



TRAINING REPORT



Training Report

Training course on

Farmer Field Schools

The concept, implementing it within the framework of reducing soil degradation and reducing the effects of climate change

[Irbid-Jordan]

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1. Executive Summary

This training was organized by the Royal Scientific Society to provide participating agricultural engineers with the knowledge and skills needed to implement Farmer Field Schools (FFS), methodology of FFS, and review the challenges posed by climate change and Land Degradation (LD), and provide a set of agricultural practices that mitigate the impact of climate change on the agricultural sector, as well as provide a set of agricultural practices that contribute to reducing the degradation of agricultural land (practices must be easy to apply by farmers). Over the course of [5] days, participating engineers from the Ministry of Agriculture engaged in theoretical and practical sessions that focused on the Farmer Field Schools methodology, sustainable agricultural practices, climate adaptation, and reducing land degradation. The training successfully achieved its objectives, and participants expressed their willingness to apply these techniques in the FFS they will implement.

2. Introduction

2.1. Training Objectives

The main objective of the training was to prepare agricultural engineers to:

- 1- Effectively manage and facilitate Farmer Field Schools.
- 2- Provide them with adaptive practices to deal with the effects of climate change and Land degradation.
- 3- transfer these practices to the farmer cope with the effects of climate change and land degradation through FFS
- 4- Implement strategies fit with Land Degradation Neutrality (LDN) to restoring degraded land and achieving a balance between land degradation and restoration.
- 5- Prepare the necessary plans to implement Farmer Field Schools
- 6- Prepare and design field study related to climate change and agricultural land degradation to apply them through Farmer Field Schools

2.2. Importance of Training

Climate change and land degradation represent a significant risk to food security and agricultural sustainability. Farmer Field Schools provide a participatory learning approach for farmers to adopt climate-smart and sustainable agricultural practices. This training was essential to build the capacity of agricultural engineers to support these climate-smart agricultural initiatives and practices and to deliver them to farmers through Farmer Field Schools to encourage farmers to adopt these practices to ensure that farming communities are better prepared to face environmental challenges.

3. Training Content:

3.1. Key Topics Covered:

- 1- Introduction to Farmer Field Schools (FFS): Overview of FFS concepts, history, and their role in promoting community-based learning Design of special topics ,agricultural calendar, agricultural records, Design of field study, AESA, evaluation and monitoring
- 2- Climate Change and Agriculture: Understanding the impacts of climate change on agricultural productivity, water resources, and ecosystems. How to reduce the impact of climate change on agriculture, action to adapt to climate change in the agricultural sector, rationalization of water uses in irrigated agriculture in dry areas
- 3- Practical applications of smart agricultural methods to reduce the impact of climate change on olive cultivation and vegetable and water
- 4- Land Degradation Neutrality (LDN): Introduction to LDN goals and strategies for achieving land restoration and sustainable management.
- 5- Climate-Smart Agriculture: Techniques for sustainable agriculture, such as soil conservation, crop rotation, and efficient water management.
- 6- Farmer Practices That Contribute to Land Degradation and Good Agricultural Practices That Improve Agricultural Land
- 7- Monitoring and Evaluation in FFS: Tools and methods for assessing the success and impact of FFS initiatives.
- 8- Field visit to a farmer field school: training on ffs curriculum with the trainees

3.2. Training Methodology

The training included:

- 1- Lectures: Provided in-depth presentations FFS concept, interconnections between climate change, land degradation, and sustainable agriculture.
- 2- Group Discussions: Participants shared challenges and solutions from their respective regions.
- 3- Field Visits: Practical demonstration of sustainable farming practices in local farms, showing new case study and new techniques like water-saving irrigation systems, and FFS methodology.
- 4- Case Studies: Real-life examples of successful FFS projects and studies and LDN initiatives from other regions, highlighting best practices.

4. Attendance and Participation

4.1. Attendance

The training included [35] agricultural engineers from [MOA the list of participants attached]. Attendance was consistent throughout the program, with active participation in all sessions.

4.2. Participation

The participants were well engaged, and their interaction and participation were remarkable, especially during the interactive group sessions where they exchanged ideas and discussed the challenges of climate change, land degradation and the impact on the agricultural sector. The participants were able to prepare an agricultural calendar for a group of crops in addition to designing some field studies related to climate change and agricultural land degradation in groups, there are some great ideas related to improving soil and increasing its fertility. The field visits allowed them to implement the field school curriculum well, in addition to seeing a new model of crop cultivation, in addition to learning about a good agricultural method related to improving soil properties that is used in the field school that was visited. They also saw models of agricultural records used in the field school by observing practical applications and engaging directly with farmers, which provided them with practical experience.

5. Training Outcomes

5.1. Skills and Knowledge Acquired

- 1- Farmer Field School Facilitation Skills: Enhanced capacity to lead Farmer Field Schools, implement the Farmer Field School curriculum and support participatory farmers' education.
- 2- Ability to prepare crop calendars for crops
- 3- Ability to prepare field studies for farmer field schools
- 4- Identify the kinds of agricultural records that should be included in the framework of Farmer Field Schools
- 5- Climate Adaptation Strategies: Understanding sustainable agricultural techniques to reduce the effects of climate change.
- 6- LDN Implementation: Practical knowledge on restoring degraded lands, improving soil health and enhancing biodiversity.

