

Challenges facing Farmer Field Schools (FFSs) in Fayoum Governorate

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Abstract

FFSs have been used as an effective group learning approach in rural Egypt. In each FFS a number of farmers (20–25 males, females or mixed) meet regularly (on a weekly basis) with their facilitators, who perform the needed activities to make group learning easier by organizing the FFSs' communication and educational activities through organized and interactive discussions, participatory learning among farmers.

This study investigated the challenges facing FFSs' facilitators and farmers while participating in FFSs and the suggested solutions confronting these challenges. The study was conducted in Fayoum Governorate. All the Ministry of Agriculture extension workers (47), who work, in 3 Districts of Fayoum, and function as facilitators in the investigated 20 FFSs, were personally interviewed by using a questionnaire designed and pretested for data collection. In addition, a sample of 196 farmers, representing 49% of all the members of FFSs, in the three districts, was selected and personally interviewed. Frequencies and percentages were used for data presentation and analysis.

The study results revealed that:

1. Several challenges facing the FFSs' facilitators include: lack of transportation facilities (as reported by 36.2%), lack of appropriate incentives for facilitators (34%) and lack of funds allocated by the Government for FFSs (32%). Facilitators' recommendations to face these

challenges were: providing them with convenient transportation facilities and financial incentives.

2. Challenges facing the FFSs' members were: high prices of inputs (as reported by 35.2%), lack of irrigation water at the ends of the canals (27.6%), lack of demonstration fields for FFSs (19.9%), and lack of incentives for farmers (13.8%). Farmers' recommendations to face these challenges include: conducting demonstration fields for FFSs (as reported by 21.4%), visiting the distinguished farms (21.4%), providing incentives for FFSs' members (18.9%), and providing production inputs at supported prices.

Introduction

Egypt has been able to establish agricultural research and extension systems that have been able to support agricultural performance to such a level that helped both the production of several crops in good quality and increase product market competitiveness. Despite this, all indicators emphasize that the benefits from these systems is incompatible with their expectations. This is because of reducing their annual budgets which are barely enough to cover wages and salaries, leaving negligible appropriations for research programmes and activities (Dyaa et al, 2014, p3).

Criticism was created with regards to the roles of agricultural extension service delivery due to a lack of national framework for extension, but in this 21st century, extension and advisory services needs to reinvents itself and clearly articulates its roles in the rapidly changing rural and agricultural context in order to improve their relevancy (Magoro and Hlungwani, 2014, p89).

The public extension services in developing countries started experiencing some challenges in the last decade due to socio-economic changes and agricultural sector reforms taking place (Zwane, 2012, p19–23).

For example, (Albore,2018, p98) stated that one generic challenge facing agricultural extension is insufficient governmental funding. This challenge is considered a difficulty in improving the effectiveness of extension approaches.

Agricultural extension workers, who are major promoter of the knowledge and technology transfer, lack communication and demonstration skills to transfer technologies in most districts of study area. In addition, poor incentive and rewarding mechanisms and the challenges they face due geographical disparities in highlands and harsh climate environment in lowlands resulted in high turnover. To make them important assets of agricultural development, providing technical updates specially skill training, devising incentive and rewarding mechanisms such as resident housing by the local government bodies and stakeholders could fill gaps (**Tigist, 2018, p10**).

Roy et al,(2013, p277–278)reported some challenges facing farmers during participation in FFSs such as Inadequate trials and training materials, irregularity of farmers' participation, difficulties in participating in the training session during the peak period of cultivation, lack of active participation of the female beneficiaries in the FFSs, gradual reduction of members in the training sessions.

Participatory extension provides scope for extension workers to participate with rural communities in facilitating development activities planning and implementation (Kamalpreet and Prabhjot 2018, p6).

Farmer Field Schools (FFSs) is an example of participatory methods provided by FAO in 1989 for enabling rice farmers in Indonesia to adapt integrated pest management practices to their tice fields. Then, FFSs were implemented in other crops in many developing countries (FAO, 2018, p1).

The role of a facilitator is central to the FFS process. Each FFS needs a facilitator who takes participants through a series of hands–on exercises.

Because it is not a typical extension approach, facilitators must undergo a special two to three week training program. Facilitators can be extension staff of government or non-governmental organizations, private companies, or graduates of a previous FFS (**Dhamankarand Wongtschowski**, 2014, p1).

