Documentation on the farmer field school method (farmers field school or agropastoral field school)

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Introductory Note

This fact sheet has been produced as part of a study to map innovative methods and tools in agricultural advisory services in West and Central Africa. This study was commissioned by CORAF/WECARD (the West and Central African Council for Agricultural Research and Development) and carried out by RESCAR-AOC (the West and Central Network for Agricultural and Rural Advisory Services) across 13 West and Central African countries.

The overall objective of the study was to compile a descriptive directory of innovative agricultural advisory methods and tools for scaling up agricultural technologies and innovations in West and Central Africa.

Several individuals within CORAF, RESCAR-AOC, and beyond, across the 13 countries covered by the study, contributed to the success of this initiative. We extend our gratitude to everyone involved for their contribution

1. Overview of the Method

Farmer Field Schools (FFS) and Agropastoral Field Schools (APFS) are two variants of the Farmer Field School method. The FFS is mainly based on crop production (agriculture), whereas the APFS integrates three components: agriculture, livestock, and environment. According to the FAO, the first Farmer Field Schools (FFS) were launched in Asia in the late 1980s. The field school represents a major innovation in the field of advisory services. The term was first used in 1989 in Indonesia when the collaboration between IRRI and the FAO led to a new approach to participatory extension on the ground (Duveskog 2013). It is a participatory approach to training and advisory services, based on the collective experimentation of innovative cropping systems (Bakker et al., 2022). Field schools have been promoted on all continents, and farmer field schools now exist in more than 90 countries (https://www.fao.org/farmer-field-schools/overview/fr/). The APFS, which is also a FAO initiative, was launched in 2018 through funding from the Global Environment Facility (GEF).

2. Brief description of the types of beneficiaries supported by the farmer field school method

The Farmer Field School method is generally used to support family farms with an average size ranging from 0.5 to 3 hectares. The method is inclusive and takes into account men, women, and youth alike. There are mixed FFS groups (men and women), as well as groups exclusively for men or for women.

The FFS method is implemented across diversified value chains, including animal production (poultry, small ruminants), crop production (cereals, legumes, market gardening), and forestry (arboriculture).

3. Necessity and Objective of the Farmer Field School Method

The Farmer Field School method is necessary to address common production challenges faced by communities, such as low agricultural yields, crop phytosanitary protection, food and animal health, and the lack of knowledge or limited adoption of agricultural technologies and innovations, etc.

The main objective of the field school is therefore to improve the adoption of agricultural innovations in order to increase crop productivity and strengthen farmers' resilience in the face of climate change. This is achieved through enhancing the skills of farmers so that they can adapt their practices and evolve their farms towards more sustainable production systems (Bakker et al., 2022).

4. Implementation Methodology of the Farmer Field School Method

The implementation of the Farmer Field School method involves several steps, mainly including:

- Organising a preparatory meeting: engaging with local authorities and the community to present the project and get their support or buy-in.
- Field exploration/diagnosis or Rapid Participatory Appraisal: conducting an initial survey with farmers to identify the needs, challenges, and opportunities of the area.
- Determining the options to be considered: selecting the practices or innovations to test on the Learning Plots (PA) and Special Study Plots (PES).

- Forming the group of producers: creating a group of 20 to 25 people, divided into 5 to 6 sub-groups composed of willing and motivated participants.
- Developing internal rules: jointly establishing with the group the rules of participation and operation.
- Identifying a local facilitator: choosing a local facilitator to serve as a mobiliser and intermediary.
- Developing an action plan and support plan: defining a detailed plan outlining the activities to be undertaken, responsibilities, and the meeting schedule.
- Choosing the crop and finalising the protocol: selecting the crop to experiment with and finalising the protocols for setting up and managing the field school.
- Delimiting and setting up the plots: delineating the learning plots and the customary practice plots of the farmers. Crops are then planted with the farmer under the guidance of the facilitator with best practices learning.
- Weekly module facilitation: conducting workshops and learning sessions with the group every week to discuss progress, challenges, and lessons learned.
- Data collection for comparative analysis: monitoring and collecting data on production, yields, and the economic aspects of the plots.
- Comparative analysis of the results: comparing the outcomes to evaluate the added value of the new practices tested against traditional practices. This assessment helps identify the potential benefits and select the best options to adopt.

5. Impacts of the Farmer Field School Method

The Farmer Field School method has got a positive impact on rural communities. Its implementation enables farmers to carry out activities (field training through observing crops, soil, and pests; experimentation; knowledge and know-how sharing) that empower them to “solve issues on their own” (Bakker et al., 2022).

