

Looking Forward: Closing the Gap between Claims and Practices of Participatory Approaches

A Case Study: Fayoum Farmer Field Schools in Fayoum District, Egypt



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In the Name of ALLAH, the Most Compassionate, the Most Merciful

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Dedication

I dedicate this hard work to my family, who inspire me to do my best in this research project.

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Abbreviations

CE	Centre of Excellence
FAD	Fayoum Directorate of Agriculture
FaHDP	Fayoum Horticultural Development Project
FFS	Farmer Field School
FIPMP	Fayoum Integrated Pest Management Project
FLG	Farmer Learning Group
GDP	Gross Domestic Product
OECD	Organisation for Economic Co-operation and Development

Abstract

In 2008, the Fayoum Directorate of Agriculture (FAD), a directorate of the Ministry of Agriculture and Land Reclamation of Egypt cooperated with the Dutch Embassy in Egypt, launched the Fayoum Farmer Field Schools (FFS) project. In October 2011, through the Fayoum Centre of Excellence (CE) project, the FFS is disseminating to other governorates in Egypt. One of the main focus of Fayoum CE project, as well as Fayoum FFS project, is that participation of farmers in the project is the mainstream. In the FFS, the facilitator translates theory into practices. Facilitators learn and improve their skills on participatory methods in order strengthen the participatory experiential learning process in the project. Facilitators then practice it during the FFS implementation by immersing into rural community to facilitate them in analysing and solving their own problems in the villages.

In traditional extension, facilitators as government agents delivered packages from the government to the farmers. The top-down methods did not attract farmers to attend the field school, as they felt that they would not contribute any idea and solutions to existing problems. In participatory approaches, farmers are given more access to analyse the problems and decide what they should do to cope with the problems. In this context, farmers are triggered to initiate their local knowledge. Therefore, facilitators ask more questions rather than give answers. As possible, facilitators did not give solutions.

The conceptualisation and practices of participatory approaches in Fayoum FFS project such as (1) farmers are given opportunity to initiate in terms of sharing their local knowledge, their opinion about their problems, without hesitating, and with equal opportunities with other farmers. (2) Farmers are given opportunity to decide the schedule of field school implementation and topics to be discussed. One of the main exit strategies of Fayoum FFS project where the project provide village promoters will replace the tasks of facilitators after the accomplishment of the project. In the learning process of facilitators in Fayoum FFS project, facilitators interact with other individuals and work environment to shape their understanding about participatory approach. In this part; facilitators; (1) Interact with other individuals such as other facilitators, district staffs, or other institutions in both formal and informal ways, (2) Interaction with work environment such as encountered problems and job relevance. Facilitators perceived that their surroundings affect their willing ness in learning participatory approach.

Chapter One: Introduction

1.1. Overview

Egypt, officially called the Arab Republic of Egypt, is a country located in the northern part of Africa bordered in the west with Libya, Sudan in the south, Mediterranean Sea in the north, and Red Sea in the east. About 35 to 40% of Egypt's population earn less than \$2 a day, while 2–3% is categorised as rich. Most of the population concentrate along the Nile River in the valley and delta, and near the Suez Canal, comprising about 2.5 million hectares and 2.4% of the country's land mass.

One of the main activities for a wide proportion of Egypt population is agriculture. Agriculture is the third largest sector in Egypt behind manufacturing and mining. 14% of Egypt total GDP is contributed by the agricultural sector which employs approximately one-third of total amount of labour force in Egypt. The main crops in Egypt are rice, potatoes, and cotton. However, producers are increasingly diversifying into higher value crops such as fruits, vegetables, and flowers for export. Most of Egypt's exports are confined to the EU, and neighbouring markets in North Africa and the Middle East (Global Insight, 2007).

The Ministry of Agriculture and Land Reclamation in Egypt is responsible for policies and programs concerning the agricultural development in Egypt. To ensure that, the ministry has two targets i.e. (1) the advancement of agricultural policy and land reclamation policies that would ensure coordination and integration in line with the national development plans, link and work on its development with the latest scientific methods and technology on the basis of economic optimum, and (2) the development of agricultural resources, which is to increase the area of reclaimed land and promoting rural economics. One of its functions to achieve the targets is to develop and stabilize rural communities and work to raise the standard of living and promoting rural agricultural economics (www.agr-egypt.gov.eg, 2012). The ministry has been working with international organisations in various projects to support agricultural development in rural areas. Some of them, for examples, are 'Enabling Livelihoods, Nutrition and Food Security' (working together with Work Food Program of United Nations), 'Household food and nutrition security' (with Food and Agricultural Organisation of United Nations), and Fayoum Farmer Field School Project (with the Kingdom of the Netherlands).

Main agricultural activities are concentrated in one of the *Oldlands* of Egypt, the Fayoum governorate (Kruseman and Vullings, 2007). Therefore, alleviating poverty and increasing agricultural production in Fayoum is one of the main targets of the Ministry of Agriculture and Land Reclamation in Egypt. In 1984, the government of Egypt, in cooperation with the Netherlands Ministry of Foreign Affairs, launched a joint research on tomato varieties. This was gradually building out to agricultural research in relation to participatory extension methods. In 1999, the Egyptian-Dutch Fayoum Horticultural Development Project (FaHDP) started implementing their first Farmer Field School (FFS) in Fayoum Governorate, followed a few months later by the Egyptian-Dutch Fayoum Integrated Pest management project (FIPMP). At the start of 2001, the FaHDP merged with the FIPMP, when the FIPMP moved from planning to the implementation phase. The FIMP was applied through the FFS approach with some modifications from FFS implemented in Asia to adjust with Egyptian farmer's culture. For

example, the original FFS session normally lasts for 3-4 hours. In the FLG (Farmer Learning Group -the other name of FFS-) it lasts for 2 hours only. Farmers are used to officials visiting them and the government had made it conducive for them to participate in an extension activity. Therefore, it was difficult for the FLG facilitators to ask the farmers to invest more than 2 hours of their time in an extension activity. On the other hand, the extension workers were also not used to spending more than 4 hours per day on extension activities, including travel and preparation (Van de Pol and Awad, 2003). The project was running from 2001 to 2007.

In 2008, the Fayoum Directorate of Agriculture (FAD), a directorate of the Ministry of Agriculture and Land Reclamation of Egypt cooperated with the Dutch Embassy in Egypt, launched the Fayoum Farmer Field Schools (FFS) project. Even though the Fayoum FFS project was no extension of FIPMP as such, it built forward on the experience, knowledge and infrastructure of FIPMP and use FFS as instrument for change at rural level in Egypt (Fayoum Farmer Field School Inception Report 2008). In October 2011, through the Fayoum Centre of Excellence (CE) project, the FFS is disseminating to other governorates in Egypt. One of the main focus of Fayoum CE project, as well as Fayoum FFS project, is that participation of farmers in the project is the mainstream.

1.2. Research Issue

From the total population of Egypt, which is about 82,536,770 of people, it has about 10.7 million of poor people where 70% of them are living in rural areas. Most of the country's rural poor people live in the north and in Upper Egypt, including Fayoum. About 11% of the poor people live in the *Old lands* of Egypt; one of them is Fayoum governorate. Most people generate their income from agricultural sector for their livelihood, the sector that not provides them with sufficient food and income (Kruseman and Vullings, 2007).

Fayoum Farmer Field School (FFS) was developed by Fayoum Directorate of Agriculture (FAD), a directorate of the Ministry of Agriculture and Land Reclamation cooperated with the Netherlands. The main objective of the project is to improve the livelihood of the rural population in Fayoum governorate (Fayoum Inception Report 2008).

The priority setting of farmers is demand driven, meaning that the participants are free to choose their topics of interest which may range from social topics (health, environment, literacy) to economic activities and agricultural information and constraints faced in daily life. Participatory approaches in learner centred adult education are compulsory. It is mentioned by the inception report in 2008 that one of the purposes of the project is to ensure that the participatory FFS approach more familiar and adopted in Fayoum and other governorates through a strengthened network of stakeholders.

Starting in October 2011, new project called Fayoum Centre of Excellence (CE) project was launched. This new project adopts the concept of Fayoum FFS project. Participatory approaches will still become the important aspect to be emphasised in the Fayoum CE project. One of the main challenges of the Fayoum FFS project, in terms of dissemination of participatory FFS approach to other governorates in Egypt is how to fit the FFS into Egyptian culture in a wider scale. The successfulness of the adaptation and dissemination depends on how the participatory

approaches can be practiced by the field facilitators as the communication agents in the project. It is always happened that ‘participatory approaches’ can be biased when applied into practice. Cees Leeuwis (2004) stated that it is important to differentiate between the perspectives of those who have developed these approaches, and those who use them in the field. He also emphasised that the underlying rationale of participatory methodologies may vary from context to context, and may significantly affect the way methodologies are used. In the FFS, the facilitator translates theory into practices. Facilitators learn and improve their skills on participatory methods in order strengthen the participatory experiential learning process in the project. Facilitators then practice it during the FFS implementation by immersing into rural community to facilitate them in analysing and solving their own problems in the villages.

1.3. Research Objective

Despite of the claims that participatory approaches in the Fayoum FFS project has been successfully implemented, there is still a need to analyse the conceptualisation and practices of participatory approaches in the FFS in order to contribute to the improvement of the project. It is become the consent of the research that the learning process of facilitators is the main focus of participatory approach implementation in the FFS. The successful learning of facilitators as a process in constructing the participatory approaches will lead to better understanding of the participation concept to improved further implementation of the FFS. Therefore, the objective of the research is to improve the facilitators’ learning process by providing clear insight on participation concept and factors that influent learning process of facilitators in Fayoum Farmer Field School (FFS) project.

Chapter Two: Literature Review

2.1. Participatory Approaches in Rural Development

Almost half a century, rural development has become a key importance in development agenda throughout the world. Rural areas are the major agricultural product supplier to maintain food supply for the world's population. There are approximately 75% (equal to 1.3 billion people) of poor people are spread in rural areas (Santucci, 2005). For years, rural areas were developed in several phases. The first phase was modernisation in rural development in 1960's. The constraint was to increase agricultural production in rural areas through mechanization inputs. Consecutively, public sector era (also called; the state intervention) took place, and privatisation phase in 1980's came afterward. Among all, the important phase began in 1990's, which was called the participation phase. In this phase, the development agenda was steered to increase participation and empowerment for rural development sustainability. Hagman et al (1999) stated that participatory approaches emerged in the late 1980s as a response to continued failure in rural development. For example, most technologies developed by researchers alone were inappropriate for smallholder farmers. In Africa for example, according to Hagman et al (1999), the result of rural development tended to be poor because rural people did not have any sense of ownership of the ideas imposed on them. Change now sweeping through the development movement is encouraging rural communities to become the prime movers themselves in efforts to improve their economic and social well-being. Therefore, government and non-governmental institutions are increasingly recognising the need to move away from instructions and blueprint solutions, towards more participatory approaches which support communities in their capacity to set and fulfil their own development goals. By the 1990s, farmers were by then seen as partners in research and extension, and the key players in the innovation process.

Participatory approaches are currently a theme of utmost importance in many development goals in the level of national as well as international institutions. All over the world, a number of programs and projects were launched as a concern of participation issues. Nowadays, 'participation processes' have become a new chapter in rural development. For many donors, governments and NGO's, participatory approaches should be an emphasis in rural development programs. Participatory approaches is emerged to answer the failures of top-down approach that has been characterized power relation between governments as a *decision-maker* to rural community as *decision-taker* in rural development for many years. In Egypt, participatory approaches have been used in several projects. As reported by the World Bank in 2006, Although the Government of Egypt has a highly centralized administrative structure which leaving little room for decision making at the local level and Citizen participation is not in much evidence, with support from donors the Government of Egypt established some programs to encourage local development and participation. Examples are the Shorouk program (and its Local Economic Fund for Development), the Social Fund for Development (SFD), and the Emergency Fund. These programs can be seen as innovators and demonstrators of approaches for decentralized participatory decision making and management.

In the Shorouk (The National Program for Integrated Rural Development) for example, the objective is to improve the quality of rural livelihoods and promote local community participation in the development process. The program embodies a comprehensive concept of

rural development, defined as: “a planned upgrading change process undertaken by local community residents to induce a comprehensive and integrated advancement in all life aspects of that community on the basis of a democratic methodology and cooperated with government aids” (Moharram 1997, p. 3). Development is expected to occur as a result of effective grassroots participation in designing, planning, and implementing local development activities through the mobilization of available local resources. Under the Shorouk program, participation is not just a means, but a goal in itself (The World Bank, 2006).

Dimensions of Participation

There are many definitions about participation in terms of rural development. The World Bank defines participation as a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them. Leeuwis (2004) stated that a process cannot be labelled ‘participatory’ if ‘influencing’ and ‘sharing’ of ‘initiatives’, decisions, and resources’ do not occur. According to Cohen and Uphoff (1980), most views of participation, that which is initiated from below, voluntary, organized, direct, continuous, and broad in scope and empowered would be the ‘most’ participatory. They also included decision-making, which is specially, this kind of participation centres on the generation of ideas, formulation and assessment of options, and making choices about them, as well as the formulation of plans for putting selected options into effect.