Hence, this study investigates the most important challenges facing FFSs' facilitators and farmers and their suggested recommendations to confront these challenges

The study objectives were to:

- 1– Identify the most important challenges facing FFSs' facilitators during FFSs management.
- 2– Investigate the solutions suggested by FFSs facilitators to confront these challenges.
- 3– Explore the most important challenges facing FFSs farmers during their participation in FFSs and through the agricultural season.
- 4– Investigate the solutions suggested by farmer to confront these challenges.

Methodology

The study was conducted in three Districts in Fayoum Governorate. These districts were Fayoum, Senores and Tamia. Data were collected by using a questionnaire, designed and pretested for achieving the study objectives. This questionnaire was applied on a total of 47 FFSs facilitators, working in 20 FFSs in the three Districts, during personal interviews. A sample of 196 farmers (representing 49% of the total members of FFSs in the studied Districts), was selected and personally interviewed by using a questionnaire designed for achieving the study objectives. Frequencies, percentages, were used for the presentation and the description of the study results.

Results and discussion

The main challenges facing FFSs' facilitators

As shown in Table (1) the most important challenges were:

- Lack of transportation (as reported by 36.2%),
- Lack of incentives for facilitators (34%),
- Lack of governmental funding for FFSs (31.9%),
- Difficulty of selecting an appropriate place for FFSs (29.7%),
- Lack of incentives for FFSs' members (21.3%),
- Difficulty of selecting FFSs' members (14.9%),
- Lack of school educational tools and supplies (4.6%),
- Difficulty of bringing members to attend the school sessions in the absence of incentives (4.6%),
- Small number of FFSs existing in our area (4.3%),
- Lack of training opportunities for facilitators (2.1%),
- Lack of attendance of women members in FFSs' sessions (2.1%).

Suggested solutions for facing the identified challenges:

FFSs facilitators' suggested solutions, as shown in table (2) include:

- Providing transportation for FFSs (as reported by 36.2%).
- Providing incentives for FFSs' facilitators (34%).
- Providing incentives for FFSs' members (21.3%).
- Conducting demonstration fields for FFSs (29.8%).
- Motivating the farmers committed to attend FFSs (21.3%).
- Selecting the place of FFS through the members (14.9%).
- Determining the date of holding FFSs with the participation of the members (10.6%).
- Increasing FFS time (6.4%).
- Selecting the subjects for FFS through the members (4.3%).
- Providing training for facilitators (2.1%).

- Opening new FFSs (2.1%).

The main challenges facing FFSs' members

As shown in table (3) the most important challenges for FFSs' members were:

- Higher prices of inputs by (as reported by 35.2%).
- Lack of irrigation water at the end of the canals (27.6%).
- Lack of demonstration fields (19.9%).
- Lack of incentives for farmers (13.8%).
- Difficulty of choosing the place of FFSs (19.1%).
- Women's preoccupation with boys and housework (9.7%)
- Lack of visits to good farms (6.6%),
- Insects and diseases (2.6%).

Farmers' suggested recommendations for facing these challenges

As shown in Table (4) the most important recommendations for farmers were:

- Providing demonstration fields for FFSs (as reported by 21.4%).
- Visiting distinguished farms (21.4%).
- Providing incentives for FFSs farmers (18.9%).
- Providing production inputs with a reasonable prices (17.3%).
- Continuation of FFSs and interesting them (13.3%).
- Increasing the number of FFSs (10.2%).
- Increasing the number of FFSs' days (8.2%).
- Visiting Agricultural Research centers (6.1%).
- Increasing training courses for FFSs (5.6%),
- Providing irrigation water (3.6%).

Tables

Table No.1: The main challenges facing FFSs' facilitators (N=47)

No.	Challenges	N	%
1	Lack of transportation	17	36.2
2	Lack of suitable incentives for facilitators	16	34
3	Lack of funding for FFs	15	31.9
4	Lack of educational fields for FFS	15	31.9
5	Difficulty of selecting an appropriate place for FFS	13	29.7
6	Lack of incentives for FFSs' members	10	21.3
7	Difficulty of selecting FFS' members	7	14.9
8	Difficulty to set an appropriate date for FFS	5	10.6
9	Lack of FFS educational tools and supplies	3	6.4
10	Lack of interest in FFSs	3	6.4
11	Difficulty of bringing members to attend	3	6.4
12	Small number of FFSs in the area	2	4.3
13	Lack of training opportunities for facilitators	1	2.1
14	Lack of attendance of women members	1	2.1

Table No. 2: Facilitators' Suggested recommendations for facing the identified challenges (N=47)

