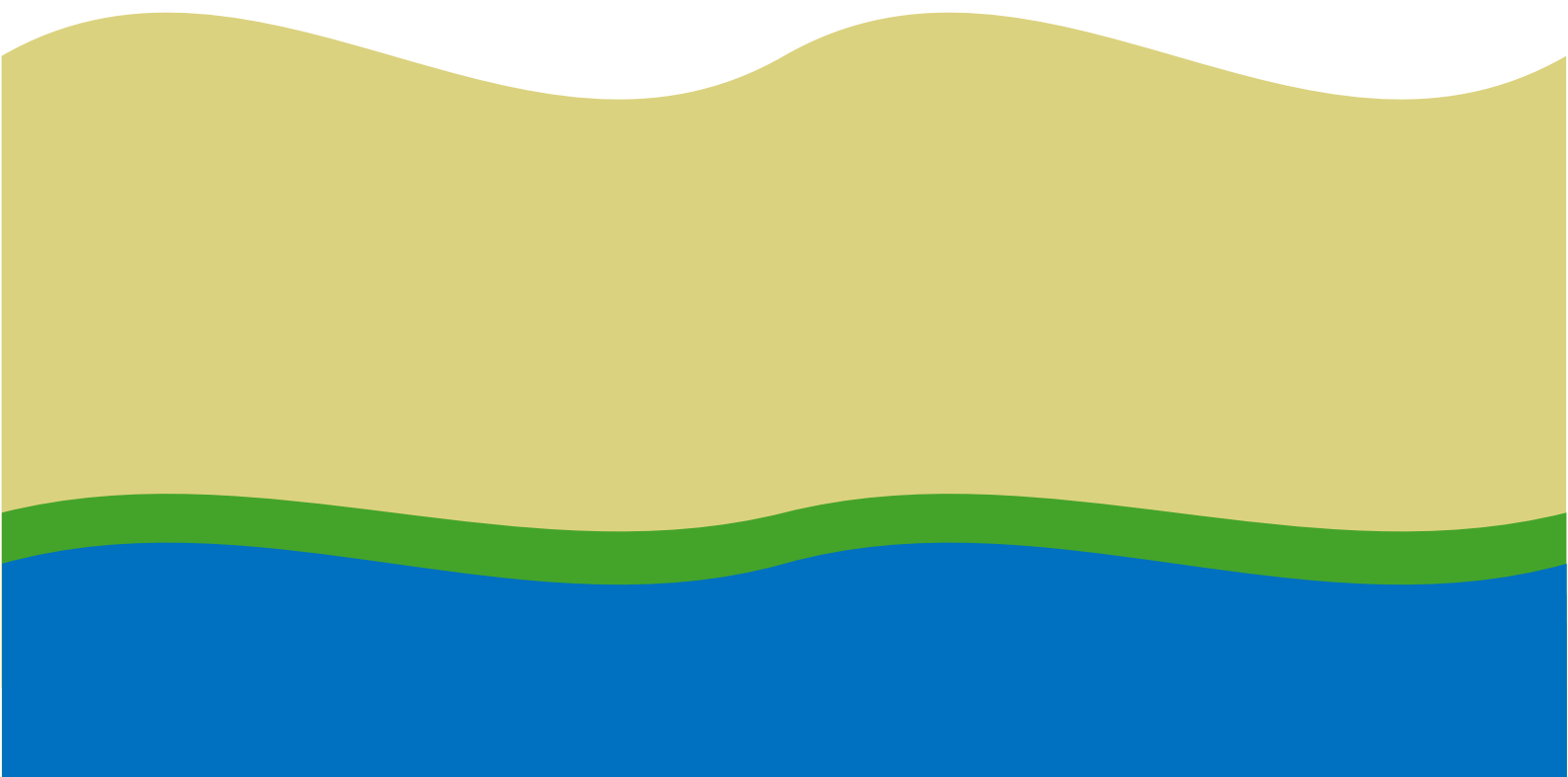




Food and Agriculture
Organization of the
United Nations

Part 5: Farmer Field School data recording and governance

Climate-smart Farmer Field School curriculum



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This training material involves Part 5: Farmer Field School data recording and governance aims to guide CS-FFS facilitators, master trainers, and farmers in effectively managing and utilizing data throughout the CS-FFS program. This includes understanding the principles and practices of data governance, adhering to ethical guidelines for data collection and use, and applying standardized procedures for data recording, storage, sharing, and analysis to support program objectives, monitoring, evaluation, and learning.

Special thanks are due to Nabil Assaf (FAO Representative to Jordan), Mohamed AlHamdi (Lead Technical Officer), and Maysoon AlZoubi (Project Manager) for their unwavering guidance, support, and appreciation throughout this process.

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Abbreviations

AESA	agroecosystem analysis
BRCCJ	Building resilience to cope with climate change in Jordan through improving water use efficiency in agriculture sector
CS-FFS	climate-smart Farmer Field School
CSA	climate-smart agriculture
EC	electrical conductivity
ESS	environmental and social safeguards
FAO	Food and Agriculture Organization of the United Nations
FFS	Farmer Field School
GCF	Green Climate Fund
GM	gross margin
ICT	Information and communication technology
JDN	Jordanian dinar
MEL	monitoring, evaluation and learning
pH	potential of hydrogen
SOPs	standard operating procedures
SMART	specific, measurable, achievable, relevant, and time-bound
TOF	training of facilitators
UNDP	United Nations Development Programme
WHO	World Health Organization

Background

In Jordan, the CS-FFS initiative addresses the vulnerabilities exacerbated by climate change, regional conflicts, and the COVID-19 pandemic. The "Building resilience to cope with climate change in Jordan through improving water use efficiency in the agriculture sector (BRCCJ)" project is a seven-year collaborative effort between FAO, UNDP, and Jordanian ministries. It targets vulnerable Governorates in the Dead Sea Basin (Karak, Madaba, Tafileh, and Maan) which are particularly impacted by climate change and poverty. The initiative focuses on water management, improving livelihoods, and scaling up climate adaptation for climate-resilient and sustainable development.

The Jordanian CS-FFS methodology emphasizes climate-smart practices, delivered through practical training and participatory learning. Modules developed by experts ensure farmers gain the knowledge and skills needed for climate-resilient agriculture. To achieve quality and consistency across these interventions, the project places significant emphasis on data recording and governance practices. The formulation of the CS-FFS Data Recording and Governance module enables quality reporting, monitoring, assessment, accountability, and learning, and it incorporates innovative techniques and a gender-sensitive perspective. This module is vital for empowering CS-FFS practitioners including managers, supervisors, master trainers, facilitators and farmers for a successful implementation of the CS-FFS interventions to adapt to climate challenges and aligns with the project's goal of fostering climate-resilient sustainable development.

CS-FFS data recording and governance

Data recording and governance in the CS-FFS program is a framework of guidance, policies, processes, and mechanisms managing the quality, security, and ethical use of data within the project. It defines rules, roles, and standards around data collection, storage, sharing, analysis, and how it's utilized throughout Farmer Field School (FFS) activities.

As FFS programs diversify, the need for robust data recording and governance becomes clear. This helps ensure effective field implementation, program management, and the ethical use of data to support program objectives. The Data Governance chapter within the CS-FFS program directly guides practitioners, facilitators, and supervisors, ensuring standardized practices in reporting, monitoring, evaluation, assessment, accountability, and learning.

Box 1. Basic terminologies

Basic terminologies

Data

Facts, figures, or information collected for reference, analysis, or decision-making purposes. Farmer Field Schools typically includes farmer's profile, agricultural yields, pest and disease observations, input costs, crop prices, and farmer observations/decisions made over a growing season etc.

Reporting

The communication of information, findings, results, and progress related to the-FFS program, including regular updates, documentation, and dissemination to stakeholders, donors, partners, and the wider community.

Monitoring

The systematic collection and analysis of data and information to track progress, identify trends, and measure the performance of activities and outcomes within the CS-FFS program.

Evaluation

The systematic and objective assessment of the effectiveness, efficiency, relevance, and sustainability of the CS-FFS program, including its activities, outputs, outcomes, and impacts.

Assessment

The process of gathering and analysing information to understand the current situation, identify needs, strengths, weaknesses, opportunities, and threats, and inform decision-making within the CS-FFS program.

Learning

The process of acquiring knowledge, skills, insights, and understanding through reflection, experience, and interaction within the CS-FFS program, with the aim of improving performance, adapting strategies, and fostering innovation.

Accountability

The obligation of individuals, organizations, and stakeholders involved in the CS-FFS program to be answerable for their actions, decisions, and performance, including transparency, responsibility, and integrity in achieving program objectives and delivering results.

Source: Authors' own elaboration.

Criteria of Farmer Field School graduation certificate

The CS-FFS model represents a multifaceted approach to agricultural education, blending non-formal participatory methods with a structured curriculum. As part of the implementation framework, the FAO has introduced a comprehensive set of criteria for assessing the certification of successful CS-FFS programs and their trainees. This part explores the evaluation process encompassing two key dimensions: the evaluation of CS-FFS training and CS-FFS trainees.

The evaluation of CS-FFS training unfolds in a series of steps, each aimed at ensuring the quality and effectiveness of the educational process. Initially, each session is meticulously assessed to ensure that participants acquire relevant management skills, ecological insights, practical skills and other essential knowledge crucial for their agricultural endeavours. Subsequently, the focus shifts towards evaluating the progress made throughout a season of training, measuring changes in knowledge and field skills from the program's beginning to end. However, the most crucial evaluation lies in assessing the impact of training on field actions and outcomes, such as changes in crop management practices, adoption of climate resilient practices, reduced pesticide usage, improved yields, and enhanced economic returns.

It is important to emphasize that the overarching goal of an CS-FFS program transcends mere training; it aims for long-term impact and sustainable climate smart agricultural practices. To this end, various evaluation methods are employed, including Ballot Box evaluations, written exams, group discussions, and visual assessments, among others. These methodologies offer nuanced insights into the effectiveness of training and the extent to which it aligns with the broader objectives of successful field school implementation and achieving agricultural sustainability.

The evaluation of CS-FFS trainees is equally crucial in gauging the individual and collective progress achieved through the program. Participants' performance is assessed against predetermined learning objectives, often through methods like the ballot box test, "T Chart" evaluation, pilling-up evaluation method, before and after pictures, and group discussions etc (Van den Berg *et al.* 2023). Moreover, the impact of training on participants' creativity, independence, collaboration, and economic well-being is closely examined, reflecting the holistic approach adopted by the CS-FFS model.

Amidst the complexity of evaluating training impact, several factors must be considered, including external influences from neighbouring projects, media campaigns, and community dynamics. By navigating these complexities and employing robust evaluation methodologies, CS-FFS programs can effectively measure their success in fostering sustainable agricultural practices and empowering farming communities for long-term resilience and prosperity.

Box 2. Techniques for Farmer Field School evaluation

- **The Ballot Box** is a method that uses multiple choice questions and field situations to test the farmer's know-how and skills at the beginning and at the end of the season. The ballot box can also be used to test farmers' know-how and skills at the beginning and the end of a single day. Questions should be developed before the start of the season.
- **The T-chart** is an evaluation method whereby a T-shape drawn on a large piece of paper forms two columns, one for activities deemed to be 'good' and one for activities that 'need to be improved.' Farmers write the names of activities on cards, which are then stuck to either one of the columns as appropriate. The activities that 'need to be improved' should be discussed with the aim of finding solutions to the identified weaknesses.
- **The Piling-up evaluation** method, here the farmers are asked to make drawings on a large piece of paper to represent various aspects of the programme (e.g. field study, group activities, FFS etc.). Subsequently, each participant is given some seeds or coins and asked to score each activity by piling the seeds/coins on top of the drawing that represents it. Discuss the activities with the lowest scores with the aim of finding solutions for improvement of such activities, or alternatively, for their replacement.