Whilst OECD (1994) in Guimaraes (2009) define that participatory development stands for partnership which is built upon the basis of dialogue among the various actors, during which the agenda is jointly set, and local views and indigenous knowledge are deliberately sought and respected. This implies negotiation rather than the dominance of an externally set project agenda. Thus people become actors instead of being beneficiaries (OECD, 1994).

The broad context of participatory approaches should be more specific. Considering that the implementation of participatory is carried out by the field workers in the project, specifying the context can put both definitions (general and local) onto the same direction to prevent biases.

Figure 1. Dimension of Participation

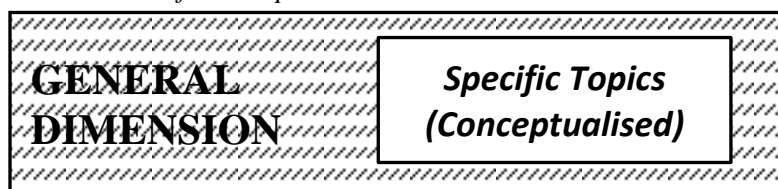


Figure 1 shows us how participation can be differently conceptualised in each project. General dimension refers to the concept of participation in general context, for example how the World Bank and/or other International institutions define it. Despite the various definitions of participation, in general the participatory concept refers to the influence and authorities in decisions, initiatives, and resources in communities. While the specific context refers to how different areas, cultures, or other environment factors can influence the definition, dimensions, and criteria of participation in the local level.

Types of Participation

The idea that participation has different levels and types is widely used to categorise the involvement of stakeholders in project. According to Veldhuizen, et al. (1997) in Morrish (2011), Participation is found to take different forms. *Passive participation* in which people participate by being told what is going to happen or what has already happened. Here, the message flows in one direction with little opportunity for adjustments. Participation by giving information in which people give answers to questions is already designed by researchers or project managers. In this case, they do not have the opportunity to influence proceedings as the findings are neither shared nor checked for accuracy. *Consultative participation* is where people are asked to give their views; the external agents listen to their views and use it to define problem and solutions, although their views may or may not be taken in the final decisions. *Participation for material incentives* exists when people participate by giving materials such as labour or land in exchange of food or money. Such people do not have a stake in decision making processes and maintaining the activities. Interactive participation is where people participate in joint analysis, development of action plans and the formation of new local groups or the strengthening of existing ones. Groups take control over resources management initiatives. While *functional participation* exists when people participate by forming groups to meet predetermined objectives related to the project. Their participation tends to occur at later stages of a project after major decisions have been made. They may become self-dependent but are initially dependent on external facilitators. From the above review, it is important to note that a combination of more than one form of participation may be used in development interventions. What is vital in this context is that the people are involved to the extent that they can influence and share control over the initiatives that affect their life for the sustainability of the interventions being introduced.

Pretty and Chambers (1994) distinguish participation into seven categorises. *Passive participation*, where people are informed about what is going to happen, *participation in information giving* where people can respond to predefined questions, *participation by consultation*, that is when can give their own views, *participation for material incentives* (people participate because it gives them access to resources), *functional participation* (people participate by creating conditions that are favourable for an external projects), *interactive participation* (people participate in joint analysis and decide on follow-up), and *self-mobilisation* where people take their own initiatives. Leeuwis (2004) adapted Pretty's (1994) and Biggs's (1989) concepts and reconceptualised them into five categories (in ascending orders);

1. Receiving information: Participants are informed/told what the project will do after it has been decided by others
2. Passive information giving: Participants can respond to questions and issues that interventionists deem relevant for making decisions about project.
3. Consultation: Participants are asked about their views and opinions and without restriction, but the interventionists unilaterally decide what they will do with the information.
4. Collaboration: Participants are partners in a project and jointly decide about issues with project staff.
5. Self-mobilisation: participants initiate, work on and decide on projects independently, with interventionists in a supportive role only.

The self-mobilisation category is the level where participation of local people can be sustainable. In development project, exit strategy to sustain participation of local people has become popular. One of the exit strategy is empowering local people to become facilitator who will guide people in the village. Argued by Bryan and Duveskog (2008) that in most programmes, a key objective is to move towards farmer facilitators, because they are often better facilitators than outside extension staff - they know the community and its members, speak a similar language, are recognised by members as colleagues, and know the area well. From a financial perspective, farmer facilitators require less transport and other financial support than formal extensionists. They can also operate more independently (and therefore cheaply), outside formal hierarchical structures. They also added that Experience has shown that structured, hands-on activities provide a sound basis for continued innovation and local adaptation, after the FFS itself has been completed. It is also one of the main reasons that farmer facilitators can easily run FFSs - once they know how to facilitate an activity, the outcomes become obvious from the exercise itself.

Uncovering the Gaps: From Theory to Practice

However, ‘participatory approaches’ as popular intervention methodology often changes when it is applied into practices. In most development programs, ‘participatory’ as a theory is developed by the donors or people who are involved in the organisation. Nevertheless, this ‘theory’ is applied on the field by the field workers. It is important to differentiate between the perspectives of those who have developed these approaches, and those who use them in the field. The underlying rationale of participatory methodology may vary from context to context, and may significantly affect the way methodologies are used (Leeuwis, 2008). Having ‘participatory approaches’ as a theory and practices in a project is sometimes fell into the same trap as ‘top-down’ approaches by assuming that change is something that can be planned, especially if the participatory intervention is seen as predefined steps, procedures, and methodologies (Leeuwis, 2004).

Jennings (2010) studied that the meaning of “participation” is often a rendition of the organizational culture defining it. Participation has been variously described as a means and an end, as essential within agencies as it is in the field and as an educational and empowering process necessary to correct power imbalances between rich and poor. It has been broadly conceived to embrace the idea that all “stakeholders” should take part in decision making and it has been more narrowly described as the extraction of local knowledge to design programs off site. From this point of view, it can be concluded that the dimensions of ‘participatory approaches’ could be different depends on the actors, cultures, and environments of where the project is practiced. It is always happened that the gap between participatory as a theory (participatory rhetoric) and participatory practice is large in implementation process. For example, Van de Pol and Awad (2003), who studied the FIPMP in Egypt, found that most of the adaptations made in the FFS concept are a result of the cultural and social characteristics of local farming communities and the Egyptian extension organization. Separate FFS for male and female farmers, shorter sessions, and fewer practical group activities are examples of this. Also, many of the group dynamics activities and “icebreakers” developed in Asia do not work in Egypt. The Arabic-Egyptian culture differs too much from Asian cultures

Leeuwis (2000) stated similarly that, practitioners often have different (or additional) institutional and/or personal aspirations in using (elements of) certain methodologies and discourses. References to 'Participation' may for example, serve merely to create an organisational image that is beneficial for purposes of attracting funds and/or securing institutional survival (Pacheco, 2000) in Leeuwis (2000). More than that, he added, even if the interest in participation is genuine, the rationale for using participatory methodologies can vary considerably. Cohen and Uphoff (1980) expressed that because participation is essentially a descriptive term, including numerous different activities and situations, there is much room for confusion about its causes and effects, and its amounts and distribution. It is necessary to be quite specific about what is meant in any particular situation if we are to speak usefully about it in regard to any particular kind of rural development effort. This we have done elsewhere and the following is a summary of that complex exercise.

2.2. Learning Space of Facilitators: Construct and Practice

"Asked who are the most important persons in the development, spread and evolution of high quality participatory methodologies, without hesitating I will respond 'the facilitator' "
(Nandago, 2007)

Despite of the various theories of participatory approach practices in a project, the involvement of local communities is still the utmost important aspect in rural development agenda. Implementation of participatory approaches in Farmer Field Schools (FFS) submerses into the technical, social, and cultural aspect in the field. In the FFS, Facilitator is an important part who plays a role as communication agents. Facilitator provides technical advice and guides farmers to find solutions of their problem. In Fayoum FFS project, the facilitators play a major role, as they do the final work at field level with the rural people. Facilitators stimulate or help to improve farmer-to-farmer exchange in various ways, for example, organise meetings or festive that are conducive to knowledge exchange, induce the formation of study groups, support existing groups and networks with training and logistics, develop more systematic modes of farm comparison, correct uneven exchange of knowledge within communities, communicate experiences from other communities, organise excursions, etc. (Leeuwis, 2004). Therefore, facilitators should be competent in facilitating skills to enhance participation of farmers in the group.

In a participatory approaches project, concept of participation is constructed to gain similar direction of theory and implementation from the project's fieldworkers. Leeuwis (2004) mentioned three models of communication that still being used in knowledge construction, whether it is implicitly or explicitly. The first model, the *objective or transmission* model, where the information has fixed meaning, which means the sender had intended to transfer the same information provided for receiver. The second model is *subjective or receiver-oriented* model, where different life-world of both sender and receiver is considered important, thus, interpretation could be different. The last model is *social network* where the meanings constructed by both sender and receiver may be influenced, directly or indirectly by others.

Fayoum FFS implemented participatory approaches in involving farmers in the field schools. Facilitator plays roles in creating atmosphere in which farmer learns and interacts to each other. Different with traditional extension methods, where top-down methods was dominant, in FFS

conducted by facilitators farmers have more chance in crucial decisions such as choosing the topics, solutions of problems, curriculum development, and training needs. Therefore, the successful of participatory approaches is highly depends on how facilitators of FFS understand and implement participatory methods in the FFS. One of the aspects in the Fayoum FFS project is to improve facilitators' capability in regards with involving farmers in FFS. In the context of Fayoum FFS project, both formal and informal communication occurred during the construction of meaning of participatory approaches. Facilitators were trained and provided spaces of sharing ideas and knowledge regarding the problems on the field and finding solutions.

2.3. Learning Process

In Fayoum FFS project, facilitators learnt about using participatory approaches in involving farmers in FFS. The learning process is a condition where facilitators construct the idea by simultaneously and continuously conceptualise and practise their capabilities on the field. Therefore, creating conditions in which the facilitators learning process can be supported is very important.

Individual in Social Learning

Jarvis et al (2005) stated that individuals are socialised into cultural values, attitudes, and beliefs. They come to share with the rest of society, which makes possible the consensus which all societies are said to depend on for their survival. Thus, individual learning is a functional of social relations. This gives insight that in social learning, individuals are the key word.

One of the crucial factors that support learning process towards sustainable development is how social, cultural, and human behaviour interact each other. Individuals learn and construct their ideas from time to time to gain holistic understanding about what they learnt. Individuals are socialised and share their ideas and influenced by their environment. Jarvis et al (2005) mentioned three ways of how social learning can be occurred;

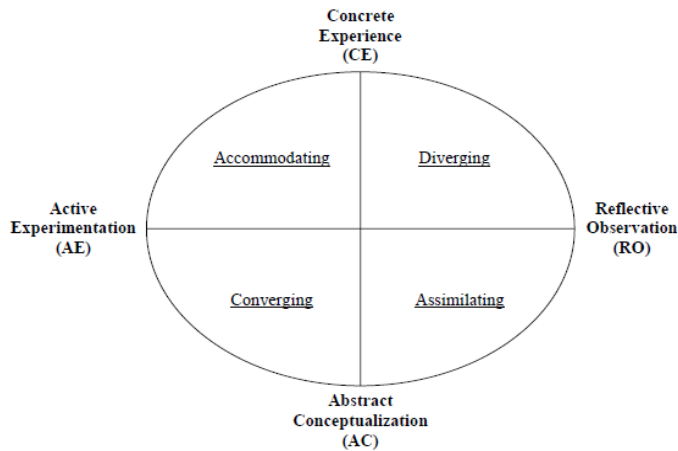
1. Societies have to learn functional adaptation in order to survive in a changing environment.
2. Individuals must learn social roles in order to be members of society.
3. Failure to learn meant that society itself would not survive, and that individuals would come to play deviant or dysfunctional roles.

Social context of learning process emphasises on how individuals can adapt with its learning environment. The adaptation here, as argued by Durkheim (2005), referred to the notion that human society was viewed as a sort of living organism, rather like the human body itself, and in order to maintain, survive, and reproduce itself, society had to adapt to its changing environment. Societies and individuals that did not adapt did not survive.

Individual is the main component in social learning. In 1969, Kolb described model of learning style to analyse individual learning process which is called Experiential Learning Cycle (also known as Kolb's cycle), which consist of four stages as shown in the following figure;

Figure 2. Kolb's learning cycle

The Experiential Learning Cycle and Basic Learning Styles (Kolb, 1984).



The model portrays two dialectically related modes of grasping 3 experiences -- Concrete Experience (CE) and Abstract Conceptualization (AC) -- and two dialectically related modes of transforming experience -- Reflective Observation (RO) and Active Experimentation (AE). According to the four-stage learning cycle depicted in Figure 1, immediate or concrete experiences are the basis for observations and reflections. These reflections are assimilated and distilled into abstract concepts from which new implications for action can be drawn (Kolb et al, 1999). In addition, this model is not only to indicate stages of learning process, but also used to show that people can learn in different ways.