Thousands of farmers have been trained in agricultural technologies and innovations through the Farmer Field School method. In this regard, according to the FAO, farmer field schools have contributed to strengthening the skills of more than 4 million farmers, herders, and fishers worldwide (https://www.fao.org/farmer-field-schools/overview/fr/). Over 60,000 smallholder farmers have been trained—30 percent of whom are women—

and 900 facilitators have been trained in the method in Mali, while more than 25,000 farmers have been reached in Togo, according to the case study documentation.
In agricultural terms, farmer field schools have contributed to increasing crop yields and maintaining the productive potential of available natural resources, including soil, vegetation, and water (FAO, 2003). This has resulted in improved yields. In Mali, for example, FFSs have led to a 25 percent increase in rice yields and a 40 percent increase in gross income. For cotton, gross income increased by 54 percent. These improvements in yields and incomes were also highlighted by producers during on-site focus groups. According to them, depending on the intervention areas, yields have doubled or tripled. The income increase, resulting from improved yields, ranges from approximately 30 to 50%.

6. Technologies and innovations promoted through the farmer field school method

Several technologies and innovations have been promoted through the Farmer Field School method. These include:

- Integrated Soil Fertility Management (ISFM)
- Integrated Management of Production and Pests (GIPD): the case of the fall armyworm
- Integrated Management of Soil Fertility, Water, and Pests through Fungi (GIFERC)
- The System of Intensive Rice Cultivation (SRI)
- Integrated Weed Management (rational use of pesticides, control of Striga, etc.)
- The use of inoculum in soybean cultivation to foster better nitrogen fixation and reduce dependence on chemical fertilizers
- Protection and improvement of the productive base (CES/DRS work), as well as cultural techniques (seeding density, phytosanitary treatment)
- Integration of agriculture and livestock (agroforestry); etc.

7. Average Implementation Costs of the Farmer Field School Method

The costs associated with implementing the field school approach vary greatly. According to David and Cofini (2019), these variations depend on the subject matter and the duration of the FFS cycle, and include needs assessment, program development, an expert trainer along with the training of facilitators, operating costs of the FFSs (such as materials), supervision of facilitators, and additional costs related to institutionalisation. The average

cost of an FFS is 56 USD per participant, although most FFSs cost between 20-40 USD per participant (David and Cofini, 2019).

8. Strengths and Limitations of the Farmer Field School Method

The main strengths and limitations of the Farmer Field School method, as identified during national discussion and evaluation workshops and in interviews for the documentation of methods and tools, are as follows:

Strengths of the Farmer Field School Method

- Participatory approach: It directly engages farmers in the learning process, thereby enhancing their involvement and sense of ownership.
- Learning by doing: It allows farmers to learn through direct experience, which leads to better understanding of knowledge.
- Consideration of farmers' perspectives: Producers' concerns and suggestions are taken into account, ensuring that the training and solutions offered directly address their real needs.
- Incorporation of proven local practices: It values local know-how while introducing new, adapted techniques.

Limitations of the farmer field school method

- The implementation cost per direct beneficiary is high;
- Limitation on the number of direct beneficiaries (25 to 30 farmers per group): The number of farmers reached per group remains limited, which can restrict large-scale impact;
- Impact of climatic hazards: Drought and variability in rainfall can disrupt the activities of the field schools and, in particular, the farmers, thereby affecting the outcomes of the method.

9. Prerequisites for Success and the Role of Various Stakeholders in the Success of the Farmer Field School Method

Conducting a participatory diagnosis and adopting a co-construction approach have both contributed to the success of the Farmer Field School method.

These two conditions have been crucial in creating a collaborative and inclusive learning environment. The participatory diagnosis allowed for a deep understanding of local challenges, while co-construction enhanced farmers' engagement and motivation. By ensuring that solutions were tailored to local contexts and involving farmers in every stage of the process, the method has succeeded in establishing effective and sustainable learning mechanisms.

The success of the Farmer Field Schools (FFS) method depends on several roles played by government policies, the institutional environment, and various stakeholders including the farmers.

Public authorities play a crucial role by providing the necessary resources for agricultural advisory services. This includes improving financial and logistical means to facilitate the scaling up of the method. A clear support policy and adequate investments are essential for effective dissemination of the method throughout the country.

Farmers must be actively involved in the implementation of the method. Their engagement is vital for the adoption and sustainability of the practices being taught. Their contributions in terms of time, resources (such as providing land or equipment), and active participation in activities are crucial to ensuring the method's success and impact.

Technical and financial partners, such as NGOs, input suppliers, and various projects, provide the technical, financial, and logistical support that is crucial for the method's success. Their collaboration helps expand access to the resources, innovations, and networks necessary for the implementation and dissemination of the method.

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Webography : https://www.fao.org/farmer-field-schools/overview/fr/ , Consulté le 21 janvier 2025 à 13h30