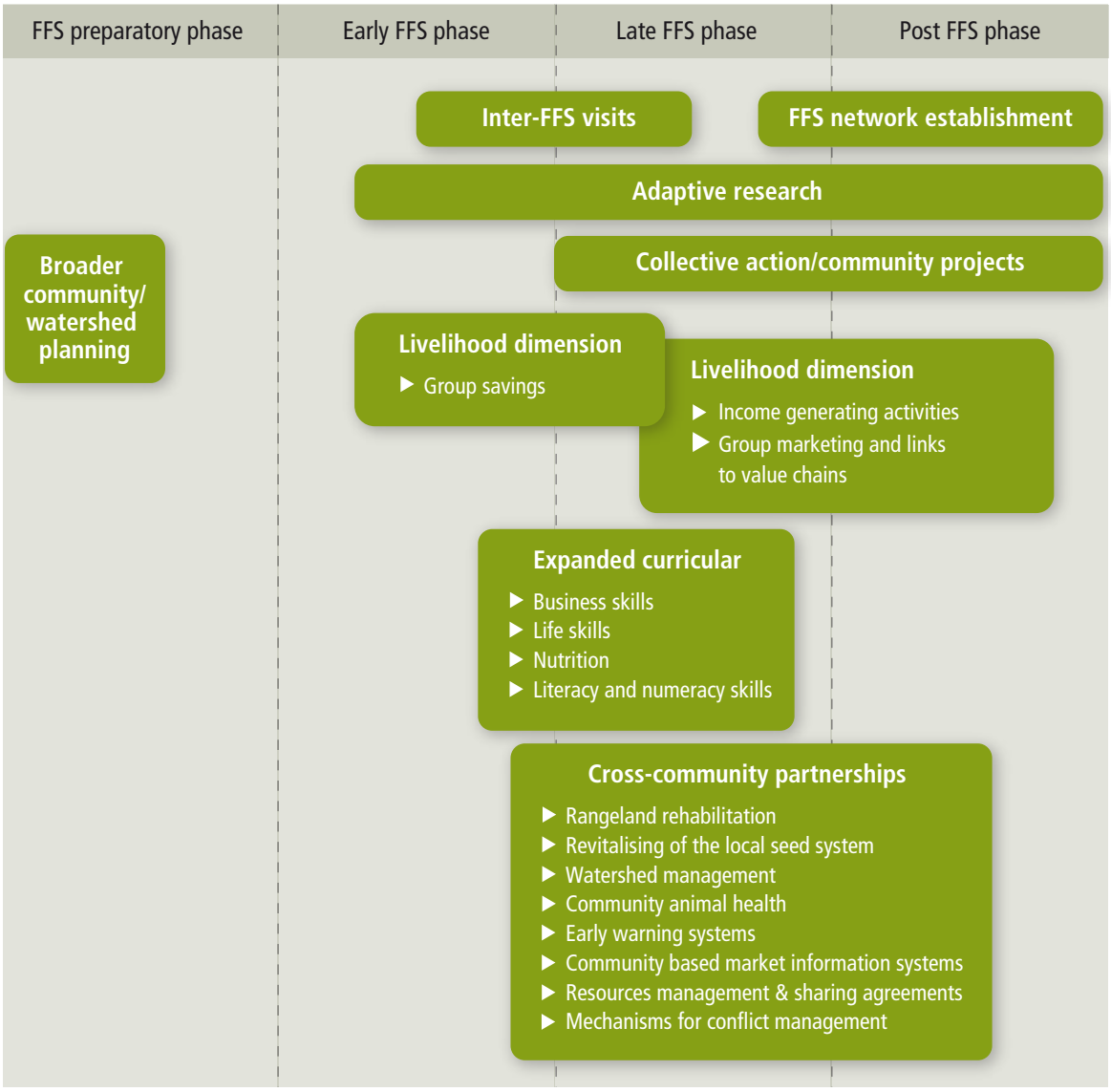
- **Community/landscape-wide:** Challenges necessitating interventions beyond the scope of the FFS. Community-wide activities are complementary and often extend beyond the FFS learning process. These include, among others, activities contributing towards a support system for community resilience, and may include activities like rangeland rehabilitation, revitalizing of the local seed system, watershed management, community animal health, early warning systems, community-based market information systems, resource management and sharing agreements and mechanisms for conflict management. To successfully address these aspects, which have an element of "common good", it is imperative to work with the local civic and/or traditional customary institutions. The latter, especially in agro-pastoral settings, wield significant authority and are often considered to be responsible for the social wellbeing of their community. For example grazing patterns and use of natural resources are usually determined by the council of elders. Or watershed management may be governed by agreements between upstream and downstream communities. The understanding of the planned activities and involvement of relevant local authorities is therefore crucial from the outset.
- **FFS Networking:** As the number of FFSs in a community grows and they broaden in their level of operation, challenges emerge that cannot be solved effectively by the individual groups, necessitating higher-level farmer organizations. Similarly, as the number of FFSs increases in a given location, there are more opportunities for them to take advantage and enjoy economies of scale. By forming a network, FFSs can better share information, engage collectively, improve access to resources and markets, participate in community projects and articulate their interests to local leadership (advocacy and lobbying). The FFS networks also act like business units which provide a sustainable exit strategy from a project. They frequently engage in a range of collective commercial activities including market linkage and information brokering on behalf of their members. They also facilitate fundraising and help to coordinate marketing activities. Being part of an FFS network has several advantages and programmes should be able to provide tailored support for this in terms of training and mentoring, linkages to other service providers including the private sector and linkages to other farmer organizations, cooperatives, etc. In terms of facilitating the networking processes, intra-group exchange visits have proven highly effective.