Interaction in Learning Process

However, even though Kolb's learning methods describe the relation between cognition and action, or theory and practices, it did not put how social settings may influent learning process of individuals or groups. In social learning, individuals interact with the environment which makes contextual aspect is also important. Schon (1983) argued that cognition cannot be separated from values and beliefs, nor cognition and action. He conceptualised learning as the process of reviewing a mental map in the light of 'crises and surprises'. Learner may change the theories, beliefs, and values that underlie his or her actions. Schon also stated that learning processes in practice take place not only 'in action' but also 'in interaction', both with others and with the context of problem situation.

Glasser (2007) suggested that as long as learning, whether by individuals or collectives involves some form of input drawn from others, it can be characterised as social learning. However, he distinguished two forms of social learning. *Passive* social learning, where inputs in the form of interaction with other living beings is not required, such as reading a newspaper, watching movie, listening the radio, etc., and *active* social learning, which is one the other hand, is built on conscious interaction and communication between at least two living beings.

In the learning process, individuals interact with their environment. They act and re-act to the feedback that they received from the environment. Moreover, individuals interact with other individuals in the space of social learning and create opportunity of collective learning to arrive at coherent practices. Jarvis et al (2005) argued that social learning process cannot be described just as socialisation or response to the environment. It is a mutual, proactive process, in which the group or organisation 'acts back' on the environment. Glasser (2007) stated that as long as learning, by individuals or collectives, involves form of input drawn from others, it can be characterise as social learning.

Bandura's social learning theory (1977) explains human behaviour in terms of interaction among cognitive, behavioural, and environmental influences (Glasser, 2007). Bandura's social learning theory explains about human behaviour, individuals and collectives, into four components that support successful social learning process;

1. Attention; 'model' behaviour in the environment must grab or capture a potential learners' notice.
2. Retention; the learners must remember the observed behaviour.
3. Reproduction; the learner must be able to accurately replicate the observed behaviour.
4. Motivation; the environment must offer a consequence (reinforcement or punishment) that increases the probability for a learner to demonstrate what they have learned.

Active Interaction in social learning involves more than one living being, where ideas formed and reformed. Leeuwis (2004) emphasised how feedback plays an important role in shaping human practices. Feedback is information we get about the outcomes, characteristics, and/or consequences of our actions, and it helps us to evaluate our actions. Feedback can come from different sources, and can be vary in nature, quality of precision, reliability, validity, etc.

Motivation; the Driving Factor of Successful Learning

Bandura (1977) explained human behaviour in terms of continuous interaction among cognitive, behavioural, and environmental influences in social learning. He emphasised that one of the important components are motivation; where the environment must offer consequence (whether it is reinforcement or punishment) that increases the probability for a learner to demonstrated what they have learned.

Schon stated that the trigger that induces an individual to learn is identified in the relationship between the problem-solving actor and the problem situation. Learning process must have driving factor as a trigger. Factor where individuals interact with their environment, and may affect (whether positively or negatively) learning process must be recognise to provide pre-conditions that support learning process in a group. This driving factor, as argued by Leeuwis (2004) is often mentioned as 'motivation to learn'. He mentioned 10 factors that may influence people's motivation to learn;

1. The relative importance/seriousness of an experienced problem; where people can be influenced by whether the problem they faced is serious or not.
2. Direct involvement with a problem; whether the problem is personally affected or give direct consequences to people or not.

3. Urgency; whether solving the faced problem is urgently needed or can be postponed.
4. Self and environmental efficacy; whether people have confidence that they can use their capabilities in solving the problem.
5. Complexity, observability, and triability; whether they may use their effort in handling the problem, that is when they feel that problems are highly complex technically or socially, or not.
6. Clarity about the nature of the problem; whether people can understand that the problem is really exist and understand each components and details that shape the problem.
7. Perceived social consequences and risks associated with accepting alternative cognitions; whether people think that accepting new cognitive can give positive or negative consequences to them.
8. Social and organisational space; whether the surroundings of people, in the context of their social or organisation, appreciate new ideas or not.
9. Resources and safe space for experimentation; whether the surrounding resources are available to support their learning process.
10. Stress and trauma; whether the existing situation and outside pressure existed or not which influent people in responding their problems.

Race (2010) described motivation as a wanting or needing of the learners. “Wanting to learn” or what he described as ‘intrinsic motivation’ to learn, and “needing to learn” (extrinsic motivation) which is to put it more precisely taking ownership of the need to learn, are powerful enough to underpin successful learning. His research showed that there are 5 factors underpinning successful learning; people learning by doing, receiving feedback from the environment, there is a want, and people feel that they need to learn, and making sense or digesting what they learn.

2.3. Revealing the Gaps: From Theory to Practice

Facilitators in FFS facilitate the process and act as a trainer for farmers. Rather than providing answer, they ask questions. Facilitators focus on providing learning opportunities for the farmers (Nederlof and Odonkor, 2006). To be a successful FFS trainer/facilitator, facilitator must have skills in managing participatory, discovery-based learning as well as technical knowledge to guide the group's learning and action process (Luther et al, 2005). Better understanding of the participatory concept will lead facilitators to better practices of the concept itself. Social learning is a process of iterative reflection that occurs when we share our experiences, ideas, and environments with others. The importance of reflexivity (reflecting on the value of what we know and how we know it), leads to new understandings and is crucial component of social learning (Dyball, 2007).

2.4. Research Issue

Based on the current situation where claims and practices of participatory approaches in the Farmer Field School are often having gaps, this study aims to answer the following research question.

Main Questions

1. How are the participatory approaches conceptualised and practiced by facilitators in Fayoum farmer field school project?
2. To what extent are the facilitators learning and being motivated in the learning process in the context of constructing participatory approaches?

Sub-main Questions 1

1. What are the local topics of participation aspect in the Fayoum FFS project?
2. What type of participation has been implemented in FFS?
3. How facilitators perceived the participation of farmers in the FFS?

Sub-main Questions 2

1. How the facilitators construct the idea of participatory approach in the Fayoum FFS project?
2. How the facilitators perceived their interaction with the other facilitators and district staffs in their learning process?
3. How do facilitators perceived their interaction with their work environment in implementing participatory approaches in the FFS (problem situation, job responsibility)?
4. What factors affect the facilitators' motivation in the learning process?

Chapter Three: Research Project

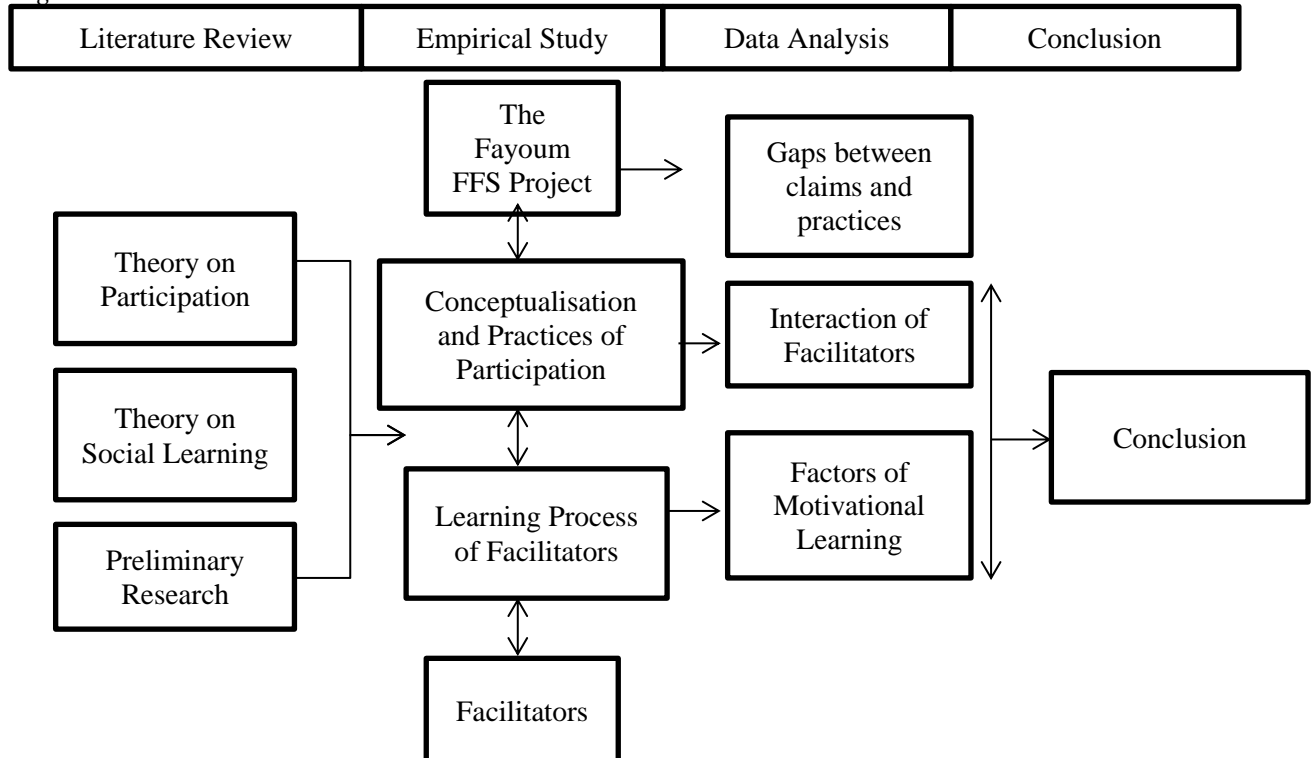
This chapter elaborates and presents research project which contains the design and strategy of the research. Research design discusses the research concept and research strategy includes the process and selection of data collection in the field. To better understand the research context, I use qualitative research in order to gain deeper insights on the complexity of details and nuance of the participatory concept and learning process in Fayoum FFS project. The existing issues is analysed in a case study.

3.1. Key Concepts

In order to gain clear insights on the conceptual situation of project location, environment, the factors that might influence the situation, and to recognise the important elements of the project, key concepts are defined. This phase also defined related factors that could be anticipated by designing an appropriate strategy on data collection on the field. Documents are gained from various sources such as from the project component, related websites, and video downloaded from the internet.

Research framework was formulated to build conceptual design which consists of the participatory approaches concept and social learning theory in Fayoum FFS project. Figure 3 shows the framework of the research.

Figure 3. Research Framework



This theoretical framework is used to map the theoretical perspective in the context of Fayoum FFS project. Two key concepts of the research were defined;

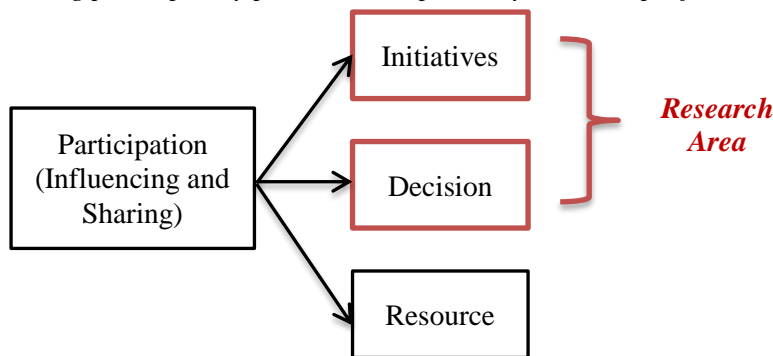
1. *Participation* implementation in the project; this concept was selected to analyse the gaps between conceptualisation and practice of participation in Fayoum FFS project.
2. *Learning process* of facilitators; it was chosen to gain insights on factors and aspects of facilitators as learners in terms of individuals, groups and facilitators interaction with learning environments in Fayoum FFS project. This concept definition supports the project to define how facilitators can learn in a better way in the learning cycle.

The two key concepts then unravelled and downsized to gain better understanding of the elements of the concepts.

Participation

The research defines participation concept into specific domain and assertion. Though participation is a general definition, in the local level, the concept was downsized more specific. In line with the literature review, there are three general dimensions of participation; *initiatives*, *decision making*, and *control of resources*. In the more local context, implementation of these dimensions is defined through several procedures initiated by the project. Figure 5 presents the unravelling of participation;

Figure 4. Unravelling participatory process concept in Fayoum FFS project



In line with the figure above, the dimensions of participation concept in the project which is; in which way does the project considered the farmers have initiatives and share decisions in Farmer field schools.

This research focuses on participation in Fayoum Farmer Field School project are conceptualised and practiced by the facilitators. In analysing, I modified two tools in measuring both the dimension and type of participatory approaches being implemented in the project. The next table is the modified tools used to observe how the dimension of participatory concept in the general level, being understood and implemented in the project level. For example, I used the table to analyse in which way does the project considered the farmers has initiatives in Farmer field schools. Research activities were held to obtain information.