Source: adapted from Van den Berg, H., Phillips, S. & Morales-Abubakar, A.L.C. 2023. Monitoring, evaluation and learning in farmer field school programmes – A framework and toolkit. Rome.
<https://doi.org/10.4060/cc5160en>

Box 3. Climate-smart Farmer Field School quality checklist

Agroecosystem analysis activity

- Are participants informed about the goal and process of the activity before it begins?
- Do participants actively engage in field or greenhouse observations during the activity?
- Do participants observe plants and trees in addition to examining techniques installed?
- Are all parts of, plants, and trees considered in the observation activity?
- Do participants observe all weather parameters while conducting ecosystem analysis?
- Do the participants observe all insects, diseases, and weeds present on the sampled plants or trees?
- Is water scouting with general observations or sensors conducted for moisture, pH, EC as part of the observation?
- Is soil sampling conducted to inspect insects, larvae, and root systems as part of the observation?
- Do participants document their observations?
- Are specimens collected during the activity?
- Is there a collection of insects made?
- Are observations summarized in agroecosystem drawings or presentations?
- Does the facilitator pose problems or ask relevant questions to encourage participant analysis of the drawings?
- Does discussion occur regarding field conditions?
- Are "what if" scenarios presented and discussed by the participants?
- Are previous agroecosystem findings used for comparisons with the current situation?
- Are field management decisions made and critically examined before acceptance?
- Are decisions based on water scouting and moisture level examined status in the field?

- Do decisions also consider insect population levels and their functional relationships in the field?
- Do participants appoint one or more members to be responsible for following up on management decisions?
- Are participants actively engaged and working together in small groups?
- Can participants differentiate between pests and natural enemies?
- Does the facilitator use questions to help participants analyse the activity and consolidate their learning?

Field studies

- Can participants explain the reason for conducting the field study?
- Can participants explain the different treatments in the study?
- Do the participants establish learning plots vs conventional practices?

Special topics

- Is the goal and process of the activity explained by the facilitator before it begins?
- Are participants actively involved during the activity?
- Is group activity participation evenly distributed, or does one individual dominate?
- Can participants present results, stating or summarizing what happened and why?
- Can participants articulate what they have learned from the activity?
- Does the facilitator use open-ended questions to help participants examine, generalize, and apply their learning to real-life situations?

Group dynamics

- Are group dynamic activities conducted?
- Does the facilitator explain the goal and process of the activity before it begins?
- Is every participant actively involved in the activity?
- Does the facilitator use open-ended questions to help participants examine, generalize, and apply their learning to real-life situations?

General

- Is there a positive and enjoyable working atmosphere within the group?
- Does the facilitator maintain an attendance record for each meeting?

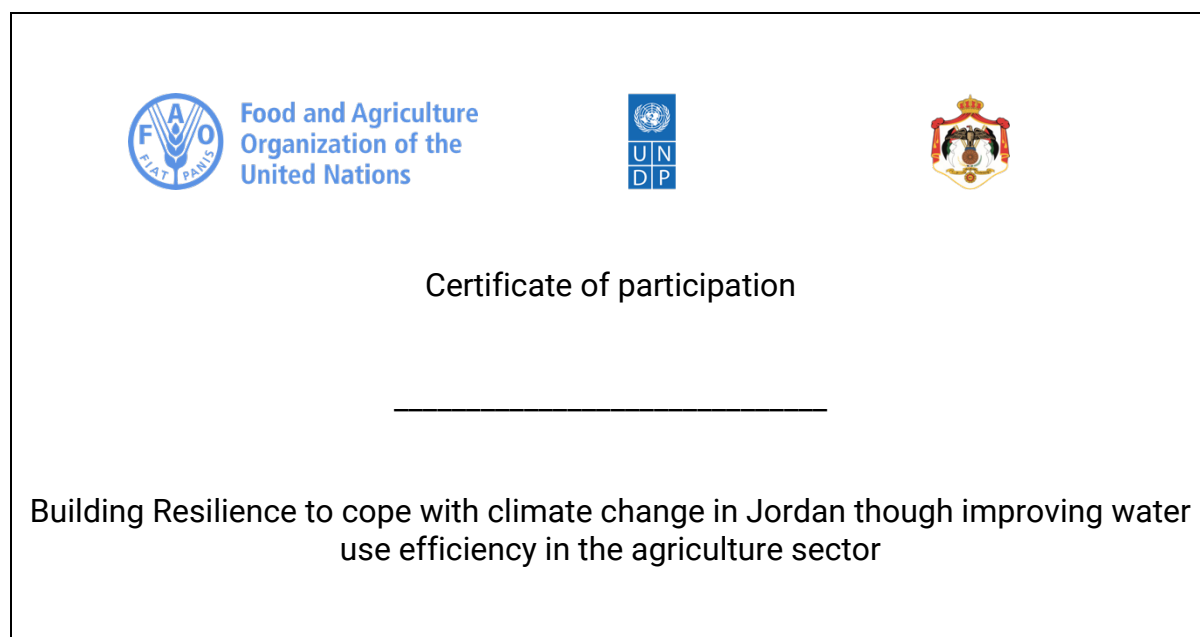
- Does the facilitator follow up on participants not present at a meeting?
- Are participants encouraged to facilitate sub-groups or the entire group or engage in group dynamic activities?
- Can the facilitator establish constructive communication with local leaders and supporting agency staff?

Source: Khalid. J.M. 2014. FFS Methodology – Part 1-Livestock Farmer Field School. Islamabad. SOFT.

Climate-smart Farmer Field School member graduation criteria

The standard certification criteria for FFS member farmers require a minimum of 80 percent successful participation in the overall training program. Regular attendance sheets aid in monitoring participation. Upon completing the program successfully, participants are awarded the FFS graduation certificate by the implementing organization (FAO, 2016).

Figure 1. Climate-smart Farmer Field School sample certificate



<p>Date _____</p> <p>This is to certify that Mr/Ms _____ Has successfully participated in the _____ system Climate Smart FFS training program year _____ in FFS _____ District _____ Governorate _____</p> <p>Director Agriculture Extension</p> <p>FAO Representative</p>	<p>تاريخ _____</p> <p>هذه الشهادة تؤكد بأن السيد / السيدة _____ شاركت بنجاح في برنامج التدريب Climate Smart FFS القائم على نظام لمحاصيل في عام _____ في عام FFS _____ اللواء المحافظة</p> <p>مدير الإرشاد الزراعي</p> <p>ممثل منظمة الأغذية والزراعة</p>
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Source: Authors' own elaboration.

Evaluation of impact

Assessing the impact of climate-smart Farmer Field Schools on climate resilient agriculture, particularly concerning water use efficiency, conservation, and water footprint, presents several challenges. One significant hurdle is determining the timeframe for impact evaluation. Does a single season of training adequately represent impact, or should the evaluation span several years to ascertain sustainable benefits? For instance, in the context of climate-smart agriculture (CSA), defining an "CSA Farmer" requires clarity on the duration and intensity of CS-FFS engagement. Is participation in a single CS-FFS program with ten meetings sufficient, or is a more extended commitment, necessary to achieve the status of a proficient CSA Farmer?



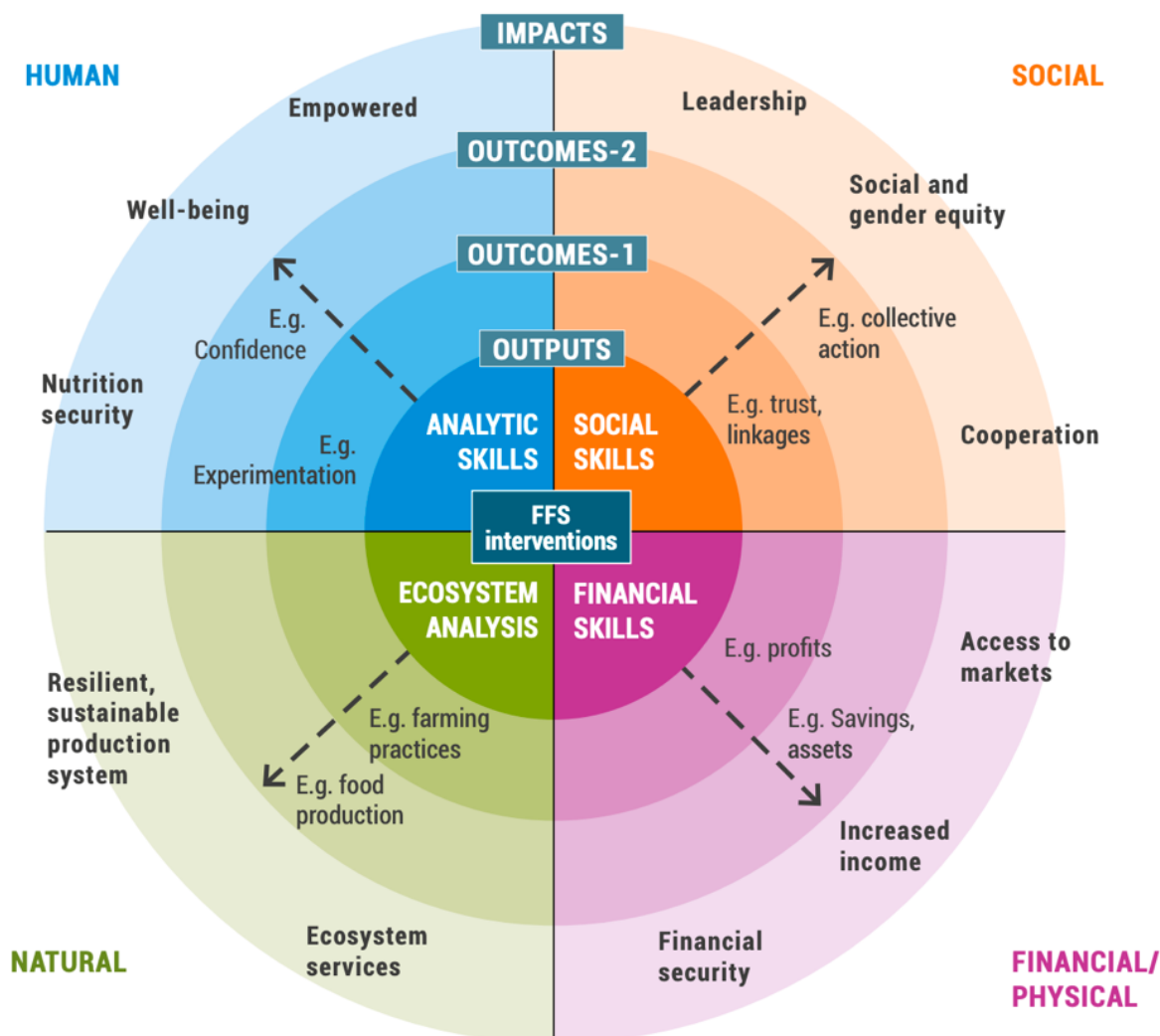
Additionally, methodological obstacles complicate impact assessment. Questions arise regarding the appropriate metrics and tools for measuring impact. Immediate impacts, such as changes in knowledge and practices directly after CS-FFS training, can be quantified through pre- and post-tests or assessments. However, developmental impacts, which manifest over the long term and often involve qualitative changes, pose challenges for measurement. These impacts typically require qualitative methods and participatory evaluations involving farmers to identify and describe the changes accurately.

Moreover, differing perspectives among stakeholders further complicate impact assessment. Farmers, researchers, policymakers, and other stakeholders may prioritize different aspects of impact, leading to varied evaluation criteria and methodologies.

Despite these challenges, participatory evaluations have revealed valuable insights into the impact of CS-FFS. Farmers have identified key benefits, including increased creativity, independence, and collaboration, reduced costs and improved incomes. These qualitative indicators underscore the broader socio-economic and environmental impacts of CS-FFS beyond mere technical knowledge transfer.

The FAO FFS global practitioners recently created the monitoring and evaluation (MEL) toolkit which has elaborated the four domains for the impact assessment including human, social, natural and financial/physical (Van den Berg *et al.*, 2023).

