

Exploring the Farmer Based Organisation (FBO) extension approach. A case study of an NGO in Northern Ghana.



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Dedication

I dedicate this thesis to my family: my parents, siblings and my husband. It is your prayers and sacrifices that has brought me this far.

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LIST OF ABBREVIATIONS

ACDEP -	Association for Church-Based Development Projects Secretariat.
AEA -	Agricultural Extension Agent
AgSSIP -	Agricultural Services Subsector Investment Program
DAES -	Directorate of Agricultural Extension Services
FAMAR -	Farmer Market Access
FAO -	Food and Agriculture Organisation
FASDEP -	Food and Agriculture Sector Development Policy
FFS -	Farmer Field Schools
GPRS -	Growth and Poverty Reduction Strategy
GSGDA -	Ghana Shared Growth and Development Agenda
ICT -	Information Communication Technology
MOFA -	Ministry of Food and Agriculture
NAEP -	National Agriculture Extension Project
PFTP -	Presbyterian Farmers Training Program
SFMC -	Savannah Farmers Marketing Company
WDR -	World Development Report
WFP -	World Food Program

Abstract

In Ghana, the agriculture sector has received many years of support from the agriculture extension services. With changing extension approaches the sector has gone through various regimes of extension services. In recent years, working with Farmer Based Organisation has been on the agenda of most extension services deliverers in the country. This research sought to study the FBO approach as used by an NGO, the Presbyterian Farmers Training Program in the northern region of Ghana. The objective of the research was to explore intentions and practice of this extension approach, with a focus on crop productivity and market access, among others, and eventually find room for improvements in the service delivery of Presbyterian Farmers Training Program. With a main research question and four sub questions, the research tried to achieve that objective. FBOs in the East Gonja District were used as a case study. Five FBOs were engaged in a focused group discussion. Five executives from the FBOs, five ordinary members and four non-FBO members were interviewed. Two interviews were also carried out with staffs of PFTP. The documents in the archives of PFTP were reviewed. Observations were made and written down on all community visits. The findings of the research showed that, the dominant intentions of PFTP in working with FBOs were in regards to increasing farmers' production and productivity and increasing farmers' access to the market. The organisation had a prominent role in the formation of the FBOs. The productivity of the farmers in the FBOs seems to have increase ever since the FBOs were formed with help received from external organisations and help shared amongst FBO members themselves. The help has been in the form of provision of loans, farm inputs, trainings on good agronomic practices and collective mutual labour activities. The findings also revealed that, the marketing of farm produce of the farmers in the FBO has improved with a market assurance, which is ready at the end of harvesting and fair market prices for produce. The single gender FBO was found to be more helpful to each other than the mixed gender FBO. The women in the groups showed more commitment to the FBOs than men. The dominance of the men in the mixed gender FBOs reduced equal participation of FBO members, as the female members are mostly quietened. The illiteracy rate amongst the FBO executives limited their performances when it came to paper works. For the extension staffs of PFTP, the FBO approach has reduced the number of visits to individual farms because of group visits, however farmers are of the complaint that, their individual farm problems and needs are rarely addressed. As much as the FBOs were valued by PFTP and the members of the FBOs, some non-member FBO farmers thought of FBOs as a waste of time. The thesis therefore recommended that, to have a vibrant FBO running, PFTP may consider reducing its involvement in the formation and operation of FBOs. The FBO executives may also consider enrolling in literacy class to sharpen their skills on paper works. The marketing companies in charge of buying the produce of farmers may consider sufficiently getting farmers to understand the terms bidding marketing contracts to help reduce bridging of contracts in certain cases.