Table 1. Modified tool to observe dimension of participation

No	Participatory approaches	
	Dimensions	Topics
1	Initiatives	The opportunity for participants to speak out equally
		The ability of participants to speak freely
		Multiple perspectives must be explored and taken into account
2	Decision Making	Involvement of all stakeholders in decision making
		The power balance among stakeholders
		(physical) Accessibility of all participants.

The dimensions of participation are often integrated each other in a project. As mentioned in the literature review, Leeuwis (2004), adapted Pretty and Chambers (1994) and Biggs (1989), mentioned that participation can happen in different types, based on the roles of farmers in a project. In line with that, table 2 indicates 6 types of participation. The following table is modified as a tool to observe types of participation. The table is as follows;

Table 2. Modified tool to observe types of participation

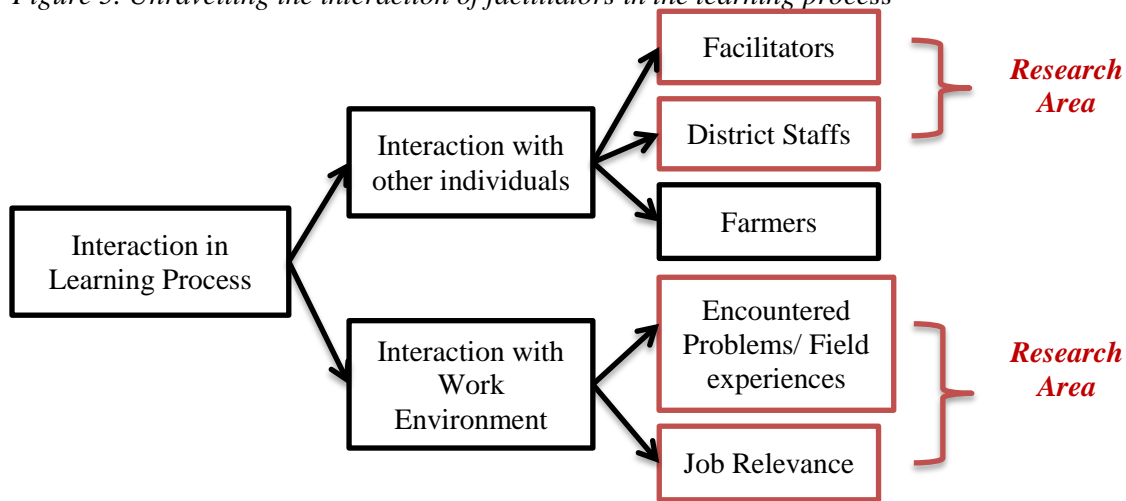
Types	Required Conditions
Self-mobilisation	Participants initiate, work on and decide on projects independently, with interventionists in a supportive role only.
Collaborative participation	Participants are partners in a project and jointly decide about issues with project staff.
Functional participation	people participate by forming groups to meet predetermined objectives related to the project
Consultative participation	Participants are asked about their views and opinions and without restriction, but the interventionists unilaterally decide what they will do with the information.
Participation on information giving	Participants can respond to questions and issues that interventionists deem relevant for making decisions about project.
Passive receiving information	Participants are informed/told what the project will do after it has been decided by others.

The two tools are used to analyse how participation is being implemented, and how farmers are involved in decision making and initiatives in Fayoum FFS project.

Learning Process

The second key concept of the research is learning process of facilitators. Participatory approaches in the project is conceptualised and practiced simultaneously by facilitators. They understand of what participatory is, how it is being implemented, and how they perceived that participatory is working. The Fayoum FFS project provides conditions in which facilitators learn and construct their understanding on participatory approaches, both in formal and informal ways. Facilitators interact with other individuals (such as facilitators, project staffs, and farmers) as well as working environment (such as problems and feedbacks) in the project where this interaction affects their learning process about participatory approaches. The following explanation sub-divides factors that affect the motivation of facilitators in their learning process.

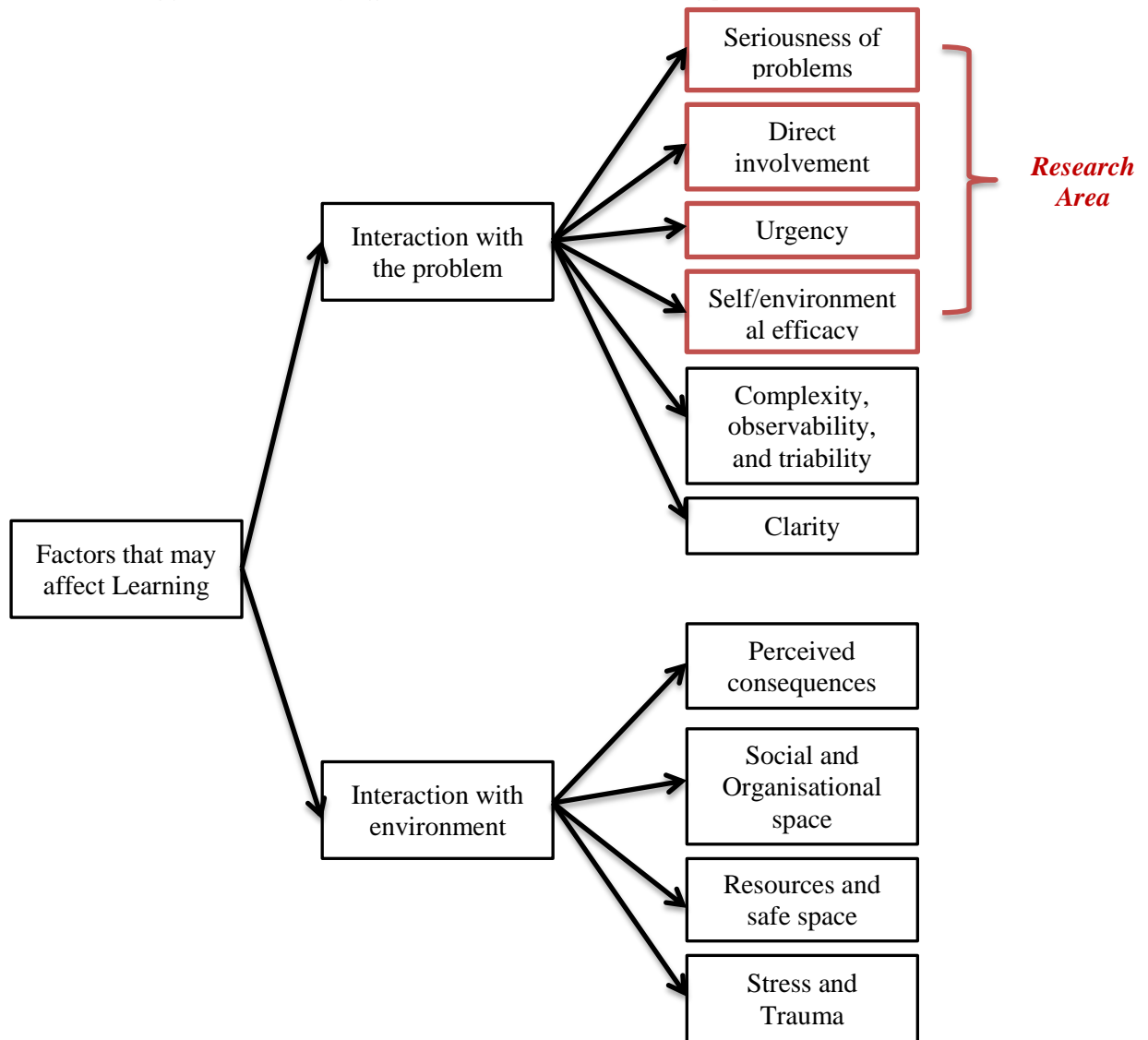
Figure 5. Unravelling the interaction of facilitators in the learning process



This learning process of facilitators is built on the interaction of facilitators with other individuals and work environment. Facilitator as Individual interacts with other individuals such as other facilitators and district staffs in their office. In their interaction with work environment, interaction mainly focuses on how facilitators interrelate and give feedback with the problems they encountered in their professional work, and how they perceived their job responsibilities as facilitators of FFS. The interaction with work environment is described by this research based on Bandura's social learning theory (1977) which explains human behaviour in terms of interaction among cognitive, behavioural, and environmental influences (Glasser, 2007).

Facilitators as individuals are the main part of the social learning process. To get more clear insights on their learning process as individuals, this research also aims at factors that motivate/demotivate facilitators in terms of their learning process in the social context. Defining the factors gives insights of the nature of learning process of facilitators, thus will contribute to the improvement of the design of the further development of the project especially participatory approaches conceptualisation through learning methods. Delineating the concept is shown by the following diagram;

Figure 6. Unravelling factors that may affect motivation in the learning process.



One of the focuses of the research is the factors motivated facilitators in their learning process. The selection of the factors was based on the relation of facilitators' perception regarding their capabilities on handling encountered problems in implementing participatory approaches in the FFS.

Based on the theoretical framework, I proposed to hold case study with qualitative approach. The strategy was to achieve a detailed and intensive understanding into specific object in certain time and space. In this case study, I focused on deep observation of existing problems in the Fayoum FFS project based on the key concepts.

3.2. Case Study

In the case study, relevant resources of information such as individuals, project documents, reports, training modules, were collected to achieve information. The information was analysed according to the design of the research framework. The research design is as follows;

Study Area

The research was carried out in Fayoum district, one of the districts in Fayoum governorate, the region where Fayoum FFS project is being held. Fayoum district was selected because of two reasons. First, compared to other district, Fayoum district has well-balanced of male and female facilitators. The district has 13 facilitators which consist of 6 male facilitators and 7 female facilitators. This allowed to the equity of gender selection among facilitators. Second, also compared to other districts Fayoum district was among the highest number of on-going FFS on the field. It has of 30 FFS which comprised of 4 male FFS, 16 female, and 10 mixed. This complexity led to information retrieved from the facilitators' experiences becoming more depth.

Research Activities in Egypt

The research activities for data collection included interviews, focus group discussion (FGD), document review, and field observation.

Field Engagement

I engaged in the Fayoum FFS project to get clear understanding on how participatory approach is being implemented in the FFS. I immersed with the environment to obtain the nature of individual and group interaction in Fayoum FFS project. I was invited to attend weekly meeting and training of facilitators to experience the activities. I became part of the activities which allowed me to analyse the environment and the situation of the learning space of facilitators, which were; how the facilitators interacted with other facilitators and district staffs by giving and receiving feedback on their problems on the field, the way they communicate each other, and informal contacts. Becoming part of them, I did not use translator in order to catch the real situation of the conversations in the meeting and training. In addition to that, I joined the field school to understand how facilitators facilitate FFS on the field to analyse their behaviour, as well as their interaction with the farmers in the villages.

Document Review

During the case study, various documents collected from several sources were reviewed. I studied annual and periodic reports to analyse the roles of facilitators in the FFS. I studied the training modules gained from the project office to analyse the skills that have been learnt and used by facilitators in implementing participatory approaches. I also reviewed project description to get insight of participatory implementation in the project.

Interviews

Interviews with stakeholders were conducted for data collection in Fayoum district. The questionnaire formulated for the interviews was aimed to answer research sub-question to provide reliable answers for the research objective. I undertook interviews with 13 respondents in the Fayoum FFS project. Deep interviews using open questionnaire were designed to achieve profound data of Fayoum FFS project. 13 stakeholders from three different backgrounds were interviewed to triangulate the information in order to achieve reliable and valid information.

Facilitators; 8 facilitators of Farmer Field School (FFS) which are extension workers of Fayoum Agriculture Directorate are interviewed. They are responsible in facilitating FFS in the villages in Fayoum district. Four aspects that have been taken into account prior to the interviews are; (1) facilitators' involvement in the FFS who has already been trained in implementing participatory approaches, (2) facilitators who have been engaged with FFS for more than 5 years, (3) facilitators who have ever been involved in traditional extension of FFS. These considerations were meant to analyse the comparison between their previous methods and participatory method in the project, and (4) the equal balance of male and female facilitators (gender selection). To provide more profound and deeper insights into the current situation, interviews were focused on the depth of the interview rather than the amount of interviewees. The interviews were guided by formulated interview guideline. The focuses of the interview for facilitators are; (1) participatory approaches in FFS; how the facilitators perceived the success of participatory approaches practices in the FFS, the capabilities they learnt for implementing participatory approaches, and how do they see the response of the farmers comparing to top-down methods of extension, (2) how they perceive their interaction with other facilitators and other district staffs in their learning process regarding participatory approaches, and (3) what factors motivate and demotivate them to learn the concept of participatory approaches.

District staffs; 4 district staffs of the project in Fayoum district who are responsible in building facilitators competence in implementing FFS and maintaining the participatory approaches and technical support for farmers were interviewed. District staffs are involved not only in building the concept of the project but also in the monitoring of facilitators meeting, training, and FFS implementation. Whilst for the district staff, the focus of the interview was how they perceived participatory approaches which are being implemented by facilitators, and how the district office provided condition for learning process of facilitators.