Figure 2. Farmer Field School Mandala



Source: Adopted from Van den Berg, H., Phillips, S. & Morales-Abubakar, A.L.C. 2023. Monitoring, evaluation and learning in farmer field school programmes – A framework and toolkit. Rome. [Cited on 25 April 2024] <https://doi.org/10.4060/cc5160en>

The following matrixes are designed to guide programs in formulating their specific set of specific, measurable, achievable, relevant and time-bound (SMART) indicators across the human, social, natural, and financial domains. Tables illustrating various indicator types for impact, short-term outcomes (Outcome 1), and medium-term outcomes (Outcome 2), along with corresponding outputs, are included for each domain. The tables also outline the methodologies for measuring each indicator type and suggest tools that can be employed.

Table 1. Impacts, outcomes and outputs in the human domain at individual level, with examples of targets, measures and tools for data collection

Results chain	Examples of targets	Examples of measures	Examples of tools
Impacts	Empowerment of farmers	Signs of continued learning; capacity to create opportunities, take action	In-depth interviews; focus group discussion
	Quality of life	Wellness; sense of belonging; time to spend positively; access to health services, education level	In-depth interviews; focus group discussion; observation
Outcomes-2	Confidence, motivation	Self-perceived confidence level; number of exchanges with other farmers; sense of purpose	Questionnaire survey; in-depth interviews
	Change of attitude, perception, mindset	Self-perceived change in attitude, mindset	Case studies; in-depth interviews
	Improved nutrition	Number of meals, food groups; household dietary diversity score	Questionnaire survey; focus group discussion
Outcomes-1	Decision-making capacity	Tracing how decisions were made, trade-offs, scenarios considered	Case studies; in-depth interviews; number of decisions made; scenarios
	Critical thinking	Signs of interest in the causes of problems and ways to solve them	In-depth interviews
	Questioning of existing norms/habits	New norms accepted, critical about some old cultural habits	Case studies; in-depth interviews
	Innovation, experimentation	Number, sequence and results of farmer studies	Questionnaire survey; focus group discussion; monitoring reports; observation
	Problem-solving	Number or examples of solved problems	Case studies; in-depth interviews

Results chain	Examples of targets	Examples of measures	Examples of tools
Outputs	Strengthened skills of analysis and adaptation	Level of participation in agroecosystem analysis (AESA); quality of analysis in AESA Improved water smart crop management skills including water use efficiency, nutrition and pest issues or Improved livestock management practices, including hygiene and sanitation issues	Appraisal of AESA; participant observation
	Increased knowledge, awareness	Knowledge scores; number of master trainers and farmers trained per topic	Knowledge surveys (e.g. FFS ballot box test); percent farmers graduated; pre-post test results; follow-up action after graduation

Source: Adopted from Van den Berg, H., Phillips, S. & Morales-Abubakar, A.L.C. 2023. Monitoring, evaluation and learning in farmer field school programmes – A framework and toolkit. Rome. <https://doi.org/10.4060/cc5160en>

Table 2. Impacts, outcomes and outputs in the social domain, with examples of targets, measures and tools for data collection

Results chain	Examples of targets	Examples of measures	Examples of tools
Impact	Good cooperation at household and group level	Signs of organizational structure; joint planning; common funds	In-depth interviews; focus group discussion
	Empowerment of the farmer group	Signs of continued learning by the group; control over use of resources/money; creation of new opportunities; contributions made	In-depth interviews; focus group discussion
	Leadership and community development	Number of leaders, women leaders; vision promoted; motivating community members; bylaws developed	Case studies, focus group discussion; key informant interviews
Outcomes-2	Group decision-making	Number of decisions taken by group; number of members contributing to a decision	Questionnaire survey; focus group discussion
	Collective action	Percent of groups with joint action implemented; numbers and types of actions; participants per action	Questionnaire survey; focus group discussion
	Level of access to agroclimate information services	Percent of groups receiving regular information on technologies, climate forecasting	Questionnaire survey; focus group discussion
	Increased role of women in decision-making	Number and type of decisions taken by or with woman at the level of household, group, community	Questionnaire survey; in-depth interviews
	Reduced conflict in the household, community	Role-sharing in household tasks; number of conflicts; harmony in relationships; mutual respect	Questionnaire survey; in-depth interviews; case studies

Results chain	Examples of targets	Examples of measures	Examples of tools
	Responsibility for use of natural resources	Number and type of actions to protect/enhance natural resources	Questionnaire survey; focus group discussion
Outcomes-I	Trust, group cohesion	Group dynamics (friendship, respect, rivalry, cooperation), percent active group members; gender inclusion; social inclusion	Questionnaire survey; in-depth interviews; case studies; focus group discussion
	Speaking out, reaching out	Number and type of contacts with authorities, neighbouring farmers	Questionnaire survey; in-depth interviews
Outputs	Skills of presenting, communicating, teamworking, negotiation	Equitable participation in FFS presentations/discussions	Participant lists; participant observation

Source: Adopted from Van den Berg, H., Phillips, S. & Morales-Abubakar, A.L.C. 2023. Monitoring, evaluation and learning in farmer field school programmes – A framework and toolkit. Rome. <https://doi.org/10.4060/cc5160en>

Table 3. Impacts, outcomes and outputs in the natural domain, with examples of targets, measures and tools for data collection

Results chain	Examples of targets	Examples of measures	Examples of tools
Impacts	Sustainable production system	Increased water use efficiency; stable yields; reduced reliance on chemical fertilizers and pesticides	Longitudinal or retrospective surveys
	Reduced food insecurity	Access to diverse food sources; size and frequency of meals; feeling of anxiety over food quantity/quality	Questionnaire survey; in-depth interviews
	Sustainable ecosystem services	Constant or enhanced availability of water, soil fertility (with compost and manure fertilization), pollination, natural control agents	Longitudinal study with systematic design
Outcomes-2	Improved food production	Yield per ha; crop cycles per year; post-harvest loss	Questionnaire survey
	Improved biodiversity, crop diversification, cropping pattern, natural resource management	Shift in sowing season; Area under inter/multicopying; rotations; density of pollinators, natural control agents, fodder conservation and reforestation	Questionnaire survey; systematic entomological surveys
	Increased conservation of natural resources	Forested area protected by bylaws	Focus group discussion; key informant interviews
Outcomes-1	Increased adaptation of ecosystem management practices	Percent of FFS alumni knew the relevant resilient practices; Percent of FFS alumni using improved and locally appropriate resilient practices	Questionnaire survey
	Improved efficiency in the	Area under cultivation increased by water saving, water use efficiency	Questionnaire survey; sales data

Results chain	Examples of targets	Examples of measures	Examples of tools
	use of farm inputs	increased, amount of seed, fertilizer and pesticide inputs per ha; percent of FFS alumni reducing overuse of inputs (water, seed, fertilizer, pesticides etc.)	
Outputs	AESA skills, technical skills	Active participation in FFS; quality of AESA; quality of decisions	Participant lists; appraisal of AESA; participant observation
	Knowledge of practices, climate influences	Level of knowledge about what was taught	Knowledge surveys; pre-post test results

Source: Adopted from Van den Berg, H., Phillips, S. & Morales-Abubakar, A.L.C. 2023. Monitoring, evaluation and learning in farmer field school programmes – A framework and toolkit. Rome. <https://doi.org/10.4060/cc5160en>

Table 4. Impacts, outcomes and outputs in the financial domain, with examples of targets, measures and tools for data collection

Results chain	Examples of targets	Examples of measures	Examples of tools
Impacts	Financial security	Household spending on water, food, education, health; surplus spending; stability of income	Questionnaire survey; in-depth interview
	Improved living conditions	Percent houses with paved floor; mobility; presence of kitchen, toilet, electricity, etc., percent of time dedicated to work (incl. domestic work) vs leisure	Questionnaire survey; in-depth interview
	Sustainable, inclusive and responsive markets	Signs of market adapting to the needs of farmers (incl. women), and to new (value added) products	Key informant interviews; case studies; market research
Outcomes-2	Access to loans; savings	Presence of Village savings and loans schemes; amount of loans, savings; presence of local banks	Questionnaire survey; focus group discussion; data from local banks
	Accumulation of physical assets	Amount of water stored, land, number of livestock owned; percent households with phone, radio, bike, stone floor, metal roof, etc.	Questionnaire survey; focus group discussion
	Premium quality of produce	Value addition; selling price; number of certified farms	Questionnaire survey; focus group discussion
Outcomes-1	Reduced input cost, increased profits	Input costs; production outputs; profits per ha	Survey of farm logbooks; cost benefit analysis
	Diversification of income sources	Number of income sources per household; presence of non-farm income in households	Questionnaire survey; focus group discussion
	Market access, linkage established	Contact with cooperatives; signs of promotion of produce;	Focus group discussion

Results chain	Examples of targets	Examples of measures	Examples of tools
Outputs	Skills of tracking costs, analysing cost-benefit	Active participation in FFS; number of farmers keeping records, logbooks	Participant lists; survey of farm logbooks
	Marketing skills	Knowledge of break-even price; negotiation skills; contract signing	Questionnaire survey; focus group discussion
	Market research carried out	Records of market research; best commodity and timing identified	Questionnaire survey; focus group discussion

Source: Adopted from Van den Berg, H., Phillips, S. & Morales-Abubakar, A.L.C. 2023. Monitoring, evaluation and learning in farmer field school programmes – A framework and toolkit. Rome.
<https://doi.org/10.4060/cc5160en>

Climate-smart Farmer Field School data forms and data book

This chapter unveils a suite of meticulously designed forms that serve as essential tools for CS-FFS facilitators and practitioners, ensuring seamless adherence to field school standard operating procedures (SOPs) and protocols. Each form is strategically crafted to address specific aspects of the CS-FFS operational landscape, facilitating efficient data collection and analysis. The comprehensive set of forms collectively contribute to the structured and systematic execution of CS-FFS programs.

As we explore each of these forms¹ in detail, it becomes evident that they not only serve as data collection instruments but also as catalysts for informed decision-making within the CS-FFS framework. By examining the purpose and implementation of these forms, this chapter illuminates the pivotal role they play in maintaining the integrity, efficacy, and data governance of the CS-FFS approach.

Form-a	Needs assessment	A form used to assess the specific requirements and challenges faced by farmers to align CS-FFS initiatives with their actual needs. It helps in selection of learning module and setting curriculum of the field school.
Form-b	Village profiling	This form captures vital information about the community, providing a foundation for tailored interventions and program planning.
Form-c	Curriculum development form	Shapes training content and ensures alignment with learning objectives and participant needs within the CS-FFS curriculum.
Form-d	Members profile	Registration of CS-FFS members with basic credentials required for baseline analysis and beneficiary justification and record.
Form-e	Farmers organization	Documents the structure and composition of CS-FFS farmer organization along with its elected leadership and sub-groups profiles.

¹ Many of the forms have been substituted with the digital application available to all CS-FFS of the BRCCJ project – please check before filling out paper forms.

From-f	Farmers attendance	Records attendance during CS-FFS sessions, aiding in monitoring and evaluation efforts of participant engagement.
From-g	Host farmer consent	Ensures ethical considerations are met when engaging with local farmers for learning purposes on their land.
From-h	Session planning and implementation progress	Facilitates the planning and execution of CS-FFS sessions, ensuring that learning objectives are met effectively.
From-i	Science by farmers – experiments inventory	Documents field studies or experiments conducted by farmers, capturing valuable data for farmer-led research and learning purposes within the CS-FFS program.
From-j	Learning plots financial/physical inventory	Records financial and physical inventory of learning plots, facilitating cost-benefit analysis for learning plots for validation of practices.
From-k	Graduation assessment	Assesses the progress and achievements of participants, determining their readiness for graduation from the CS-FFS program

Form-a. Need assessment

The CS-FFS need assessment form plays a crucial role in shaping the foundation of our learning site and guiding the facilitators in selecting appropriate topics, crops, and CSA practices. The form is structured into various sections, commencing with general information about the village, facilitating organization, and date of assessment. The general profile section employs a rating scale to assess the village's preparedness for hosting the CS-FFS, covering aspects such as the availability of farmers, meeting spaces, and vulnerability considerations.

Moving on to the cropping/farming system section, the form evaluates the village's current cropping system, assigning ratings to different crops' significance in the overall system. In the CSA Practice's Potential section, potential adoption of various CSA practices is assessed through a rating scale, providing valuable insights into the village's readiness for implementing these practices.