No.	Suggested solutions	N	%
1	Providing transportation for FFSs	17	36.2
2	Providing suitable incentives for Facilitators	16	34
3	Providing adequate funding for FFS	15	31.9
4	Motivating farmers who are committed to attend	14	29.8
5	Conducting demonstration fields for FFS	10	21.3
6	Selecting an appropriate place for holding FFS by members	7	14.9
7	Selecting members of FFSs by local leaders	7	14.9
8	Determining a time for FFS with the members	5	10.6
9	Increasing the time of FFS	3	6.4
10	Providing FFSs implementation requirements	2	4.3
11	Making an action plan for more than a crop	2	4.3
12	Selecting appropriate topics by members	2	4.3
13	Providing training for facilitators	1	2.1
14	Opening new FFS	1	2.1

Table No. 3: The main challenges facing FFSs' members(N=196)

No.	Challenges	N	%
1	Higher prices of inputs	69	35.2
2	Lack of irrigation water at the end of the canal	54	27.6
3	Lack of demonstration fields for FFSs	49	25
4	Farmers sometimes are busy with field work	39	19.9
5	Lack of motivation for farmers	27	13.8
6	Women's preoccupation with children and housework	19	9.7
7	Lack of visits to good farms	13	6.6
8	Insect and pathological infections	5	2.6

Table No.4: FFSs members' suggested recommendations for facing their identified challenges (N=196)

No.	Suggestions	Frequency	%
1	Making demonstration fields for FFSs	42	21.4
2	Visiting distinguished farms and greenhouses	42	21.4
3	Motivating FFSs' members	37	18.9
4	Providing production inputs at a reasonable price	34	17.3
5	Continuing and interesting for FFSs	26	13.3
6	Increasing number of FFSs	20	10.2
7	Increasing FFSs days	16	8.2
8	Visiting agricultural research centers	12	6.1
9	Providing training courses for FFSs' members	11	5.6
10	Providing irrigation water	7	3.6

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أهم التحديات التي تواجه المدارس الحقلية في محافظة الفيوم

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المستخلص

استهدفت الدراسة استكشاف أهم التحديات التي تواجه الميسرين والمزارعين خلال مشاركتهم في المدارس الحقلية، والتعرف على المقترحات لمواجهة هذه التحديات من وجهة نظر كل من ميسري ومزارعي المدارس الحقلية.

وأجريت الدراسة بمحافظة الفيوم. تم إجراء مقابلات شخصية مع جميع المرشدين الزراعيين (47) ، الذين يعملون في 3 مراكز بالفيوم ، ويعملون كميسرين في 20 مدرسة حقلية، باستخدام استبيان تم تصميمه واختباره مسبقاً لجمع البيانات، وتم اختيار عينة من 196 مزارعا من أعضاء المدارس الحقلية في المراكز الثلاث من إجمالي 400 مزارع (يمثلون 49%). وتم استخدام التكرارات والنسب المئوية لعرض البيانات وتحليلها. وأوضحت نتائج الدراسة ما يلي:

1. تم الكشف عن العديد من التحديات التي تواجه ميسري المدارس الحقلية ، بما في ذلك: عدم وجود وسائل انتقال للميسرين (بنسبة 36.2%) ، وعدم وجود حوافز ملائمة للميسرين (34%) ، ونقص الأموال التي خصصتها الحكومة للمدارس الحقلية (32%) .
2. وشملت توصيات الميسرين لمواجهة هذه التحديات ما يلي: توفير وسائل انتقال للمدارس الحقلية بنسبة (36,2%)، وتوفير حوافز مناسبة للميسرين بنسبة (34%).
3. تم الكشف عن العديد من التحديات التي تواجه المزارعين في مدارس المزارعين الحقلية ، بما في ذلك: ارتفاع أسعار المدخلات بنسبة (35,2%) ، ونقص مياه الري بنسبة (27,6%) ، ونقص الحقول لإيضاحية للمدارس الحقلية بنسبة (19,9%)، وعدم وجود حوافز للمزارعين (13.8%).
4. كانت أهم الحلول المقترحة من قبل المزارعين توفير حقول إيضاحية للمدارس الحقلية بنسبة (21.4%) ، والزيارات إلى المزارع المميزة (21.4%) ، وتحفيز مزارعي المدارس الحقلية بنسبة (18.9%) ، وتوفير المدخلات بأسعار مناسبة بنسبة (17,3%).