Master trainer; a master trainer of the project in Fayoum district was also interviewed. The master trainer is responsible in training the facilitators in Fayoum district. The interview of the master trainer was meant to gain insight on the design of the training and the FFS in general. It included the required capabilities of facilitators, situation and the training of facilitators, and how the facilitators implement participatory approaches on the field. The focus of interviewing the master trainer is to know the characteristic of participatory approaches on the field, and the nature of facilitators' learning process regarding the participatory approaches in the Fayoum FFS project.

In these interviews, I worked with an official translator to translate Arabic language to English. It caused the interview to last longer because we needed more time to translate the conversation during the interviews. The interviews were held in Ramadan month which made the interview cannot last more than 1.5 hour because in Egyptian culture, in Ramadan people went home earlier to perform religious activities.

In total, interviews with 8 facilitators, 4 district staffs, and 1 master trainer were conducted. The interviews lasted for 1 to 1.5 hours. In addition to that, informal interviews with officials in Faculty of Agriculture in Fayoum University, and in Fayoum Agricultural Directorate were also conducted to gain more information about Fayoum FFS project.

Focus Group Discussion (FGD)

Focus group discussion (FGD) has also been used in this research. I conducted FGD with 8 facilitators after finishing personal interview for all facilitators. FGD was used to extract information from facilitators which was not clearly extracted in personal interview. This method was also used to analyse common perception (similarities and differences) regarding participatory approaches implementation in the FFS. This FGD lasted for 1.5 hour.

Validation Discussion

Validation discussion was held in Van Hall Larenstein University. Researcher was invited to present, share, and discusses the findings and analysis of the result of the research. The meeting was attended by three official members of Fayoum Centre of Excellence (CE) project to provide information about the project and to give inputs to the data in research.

Chapter Four: Results

This chapter deals with information gathered from the case study of Fayoum Farmer Field School (FFS) Project. The first part describes the profile of Fayoum governorate, which is the location of Fayoum FFS project. The second part explains about Fayoum FFS Project. The third chapter presents the participatory approaches implementation in Fayoum FFS project. The last part of this chapter shows the learning environment of facilitators in the project. The findings are based on the information gained from research activities which included field engagement, document reviews, interviews, and focus group discussion.

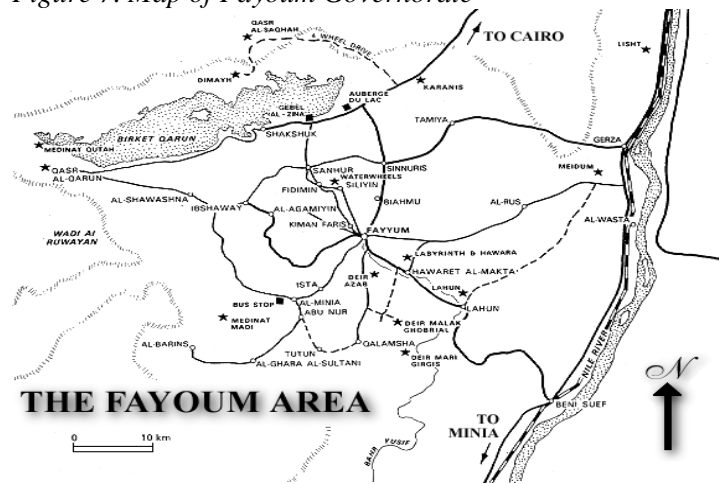
4.1.Fayoum Farmer Field School (FFS) Project

Fayoum is one of the governorates of Egypt in the middle of the country. Its capital is the city of Fayoum, located about 81 mi (130 km) south west of Cairo. Fayoum governorate is a green oasis that lies in the middle of the Desert, in the West of the Nile, and is located in the North Upper Egypt Region that encompasses Fayoum, Bani Swaif, and Menia governorates. Fayoum is surrounded by desert, valley, delta, and lake. The governorate includes 6 Marakz (districts) which are; Fayoum, Sonors, Ebshwy, Etsa, Tamia, and Yusuf El Sedeek. It also includes 6 cities, 61 rural local units annexed by 162 villages, and 1428 hamlets. According to the preliminary results of the 2006 census, the population is 2.5 million; 22.5% of them live in urban areas and 77.5% in rural areas. The population natural growth rate has reached 22.1 per thousand.

The total area of Fayoum governorate is around 6068 km², representing 0.6% of the State's total area. The soils are excellent for agriculture, despite some soil salinity and sodicity in limited areas, especially around Lake Qarun. Agriculture remains the dominant activity and land use of the Fayoum Region. Developed areas (villages and hamlets) lie within or adjacent to the agricultural areas. Other activity includes agricultural processing industries (refineries, mills, gins, slaughterhouses, and tanneries), brick making, ceramics, and other lesser service industries that cater to the needs of the local community. The rural population is more than twice the urban population, which indicates that the Fayoum Governorate is an agricultural community. This rural population lives mostly in villages like Hawarrat El Maqta and Qasr El Jabali (USAID 2007). The Governorate's total cultivated areas cover 428 thousand feddans (acres) and are famous for cultivating fruits including grapes, figs, mangoes, as well as other traditional crops such as wheat, cotton, rice, maize, sugar beets, and sunflowers. Fayoum contributes in the industrial activity as there are two industrial zones in El Fath City in Koum Osheem, covering 1102 feddans, and in Quotah area, covering 2000 feddans. (Fayoum Governorate, 2006). It is also rich of natural resources such as marble, pure lime stone of various kinds, and shale.

Rainfall in Fayoum is very scarce, which is about approximately 3mm per year. Therefore, water for agricultural activities is mostly comes from irrigation system from the Nile River. The temperature in Fayoum ranges from 13.2°C to 14.2°C in January, the coldest month of the year, up to 41°C. Humidity in Fayoum ranges from 59% % in the winter to 74% in the summer.

Figure 7. Map of Fayoum Governorate



The Fayoum Region is one of the oldest agricultural areas of the world. It is an oasis, a fertile, watered region surrounded by desert. Unlike most oases, however, its water comes not from springs but from the nearby Nile River via the Bahr Youssef (Joseph Canal), which originated as a natural distributary of the Nile. The Fayoum depression has about 1,500 km² of cultivated area. (Abu Al-Ezz 1977, Said 1962, 1990, in USAID 2007).

The Farmer Field Schools approach was introduced in Fayoum by a Horticulture project in 1998 in which 5 Farmer Field Schools were operated for 125 female tomato-growers. Use of the FFS approach became wider under the Integrated Pest Management (IPM) project from 2001 to 2007. As a result of the evaluation of implementation of the project, FFS methods were implemented more broadly defined rural development in Egypt. Therefore, in this project the FFS approach was used to tackle a broad set of human development issues of direct relevance to the poor farming communities (women in particular) in Fayoum, which is in line with the new direction of the Netherlands assistance to Egypt and the rural development policy of the Government of Egypt.

The support of the Netherlands Ministry of Foreign Affairs to the agricultural sector of Fayoum in Egypt has a long history, starting in 1984 with the Fayoum Horticultural Project, followed by amongst others the FIPMP, and finally Fayoum Farmer Field School Project (FFFSP), which has started on the first of January 2008 and will be operational until March 31, 2011. Even though the FFFSP is not an extension of the FIPMP as such, it does build forward on the existing infrastructure, knowledge and expertise. Whereas FIPMP was largely targeted towards agriculture, in the FFFSP the Farmer Field School (FFS) method will be used to tackle a broad set of human development issues of relevance to the poor rural communities in Fayoum, in line with the development priorities of the Netherlands assistance to Egypt.

The goal of this project is “to improve the livelihood of the rural population in El Fayoum Governorate”. The specific objectives are:

- Approximately 30,000 people of the Fayoum rural population have participated in FFS, of which 50% are female;

- To increase direct access of the population of Fayoum to information about economic, agricultural, social and environmental issues;
- To ensure an informed strategy for promotion of gender equality in the institutional set-up and activities of the project;
- To promote the adoption of the participatory FFS in more governorates.

In 2012, following Fayoum FFS project, new project called Fayoum Center of Excellence (CE) project has been launched. CE project emphasises on the strengthening of government officials' capabilities on FFS in other directorates in Egypt. This new project aims to disseminate FFS throughout other governorates in Egypt.

Farmer Field School (FFS) is the main component of Fayoum FFS project. In Fayoum FFS project, it was conceptualised that;

*Farmer Field School (FFS) is a forum where participants and trainers debate observations, apply their previous experiences and present new information from outside the community. The results of the meetings are management decisions on what action to take. Thus FFS as an extension methodology is a dynamic process that is practices and controlled by the participants to transform their observations to create a more scientific understanding of the crop/livestock agro-ecosystem. A **field school therefore is a process and not a goal.** (TOT Manual; Fayoum FFS project)*

The main objective of the FFS is to bring participants together to carry out collective and collaborative inquiry with the purpose of initiating community action in solving community problems. To achieve this objective, specific objectives were formulated; (1) to empower participants with knowledge and skills to make them experts in their own field, (2) to sharpen the participants' ability to make critical and informed decisions that render their farming profitable and sustainable, (3) to sensitize participants in new ways of thinking and problem solving, and (4) help participants learn how to organise themselves and their communities.

Field schools in Fayoum FFS project are meant to answer problems in the villages. There are two topics discussed by farmers in the FFS, agricultural and non-agricultural. In agricultural aspect, the emphasis is on growing crops or raising livestock in a socio-economic and environmental sustainable way, where agro-ecosystem is the mainstream. Four aspects in agricultural topics are; (a) grow a healthy crops and animals, (b) observe the fields and animals regularly, (c) conserve natural enemies of crop pests, and (d) farmers understand ecology and become experts in their own field. In non-agricultural topics, FFS aim at helping farmers to become confident decision makers so their own expertise will be utilised in response to the problems they face. It observes topics related with physical, social, and cultural environment. In this area, facilitators build network with other institution based on the problem delivered by farmers. For example, when women farmers ask about family planning and pregnancy, facilitators invite doctors from directorate of health to explain about the pregnancy.

The FFS is a method used to tackle a broad set of human development issues relevant to the poor rural communities in Fayoum governorate. In 2008, the project targeted 1200 FFS would be implemented. However, as reported in 2011 periodic report, only 161 FFS has been operated. This was due to two reasons; (1) the unavailability of sufficient Government funds in 2008 which caused the reduction of contract facilitators hired during the project, and (2) revised of plan in 2009 that rather than expanding the amount of FFS, the project would focus more on maintaining and strengthening the available FFS to create sustainable farmer groups. In 2012, there are 122 FFS operated in 5 districts in Fayoum governorate. Table 3 shows the composition of FFS in Fayoum governorate.

Table 3. Composition of Farmer Field Schools in Fayoum governorate

District	Female FFS	Male FFS	Mixed FFS	Total
Fayoum	16	4	10	30
Sinores	4	3	9	16
Tameya	10	0	10	20
Itsa	11	12	0	23
Ebshway	3	21	9	33
TOTAL	44	40	38	122

FFS are held in the villages and facilitate by two facilitators for two hours. The amount of members in each school ranges from 20 to 25 farmers. There are three kinds of FFS; male FFS (which consist of male farmers only), female FFS (female farmers only), and mixed FFS (both male and female farmers). This division is based on the demand of members because not all farmers want to be mixed. Therefore, the composition of the FFS is decided by its members. However, if the amount of the members is less than 20, it will be merged with other field school. Several steps in establishing and implementing FFS are;

Preparation Visit

The first activity in establishing FFS is visiting location. Facilitators and district staffs visit villages to socialise the program to villagers. In this meeting, facilitators describe the general outline of the programs and their plan to establish field schools in the village. Facilitators observe the respond and feedback from the villagers to analyse the villagers' interest on the program.

Selecting Participants

After socialising the program, the project selected 25 members from the attendees of the meeting. Three meetings were held to discuss about the project and FFS implementation, and also used by district office to measure participants' commitment to attend the meeting. Farmers who attended until the third meeting were automatically selected to become FFS members.

FFS Program Preparation

The next phase of the FFS is to design the annual plan of FFS implementation. Members of the FFS, facilitate by facilitators, select days and places to hold FFS. Next, facilitators conduct need assessment to analyse the problems and needs of participants, to determine the topics that will be discussed in the FFS. The result of the need assessment was brought to the district level to design annual plan of the district office.

FFS Field Implementation

In the field implementation, facilitators visit the villages to conduct the FFS. Discussion lasts for two hours from 10 to 12 in the morning, depends on the decision of the farmers. Initially, agricultural problem such as crop production, fertilizers, pest management are the main topics. But later on, farmers also discussed other topics such as education (literacy improvement), health, environments, etc. There are two discussion parts in the FFS, main topic discussion where farmers discuss the topics that were planned and secondary topics discussion where farmers discuss additional topics that they faced in their daily life. To prevent boredom and saturation, facilitators use drawings and pictures as media of communication, and they also apply 'ice breakers'. Ice breakers were adjusted with the farmers' cultures to prevent misunderstandings.