CHAPTER ONE: INTRODUCTION

1.1 Rationale of the study

Poverty remains a battle in many developing countries and a concern to the world at large. The fight against poverty resulted in the Millennium Development goal one which aims at reducing by half the world's poverty by the year 2015. In Ghana, over 60% of the population live in the rural areas, depending either directly or indirectly on agriculture for livelihood and survival. Agriculture, including farming, forestry, fisheries and livestock, is the main source of employment and income in rural areas, where the majority of the poor and hungry live (WFP, 2012). Agriculture is however the backbone of the economy of Ghana, largely depending on the agriculture sector accounting for about 40% of its economy and employing about 60% of the countries workforce, mostly small-scale farmers located in the rural communities (MOFA, 2010).

The term agricultural extension services refers to the entire set of organizations that support and facilitate people engaged in agricultural production to solve problems and to obtain information, skills and technologies to improve their livelihoods (Anderson, 2007).

Agriculture extension services exist across Ghana and throughout history have played a vital role in agriculture production. The belief of many, such as Asuming, et al. (2005) is that, the performance of the agricultural sector, which over the years has driven the entire Ghanaian economy, has been determined to a larger extent by the kind of institutional arrangements driving the research and extension activities of the sector.

From a development-policy perspective, according to Waddington (2010) the investment in extension services or the facilitation of non-government extension, are potentially important tools for improving agricultural productivity and increasing farmers' incomes. This is therefore translated into a national per capital income. According to Buadi et al (2013) rural non-export agricultural production in Ghana is characterized by inadequate extension delivery services, from this statement it is implied that agricultural production have a direct relation to extension delivery services.

Nonetheless, many are also of the view that, it is difficult to measure the impacts of agriculture extension on agriculture production, since many factors affect agricultural performances in complex and contradicting ways. Meaning that benefits are difficult to measure. An important indication is made by Waddington et al (2010) saying, in assessing the impact of extension on agricultural productivity, one needs to take into account that productivity improvements are possible only if a differential exists between the actual productivity on the farms and what could potentially be produced with better know-how, subject as always to farmers' preferences and resource constraints.

Agriculture extension in Ghana, over the past two decades has largely been provided by the public sector and a smaller extent, the private sector. These sectors have seen many reforms, ranging from top-down approaches to currently much promoted participatory approaches.

The sector is faced with challenges which affect the quality and rate of extension services delivered. One of the biggest of those challenges is dwindling financial resources. Since 1991, public funding of agricultural extension, mainly supported by donors, has reduced considerably, upon the completion of two national projects, namely, The National Agricultural Extension Project (NAEP) and the National Agricultural Research Project. In addition, the budgets of the local government have come under pressure as result of the competition of various local needs arising from the democratization and decentralisation processes in the country.

According to Anderson and Feder (2007) it is clear that the format by which extension services are rendered, as well as the circumstances in which recipients of extension services operate, will affect the extent of the impact that is observed.

Perhaps more importantly, the environment of agriculture has changed significantly over the last two decades, with the introduction of a liberalised economy, the removal of subsidies and the deregulation of marketing and pricing of agricultural inputs, farmers are presenting new demands for extension services in order to meet the demands of the market economy (MoFA, 2010).

1.3 Problem statement

To a large extent, the role of public extension delivery system has been on the decrease over time since it has limited coverage in recent times and suffers from a perception of low efficiency and effectiveness. As a potential to guide and promote participatory extension services, to help address the current challenges, group extension in the form of Farmer Based Organisations (FBOs) has been considered by extension service organisations.

In recent years, there is an interest among both public and private organizations to establish and build the capacities of farmer based organizations in Ghana. This is evident in the increase of the number of formations of these organisations, Salifu et al. (2010) records 10,000 FBOs and agricultural cooperatives of which two thirds are FBOs.

The grouping of farmers based on common interest is not novel, it dates back in history. During the pre-independence era, diverse forms of farmer groups existed in Ghana such as the “Nnoboa” based on informal labour exchange, “susu” groups of local credit schemes. A formal cooperative movement began with the initiative of the colonial government to improve the quality of cocoa for export (Bonsu, 2012). The formal co-operation movement initiative collapsed after the colonial days due to management challenges, this however did not receive any attention until much recently.