5.2 Practical Applications

The training prepared engineers to implement:

- 1- Adaptive Agriculture Techniques: Ability to introduce agricultural methods that are compatible with climate change such as conservation agriculture, crop diversification and organic agriculture.
- 2- LDN: Initiatives to restore degraded lands, monitor ecosystem health and promote regenerative agriculture practices.

6. Observations

6.1. Trainees' performance

- 1- The trainees' performance and commitment to the training were good, and their engagement with the training topics was positive. Their interaction with the presentations was good, in addition to enriching the discussions with many positive ideas.
- 2- The trainees are distinguished by their ability to simplify complex topics, especially those related to climate change and LDN.
- 3- The interactive nature of the training was good, especially during the field visit and discussion of case studies. Many participants expressed their

interest in further training on specific aspects of the Farmer Field Schools methodology and strategies for neutralizing the impact of land degradation.

6.2. Main notes on training

- 1- One of the most important notes about Farmer Field Schools was that there was some confusion among trainees about the methodology followed in Farmer Field Schools, especially field study, control, agricultural records, and their importance
- 2- Trainees have the ability to work as a team and solve agricultural problems collectively.
- 3- Trainees have good knowledge of topics related to climate change and land degradation.

7. Challenges and Solutions

7.1. Challenges

Time constraints:

- 1- Limited time for the course to fully cover the FFS methodology, facilitation, adult education, preparation of field studies and agricultural records, and evaluation of FFS
- 2- Limited time for the course to explore in-depth some complex topics such as advanced LDN techniques, climate change, and good agricultural practices that lead to climate change mitigation.

7.2. Solutions

- 1- Advanced training courses are recommended to cover more comprehensively and broadly the topics covered in these training and other topics related to FFS, climate change, land degradation neutrality, and climate-smart agriculture.
- 2- Additional follow-up to cover advanced topics.
- 3- Supplementary reading materials were provided for participants who needed more background in specific areas.
- 4- A guide on the topic will be prepared and will be a reference for the trainees

8. Conclusion

The training was successful,

- 1- The agricultural engineers provided with the knowledge and tools to manage FFS, FFS facilitation basics, prepare agricultural calendars, field studies and fully implement the FFS curriculum.
- 2- The agricultural engineers provided with the knowledge to address the dual challenges of climate change and land degradation.
- 3- These engineers are now ready to implement FFS and help farmers to adopt sustainable and climate-smart agricultural practices.
- 4- These engineers are now able to promote land restoration efforts, contributing to the achievement of LDN targets.
- 5- These engineers now have the knowledge and capacity to climate adaptation approaches in agriculture.

9. Recommendations

- 1- Further training: More specialized training on advanced FFS, LDN and climate-smart technologies is recommended.
- 2- Expanding the scope of FFS programs: It is suggested to expand the scope of FFS programs to include more areas, with a focus on climate change and land degradation.
- 3- Continuous monitoring: Regular follow-up visits to monitor the progress of engineers in applying the techniques they have learned
- 4- Each FFS facilitator shall prepare a complete plan for the field school methodology that he/she will implement, including the title of the field study that is related to land degradation neutrality or climate change, the objective of the field study, and the methods and approaches through which the field study will be implemented
- 5- Each field school should include a field study, a control field and agricultural records
- 6- It is essential to focus on the use of agricultural records

10. Follow-up and evaluation for facilitators in FFS:

- 1- Setting objectives: Identifying the main objectives of ffs, such as improving crop productivity or promoting sustainable agricultural practices.
- 2- Develop a work plan: Create a detailed plan for each FFS includes key activities, timelines, and responsibilities for each agricultural engineer.
- 3- Preparing monthly reports by the facilitator.
- 4- Preparing a final report at the end of FFS.
- 5- Using and following up on the records of the farmer field schools.
- 6- Visits by the expert and project management to the farmer field schools sites in each governorate to conduct the evaluation and visit the farmer field schools and then meet with all facilitators from the three governorates (the visit program is being developed)

11. Measuring the success of the Farmer Field School

The success of the Farmer Field School is measured by

- 1- The extent of participation by farmers and commitment to attendance
- 2- The extent of adherence to the use of agricultural records and the methodology of the Farmer Field Schools, especially the field study
- 3- The impact of FFS on farmer thinking and the ability to change farmer mentality
- 4- The modern agricultural methods that have been disseminated through it
- 5- The extent of adoption of the agricultural methods that have been applied among farmers in the region
- 6- The impact of the field school on farmers' behavior
- 7- The extent of these methods on farmers' income through their role in the costs of production, inputs and in the production and the effect on the profitability of the farmer
- 8- The extent of continuity in adopting these methods among farmers

12. Appendices

- Detailed agenda of the training.
- Attendance sheet.
- Participant feedback forms.
- Presentation