Fayoum FFS Facilitators

Facilitators play a major role in Fayoum FFS project. At the field implementation level, facilitators engage with the rural people to conduct FFS. Facilitators are responsible in planning and executing FFS with local people, and regularly report their activities to the district level every week. Facilitators also connect farmers with district staffs in the project for delivering farmers' needs, for example if the information is not available in the village, and district staffs should invite other institutions to provide sources of information needed by the farmers. There are three kinds of facilitators in Fayoum FFS project;

Fayoum Agricultural Directorate (FAD) facilitators

FAD facilitators are extension workers who are permanently working for the government as civil servant. In 2008, there were 76 FAD facilitators which consisted of 19 female and 57 male facilitators. The FAD facilitators receive a monthly salary through the FAD and a monthly project based incentive from government side to participate in the project.

Contract facilitators

Contract facilitators are fresh graduates from university. They are usually young people who want to be involved in the project. Contract facilitators receive a project based incentive paid by FAD, but receive no monthly salary from the project. Contract facilitators carried out the FFS facilitation in the field with FAD facilitators. They were trained in technical and communication at the beginning of the project to equip them with skills to deal with FFS.

Village promoters

Fayoum FFS project prepared local facilitators as an exit strategy to sustain the FFS. The local facilitators, which were called village promoters, were prepared to do the further facilitation in the FFS. Village Promoters were recruited from within the group of participants

and do not receive a monthly incentive. Village promoters were selected on the basis of their capacity and leadership skills, commitment and suitability according to the community. They received training on technical and communication skills. They also become part of a network to optimally defend their own and their colleagues' interest through coordination and cooperation. They work side by side with contract or FAD facilitator in facilitating FFS.

However, due to decreasing of FFS operated in the field, recruitment of the contract facilitators has been stopped. There are now 53 FAD facilitators, which consist of 38 male facilitators and 15 female facilitators who facilitate FFS in five districts in Fayoum governorate. Table 4 shows the composition of facilitators in Fayoum governorate.

Table 4. Composition of facilitators currently working in Fayoum FFS project.

District	Female Facilitators	Male Facilitators
Fayoum	7	6
Sinorea	2	12
Tameya	2	4
Itsa	3	6
Ebshway	1	10
TOTAL	15	38

4.2.Participation in Fayoum FFS project

Participation is a major issue in the Fayoum FFS project. In all aspects of the project implementation, participatory approaches are implemented in relation with farmers' participation in the FFS. Farmer Field School is designed to include farmers in rural areas on discussing their own problems. In Fayoum FFS project, farmers are the main stakeholders. The following findings present facilitators' opinion on the practical circumstances of farmers' participation in Fayoum FFS project.

Farmers' initiatives

Facilitators perceived that in farmer field school, facilitators involves themselves as minimum as possible. Facilitators give opportunity to all farmers who participate in the process of field school. For example, farmers bring infected plants from their field, and ask for solution in the field schools. Facilitators ask other farmers to find out solution to the problem. If the farmers cannot give solution, facilitator will offer them solution based on their knowledge. In the discussion, the role of facilitators is asking more questions rather than giving answers is one of their strategies to attract the farmers to speak out. Facilitators should not interfere to farmers' opinion, and should be sensitive to farmers who speak rarely. For example, researcher observed in a FFS, when facilitators ask all participants to speak about pollution in their village, how they feel about the pollution. Research observation revealed that, to avoid long session, considering that the FFS in Fayoum lasts for 2 hours, facilitators gave priority for participants who were eager to talk.

Farmers discuss the problems they face, and share their experience to find solutions. The role of facilitators is to provide information needed by the farmers in finding solutions on their problem. The facilitators facilitate this sharing of experience and knowledge regarding the situations. The ideas may come from the farmers or the facilitators. However, as much as possible, facilitators do not give idea. Nonetheless, if they observe that the farmers' idea should be corrected, they will interfere and try to persuade farmers by giving explanation or inviting other people who are expert on the problem to give an explanation. For example, when facilitators informed farmers about new vaccination for poultry and livestock, many farmers were afraid. Therefore, facilitators worked with veterinary department by inviting expert from the department to explain to the farmers that it is important to vaccinate their livestock.

Farmers' decisions

The steps of establishing Farmer Field Schools (FFS) in the village begin with socializing the FFS to all villages in Fayoum governorate. In the socialisation phase, facilitators ask farmers to join the FFS and give an opportunity to farmers to decide whether they want to join or not. Facilitators hold three meetings to measure farmers' commitment to join the FFS. Then it comes with selecting 20 to 25 members. Farmers who attend the three meetings automatically became members. Farmers decide whether they want to join the FFS or not. However, the FFS will not be established if the members are less than 20. After having the members joining the group, need assessment of farmers is held by the facilitator to analyse the current situation and prioritise emerging problems. The result of the meeting is delivered by facilitators to the district office to design annual plan with the district staffs.

Facilitators perceived that in implementing the FFS in the villages, farmers decide the topics. For example, when farmers feel that the school should discuss topics about tomatoes, facilitators will facilitate them to discuss about increasing production of tomatoes, how to handle pest in tomatoes, etc. However, the discussion is not limited for agricultural problem only, but also for other problems such as education, health, and politics, depending on farmers' decision. For example, there is a case when farmers complained about illiteracy problems in their villages, where some farmers could not read medical recipes from doctors, official letters, or their identification card. Facilitators then work together with literacy education authority to educate farmers to read.

In terms of accessibility of participants to deliver their opinion on deciding the agenda and the topics, facilitators must be sensitive to different cultures. For example, female farmers who do not want to speak in front of male farmers for certain thing, such as pregnancy or childcare, should be taken into account. Therefore, the establishment of female farmer field schools is considered if the female farmers need it.

It is also applied in different patterns of behaviour. Some farmers are able to speak confidently, while some others are not. Facilitators should be able to recognise the pattern by encouraging farmers who lack of confidence and try to avoid dominancy in decision making.

Facilitators Participation in Fayoum FFS project

The research also found that, beside farmers' participation, Fayoum FFS project also initiate facilitators' participation in the project, which is reflected on how the contents of the meetings and the topics of trainings are determined. Facilitators and district staffs hold weekly meetings to discuss and analyse the current situation, and share ideas to find solutions together. One of the outcomes of the weekly meeting is the technical subject that will be learnt in the weekly trainings. Facilitators offered what topics to be discussed in both weekly and refresher trainings. The project conducts two types of trainings for facilitators; weekly training and refresher training. The weekly trainings are held to provide them skills on technical subject such as agriculture, environment, food production, etc., based on the needs of facilitators. Refresher trainings are for social skills to support facilitators' field implementation of FFS. In the training, facilitators are given specific subjects based on the needs of facilitators.

4.3.Learning Process of Facilitators

In terms of participatory approach, facilitators in Fayoum FFS project are the ones who work in the field with farmers. To cope with participation issues, especially in involving farmers in the FFS, Fayoum FFS project provide situations where facilitators improve their capabilities in implementing participatory approach in FFS. In terms of the learning process, facilitators interact with individuals (other facilitators and district staffs), and work environment (encountered problems and job responsibility), and shape their understanding about the topics in participation which affect their personal behaviour in implementing FFS in the villages.

4.3.1. Interaction with Individuals

One of the focuses in this research is the interaction of facilitators with individuals, which are; other facilitators, and the district staffs. This research found that facilitators' interaction occurred in both formal ways during meetings and trainings as well as during and informal ways in the project.

Weekly Meetings

Every week, meetings of facilitators and district staffs of Fayoum district is held. The weekly meeting is conducted every Wednesday from 10 to 12 am in the morning. All facilitators and district staffs must attend the meeting. In general, there are two main objectives of the meeting namely reflection and deciding topics.

In the reflection phase, facilitators convey their experiences in the FFS they facilitate. Facilitators share their problems, such as technical problems (technical questions that they could not answer), and social problem such as conflict between female farmers and their husbands, and other obstacles faced in the field. They also share their achievement such as implementing field experiments and others. In this part, they also share solutions to other facilitators who convey their problems in the meeting. Weekly meeting are also held in order to analyse and decide the topics that will be given in weekly trainings. The topics are based on the reflection of the farmers needs in the FFS.

Trainings

Trainings are meant to align facilitators to what and how the project seeks to achieve its objectives, such as tasks, responsibilities, and competencies. There are three types of training in Fayoum FFS project; (1) basic training, which was held in the beginning of the project, was designed to build the capacity of contract facilitators in facilitating FFS, (2) weekly trainings which were designed for facilitators to equip them with technical skills, and (3) refresher trainings which were designed for facilitators to equip them with social skills. As mentioned before, in Fayoum FFS project trainings are designed to improve facilitators capabilities in two aspects; technical and social aspect.

Technical aspects

The trainings on technical aspects provide facilitators information and skills on topics such as plant production, pest management, environmental management, marketing, animal production, crop production, food processing, etc., which are given through weekly trainings. The topics depend on the needs of the facilitators which are based on the topics and problems faced by the farmers during the implementation of FFS. The objective of the weekly training is to support knowledge sharing with farmers, which might support the process of finding the path towards the solution, or finding external institutions which may be helpful in resolving problems in the villages.

Social aspects

The trainings on social aspects equip the facilitators with communication skills, in order to ensure that they are capable in supporting the farmers in recognising problems in the villages (Fayoum Inception Report 2008). Social aspect competencies such as communication skills, presentation techniques, facilitating skills, etc., are meant to improve facilitators' ability in facilitating FFS on the field. Communication trainings are given incidentally depends on the needs of facilitators through refresher trainings (about 2-3 times per year). Through these trainings, facilitators learn how to implement participatory approaches in the FFS.

However, all of these facilitators did not attend the basic training on facilitation skills in the Fayoum FFS project. Basic training on facilitation skill is only for contract facilitator which was conducted in the beginning of the recruitment. Some of the FAD facilitators received trainings on facilitation skills in the previous project, the FIMP project, and some others from other project outside Fayoum.

Informal Interaction

Based on the information gained from the facilitators, facilitators also make use of informal circumstances as an opportunity to share their opinion, the problem they face on the field, and to analyse how other facilitators faced their problem. Informal communication can happen in certain situations, such as at the office during tea breaks, in the car when they are on the way to the field. Mostly, facilitators meet at the office during the weekly meetings and trainings.

4.3.2. Interaction with Work Environments

In order to contribute to the improvement of Fayoum FFS project, this research tries to reveal the learning process of facilitators in terms of practicing participatory approaches in FFS implementation. This includes the interaction of facilitators with the encountered problems and work environment.

Interaction with Encountered Problems

After gaining information from the field engagement, this research discovers how the facilitators interact with the problems which includes the interaction with their past experiences, farmers experiences, and cultural impacts.

Facilitators' past experiences

All of the facilitators have been working in the field for more than 10 years. The facilitators experienced both practicing traditional extension and participatory approach methods. In the traditional extension methods, facilitators delivered packages from the government to the farmers. As government officials, the implementation of programs was bureaucratic and procedural. Facilitators went to the village, invited farmers to attend meetings, taught farmers based on the problems defined by the guidelines prepared by the government, and taught the farmers through technical trainings on agriculture. However, the traditional extension did not attract the farmers and decreased the amount of participants come to the meeting.

Direct contact with farmers

Facilitators are the ones who are directly involved with the farmers. Every day from Saturday to Wednesday (Sunday to Wednesday in Ramadan month), facilitators visit farmers in the village to conduct FFS. Facilitators do the extension services for farmers by providing information based on the questions the farmers asked. Facilitators interact with the farmers both in formal ways (discussion, practices, field visit, and demonstration plot) and informal ways (telephone, home visit, etc.).

Farmers' experiences

Farmers are the ones who are working in the field. Facilitators thought that farmers have many experiences in agriculture and should be involved in discussing agricultural problems. Agricultural issues are something that the farmers face in their daily life. In some circumstances, farmers can find their own way to increase their yield, or to prevent pest that can caused the production declined. Therefore, farmers have many experiences and local knowledge regarding the agricultural problems in their village. For example, in a field school, a woman farmer says that she plants squash around her field to protect her tomato crops from white flies. Facilitator then motivates and supports her to share her knowledge to other farmers.

Cultural Impact

However, involving farmers into discussion also bring new problems. Different pattern of farmers' behaviour in discussion sometimes leads to debates and argues. Some farmers are dominant and want to talk more, while the rest lack this confidence and do

not talk. Involving farmers in the discussion, sharing ideas, and using ice break in discussion, creates friendly atmosphere in the FFS. Facilitators felt that learning communication skills enables them to prevent conflict in the discussion. Facilitators revealed that building good atmosphere in the FFS enabled them to communicate with farmers. Therefore, Facilitators of Fayoum FFS project thought that they must forge themselves with communication capabilities to facilitate FFS. Facilitators thought that the capabilities such as communication, presentation, and negotiation skills, and conflict management that they learnt from participatory training, whether from the project or not, give positive impact for them when conducting FFS. With the capabilities, facilitators create condition where farmers have confidence to convey their ideas in discussion.