The form further explores the interest level and willingness of farmers in engaging with specific CSA related agri-enterprises. This section prioritizes various enterprises such as cereals value chain, orchards, high-value vegetables, oil crops value chain, seed bank, crop nurseries, plants nurseries, farm services, and others.

To address risks and challenges and community responses to the Farmer Field School establishment, the form encourages facilitators to provide recommendations based on their assessment. Finally, the overall rating of the village's suitability for CS-FFS is determined, leading to the facilitators' decision on the assessed topic and technologies.

The form concludes with the signature of the facilitator, master facilitator, and technical clearance from the FFS specialist/district officer, ensuring its validity and authenticity. The facilitator's certification and a disclaimer acknowledge the accuracy of the information provided, emphasizing the importance of the need assessment form in the establishment of the CS-FFS.

Table 5. Climate-smart Farmer Field School need assessment form

a1. Introduction	
Village Name:	
Directorate	
District:	
Governorate	
Facilitator:	
Date of Assessment	

a2. General profile

Parameter	Yes or no	Remarks
Village Profile developed	Yes <input type="checkbox"/> No <input type="checkbox"/>	
No. of Farmers interested in CS-FFS		
Available for weekly/ fortnightly /monthly meetings	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Willing to provide Learning plots	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Suitable meeting place available	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Accessibility to all members	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Demonstration criteria suitability	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Vulnerability	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Climatic risks to FFS crops	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Family farmers Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	

a3. Cropping/ farming system

Rating scale: 0-10 (least to highest/ or 0=no, 1=10 percent.....10=100 percent)

Crops /Cropping system	Rating (1-10) or percent	Remarks

a4. CSA practices potential

Rating scale: 0-10 (least to highest/ or 0=no, 1=10 percent.....10=100 percent)

CSA practices ²	Rating 1-10 or percent	Remarks

² For example: Sub-surface irrigation, drip irrigation, hydroponic, strip tillage, zero-tillage, draught tolerant variety, wicking beds, grown bags, azolla hydroponic, hydroponics, intercropping, composting, green, manuring, mulching, IPM, crop rotation, cover cropping, etc.

a5. CS-FFS agri-enterprises assessment

Rating scale: 0-10 (least to highest/ or 0=no, 1=10 percent.....10=100 percent)

#.	Enterprise	Interest level (willingness) (rating 1-10 or percent)	Potential member? (no. of farmers)	Relevant resources availability	Rank (prioritize enterprise)
1	Cereals ³ value chain			<input type="checkbox"/> Yes <input type="checkbox"/> No	
2	Orchards			<input type="checkbox"/> Yes <input type="checkbox"/> No	
3	High-value vegetables			<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	Oil crops value chain			<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	Medicinal plants			<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	Floriculture			<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	Seed bank			<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	Crop nurseries			<input type="checkbox"/> Yes <input type="checkbox"/> No	
9	Plants nurseries			<input type="checkbox"/> Yes <input type="checkbox"/> No	
10	Farm services ⁴			<input type="checkbox"/> Yes <input type="checkbox"/> No	
11	Other			<input type="checkbox"/> Yes <input type="checkbox"/> No	
12	Other			<input type="checkbox"/> Yes <input type="checkbox"/> No	
13	Other			<input type="checkbox"/> Yes <input type="checkbox"/> No	
14	Other			<input type="checkbox"/> Yes <input type="checkbox"/> No	
15	Other			<input type="checkbox"/> Yes <input type="checkbox"/> No	

³ Cereals: Wheat, barley, oats, rye, sorghum, corn/maize, quinoa, buckwheat, millet, etc.

⁴ Farm Services: Advisory, supervisory, management, inputs, machinery, tools, storage etc.

Risks and challenges for Farmer Field School

Community response for Field School establishment

Recommendations by the facilitators team

Overall rating of the Village suitability for CS-FFS on the assessed topic and technologies

Final decision

I certify that this form is dully filled up and is true to my best of knowledge. I also understand that CS-FFS establishment is invalidated when this form is not in use.

Name of facilitator

Signature

Date

Technical clearance

MOA Officer /Master Facilitator

Signature

Date

Source: Authors' own elaboration.

Form-b. Village profiling

The village profiling form serves as a crucial tool in capturing essential data and establishing a baseline for evaluating the effectiveness of the CS-FFS training program within our community. This comprehensive form is designed to systematically document basic information pertinent to our village, providing an evidence-based foundation for program assessment and future planning. By recording key metrics related to agriculture, demographics, infrastructure, and resource utilization, the form enables us to gain a holistic understanding of our Village's socio-economic landscape.

Table 6. Climate-smart Farmer Field School village profiling form

CS-FFS name	_____	Village name	_____
District	_____	Governorate	_____
Total agriculture land of the village	_____ dunum	Village population	_____ HHs
No. of disables	_____ Persons	No. of women headed households	_____ HHs
Farmers organization Name	_____	No. of farmers Households	_____ HHs
Name of crop (winter and summer)	Sowing month	Average production (last year) per dunum	

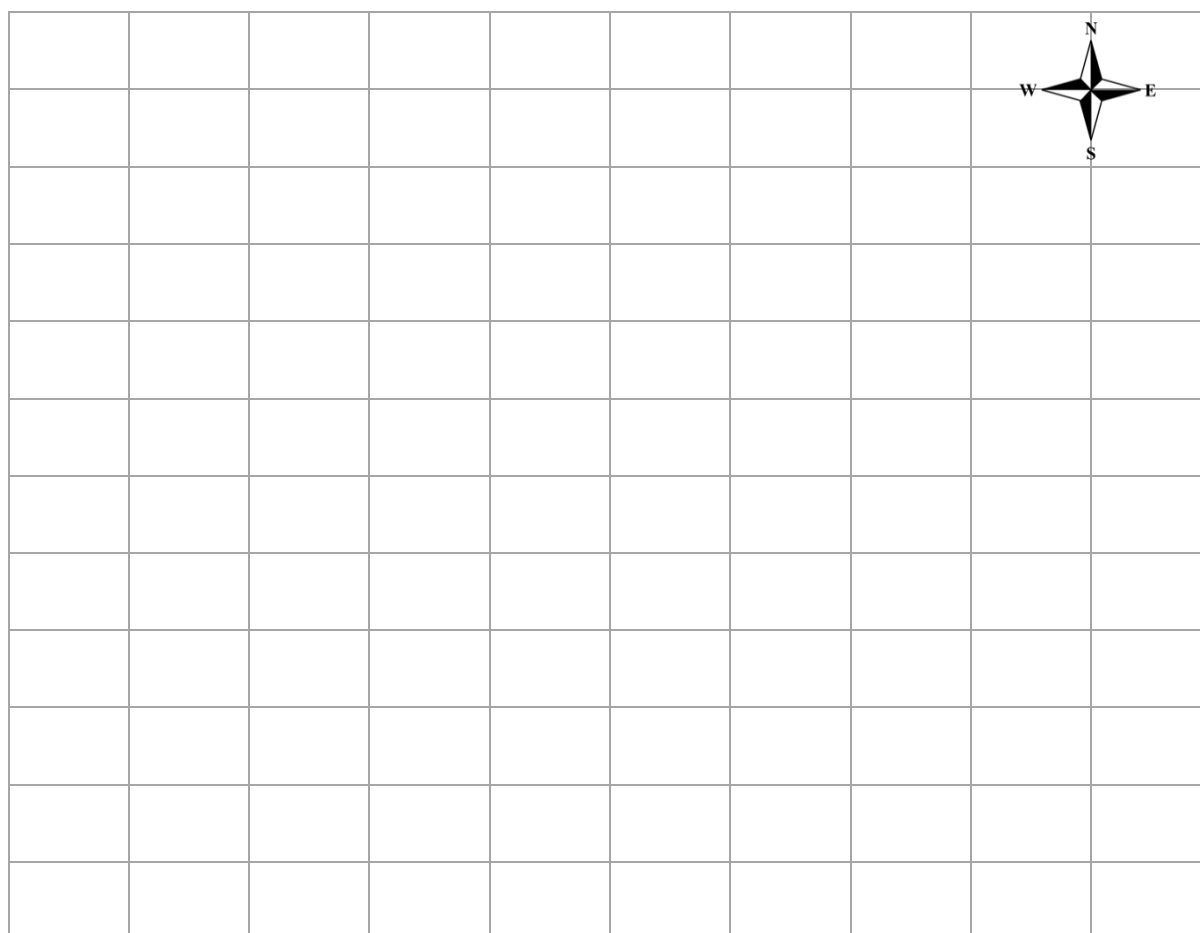
No. of large animals	_____	No. of small animals (goats)	_____
No. of poultry birds	_____	No. of small animals (sheep)	_____
Water harvesting structures (no.)	_____	No. of farmers using drip irrigations systems	_____
No. of wells	_____	No. of farmers having greywater treatment units	_____
No. of tractors	_____	No. of food processing units	_____
Irrigation channels (km)	_____	No. of greenhouse farms	_____
Date of first session	<input type="text"/>	Date of last session	<input type="text"/>

Source: Authors' own elaboration.

CS-FFS site map

The CSA FFS learning site map is a vital component of our data book, providing detailed information about the learning site's layout, road connectivity, and the arrangement of learning plots dedicated to various CSA practices. This comprehensive map serves as an essential tool for guiding visitors, stakeholders, and researchers alike. With clear and concise directions, it ensures easy access to the site from all directions. By incorporating considerations for road connectivity and layout design, the map aims to facilitate seamless navigation and accessibility for all visitors. Additionally, the map meticulously highlights the designated areas within the learning site where CSA practices are implemented. It delineates specific learning plots dedicated to techniques such as agroforestry, soil conservation, water management, and sustainable crop cultivation. Through this visual representation, the map not only enhances the visitor's understanding of the site's layout but also underscores our commitment to promoting and demonstrating CSA practices in a structured and accessible manner.

Figure 3. Climate-smart Farmer Field School learning site map



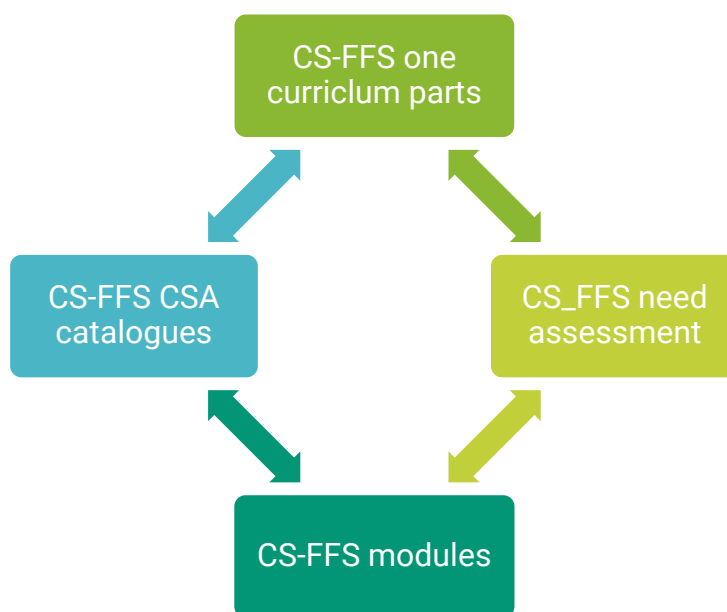
Source: Adapted from Khalid. J.M. 2023. Farmer Field School data record book. 9th Edition. Multan. FAO.

Form-c. Climate-smart Farmer Field School curriculum development form

In the realm of CS-FFS curriculum development, facilitators play a pivotal role in crafting a curriculum tailored to the specific needs of their field school. This process begins with a comprehensive need assessment of the CS-FFS, wherein facilitators utilize a designated form aligned with their chosen CSA practices, crops, cropping systems, agricultural enterprises, or learning practices. The resulting curriculum becomes a strategic guide for planning and executing field school sessions, ensuring their successful implementation. Moreover, it facilitates the timely acquisition of necessary inputs and learning materials, contributing to the overall efficiency of the educational endeavour. It is imperative to acknowledge that while the content selection outlined above is not final for the field school training session, it remains flexible to potential adjustments based on the final planning, incorporating valuable feedback from CS-FFS member farmers. This adaptive approach enhances the organization of learning materials, session planning, and the ultimate success of the delivery.