An important characteristic of the formation of FBOs is that, it allows public extension agents to reach out to larger numbers of farmers, especially given the inadequate number of extension agents in many developing countries, this is emphasised by Chang (2012). But apart from the efficiency argument, Peterson (1999) stressed that FBOs also present a participatory platform for farmers and extension service delivery organisations, where a platform is created for individual farmers to partake in decision making processes in relation to their interest. It also allows the extension service organisations and farmers to have interactions which influences the decisions made by the organisation.

However, despite the growing public interest and expectations of FBOs to promote smallholder agriculture, there is limited evidence on their characteristics, activities, and performance (Salifu and Funk, 2012). There is therefore little reliable information about the effectiveness of the FBO approach in contribution to agricultural innovation.

The Presbyterian Farmers Training Program in Ghana is an NGO which delivers extension services to farmers. Several years ago the organisation has adopted the use of a farmer based organisation approach to efficiently reach farmers in the northern region of Ghana. This approach has been acknowledged as an efficient approach for extension service delivery, but finding it an effective approach by organisation and most extension service deliverers has remained a challenge.

To better the extension services delivered, the organisation, would want to know how effective the FBO approach employed by the organisation is.

Justifying the need for this research, Waddington et al (2010) highlights the practically non-existence impact evaluations of agricultural extension interventions.

Should you mention something here about the near impossibility of measuring the effectiveness of extension services, such as you have done above and also later in the discussion (with two different references). In the discussion you quoted someone using the word econometric. I think because of this, you decided to look into 'exploring' rather than 'measuring the effectiveness'.

In Ghana, for instance, a few published studies have been undertaken to assess the quality of agricultural extension activities of NGOs. There is an inadequate level of published literature on the services of especially agricultural NGOs in the country; the kind of services provided, the approach used, and the perception of the beneficiaries of these services (Buadi et al 2013). It is also in this light the PFTP needs an in-depth exploration for documentation on its approaches used.

1.4 Research objective and questions

The objective of this research is eventually to help improve extension service delivery of Presbyterian Farmers Training Program by exploring FBO's as an agriculture extension approach used by Presbyterian Farmers Training Program.

Following from the objective, the main research question was formulated as follows: What is entailed in FBOs as an agriculture extension approach as used by Presbyterian Farmers Training Program in the East Gonja District of the Northern region of Ghana?

The sub questions for the research are:

1. What are the intentions of PFTP in using FBO in agriculture extension?
2. What is the contribution of the approach employed by PFTP to the production or yield of farmers?
3. What is the contribution of the approach employed by PFTP to the marketing of farmers produce
4. What are the additional benefits and challenges of FBOs?

1.5 Research Framework.

The table below contains the types of information sources used to answer each sub question.

Table 1 Research framework

Sub questions	Dimension	Source of information					
		Documents reviewed	Individual farmers	FBO	PFTP Staffs	FBO executive	Direct observation
S.Q.1	Intensions of PFTP	x			x		
S.Q.2	Production and productivity	x	X	x	x	X	
S.Q.3	Marketing of farm produce		X	x	x	X	
S.Q.4	Other benefits and challenges			x	x	X	x

CHAPTER TWO: CONCEPTS AND LITERATURE REVIEW

2.1 Evolving definitions and concepts of agricultural extension

There are several definitions, philosophies, and methods to agricultural extension, the opinions on what extension is all about have evolved overtime. Extension originally was considered as a service to “extend” research-based knowledge to the rural sector to improve the lives of farmers. It thus included components of technology transfer, broader rural development goals, management skills, and non-formal education (Davis, 2008). The authors van den Ban and Hawkins (1996) define the term extension as the deliberate use of communication of information to support people make sound opinions and make worthy decisions.