Interaction with Job Relevance

Facilitators in Fayoum FFS project are working based on their professionalism which has guidelines of job responsibilities. Facilitators visit villages regularly to gather farmers to conduct FFS. In more specific details, the roles of facilitators in the FFS are to:

- Initiate new FFS; facilitator surveys the villages and the environment to observe the situation, and recommend the establish of new field school
- Explain the objectives and FFS process; facilitators socialise the project to the farmers to allow accessible information of FFS to the farmers.
- Prepare for the FFS session; facilitator prepares the session which includes; links with external facilitators and collaborators prepare materials and visual supports, regularly inspects the school field.
- See and use learning opportunities; facilitator senses the situation in which they can help the group in achieving their objectives and help participants identify opportunities and potentials in their environment, and stimulate farmers to think.
- Guide the learning process; this includes observations and analysis, experimentation, and technical backstopping.
- Create a good learning environment. It is meant so that participants feel comfortable, participate, interact, discuss lively, well balance (no one is dominating anyone), and avoid conflict.
- Guide in decision making; facilitator helps participants to reach an appropriate consensus and arrive at appropriate conclusions
- Time management; facilitators should manage the FFS to gain an effective discussion.

To cope with problems that facilitators face in running their responsibility in implementing FFS, facilitators as professionals were equipped with skills. The research found that all facilitators have been trained in the previous project, the FIMP, and other project outside Fayoum. The main job of facilitators is being in the field facilitating discussion with farmers to discuss problems and find solutions. However, facilitators as human beings also bring personal ideas and as government agents, facilitators represent the government and bring ideas from the office. To implement participatory approach, facilitators mentioned that the training equipped them with special skills to involve farmers in the discussion in FFS.

Communication skills

Facilitators were trained in building their self-confidence to make facilitators confident in talking in front of people. Facilitators learn presentation skills in order to improve their ability in delivering information to farmers. Two topics in communication skills are; (1) verbal communication such as talking, listening, asking and answering questions, leading discussion, (2) non-verbal such as eye contact, body language, body contact, and emotions. In addition to that, facilitators learn about the utilising of visual media to increase the attractiveness of discussion. This includes drawings, graphs, writing, and pictures.

Figure 8. Make use of media in meetings



Figure 9. Make use of media in FFS



People management

In the discussion in field schools, there is a diversity of many farmers with different characteristics. Some farmers have high confidence in delivering their ideas, but some others have lack of confidence. This led to dominance of some farmers over others. To sensitise with this situation, facilitators acquired skills on how to raise confidence of farmers and how to deal with farmers who speak a lot, to run more effective dialogues. One of the main issues in participation is involving farmers in the discussions. Facilitators learnt listening skills to decrease their dominance and increase farmers' inclusion, in order to prevent dependency of farmers to facilitators.

Group management

Running discussion in the group, facilitators learn how to organise meetings such as making clear objectives and goals in a discussion, and creating steps towards achieving the objectives. To handle group dynamics, facilitators learnt conflict managements. Facilitating discussion in the villages involving many ideas which made debates and argues are unavoidable. Facilitators learnt how to deal with different opinion of farmers to avoid bigger conflict. Different opinion is also happened between facilitators and farmers. Facilitators learnt how to convince farmers to correct the information given by the farmers.

Facilitators perceived that by using none of the skills mentioned above are useless. They found that the communication skills are very important for them to facilitate local people in the FFS.

Chapter Five: Discussion

This chapter discusses the findings gained from the case study. The focus of the first part in this chapter presents the implementation of participatory approaches in Fayoum FFS project. This includes the dimension and topics of participation, and the type of participation perceived by facilitators in Fayoum FFS project. Secondly, this chapter describes the learning process of facilitators in regards with participatory approaches, which includes the interaction of facilitators with their work environment during conceptualising participatory approaches in the atmosphere of social learning. Thirdly, factors that influence facilitators' motivation on learning process is discussed.

5.1. Participatory Approaches Implementation

The project mentioned that participatory approaches are the main aspect in Fayoum farmer field school (FFS) project, and also for the new project, the Fayoum Centre of Excellence (CE) project. The topics included in the participation issues are farmers' opportunity in making decisions and sharing initiatives. Participatory approaches are the method used to maintain the involvement of farmers from planning, executing, monitoring and evaluating the program in FFS. Through experiential learning and group discussion, participation of farmers is the main aspect.

5.1.1. Participation; From the General Dimensions to the Local Topics

Participation, according to the World Bank (2006), is a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them. Therefore, 'sharing of initiatives' and 'sharing of decision' are the dimensions in participation. However, 'participatory approaches' as popular intervention methodology often changes when it is applied into practices. It is important to differentiate between the perspectives of those who have developed these approaches, and those who use them in the field. The underlying rationale of participatory methodology may vary from context to context, and may significantly affect the way methodologies are used (Leeuwis, 2008).

In Fayoum FFS project, facilitators translated this aspect to be practically implemented in the real life of FFS. The research found that there are some practical forms of 'farmers decisions' and 'farmers initiatives' understood by facilitators as participation. The following aspects are the condition in the FFS where facilitators perceived as participatory implementation in practical way.

It has been studied by Jennings (2010) that the meaning of "participation" is often a rendition of the organizational culture defining it. Participation has been variously described as a means and an end, as essential within agencies as it is in the field and as an educational and empowering process necessary to correct power imbalances between rich and poor. It has been broadly conceived to embrace the idea that all "stakeholders" should take part in decision making and it has been more narrowly described as the extraction of local knowledge to design programs off site.

Farmers' Initiatives; give solution freely and equally

In traditional extension, facilitators as government agents delivered packages from the government to the farmers. The top-down methods did not attract farmers to attend the field school, as they felt that they would not contribute any idea and solutions to existing problems. In participatory approaches, farmers are given more access to analyse the problems and decide what they should do to cope with the problems. In this context, farmers are triggered to initiate their local knowledge, for example how to prevent whitefly in tomato field using local plants, and share it with others. Therefore, facilitators ask more questions rather than give answers. As possible, facilitators did not give solutions. They provide information rather than give solutions. In line with this, Santucci (2005) describe facilitator as the one who did not teach any given truth, but rather helped the people to develop their own solutions. Recent research by Braun and Duveskog (2008) also shown that one key factor in the success of the FFS has been that there are no lectures, but all activities are based on experiential (learning-by-doing), participatory, hands-on work.

Their role is to guide farmers, thus the discussion can be more focused, and support farmers in prioritising the problems and solutions. The role of extension workers as facilitators is also to organise meeting with farmers in the FFS. In terms of participatory practice, farmers should be more involved in the knowledge and opinion sharing in the discussion. Facilitators noticed that many farmers have more specific experiences on agriculture. Facilitators realised that knowledge sharing is more important than giving instructions. Facilitators enhance the farmers' awareness to give and share their experiences. Also argued by Hagman (1999), that facilitator is the one who assists farmers in their search for solutions by providing background knowledge and options and encouraging farmers to experiment with the options and ideas.

Facilitators also have to be aware of different patterns of farmers in terms of speaking in the meeting. Though some farmers are always dominating while the others are quite, facilitators must provide condition in which all participants can speak equally without hesitating.

Farmers decision: Designing the FFS

In the FFS, facilitators assist villagers to design the implementation plan of FFS. It includes the time management, the period, the materials being used, the methods, and others. Facilitators hold need assessment with the villagers to allow them to identify their needs in implementing FFS. In the FFS, farmers discussed the situation of their village. Facilitate by facilitators, they analyse problems they faced in their daily life. Initially, farmers discussed only problems in agriculture. But after few years, they also included other problem such as education, health, industries, environment, and other obstacles they faced. The role of facilitators here is to guide the farmers to recognise their problems. Though facilitators are government agents, they should not interfere with the decisions, but instead providing information for farmers. This is important to create good atmosphere in the field school as organisational learning. In his work, Hagman (1999) stated that a strong, motivating institution or organisation should involve all members in decision making and represent their interests well, dealing openly with conflicts if they occur.

Sustainable FFS

Preparation of village promoters as local facilitator in the villages is an exit strategy of Fayoum FFS project. To maintain the sustainability of the FFS after the project finished, village promoters will replace facilitators to facilitate meetings and discussion among the farmers. In most programmes, as mentioned by Braun and Duveskog (2008), a key objective is to move towards farmer facilitators, because they are often better facilitators than outside extension staff - they know the community and its members, speak a similar language, are recognised by members as colleagues, and know the area well. From a financial perspective, farmer facilitators require less transport and other financial support than formal extensionists. They can also operate more independently (and therefore cheaply), outside formal hierarchical structures.

5.1.2. Types of Participation

The second analysis of the participatory approach implementation is the relation between local community and the project. Considering the notion that participatory approaches can be differently defined when putted into practices, different characteristics of practices of participation can be different in the local level. Project that implement participatory approaches should recognise that participation is multi-stakeholders process. Therefore, interaction between stakeholders in the project should be taken into account. In Fayoum FFS project, farmers, as well as Fayoum Agricultural Directorate (FAD) are the main stakeholders. Cooperative relationship between two parties will improve the participatory implementation. Despite of the wide opportunity of farmers in making decisions, there are some aspects where the FAD has set up the decision. For example, the project defined that the criteria of establishing FFS (the minimum and maximum amount of members range from 15 to 25 farmers). In this project, farmers and facilitators (representing the FAD) share ideas to discuss agricultural and rural life issues, and becoming partner in making solutions. Farmers and facilitators collaborate in terms of designing the framework of FFS implementation. However, in Fayoum FFS project partnership between farmers and district office (representing the project) is built to balance the role between farmers and the government. In line with this, Guimaraes (2009) mentioned that participatory stands for partnership which is built upon the basis of dialogue among the various actors, during which the agenda is jointly set, and local views and indigenous knowledge are deliberately sought and respected.

In the FFS, facilitators and farmers form the group of 25 farmers. They hold discussion to analyse situation, prioritising problems, sharing ideas, creating solutions, designing plan of activities. However, there are times when different opinion of facilitators and farmers occurred. Facing this situation, facilitators convinced farmers about the solutions by giving example, demonstration plots, or inviting other experts.

It is also found that the project that has been design was socialised by facilitators to villages in Fayoum governorate to establish field schools with the farmers. Though the farmers have more access in deciding the members and the topics in the FFS, the criteria of establishing sustainable field schools, such as the minimum and maximum amount of members (20 to 25 farmers), and measuring the commitment in three meetings, was designed by the project.

Veldhuizen, et al. (1997) in Morrish (2011) categorised this as *functional participation*. It exists when people participate by forming groups to meet predetermined objectives related to the project. Their participation tends to occur at later stages of a project after major decisions have been made. They may become self-dependent but are initially dependent on external facilitators.

5.2.Learning Process

It is the facilitator who implements the participatory approach on the field. Facilitators as the field workers were trained to support farmers in the FFS. Therefore, two parts were given before and during the project; (1) technical skills (which are needed to support farmers with agricultural knowledge), and (2) communication skills to build communication between facilitators and farmers which will allow them to sharing experiences together. In conceptualising the idea of participatory approaches, facilitators interact with other individuals and their working environment.

Interaction with Individuals

Jarvis et al (2005) stated that individuals are socialised into cultural values, attitudes, and beliefs. They come to share with the rest of society, which makes possible the consensus which all societies are said to depend on for their survival. Thus, individual learning is a functional of social relations. They give and receive feedback to gain more insight on how to improve farmers' participation in the FFS. The competencies of applying participatory approaches are influenced by the successful of constructing and practicing participatory concept in a learning space in both formal and informal ways.

Formal Learning

Formal ways such as trainings, meetings, are organised by district office in the project, while informal ways such as corridor conversation or others, sometimes happened incidentally. In formal way such as trainings, topics are given to support field implementation of FFS. Mainly in Fayoum FFS project, topics related with technical aspect such as plant production, pest management, environmental management, marketing, animal production, crop production, food processing, etc., are more prioritised that social aspect such as communication skills. Nevertheless, Braun and Duveskog (2008) argued that an aspect that often is overlooked is the need to train FFS facilitators thoroughly (season-long) in facilitation skills. Often priority is given to technical training of facilitators rather than provide opportunities for personal development and mentality change among facilitators; which requires time to enable staff to make the shift in thinking feasible. Further, to implement FFS well it is imperative that the management and supervisory levels have a participatory mind-set and are well versed with the approach, something often lacking in FFS development projects.

Informal Learning

Beside the formal interaction, facilitators also perceive informal communication as a way to share their opinion, the problem they faced on the field, and to analyse how other facilitators faced their problem.