The following parts of the learning materials should at-least be considered to prepare the curriculum of CS-FFS.

Figure 4. Learning parts of Farmer Field School to prepare the curriculum



Source: Authors' own elaboration.

Table 7. Session plan development

Climate-smart Farmer Field School

Climate-smart Farmer Field School (women)

Session no.		Date	
Session title			
Facilitator			
Learning module			

Agricultural calendar

Crop production or agri-enterprise business stage

Learning technology

Climate-smart agriculture practice(s)

Field practices

What field practices will be happening in the crop/farm at this time?

- Contract-making
- Soil analysis
- Land Preparation
- Seed selection
- Seed germination test

- Sowing
- Use of organic fertilizers
- Use of chemical fertilizers
- Irrigation
- Pruning
- Weeding

- Re-filling
- Pest Management
- Seed production
- Harvest (picking or cutting)
- Grading (rating)
- Packaging

- Transportation
- Storage
- Marketing
- Consumption
- Waste management
- other

Special topic

Special topic selected on the above situations or the selected training module.

Agricultural skills

Write the name of the agricultural skills that will be taught in this session.

Agricultural experiments

Enlist the possible experiments on the above-mentioned agronomic factors.

Session agenda⁵

Possible agenda of the day that can be selected for the day.

- School anthem
- Repeat

- Agroecological analysis
- Insect Zoo
- Special content

- Experiences
- Informal educational activity/sports

- Today's question
- attendance
- Other

Special note: Something special that is not mentioned above.

Source: Authors' own elaboration.

⁵ The content selection above is not final for the field school training session. It may vary based on the final planning of the session, considering feedback from CS-FFS member farmers. However, it will aid in organizing the learning materials, annual session plan, and successful delivery.

Annual session plan development

The annual sessions outline should be created either in the training of facilitators (TOF) training course or session wise just before organizing the CS-FFS session accordingly. Each CS-FFS module has been provided with CS-FFS implementation calendar which can further be customized for sessions-wise planner. It is advisable to avoid pre-designed actual sessions schedule in advance as per the FFS participatory learning principles and guidance document (Khalid J.M. *et al.*, 2024a, 2024b, 2024c, 2024d, 2024e, 2024f).

Table 8. Annual session plan development

Name of CS-FFS module: _____

#.	Sessions title	Main field learning activities	Group dynamic	Special topic	Learning skills	Date of session	Time duration (hours)	Facilitator
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

Source: adapted from Khalid J.M. *et al.*, 2024a,2024b, 2024c, 2024d, 2024e, 2024f

Form-d. Climate-smart Farmer Field School members' profile

The CS-FFS members' profiles delve into the diverse backgrounds and characteristics of the individuals participating in the FFS program. Recognizing the importance of inclusivity and representation, this provides a comprehensive overview of the CS-FFS members, considering factors such as gender, disability, and various demographic details. Each profile includes essential information such as name, gender, age, educational background, farming experience, land ownership details (including owned, leased, and tenant land), and the number of large animals, small animals, and poultry birds owned by the member. Additionally, the profiles include national identity numbers, contact information, and details of their relationship within the community. By compiling these profiles, the chapter aims to highlight the diversity and unique contributions of CS-FFS members while also emphasizing the inclusive nature of the program, which welcomes individuals from all backgrounds and abilities to participate in the collective learning journey towards sustainable agriculture practices.

Table 9. Climate-smart Farmer Field School members' profile

#.	Name	Father/ husband name	Gender	Age	Education (yrs)	Farming experience (yrs)	Own land (dunum)	Lease land (dunum)	Tenant (dunum)	Large animals (no.)	Small animals (no.)	Poultry birds (no.)	National identity no.	Relationship	Contact no.	Disability
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																

Source: Adapted from Khalid. J.M. 2023. Farmer Field School data record book. 9th Edition. Multan. FAO.

Form-e. Farmers organization chart

The organization of the CS-FFS is structured to ensure effective leadership, representation, and democratic participation among its members. One of the key features of the CS-FFS organization is its emphasis on democratic processes. Farmers participating in the program are trained in democratic principles and practices, empowering them to actively engage in the election of their leadership and decision-making processes. This ensures transparency, accountability, and ownership among members, leading to the smooth functioning of the CS-FFS training program and fostering a sense of collective responsibility towards achieving its objectives.

At the core of this organization is the elected body, comprised of dedicated individuals from the farming community who have been democratically chosen to lead and oversee the activities of the CS-FFS. These leaders play a pivotal role in decision-making, resource allocation, and program implementation, ensuring all members' interests and needs are considered.

In addition to the elected body, the CS-FFS consists of various subgroups, each focusing on specific aspects of climate-smart agriculture and related practices. These subgroups, led by experienced members of the farming community, serve as platforms for knowledge sharing, skill development, and collaborative learning. Members of the CS-FFS are actively involved in these subgroups, contributing their expertise and experiences while gaining valuable insights from their peers.

Table 10. Climate-smart Farmer Field School farmers organization profile

Name of organization			
President			
General secretary			
Finance secretary			
Group A			
Group leader			
Member		Member	
Member		Member	
Group B			
Group leader			
Member		Member	

Member		Member	
Group C			
Group leader			
Member		Member	
Member		Member	
Group D			
Group leader			
Member		Member	
Member		Member	
Group E			
Group leader			
Member		Member	
Member		Member	

Source: Adapted from Khalid. J.M. 2023. Farmer Field School data record book. 9th Edition. Multan. FAO.

Form-f. Attendance sheet

In the context of the CS-FFS, maintaining an attendance register for each session is imperative to provide concrete evidence of attendance, participation, and adherence to graduation certification criteria for CS-FFS members. This attendance register serves as a crucial document, meticulously recorded and regularly updated by the facilitators on a real-time basis. It captures vital information about the attendance of each member during every session throughout the CS-FFS program. The attendance register plays a pivotal role in determining eligibility for graduation certification, as it serves as tangible evidence of a member's consistent involvement and commitment to the CS-FFS curriculum. As such, the maintenance of this register is of utmost importance, reflecting our dedication to transparency, accountability, and the successful implementation of the CS-FFS program.

Table 11. Climate-smart Farmer Field School attendance sheet

#.	Name	Sessions date	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7	Session 8	Session 9	Session 10	Session 11	Session 12	Session 13	Session 14	Session 15	Session 16	Session 17	Session 18	Session 19	Session 20	Total Atte...	Percentage
1																								
2																								
3																								
4																								
5																								
6																								
7																								
8																								
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22																								
23																								
24																								
25																								
Total																								

Source: Adapted from Khalid. J.M. 2023. Farmer Field School data record book. 9th Edition. Multan. FAO.

Form-g. Host farmer consent form

We, the undersigned CS-FFS members, hereby acknowledge and consent to allocate the following plots for practical training purposes for the year _____, without any expectation of compensation:

Furthermore, we understand and agree that in the event of any productivity decrease or increase during the training period, neither party – the institution nor ourselves – shall make any demands or claims for compensation. We acknowledge that this arrangement is solely for the facilitation of practical training for the benefit of all members of the CS-FFS.

We commit to providing full cooperation and support throughout the training sessions and affirm our understanding of the mutual agreement outlined herein.

Name	Plot size (dunum)	Start date	Close date	Signature

Name of CS-FFS president: _____

Date: _____

Signature: _____

Name of CS-FFS Facilitator: _____

Date: _____

Signature: _____

Source: Adapted from Khalid. J.M. 2023. Farmer Field School data record book. 9th Edition. Multan. FAO.

Form-h. Farmer Field School session planning and progress

The CS-FFS session planning and implementation progress form facilitates meticulous planning and execution of activities crucial for successful CS-FFS. It includes details on activities, required materials, time duration, and feedback upon session delivery. This form ensures systematic record-keeping and fosters effective implementation of the CS-FFS curriculum, serving as a valuable tool in promoting sustainable agricultural practices among farmers.

Table 12. Climate-smart Farmer Field School session planning form

Meeting no. _____ Date _____
 Day _____ Session time _____
 No. of participants (Attendance) _____

#.	Activity	Required material	Time duration	Progress (after session delivery)
Achievements detail:				
Signature Facilitator			Signature Master Facilitator/ Supervising Officer	

Source: Authors' own elaboration.

Form-i. Science by farmers – Experiments inventory

The science by farmers – experiments inventory form for CS-FFS is designed to document farmer-led experiments. It includes sections for experiment name, hypothesis, required materials, procedure, data recording, results analysis, and conclusion. This form supports the comparative learning approach of FFS, where farmers set up learning plots of various sizes to explore questions and hypotheses. By engaging in hands-on experimentation, farmers become experts through experiential learning, embodying the "learning by doing" principle.

Table 13. Science by farmers – Experiments inventory

Meeting No. _____ Date: _____	
Name of experiment /plot exercise	
Hypothesis	
Required material	
Procedure /methodology	
Results	
Analysis and conclusion	

Source: Authors' own elaboration.

Form-j. Learning plots financial/physical inventory

The learning plots financial/physical Inventory system is designed to maintain records of both financial and physical inventory related to learning plots. These learning plots serve as experimental areas for testing and validating various agricultural practices. By recording and analysing the financial and physical aspects of these plots, the system enables comprehensive cost-benefit analysis, aiding in decision-making processes related to the validation of agricultural practices.

Table 14. Climate-smart Farmer Field School learning plots financial/physical inventory

Currency (JDN)						
#.	Date	Activity /action	Rate	Quantity	Total amount	Responsible

Source: Adapted from Khalid. J.M. 2023. Farmer Field School data record book. 9th Edition. Multan. FAO.

Form-k. Climate-smart Farmer Field School graduation certificate

assessment form

The graduation certificate assessment form serves as a comprehensive tool for evaluating the training participation and finalization of farmers who have successfully completed the CS-FFS program with an attendance rate of 80 percent or higher.

This form:

- Encapsulates essential details pertaining to the project, CS-FFS name, village name, CS-FFS organization name, and key facilitators involved in the training process
- It outlines the various components of the CS-FFS curriculum, focusing on the implementation and testing of CSA practices in learning plots
- The form meticulously documents the delivery of training sessions, including module completion, scheduled and informal meetings, and registration and dropout rates among participating farmers.
- It tracks the number of farmers who have graduated with the requisite attendance and proficiency in FFS skills.
- The form evaluates the organization of field days and exposure visits, providing insights into the practical application and knowledge exchange within the program.

By facilitating the systematic assessment of training outcomes and participant engagement, this form ensures accountability and transparency in the certification process. The signatures of both the facilitator and master facilitator authenticate the accuracy of the information provided, reinforcing the commitment to quality training delivery and farmer empowerment in sustainable agricultural practices.

Table 15. Climate-smart Farmer Field School graduation certificate assessment

CS-FFS name	
Village name	
CS-FFS name	
CS-FFS facilitator	
Supporting facilitator	
Cropping system/learning topic	

Climate-smart agriculture practices implemented /tested at the CS-FFS learning plots

#.	CSA practice	Completed	Ongoing
1-			
2-			
3-			
4-			
5-			

Training sessions delivered and graduation			
First session date		Last session date	
No. of sessions as per curriculum		No. of sessions out of curriculum	
No. of scheduled meetings		No. of informal meetings	
No. of farmers registered		No. of dropout farmers	
Farmers graduated with ≥ 80 percent attendance		Farmers graduated with the learning of ≥ 50 percent recommended CS-FFS skills	

Field day organized (Y/N)		Total participation in field day	
Exposure visit organized (Y/N)		No. farmers participated in exposure visit	
Recommended graduation ceremony date:			

Attendance analysis (all CS-FFS participant)				
#.	Name	Session attended (no.)	Attendance percentage	Certificate award (Y/N)
1-				
2-				

I hereby declare that the above-mentioned information is accurate to the best of my knowledge and belief.

Signature of facilitator

Name:

Date:

Signature of master facilitator

Name:

Date:

Source: Authors' own elaboration.