Extension defined by Maunder, (1973 as cited in Leeuwis, 2004) is a service or system which assists farmers through educational procedures, in improving farming methods and techniques, increasing production efficiency and income, enhancing their levels of living, and lifting social and educational standards portrays a teacher student relationship between extension workers and farmers. The traditional models of transfer of knowledge often viewed knowledge as hierarchical, with ‘better trained’ researchers at the top, extension below, and farmer knowledge at the bottom (Van Crowder and Anderson, 1997 as cited in Aflakpui, 2007).

Dealing with changes in the agricultural sector over time, definitions of extension shifted from ‘education’ to supporting decision making and/or supporting problem solving.

More so, Leeuwis (2004) perceives extension as a two way or multiple way process of sharing insights. He defines extension as a series of embedded communicative interventions that are meant, amongst others, to develop and/or induce innovations which supposedly help to resolve (usually multi-actor) problematic situations.

The goals of extension include the transferring of knowledge from researchers to farmers, advising farmers in their decision making and educating farmers on how to make better decisions, enabling farmers to clarify their own goals and possibilities, and stimulating desirable agricultural developments (Van den Ban and Hawkins, 1996).

The traditional view of extension in Africa according to Davis (2008), was very much focused on increasing production, improving yields, training farmers, and transferring technology. Current understanding of extension goes beyond technology transfer to facilitation; beyond training to learning, and includes assisting farmer groups to form, dealing with marketing issues, and partnering with a broad range of service providers and other agencies. Thus many people are now using the phrase, “agricultural advisory services,” instead of extension (which can imply a top-down approach and may ignore multiple sources of knowledge).

Extension according to many has gotten to a stage where it has to be reinvented into a professional practice. The definition of Leeuwis (2004) above refers to extension services as communication for innovation and the extension agent as a communication worker. Communication for innovation is therefore much advocated for as a conventional extension service, where the extension worker is a facilitator stirring up knowledge and the learning of farmers instead of an instructor.

This research therefore agrees more with the definitions and concepts of Leeuwis (2004) and using most of his concepts presented in his work.

2.2 Systems of agricultural extension

This table presents the different extension approaches over the years

Table 2 Typologies of agricultural extension by various scholars

Rivera (1988)	Axinn (1998)	Gêmo et al. (2005)
Top-down <ol style="list-style-type: none"> 1. Conventional 2. Training and visit (T&V) 3. University 4. Technical innovation 5. Integrated agricultural development program 	<ol style="list-style-type: none"> 1. General agriculture 2. Commodity 3. T&V 4. Agricultural participatory approach 5. Project approach 6. Farming systems research and extension (FSR/E) 7. Cost-sharing 8. Educational institute approach 	<ol style="list-style-type: none"> 1. Public 2. Commodity 3. T&V 4. NGO 5. Private sector 6. Farmer field schools (FFS)
Participatory <ol style="list-style-type: none"> 1. Farmer information dissemination system 2. Farming system research-extension 		
Contract farming <ol style="list-style-type: none"> 1. Commodity development 2. Commodity focused 		
Rural development <ol style="list-style-type: none"> 1. Community development 2. Integrated rural development programs 3. Animation rural 		

Adopted from Davis, 2008

2.2.1 Transfer of Technology (ToT)

ToT is a tradition system of extension which has being widely criticised over the years. It employs the use of a top-down linear transmission of knowledge and technology. A one way flow of communication, where researchers at institutions come up with innovations, relay them to extension which then transfers it to the farmer. In this system extension plays an intermediary function between science and farmers.