Interaction with work environment

In learning process, motivation of learners should be putted into consideration. Individuals will progress more if they have motivation to learn. Bandura (1977) explained human behaviour in terms of continuous interaction among cognitive, behavioural, and environmental influences in social learning. He emphasised that one of the important components are motivation; where the environment must offer consequence (whether it is reinforcement or punishment) that increases the probability for a learner to demonstrated what they have learned.

Creating conditions (environment) where individuals can be motivated to learn is important. Weekly trainings and meetings of facilitators are conducted by the project to support learning as a way to improving field implementation of FFS. Trainings are meant to align trainees to what and how the project seeks to achieve its objectives, such as tasks, responsibilities, and competencies.

During the FFS, facilitators provide technical support to the farmers regarding agricultural problem in the villages. To improve the technical support, participatory approach methods is used by facilitators in the project. Capabilities such as communication skills, presentation skills, and management skills were given during the training of facilitators. However, all of the current facilitators have already been given this kind of training before the starting of the Fayoum FFS project.

In Fayoum FFS, facilitators interact with the farmers in the village. The dynamic of society in the rural areas force them to adapt with encountered problems, thus, enhance them to learn to cope with the situation. In order to survive in a changing environment, mentioned by Jarvis et al (2005), individuals have to learn functional adaptation. This opinion is also supported by Hagman (1999), which stated that farmers are the only people who can make effective decisions about how to manage their farms within the many environmental and social constraints they face. Even within a single field, conditions can be highly diverse in terms of soil types, slope, moisture content, etc. therefore, facilitators' preparedness to cope with changing environment affects their motivation and behaviour in the learning process.

This research shows that there are several factors that affect (positively and negatively) facilitators motivation to learn how to handle farmers individually or in group. Schon (1983) stated that the trigger that induces an individual to learn is identified in the relationship between the problem-solving actor and the problem situation. Learning process must have driving factor as a trigger. Factor where individuals interact with their environment, and may affect (whether positively or negatively) learning process must be recognise to provide pre-conditions that support learning process in a group.

Motivational Learning

When individuals encounter a problem, there will be a gap between what they would like to happen (expectation) and what is being observed in real situation (reality). By doing this, individuals will measure how serious the problem is. When they found that the problem is serious, it will imply to their motivation to learn in order to find solution to their problem. In

Fayoum FFS project, the research shows that most facilitators perceived that learning about participatory approaches is very important. They felt that, the traditional extension method (top-down) of FFS has been replaced with new approach. The new policy (need literatures) mentioned that agricultural development in rural areas in Fayoum district should involve farmers in many aspects such as planning, executing monitoring, and evaluating policies. As government agents, they feel that it is compulsory to improve their skills to support their tasks on the field.

The direct involvement of facilitators and the encountered problems also affect facilitators' motivation in learning. Facilitators experience direct contact with the farmers, where communication and interaction occurred. Facilitators realised that traditional extension methods of FFS has put them in a certain range with the farmers. Farmers recognize the facilitators as formal official representing the government, which build the communication barriers between them.

This driving factor, as argued by Leeuwis (2004) is often mentioned as 'motivation to learn'. He mentioned 10 factors that may influence people's motivation to learn; People can be influenced by whether the problem they faced is serious or not, whether the problem is personally affected or give direct consequences to people or not, problem is urgently needed or can be postponed, people have confidence that they can use their capabilities in solving the problem.

Chapter 6: Conclusion

The conclusion in this chapter is guided by the main question and research framework presented in chapter two and three of the research. The first key topic presented is participatory approach. The second topic is learning process. The last part, research discussed challenge to improve Fayoum FFS project.

6.1. Conclusion

Fayoum Farmer Field School (FFS) project was initiated by Fayoum Directorate of Agriculture (FAD), a directorate of the Ministry of Agriculture and Land Reclamation of Egypt cooperated with the Dutch Embassy in Egypt as a strategy to develop and stabilise rural communities and work to raise the standard of living and promoting rural agricultural economics. The priority setting of farmers is demand driven, meaning that the participants are free to choose their topics of interest which may range from social topics (health, environment, literacy) to economic activities and agricultural information and constraints faced in daily life. It also ensures that the participatory FFS approach more familiar and adopted in Fayoum and other governorates through a strengthened network of stakeholders.

Starting in 2012, new project called Fayoum Centre of Excellence (CE) project is launched. This new project adopts the concept of Fayoum FFS project where participatory approaches is still become the important aspect to be emphasised in the Fayoum CE project.

Participatory Implementation

The conceptualisation and practices of participatory approaches in Fayoum FFS project in the following way;

1. Farmers as the main stakeholder of the projects are given opportunity to initiate in terms of sharing their local knowledge, their opinion about their problems, without hesitating, and with equal opportunities with other farmers.
2. Farmers are given opportunity to decide the schedule of field school implementation and topics to be discussed. However, in certain conditions such as deciding the amount of members (20-25) and measuring farmers' commitment (three meetings), farmers have less access to decide on it. Veldhuizen (1997) in Morrish (2011) mentioned it as functional participation, where it exists when people participate by forming groups to meet predetermined objectives related to the project.
3. One of the main exit strategies of Fayoum FFS project where the project provide village promoters will replace the tasks of facilitators after the accomplishment of the project.

Learning Process

In the learning process of facilitators in Fayoum FFS project, facilitators interact with other individuals and work environment to shape their understanding about participatory approach. In this part; facilitators are;

1. Interacting with other individuals such as other facilitators, district staffs, or other institutions in both formal and informal ways.

2. Interaction with work environment such as encountered problems and job relevance. Facilitators perceived that their surroundings affect their willingness in learning participatory approach.

6.2. Challenges in Participatory Approaches Implementation

However, some challenges are existing in implementing participatory approaches methods in FFS. Despite of the aforementioned ‘practical criteria’, practicing the participation theory needed adaptation process from ‘traditional extension methods’ of one way discussion to the ‘participatory methods’, the two way discussion into the farmers’ life.

Firstly, attracting farmers to be involved in the discussion created cultural stress among the farmers. In traditional extension ways, facilitators dominating the discussion which made them not to handle different opinion among both facilitators and farmers. In implementing participatory approaches, different opinions always come up. Handling different opinion of farmers need more competencies in facilitating two ways discussion, where some farmers are sometimes too dominant in the discussion, while the others are too lack of confidence. In addition to that, different opinion is also sometimes leads to heated argument and debates. Therefore, facilitators felt that using participatory approaches is more challenging. Hagman (1999) mentioned that one of the major challenges facing extension agencies is how to make the transition from the old approaches to the new. How to re-orient extension with a vigorous emphasis on partnership, participation and sharing in the development effort? How to balance continuity of service provision with progressive, yet managed, transformation towards a very different approach? Re-orientation of extension staff on such a scale needs deliberate, intensive and focused opportunities for learning. Such a learning process goes beyond training in participatory tools. The shift from teacher to facilitator involves new skills, different attitudes and behaviour which cannot change overnight.

Secondly, adaptation of the FFS methods should be adjusted with farmers’ conditions. For example, originally, FFS lasted for 4 hours. But in Fayoum FFS project, it cannot be longer than 2 hours, based on the preparedness and conditions of the farmers. Another adaptation is the methods used in building good communication between farmers and facilitators. One of the methods carried out in the FFS, which aimed to create good communication atmosphere is ‘ice breaking’. Commonly, there many games can be used in breaking the ice. But for cultural aspects such as mixing men and women, understanding jokes, etc., facilitators modified the games for ice breaking that is acceptable in local condition. For example, facilitators use Egyptian proverbs which are written on the paper and distribute them randomly to participants. Hagman (1999) stated that communities are not homogenous but consist of various social groups with conflicts and differences in interests, power and capabilities. The goal is to achieve equitable and sustainable development through the negotiation of interests among these groups and by providing space for the poor and marginalised in collective decision-making. Understanding about different cultures is also important to prevent conflict among FFS participants. Santucci (2005) also mentioned that the role of the facilitator is to manage the debate and guarantee that the rules are respected, according to local traditional norms or existing legislation.

Thirdly, implementation of participatory approach in the FFS needs good communication and trust. Communication barriers between facilitators and the farmers should be eliminated. The utmost important thing is ‘trust’, where it refers to two aspects. First, farmers believed that facilitators are capable in technical supports; therefore they can learn something from facilitators. In this circumstance, farmers sometimes give questions that they have already known the answers to examine facilitators’ capability about certain things in agriculture. However, this situation is only found in male farmers. Second, farmers believe that conversation with facilitators is comfortable enough to interact with the facilitators. Farmers believe that facilitators are capable as a leader to guide them in finding solutions. Therefore, communication skills for facilitators are very important to overcome communication barriers between facilitators and farmers.

The *fourth* challenge is the immersion process of different metaphor of organisations. In the FFS, two organisations are connected to each other; the government (FAD), and local people (farmers). As any other government institutions, the FAD is dominated by machine metaphor. On the other hand, social structure of local people in villages in Fayoum district is very dynamic. There is no patent structure which allows it to reshape almost all times. The social structure of local people is dominated by organism metaphor, where human is an essential part. This gives impact on the interaction between both parties in the project, for example in the intervention phase during the implementation. Farmers are given more opportunity to contribute to the design of planning activities. Need assessment are held by facilitators and delivered to the FAD district office to design gran annual plan. However, rural life is very dynamic where farmers’ situation, needs, interests, could change immediately. Facilitators should always ready to adapt with the circumstances by preparing another plan. The Fayoum FFS project holds weekly meetings and trainings to adapt with the dynamic of rural life.

Field experiences show that the approach often loses its effectiveness when the fundamental principles and components are overlooked and that FFS needs to be implemented as a complete package to achieve desired results. An aspect that often is overlooked is the need to train FFS facilitators thoroughly (season-long) in facilitation skills. Often priority is given to technical training of facilitators rather than provide opportunities for personal development and mentality change among facilitators – which requires time to enable staff to make the shift in thinking feasible. Further, to implement FFS well it is imperative that the management and supervisory levels have a participatory mind-set and are well versed with the approach, something often lacking in FFS development projects (Braun and Duveskog 2008).

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Annex 1. Guideline for Field Data Collection

Guideline for Data Collection

Main Questions

How are the participatory approaches conceptualised and practiced by facilitators in Fayoum farmer field school project?

Sub-main Questions 1

4. What are the local topics of participation aspect in the Fayoum FFS project?
5. What type of participation has been implemented in FFS?
6. How facilitators perceived the participation of farmers in the FFS?

Guidelines

1. Dimension of Participation/ Criteria of implementing participatory approach

No	Participatory Approach	
	General	Specific
1	Initiatives	
2	Decision Making	

Guidelines:

- a. Facilitators must provide answer in which way do they perceived that farmers have initiatives in FFS
- b. Facilitators must provide answers in which condition do the farmers making decision

2. Level of participatory approach

Types/Levels	Conditions Required	Implementation in Fayoum FFS
Self-mobilisation	Participants initiate, work on and decide on projects independently, with interventionists in a supportive role only.	
Collaboration	Participants are partners in a project and jointly decide about issues with project staff.	

Consultation	Participants are asked about their views and opinions and without restriction, but the interventionists unilaterally decide what they will do with the information.	
Passive information giving	Participants can respond to questions and issues that interventionists deem relevant for making decisions about project.	
Receiving information	Participants are informed/told what the project will do after it has been decided by others.	

Guidelines:

Facilitators must provide answer in which way do they perceived that farmers have initiatives and access to decision in:

a. Current topics/problems in farming

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b. Giving solutions

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c. Planning

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d. Execution of plans

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e. Schedules (Time, period, etc.)

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3. Topics given in the training and the impacts of learning the topics

No	Topics given	How do they use it on the field	Usefulness (Y/N)	Notes
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Main Question

To what extent are the facilitators learning and being motivated in the learning process in the context of constructing participatory approaches?

Sub-main Questions 2

5. How the facilitators construct the idea of participatory approach in the Fayoum FFS project?
6. How the facilitators perceived their interaction with the other facilitators and district staffs in their learning process?
7. How do facilitators perceived their interaction with their work environment in implementing participatory approaches in the FFS (problem situation, job responsibility)?
8. What factors affect the facilitators' motivation in the learning process?

Guidelines

1. Interaction with other facilitators and district staffs

No	Activities	Subject (Facilitators/ Staffs/ others)	Formal/ Informal	Facilitators Perception
1				
2				
3				
4				
5				

2. Interaction with encountered problems and Factors that affect facilitators' motivation in learning participatory approach

No	Factors	Instructions/ Keywords	Notes
1	<i>Seriousness of problems</i> To what extent that the facilitators feel that involving farmers in FFS should be put as serious problem?		
2	<i>Direct involvement</i> To what extent that the facilitators feel that by using participatory approach, it will give consequences to their performance?		
3	<i>Urgency</i> To what extent that the facilitators feel that involving farmers in FFS should be put as priority?		
4	<i>Self/environmental efficacy</i> To what extent that facilitators feel that they can handle the problem by using their skills in participatory approach?		

Annex 2. Documentation.

Meeting of Facilitator



Farmer Field School



Tunis Village in Fayoum