Climate-smart Farmer Field School level of achievement

At the heart of the CS-FFS approach lies a set of fundamental principles that serve as guiding lights throughout the training program. These principles, including "grow healthy crop," "observe crop regularly," "conserve natural ecosystem," and "farmer becomes expert," form the cornerstone of agricultural education and empowerment within the CS-FFS initiative.

In this chapter, we delve into the matrix for assessing the implementation and achievement levels of each principle, recognizing their pivotal role in realizing the educational objectives of CS-FFS. Departing from any of these basic principles can have detrimental effects on the overarching goals of farmer education through the CS-FFS approach. Therefore, this chapter not only provides a comprehensive overview of these principles but also classifies them into distinct achievement indicators, which are further evaluated using a predefined scale. By examining the level of achievement for each principle, we gain valuable insights into the effectiveness and impact of FFS training, ultimately guiding future interventions and fostering continuous improvement within the agricultural education landscape.

Form-I. Level of achievements form

Table 16. Level of achievements form (circle appropriate level)

CS-FFS Principle	1 (baseline)	2	3	4	5 (best)
Grow healthy crop (learning plot vs farmer practice/control plot)					
Adopted resilient variety	No				Yes
Adopted low water footprint technologies/practices	no change	1 practice	2–3 practices	4–5 practices	>5 practices
Water use efficiency	no change	1–10 percent	10–20 percent	20–30 percent	>30 percent
Reduction of pesticides	no change	less 1–2 sprays	less 3–5 sprays	less 6–10 sprays	less >10 sprays
Increase in use of farmyard manure	no use	1 time	2 times	With every chemical fertilizer/irrigation	Only farmyard manure
Increase in production	no change	1–10 percent	10–20 percent	20–30 percent	>30 percent
Increase in Income	no change	1–10 percent	10–20 percent	20–30 percent	>30 percent
Observe field regularly (Agroecosystem analysis)					
AESA	no AESA	<10 AESA	>10 AESA	End of season review of AESA	Complete seasonal calendar
Weather advisory considered	No consider	Consider occasionally	Consider 25 percent decisions	Consider for up to 50 percent decisions	consider for >50 percent decisions

CS-FFS Principle	1 (baseline)	2	3	4	5 (best)
Record keeping	No record keeping	Only product sale record	Only major expenses record	Both expenses and income record regularly	Do cost-benefit analysis
Use of digital tools for advisory	No use	Only on planting	On extreme weather	Regular	each decision
Linkages development (public, private sector service providers)	No	Consult local farmers only	Contact once in a season	Contact occasionally	Contact regularly
Conserve natural ecosystem and resources					
Water use efficiency	No	1–10 percent	11–20 percent	21–30 percent	>30 percent
no. of water smart techniques implemented	0	1	2	3	>3
Reduce water application budget	0	<10 percent	10–20 percent	21–30 percent	>30 percent
Reduce chemical fertilizer input	0	<10 percent	10–25 percent	26–50 percent	>50 percent
No. of insects Predators identified	0	1–2	3–5	5–10	>10
No. of insects' pests identified	0	1–2	3–5	5–10	>10
No. of weeds identified	0	1	2–3	4–5	>5
No. of diseases identified	0	1	2	3	>3
Farmer as expert (farmer science)					

CS-FFS Principle	1 (baseline)	2	3	4	5 (best)
Number of AESA/case studies analysed	0	1–4	5–9	10–20	>20
Learning Experiments designed	0	1–2	3–4	4–5	>5
Decision making criteria – factors considered while making decision (AESA parameters/ factors)	1 factor	2 factors	3 factors	4 factors	>4 factors
Organization development	No	Group formed	Leadership selected	Leadership elected	Leadership elected twice in year
Innovation	No	Follow CSA packages	Integrated local resources	Created own packages	Other farmers adopted
Food security, family nutrition and enterprise development (food availability at HH level, Nutrition sensitization, income generation activities started, and enterprise developed)					
No. of vegetables growing per season	0	1–2	3–6	7–9	>10
Nutrition messages delivered	0	<5	5–10	10–15	>15
No. of pregnant and child feeding women participated	0	<10 percent	10–25 percent	26–50 percent	>50 percent
No. farmers marketed the vegetables	0	<10 percent	10–25 percent	26–75 percent	>75 percent
Average increase in Income generated per household	0	<5 percent	5–10 percent	11–25 percent	>25 percent

CS-FFS Principle	1 (baseline)	2	3	4	5 (best)
Entrepreneurship development	Lease out farm	Sale produce at farm gate	Sale in local market	Contracts based marketing	Adopt collective marketing
Marketing mode	Self	Hawkers	Village shop keeper	Urban local market	Processing unit
Cross cutting (gender, occupational health safety, environmental and social safeguards (ESS) etc.)					
Registered seed variety adopted	No				Yes
Protective measures adopted while applying chemicals	No	Just understood	Adopt partial	Adopt regular	Complete
Child labour	Child labour	Partial compromise on health and education	Help in hard work in supervision	Only help in soft work in supervision	No child labour
Use of pesticides	Non judicious use				Judicious use

Source: Adapted from Khalid. J.M. 2023. Farmer Field School data record book. 9th Edition. Multan. FAO.

Environmental and social safeguard policy achievements

The integration of ESS policies within the FFS approach represents a crucial step towards ensuring sustainable agricultural development. In this chapter, we delve into the comprehensive framework established by the CS-FFS initiative to achieve and uphold ESS policy considerations throughout its implementation. By focusing on key ESS policy indicators, this chapter highlights how CS-FFS not only educates farmers on environmental and social issues but also advances the broader agenda of sustainable development within FFS communities.

From the outset, the CS-FFS initiative has meticulously identified policy triggers and screening criteria, ensuring that project activities align with environmental and social impact mitigation measures. Mitigation actions are strategically designed to avoid, minimize, and mitigate negative impacts in accordance with FAO and Green Climate Fund (GCF), ESS policies and national legislation. This proactive approach extends to stakeholder engagement modalities and the establishment of a Grievance Redress Mechanism, underscoring the commitment to transparent and participatory decision-making processes.

Within the realm of natural resources management (ESS 1), CS-FFS addresses risks associated with water resource utilization through the implementation of rooftop rainwater harvesting structures and water-saving devices. By adhering to Jordanian legal frameworks and international standards, such as World Health Organization (WHO) guidelines, the initiative ensures responsible water management practices. Similarly, in the domain of plant genetic resources for food and agriculture (ESS 3), CS-FFS prioritizes the use of drought-tolerant and water-efficient seed varieties, emphasizing the importance of preserving genetic diversity for long-term sustainability.

Moreover, CS-FFS actively promotes decent work principles (ESS 7) by targeting marginalized groups such as women and youth, ensuring equitable participation and benefit-sharing in project activities. Occupational health and safety risks are addressed through comprehensive training and the provision of protective measures, safeguarding the well-being of project workers in alignment with FAO standards.

Through the adoption of these ESS policies and practices, CS-FFS not only enhances the environmental resilience of farming communities but also fosters inclusive and sustainable development pathways. By leveraging the FFS approach and field demonstrations, CS-FFS effectively disseminates best practices and technologies, empowering farmers to become stewards of their environment while contributing to broader socio-economic objectives.

Form-m. Environmental and Social Safeguard policy achievements at

Climate-smart Farmer Field School learning

Table 17. Environmental and social safeguard policy achievements at climate-smart Farmer Field School learning

ESS policies in the CS-FFS	CS-FFS relevant action	Y/N	(1) Basic	(2) Normal	(3) Good	(4) Best
ESS-3 Plant genetic resources for food and agriculture	Use of local seed /registered seed					
	Climate resilient seed or crop					
ESS-5 Pest and pesticide management	Awareness on integrated pest management					
	Identification of friends (beneficial) and foe (pests)					
	Conserving natural predators					
	Use of safe pesticides /pesticides grades					
ESS-7 Decent work	Training on decent work					
	Record keeping					
	Protective measures adopted					
	Self-decision making/decision by ecosystem analysis					
ESS-9 Indigenous peoples and cultural heritage	Prior and inform consent					
	Mutual consensus					
	Inclusion in concerns and complaints resolution					

Source: Authors' own elaboration.

Climate-smart Farmer Field School data book

The CS-FFS data book emerges as a cornerstone tool tailored specifically for field facilitators to smartly document and manage their CS-FFS activities in real-time. Designed as a comprehensive repository of essential information, this dynamic resource serves as a compass for facilitating effective CS-FFS sessions, evaluating performance, and ultimately graduating CS-FFS farmers with confidence and proficiency.

At its core, the CS-FFS data book encapsulates a wealth of key insights crucial for the success of field schools and the facilitators steering them.

Furthermore, the CS-FFS data book provides a structured framework for session planning and implementation, empowering facilitators to seamlessly integrate Science by Farmers through experimentation while maintaining a comprehensive inventory of learning plots especially designed for cost benefit analysis of field school learnings. Through rigorous analysis of agri-business enterprises and diligent record-keeping of visitor interactions, this resource facilitates informed decision-making and fosters a culture of continuous improvement.

As facilitators navigate the complexities of the Field School environment, the CS-FFS data book serves as a steadfast companion, capturing both the triumphs and challenges encountered along the way. With its capacity to document unresolved issues and facilitate facilitator resolutions, this tool not only enhances transparency but also cultivates a spirit of accountability and collaboration within the CS-FFS community. In essence, the CS-FFS data book emerges as an indispensable asset, empowering facilitators to navigate the intricacies of Field School facilitation with precision and purpose. The following forms can be organized for the development of CF-FFS data book:

- Village profile
- Village map
- Organizing farmers
- Farmers attendance
- Session planning and implementation
- Science by farmers – Experimentation
- Learning plots inventory
- Agri-business enterprises analysis
- Visitors register
- Facilitator resolution

Climate-smart Farmer Field School field day report

Field days serve as the pinnacle event of the CS-FFS, embodying the essence of knowledge dissemination and experience sharing within the agricultural community. The field day acts as a platform for CS-FFS-trained farmers to showcase their achievements and lessons learned throughout the program, fostering a spirit of collaboration among CS-FFS participants, non-CS-FFS farmers, extension staff, and other stakeholders. Through a diverse array of exhibits ranging from cost-benefit analyses to agroecosystem assessments and insect zoo experiments, farmers elucidate the outcomes of their field studies and share practical insights gained from their experiences. These exhibits not only inform attendees but also generate local government support and foster community demand for CS-FFS.

Field day reports, meticulously compiled by facilitators, provide a comprehensive record of the event's proceedings, including highlights of discussions, farmers' post-CS-FFS plans, and attendee lists, ensuring thorough documentation of the knowledge exchange (see annex 1). By exposing non-participants to the CS-FFS group's expertise and reinforcing CS-FFS cohesion, the field day plays a crucial role in raising awareness and garnering support for CSA within the wider community and among relevant organizations.

Box 4. Field day report (sample information)

Name of reporting officer

Date, location

Description of activities

1. Exhibits of water smart technologies, composting, mulching, wicking beds, insect zoos, small studies etc.
2. Presentation of field study results
3. Speeches from guests
4. Speeches from CS-FFS farmers
5. Folk media presentations
6. Photo exhibits

Agenda (attach)

Number of participants (attach list)

List of special guests

Comments on media coverage (if applicable)

Reactions from neighbouring/non-FFS farmers and guests

Source: Authors' own elaboration.

Climate-smart Farmer Field School final report

The CS-FFS final report is a comprehensive document that captures the essence and outcomes of the CS-FFS program. It starts with general information, providing context about the location, participants, and the farming system. This includes details like the village, the main crops grown, and the number of farmers involved. It also outlines the CS-FFS program itself, noting the facilitators, the number of sessions, and key dates.

The report then delves into the specifics of the program, examining attendance patterns and the characteristics of the farmers who completed the program. This involves tracking the number of farmers present in each session and gathering demographic information like age, gender, and education level. This data helps paint a picture of the program's reach and who it has impacted.