Although in practice some complementary activities like income generation enterprises and savings mechanisms are often introduced alongside the initial learning cycle, careful thought as to the timing of introducing additional elements is crucial to avoid overwhelming the farmers with too many activities at the expense of the intended skills development and empowerment process. When introduced too early in the learning cycle, there is a tendency to concentrate on the more attractive "income-related" elements at the expense of ecosystem-based analytical processes which form the basis of transformative empowerment.

It is therefore good practice to:

- think through – right from the start of FFS programmes – potential synergistic intervention areas in terms of both timing and available resources, while also respecting farmers' desires. As much as possible, the activities should be contributing to the broader intended goal of the FFS programme and should blend in with the FFS program in a more structured manner;
- ensure that the activities do not undermine group cohesion by having in place instruments for arbitration such as constitutions, bye-laws and formal registration to ensure that the interests of the members, especially those of women and youth, are safeguarded;
- ensure that there is sufficient time and the requisite capacities to undertake the additional activities without compromising the learning process;

Figure 15: Schematic flow of some potential follow-up activities



- put in place an inherent mechanism for quality controls and a clear set of indicators to measure FFS expanded elements;
- maintain regular visits by local extension staff and other local technical specialists in the post-FFS learning phase, to ensure continued technical support and backstopping;
- maintain periodic communication with FFS group leadership and follow up to avoid groups feeling "abandoned" post-FFS. A gradual phase-out of programme support and interaction is better than a sudden cessation in support following group graduation;
- plan and actively seek out linkages to other ongoing initiatives and FFS synergetic activities and support actors.

FACILITATING THE INSTITUTIONALIZATION OF FARMER FIELD SCHOOLS

The essence of FFS – the empowerment of farmers to learn, understand, and make informed decisions – challenges conventional agricultural extension approaches, which are based on top-down delivery of technology packages. As a result, FFS projects and programmes have often been implemented in the margin of national institutions, with strong reliance on donor funding.

However, the potential long-term success and sustainability of the FFS programme outcomes are strongly influenced by a sense of ownership among the parties involved at different levels, both locally and nationally. The creation of an enabling environment for institutional support – that is conducive to transformative and people-centred approaches – is essential in order to intensify efforts, improve quality, and strengthen impact and continuity.

'Institutionalization' is a process through which new ideas and practices are introduced, accepted and used by individuals and organizations, and become part of 'the norm'.

(Jonfa and Waters-Bayer, 2005)

Efforts to institutionalize FFS can take place at various levels in different forms, including local, community, national, as well as regional and global levels.