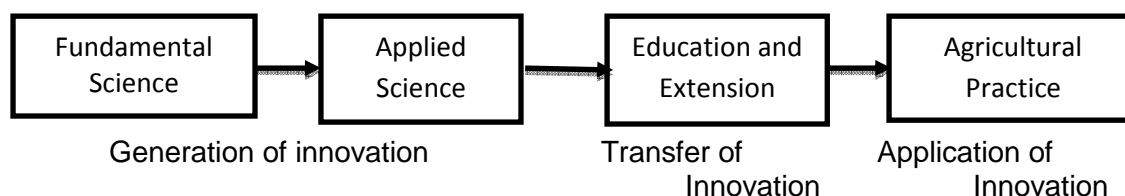


Figure 1. The linear model of transfer of innovation

Source: Leeuwis and Van den Ban 2004

Aside the agriculture sector, transfer of technology has been practiced by the health sector. This system is used greatly in most developing countries. Extension agents transfer technologies to farmers with the aim to increase productivity and production. It has been

somewhat successful in delivering simple technologies like high yielding seed varieties (Douthwaite et al 2002). Considering the difficulty to bring about change, it is definite that dealing with social issues can be complex. Yet (Woodhill 2008) the scientific mind-set has too often led us to try to manage complex situations linearly. The Cynefin Framework further identifies five context of situations which needs interventions: simple, complicated, complex, chaotic and disorder. The wrong diagnosis for different domains has accounted for the challenges and critique of the transfer of technology approach.

Numerous studies have shown that innovations developed by researchers were often not adopted by farmer. In this approach anything that goes wrong is blamed on the farmer. However successful innovations were usually based on an integration of ideas and insights not only from scientist but also from users, intermediaries and other societal agents.

Based on the challenges a consideration of a new extension system was necessary. The training and visit was next in line.

2.2.2 Individual approach (training and visit)

The T&V model of extension was promoted by the World Bank between the years 1975 and 1995 as a national public extension system, which was applied in more than 70 countries. (Anderson, Feder and Ganguly, 2006). It exhibits a single line transfer of technology top down approach which differs slightly from the transfer of technology.

The system was designed to have the following features (Benor and Harrison 1977): (i) a single line of command, with several levels of field and supervisory staff; (ii) in-house technical expertise, whereby subject matter specialists are to provide training to staff and tackle technical issues reported by field staff; (iii) exclusive dedication to information dissemination work; (iv) a strict and predetermined schedule of village visits within a two-week cycle where contacts are to be made with selected and identified "contact farmers"; (v) mandatory bi-weekly training emphasizing the key set of messages for the forthcoming two-week cycle; (vi) a seasonal workshop with research personnel; and (vii) improved remuneration to extension staff, and provision of transport.

The World Bank supported the approach by funding the public extension activities, upon the cut the cut of funding the system begun to face challenges hence became weak.

2.2.3. Participatory approach

In participatory approach the role of the extension agent is to facilitate a thorough situation analysis by the farmers themselves at the start of their working relation. Once the farmers have become conscious of the causes of their problems and identified the most pressing ones, the extension agent then provides technical knowledge and technologies, which may be useful to address the DAES, 2011).

With the increasing advocacy for participation, Peterson (1999) talks of FBOs serving as a platform for participation Leeuwis (2004) adds that, strengthening the position of a group or organisation leads to active participation. Hence collaboration with farmers in groups is therefore crucial to realising effective participation

In the case of African, attention has increasingly turned to a poorly defined collection of agricultural extension, participatory approaches, none of which have affirmed any form of effective dominance

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. The international Association for Public Participation (2005) also defines participation as any process that involves the public in problem solving or decision making and uses the public to make decisions. However there are critiques on types and levels of participation. Different authors have come up with various levels of participation, as spelt out in Leeuwis, 2004.

2.3 Agriculture extension in Ghana

Agricultural extension otherwise called advisory services are relevant in all three types of countries in the world as identified in the WDR 2008: agriculture-based economies, transforming economies and urbanized economies, yet the scope and forms of advisory services and the methods in which these services are best provided and financed varies between as well as within these groups.(Okorley, 2007)

Agricultural Extension has been at the front of the agricultural sector programs meant to bring economic growth to many developing countries, including Ghana.