A crucial part of the report is the assessment of learning objectives and results. This section clearly outlines the skills and knowledge farmers were expected to gain, such as growing healthy crops, conserving resources, and making informed decisions. It then provides concrete evidence of how these objectives were achieved, using measurable indicators like increased water efficiency or reduced pesticide use. Any pre- and post-training assessments are also included to demonstrate learning progress.

To gauge the level of change achieved, the report employs a rating scale to assess progress in key areas of climate-smart agriculture. This includes aspects like crop health, observation skills, resource conservation, and farmer expertise. Specific indicators guide this assessment, such as the adoption of water-saving techniques or the number of pests identified.

The report also includes detailed profiles of individual participants, capturing their background, farming experience, and land size. This provides a rich understanding of the individuals involved and their unique contexts. Additionally, an economic analysis compares the financial performance of the CS-FFS learning plots with conventional practices, analyzing income, expenses, and labor to assess profitability.

Any field experiments or trials conducted during the program are documented, outlining the objectives, methods, data, and conclusions. Finally, the report features a success story or case study, highlighting a farmer who benefited significantly from the CS-FFS. This story captures their journey, the changes they made, and the positive outcomes they experienced, providing a compelling example of the program's impact. For more detail see annex 2a–h.

Climate-smart Farmer Field School farmers diary

Introducing the Farmer Diary – a groundbreaking initiative and transformative instrument that empowers farmers to actively engage in the learning process.

Through the Farmer Diary farmers become the architects of their agricultural journey, acquiring skills in farm record-keeping, understanding agri-business intricacies, and analysing the economics of their farms. This initiative not only fosters a sense of ownership in the learning process but also significantly enhances visibility. The Farmer Diary enables farmers to meticulously document their daily expenses, incomes, and actions, providing a comprehensive overview of their seasonal and annual budgetary dynamics. Furthermore, by offering authentic and real-time data on farm management, it plays a pivotal role in supporting research and extension systems. The approach not only elevates the learning experience for farmers but also fuels advocacy for the project, creating a ripple effect that positively impacts the entire agricultural ecosystem. For more detail see annex 3a–g.

The farmer diary comprises following sections;

1. CSA practices brief outlines

This section offers concise explanations and accompanying photos of key Climate Smart Agriculture practices. These summaries aim to facilitate learning and enhance climate-smart farming techniques, leading to improved crop yields, resource conservation, and better adaptation to changing climate conditions.

2. Farm map

This visual depiction presents the layout of the farm, including fields, infrastructure (such as barns and storage facilities), water sources, and other essential features. It serves as a valuable tool for farmers to manage resources effectively, plan farm layout, and identify areas for potential expansion or enhancement.

3. Farmer information

This section contains essential contact details of farmers, farm size, family and labour information, and affiliations with farming societies and institutions. Keeping this information up to date is crucial for accessing financial services like loans, insurance, or government programs.

4. Agri-business enterprise analysis

Serving as the financial core of the farm, this section aids in tracking investments, costs, and income associated with different farming enterprises, including crops and livestock. It enables farmers to analyse data, identify profitable ventures, areas needing improvement, and make informed decisions regarding the future of their farm business and entrepreneurship.

5. Agribusiness agreement

This section facilitates formalizing partnerships with others for land, equipment, or labour, outlining the terms of the agreement clearly. Having well-defined contracts safeguards all parties involved and minimizes the risk of misunderstandings.

6. Account register

The Account Register serves as a daily and seasonal record-keeping tool, documenting crop activities, purchases, sales, loans, and any financial transactions related to the farm business. Maintaining accurate records is essential for effective financial management.

7. Agribusiness analysis

This section aids in evaluating the overall performance of the farm business, enabling farmers to calculate profitability, identify trends, and make strategic decisions for future seasons. It serves as a valuable tool for assessing the effectiveness of farm management practices.

8. Phone directory

This section provides a convenient space to organize important contact information for suppliers, buyers, agricultural extension services, veterinarians, fellow farmers, and other relevant agribusiness professionals. Facilitating efficient communication and networking, it enhances collaboration and support within the agricultural community.

Annexes

Annex 1: Climate-smart Farmer Field School field day report format

Name of CS-FFS _____ CS-FFS president name _____

Name facilitator _____ Village name _____

Date _____ Governorate _____

#.	Activity	Facilitator/ presenter	Time		Feedback
			Start	End	

No. of participants _____ Male _____ Female _____ Disables _____ Others _____

Proceedings

Attendance sheet

#.	Name of farmer	Contact No.	Signature

Signature facilitator _____

Signature CS-FFS president _____

Source: Adapted from Khalid. J.M. 2023. *Farmer Field School data record book*. 9th Edition. Multan. FAO.

Annex 2: Climate-smart Farmer Field School final report

Annex 2a: General information

Name of CS-FFS (any individual name for group)	_____	Year	_____
Geographical information			
Village	_____		
Directorate	_____	Governorate	_____
Crop area/village	dunum	CS-FFS crop	_____
Households/village	HHs		
		Earliest seeding/planting date	_____
Crop season	Winter		
	Summer	Last picking harvest date	_____
CS-FFS information			
Number of facilitators	Facilitator name	_____	
No.	Facilitator name	_____	
	Facilitator name	_____	
Number of local helpers	Local helper	_____	
	Local helper	_____	
	Local helper	_____	
Total CS-FFS sessions	_____		
Date first session	_____	Date last session	_____
Elected CS-FFS leader	President	_____	
	Secretary	_____	
	Treasurer	_____	
CSA practices in learning plots	_____		

Control plot practice	_____		

Improved variety _____

if hybrid was
grown

In case of CS-FFS women farmer

Total crop/vegetables area	dunum	No. of vegetables	
Main vegetable crops	Area	Fruit Plants	Area /no. of plant
	dunum		dunum
	dunum		dunum
	dunum		dunum

No. of homestead garden in village	_____	No. of farmers growing vegetables before CS-FFS	_____
Total vegetables area in village	dunum	Total fruit orchard area in village	dunum
Livestock information	_____		_____
Total small animals in village	_____	Total large animals in village	_____
Total poultry birds in the village	_____	Others	_____

Source: Adapted from Khalid. J.M. 2023. *Farmer Field School data record book*. 9th Edition. Multan. FAO.

Annex 2b: Attendance and graduate farmers' profile

Number of farmers per session

Session no.	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	Ave.	
Total farmers																						

Number of farmers who came for 1, 2, 3, ...20 sessions

No. of sessions	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	
No. of farmers																						

Total number of graduates: _____

Gender	number	Percent
Male		
Female		

Total land area (dunum)	male	female
< 1		
1-5		
6-10		
11-15		
16-25		
> 25		

CS-FFS crop ⁶	male	female
< 1		
1-5		
6-10		
11-15		
16-25		
> 25		

Age	male	female
< 20		
20-29		
30-39		
40-49		
50-59		
> 60		

Education	male	female
Illiterate		
Literate/primary		
Secondary (middle, high)		
Post secondary (college)		
Bachelor's degree		
Other		

Source: Adapted from Khalid. J.M. 2023. *Farmer Field School data record book*. 9th Edition. Multan. FAO.

⁶ Selected learning crop, cropping system or enterprise.

Annex 2c: Climate-smart Farmer Field School learning objectives and results

Specific learning objectives <i>After the CS-FFS, farmers will be able to....</i>	Quality indicators achieved
1 – Grow healthy crop	<input type="checkbox"/> Adopted low water footprint technologies (crop & technique) <input type="checkbox"/> Increased water efficiency (>30 percent) <input type="checkbox"/> Minimized chemical fertilizer (half of Urea fertilizer use) <input type="checkbox"/> Increased organic fertilizer (>50 percent) <input type="checkbox"/> Minimized 3 pesticides spray <input type="checkbox"/> Adopted chemical free storage and processing <input type="checkbox"/> More profit achieved
2 – Observe crop regularly	<input type="checkbox"/> Recording regular plant/crop AESA <input type="checkbox"/> Keeping full record of the crop expenses <input type="checkbox"/> Confine day to day crop decision with crop data
3 – Conserve natural resources and resources	<input type="checkbox"/> Increased water use efficiency by adopting different techniques <input type="checkbox"/> Integrated on-farm water harvesting and conservation practices <input type="checkbox"/> Judiciously uses pesticides and other farm chemicals. <input type="checkbox"/> More rely on natural enemies and resources available at farm level <input type="checkbox"/> Using farmyard manure as basic fertilizer
4 – Farmers become expert and organized	<input type="checkbox"/> Relying on his own decisions drawn from his own crop monitoring and analysis <input type="checkbox"/> Linkage developed with the agriculture and other concerned departments for capacity building and information sharing <input type="checkbox"/> Farmers develop their organization and elected leadership <input type="checkbox"/> Providing services to other neighbour farmers
5 – Farmers becomes food secure, income generation activities started, and enterprise development initiated	<input type="checkbox"/> Growing his /her own healthy vegetable for household consumption <input type="checkbox"/> Marketing his produce with no or less involvement of middleman. <input type="checkbox"/> Started generating additional income from growing and marketing the farm produce by himself

6 – Other cross cutting	<input type="checkbox"/> Gender mainstreaming in agriculture and nutrition achieved <input type="checkbox"/> Decent farming <input type="checkbox"/> Occupational health and safety considered <input type="checkbox"/> Environment and social safeguards principles adopted
--------------------------------	---

Pre/post ballot box test (maximum score: 100)

Pre-CS-FFS scores	Lowest _____	Mean _____	Highest _____
Post-CS-FFS scores	Lowest _____	Mean _____	Highest _____

Field days/graduation ceremony

Field days	Date(s) _____	No. of visitors _____
Exchange visit	Date(s) _____	No. of visitors _____
Graduation	Date _____	No. of visitors _____

Source: Adapted from Khalid. J.M. 2023. *Farmer Field School data record book*. 9th Edition. Multan. FAO.

Annex 2d: Levels of achievement in climate-smart Farmer Field School (circle appropriate level)

CS-FFS principle	1 (baseline)	2	3	4	5 (best)
Grow healthy crop (learning plot vs farmer practice/control plot)					
Adopted resilient variety	No				Yes
Adopted low water footprint technologies/practices	no change	1 practice	2–3 practices	4–5 practices	>5 practices
Water use efficiency	no change	1–10 percent	10–20 percent	20–30 percent	> 30 percent
Reduction of pesticides	no change	less 1–2 sprays	less 3–5 sprays	less 6–10 sprays	less > 10 sprays
Increase in use of farmyard manure	no use	1 time	2 times	With every chemical fertilizer/irrigation	Only farmyard manure
Increase in production	no change	1–10 percent	10–20 percent	20–30 percent	> 30 percent
Increase in Income	no change	1–10 percent	10–20 percent	20–30 percent	> 30 percent
Observe field regularly (agroecosystem analysis)					
AESA	no AESA	< 10 AESA	> 10 AESA	End of season review of AESA	Complete seasonal calendar
Weather advisory considered	No consider	Consider occasionally	Consider 25 percent decisions	Consider for up to 50 percent decisions	consider for >50 percent decisions
Record keeping	No record keeping	Only product sale record	Only major expenses record	Both expenses and income record regularly	Do cost-benefit analysis
Use of digital tools for advisory	No use	Only on planting	On extreme weather	Regular	each decision
Linkages development (public, private sector service providers)	No	Consult local farmers only	Contact once in a season	Contact occasionally	Contact regularly
Conserve natural ecosystem and resources					

CS-FFS principle	1 (baseline)	2	3	4	5 (best)
Water use efficiency	No	1–10 percent	11–20 percent	21–30 percent	>30 percent
no. of water smart techniques implemented	0	1	2	3	>3
Reduce water application budget	0	<10 percent	10–20 percent	21–30 percent	>30 percent
Reduce chemical fertilizer input	0	<10 percent	10–25 percent	26–50 percent	>50 percent
No. of insects Predators identified	0	1–2	3–5	5–10	>10
No. of insect's pests identified	0	1–2	3–5	5–10	>10
No. of weeds identified	0	1	2–3	4–5	>5
No. of diseases identified	0	1	2	3	>3
Farmer as expert (farmer science)					
Number of AESA/case studies ² analysed	0	1–4	5–9	10–20	> 20
Learning experiments designed	0	1–2	3–4	4–5	>5
Decision making criteria – factors considered while making decision (AESA parameters/ factors)	1 factor	2 factors	3 factors	4 factors	>4 factors
Organization development	No	Group formed	Leadership selected	Leadership elected	Leadership elected twice in year
Innovation	No	Follow CSA packages	Integrated local resources	Created own packages	Other farmers adopted
Food security, family nutrition and enterprise development (food availability at household level, nutrition sensitization, income generation activities started, and enterprise developed)					
No. of vegetables growing per season	0	1–2	3–6	7–9	> 10
Nutrition messages delivered	0	<5	5–10	10–15	>15
No. of pregnant and child feeding women participated	0	<10 percent	10–25 percent	26–50 percent	>50 percent

CS-FFS principle	1 (baseline)	2	3	4	5 (best)
No. farmers marketed the vegetables	0	<10 percent	10–25 percent	26–75 percent	>75 percent
Average increase in Income generated per household	0	<5 percent	5–10 percent	11–25 percent	>25 percent
Entrepreneurship development	Lease out farm	Sale produces at farm gate	Sale in local market	Contracts based marketing	Adopt collective marketing
Marketing mode	Self	Hawkers	Village shop keeper	Urban local market	Processing unit
Cross cutting (gender, occupational health safety, ESS etc.)					
Registered seed variety adopted	No				Yes
Protective measures adopted while applying chemicals	No	Just understand	Adopt partial	Adopt regular	Complete
Child labour	Child labour	Partial compromise on health and education	Help in hard work in supervision	Only help in soft work in supervision	No child labour
Use of pesticides	Non judicious use				Judicious use

Date completed _____

Signature _____ Name _____

Signature _____ Name _____

Source: Adapted from Khalid. J.M. 2023. *Farmer Field School data record book*. 9th Edition. Multan. FAO.