- **Appropriation** at local/community level: by farmers taking ownership of their innovations and decisions concerning farming activities and becoming engaged in a broader scope of activities as a group.
- **Institutionalization** at local/national level: by other actors in the agricultural sector (incl. public institutions, private businesses, civil society organizations, FOs), creating common understanding of FFS and its values, integrating it in agriculture policy and rural development programmes, and creating an enabling environment in which FFS programmes and its networks can succeed.
- **Harmonization** at regional and global level: by regional and international organizations (such as Regional Economic Communities and other regional or subregional bodies, Consultative Group for International Agricultural Research, Global Forum for Rural Advisory Services, etc.), promoting synergy and shared learning, exchange on FFS-related activities and mainstreaming common features and principles of FFS to maintain quality standards in FFS programmes across countries and regions.

THE ROLE OF PROJECTS/ PROGRAMMES

When institutionalization and sustainability concerns are present from the beginning of the intervention, a number of possibilities and entry points can be exploited by projects and programmes in order to facilitate or trigger the institutionalization and sustainability of FFS. Below are some suggestions and recommendations for projects at various levels to support institutionalization. It should be noted though that this may require additional human and financial resources.

Appropriation: a "natural" process? As groups grow and are strengthened throughout the FFS basic and consecutive learning cycles, they develop a sense of belonging and ownership and move on together.

This leads to:

- facilitation of engagement with other stakeholders and markets;
- encouragement of networking among FFS;
- development of new skills (with focus on functional skills, such as communication, partnering, negotiating, and marketing);
- brokering of information and other resources (capital, market, inputs, etc.);
- assurance of quality and trust/relationship building.

Institutionalization: This process is not linear. For the FFS approach to be a "norm" and accepted and used in the extension service system as a participatory extension approach entails change and development in the mind-set of the stakeholders within the advisory service system, as well as the policies and strategies of the agricultural sector development. In light of recent moves towards innovation system approaches and pluralistic extension systems, demand-driven and farmer participatory approaches such as FFS have been increasingly embraced by advisory services.

The institutionalization of a FFS requires time and resources and might not be possible to complete for the duration of short-term projects/programmes. However, the project could start getting engaged in the following discussions and activities to support the longer term process.

- Raise awareness at institutional (policy) and local level: to advocating FFS principles with national extension policies, strategies, and funding mechanisms.
- Develop the capacity of local partners/ institutions to support FFS and provide quality assurance (e.g. registration/ certification of facilitators/MTs?). This can be done through formal training as well as through partnering, collaborating, and coaching. Partnership with non-public organizations is increasingly prominent in view of the declining role of public funding for agricultural extension.
- Support mainstreaming of participatory and experiential learning processes and knowledge on the FFS approach in the education system (incl. primary, secondary, vocational training institutes and the tertiary education system in agricultural extension).
- Engage in establishing linkages and building synergies among key actors (especially involved in FFS-related activities) in the agricultural sector (e.g. information suppliers, research institutions, and development organizations), markets, and financial sources.
- Facilitate the development of networks such as communities of practice and innovation platforms on FFS-related activities. Innovation platforms might be useful in discussing and promoting demand-led and participatory research and extension services and funding

mechanisms. Such platforms can also play a role in the quality assurance of FFS as well as lobbying at various levels.
- Create incentive mechanisms through certification and grants for participatory research and extension, in close collaboration with farmers.

Harmonization at regional and global level is crucial in order to promote standardization, avoid the misconception and misuse of FFS, create synergies, and encourage learning and exchange on FFS-related activities among countries, regions, and worldwide. In order to facilitate and promote this process, projects and programmes can be involved in the following proposed activities.

- Actively engage in sharing and interaction with other FFS actors, and support multi actors' efforts to share and coordinate among interventions and actors.
- Facilitate a process of standardization of training programmes, for example through the certification of master trainers.
- Advocate for the key principles and non-negotiable characteristics of FFS at regional and international events in an effort to maintain quality.
- Help national stakeholders build links with regional and global organizations and networks.

Formal institutionalization is NOT A MUST if not appropriate!

The potential benefits of institutionalization may nevertheless incur risks and challenges that can jeopardize the deeper values and benefits of the FFS approaches, including its flexibility based on member demands, and its focus on experiential learning and empowerment. Some of the potential risks and challenges of institutionalization include balancing quality versus quantity when scaling-up, and dealing with institutional limitations and lack of capacity at national level.

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