Annex 2e: Climate-smart Farmer Field School participants' profile

#	Full name	Sex	Age	Disability	Years of Education	Farming experience (yr)	Total land area [dunum/ha]	Area under CS-FFS crop [dunum/ha]	Sessions attended	Graduated	Remarks ⁷ (mark relatives from same household)
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											

Source: Adapted from Khalid. J.M. 2023. Farmer Field School data record book. 9th Edition. Multan. FAO.

⁷ Every participant should be listed separately! E.g. if a son comes to fill in for the father, there should be two listings; fill in "Land Area" and "Area under Rice" only for the main participant, not for the replacement person, and mark members of the same household with a unique name/symbol in the column "Remarks" and indicate the relationship: e.g. Lim/father and Lim/son; or #5/member and #5/daughter.

Annex 2f: Economic analysis of climate-smart Farmer Field School learning plots

Crop name⁸: _____ Currency: JDN

Crop field area: _____ All values per dunum/ha

Description	CS-FFS learning plot (CSA plot)	Farmer practice (control)
Income from		
Field crop /vegetable		
Other (straw/ _____)		
By products _____		
Others		
Total income		
Expenses		
Land preparation		
Seed /seedling/ sapling		
Irrigation cost, pump fuel cost		
Manure (organic of all type)		
Chemical fertilizer		
Mulching (organic/inorganic)		
Pest control		
Insecticides, miticides		
Fungicides		
Biopesticides		
Other		
Other materials/expenses		
Hired labour		
Land use expenses (Rent, etc.)		
Taxes /commission etc.		
Total cash expenses		
Gross margin (GM)=income– expenses		
Family labour (hrs)		
GM/family labour		

Source: Adapted from Khalid. J.M. 2023. *Farmer Field School data record book*. 9th Edition. Multan. FAO.

⁸ Use multiple sheets for different crop or practices plots separately.

Annex 2g: Field experiment/ Climate-smart agriculture practice

Title of study⁹	
Study objectives	
Materials and procedures: (Where relevant, indicate main materials used in the study, size of plot/field, treatment(s), replications. Describe how the study is carried out, what and how measurements were taken)	
Data collected	
Results and analysis (Use tables for data and highlight main result(s) in a graph, bar charts, etc.)	
Conclusions	
Knowledge and skills gained by farmers	
Decision for follow-up studies	

Source: Adapted from Khalid. J.M. 2023. *Farmer Field School data record book*. 9th Edition. Multan. FAO.

⁹ Report each study separately using different sheets/photocopy.

Annex 2h: Success story /case study

Name of facilitator	
CS-FFS title	
District	
Date	
Governorate	

Detail of success story /case study of Mr. /Miss/Mrs.									
Participant	CS-FFS			CS-FFS women			Non-CS-FFS farmer		
	Y	N		Y	N		Y	N	
Crop area (dunum)									
Past story Before CS-FFS what/how he has been doing?)									
Learning story During CS-FFS what/how he/she has been learning?)									
During CS-FFS what he/she learned?									
Current story After CS-FFS what he/she has learned?									
After CS-FFS what he/she got change in life business?									
After CS-FFS what are his/her wishes?									
General feeling /remarks by farmer about the training methodology									
General feeling /remarks by farmer about the Project									
Key recommendations for rest of the community									

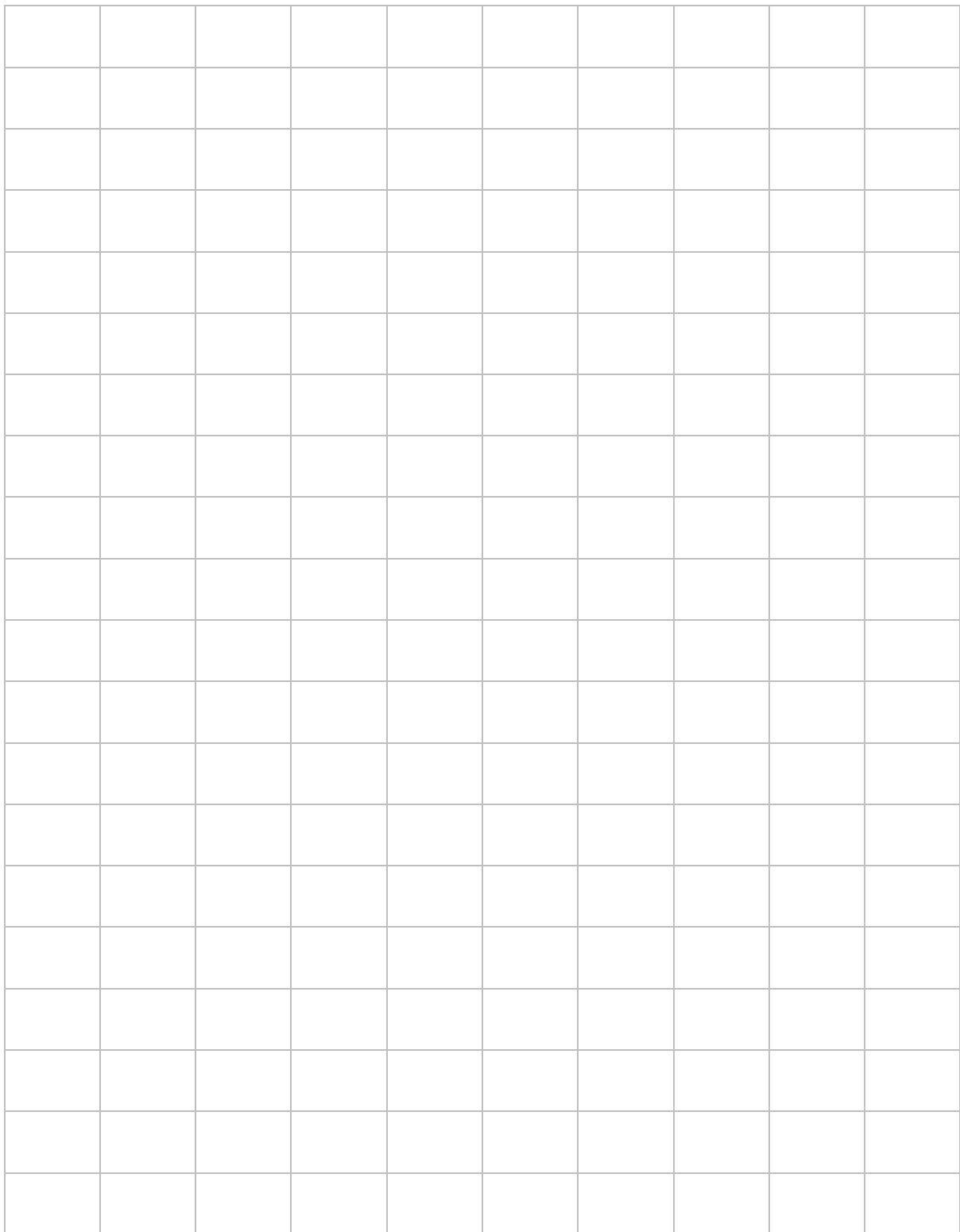
Attachments:

i) Photographs

Source: Adapted from Khalid. J.M. 2023. Farmer Field School data record book. 9th Edition. Multan. FAO.

Annex 3: Climate-smart Farmer Field School farmer diary

Annex 3a: Farm map



Source: Authors' own elaboration.

Annex 3b: Farmer information

Full name of farmer					
Address					
Phone no.					
National identity number					
Family farming	<input type="checkbox"/> Yes <input type="checkbox"/> No	Number of family members		Number of agriculture labourer	
Owned land	dunum		Total leased land	dunum	
Total cultivable land	dunum				
Farm machinery					
Livestock					
FFS name, crop and course period (months)				Attended in year	
Attended training on agriculture				Attended in year	
Farmer organization name					
Role in organization					
Farmer registration number (with government)					
Insurance number					

Source: Authors' own elaboration.

Annex 3c: Agribusiness enterprise analysis

Farm business _____

Enterprises name	Currency (JDN)		
	Enterprise 1	Enterprise 2	Enterprise 3
Total investment			
Total fixed cost			
Total variable cost			
Land utilization (dunum)			
Enterprise share in business (percentage)			
Income (annual/ production cycle)			

Cash flow

Jan-Mar	IN ↓	↓	↓	↓
	OUT ↑	↑	↑	↑
Apr-Jun	IN ↓	↓	↓	↓
	OUT ↑	↑	↑	↑
Jul-Sep	IN ↓	↓	↓	↓
	OUT ↑	↑	↑	↑
Oct-Dec	IN ↓	↓	↓	↓
	OUT ↑	↑	↑	↑
Total	IN ↓	↓	↓	↓
	OUT ↑	↑	↑	↑

Note: Repeat 10 pages in the diary.

Source: Authors' own elaboration.

Annex 3d: Agribusiness agreement

Partner 1

Name

Identity no.

Address

Partner 2

Name

Identity no.

Address

Agreement title: _____

Agreement terms and conditions: _____

Agreement start date

Agreement end date

Signature partner 1

Signature partner 2

Name witness 1

Name witness 2

Signature

Signature

Note: Repeat 10 pages in the diary.

Source: Authors' own elaboration.

Annex 3e: Account register

Winter Summer Crop _____

#	Date	Action/ activity	Quantity	Amount	Remarks

Note: Repeat 20 pages in the diary.

Source: Authors' own elaboration.

Annex 3e: Agribusiness analysis

Winter Summer

To be used for each crop or commodity enterprise analysis¹⁰

Note: Repeat 20 pages in the diary.

Source: Authors' own elaboration.

¹⁰ Season wise analysis of expenses, income, profit by compiling account register information and find out the performance of the different enterprises of farm business. Record learnings and future planning as well.

Annex 3f: Phone directory

Name	Detail
Designation	
Organization	
Address	

Name	Detail
Designation	
Organization	
Address	

Name	Detail
Designation	
Organization	
Address	

Name	Detail
Designation	
Organization	
Address	

Name	Detail
Designation	
Organization	
Address	

Note: Repeat 20 pages in the diary.

Source: Authors' own elaboration.

Annex 3g: Agriculture service providers directory

Agriculture helpline	
Agriculture extension governorate	
District agriculture extension	
District agriculture research	
District livestock	
Health officer or helpline	
Ambulance service helpline	

Source: Authors' own elaboration.

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Project

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