Agricultural extension has gone through a political shift in Ghana, the shift has been from an export commodity development approach prior to independence in 1957 to the promotion of food crop production. The shift of the focus of the governments, was intended to modernize the traditional farming practices, transfer resources and technology, and to train staffs in addressing extension needs of small scale farmers. The extension approach adopted in 1978 by the Ministry of Agriculture, generally came under much criticism. The approach was viewed as top-down and pro-urban, and was thought to pay greater attention to progressive farmers, and neglecting poorer small scale farmers and women. The absence of coordination among various units within the Ministry of Food and Agriculture, the poor management of the general extension approach, the lack of well-trained extension workers and the poor quality of infrastructures, called for a reform of the whole system (Okorley, 2007).

A modified extension policy was represented in an attempt to change a previously modified Training and Visit system that was not working, bringing it into line with a 1997 national policy to decentralise services, and to try to get a system that would perform in socially productive ways. Today, agricultural extension approaches in Ghana range from the top-down commodity-based approaches to more participatory approaches like the World Bank's Training and Visit, commodity participatory approaches, the farmer field schools, the innovative ICT based approaches which provide advice to farmers on-line, and the promotion of mobile phones and community radio stations. These approaches have been promoted over the years by the various extension service providers, including government (MOFA, the main actors in extension), non-governmental organizations (NGOs), producer organizations and other farmer organizations. (Nnoug etal 2008)

2.3.1 Agricultural Production and Productivity in Ghana.

Agriculture extension has it as part of their top aims, to increase crop yields of farmers. The traditional extension in Africa is very much focused on increasing the production and improving the yields of farmers (Davis, 2008). Despite the changes in extension over the years, production remains an important component of expected output of agriculture extension. This research therefore defines productivity as the output of farmers from their fields given all the inputs invested into the farms.

The agriculture sector of Ghana is mainly rain fed and being the most dominant economic activity sector in the country, especially for the rural households who engage with 87 per cent to 89 per cent, particularly in crop production (Xinshen Diao, 2010 as cited in Mohan and Matsuda, 2013). The agricultural productivity growth is however generally low, this, Mohan and Matsuda (2013) associate to the use of traditional farming systems and inconsistent nature of rainfall. Despite challenges to successful agricultural production, it is still the principal sector in the Ghanaian economy.

Agriculture is predominantly on a small scale basis in Ghana. About 90% of farms are less than 2 hectares in size, although there are some larger farms and plantations, mainly for rubber, oil palm and coconut and to a lesser extent, rice, maize and pineapples. The main system of farming is traditional. Hoes and cutlasses are the main farming tools. There is little mechanized farming, bullock farming is however practiced in some places, particularly in the North. Agricultural production differs with the quantity and distribution of rainfall. Most of the food crop farms are intercropped. Mono cropping is mostly associated with larger-scale commercial farms. (MoFA, 2010)

Principal Agricultural Produce in Ghana.

- Industrial Crops: Cocoa, Oil Palm, Coconut, Coffee, Cotton, Kola, Rubber.
- Starchy and Cereal Staples: Cassava, Cocoyam, Yam, Maize, Rice, Millet, Sorghum, Soya beans and Plantain.
- Fruits and Vegetables: Pineapple, Citrus, Banana, Cashew, Pawpaw, Mangoes, Tomato, Pepper, Okro, Egg Plant, Onion, Asian Vegetables

Table 3 Average yield of some selected food crops in Ghana and achievable yields

Crop	Average yield Kg/acre	Achievable yield Kg/acre
Maize	680	2400
Rice	960	2600
Soya beans	600	920
groundnuts	600	1000

Source, MoFA, 2010

2.3.2 Marketing of agricultural products

The traditional subsistence agriculture is slowly been substituted by a market-oriented or commercial agriculture. The possible factors influencing this may include rapid economic growth in both developing and developed countries, the introduction of new technologies, market expansion, market liberalization, increasing demand for food, declining farming population as result of urbanization, liberalized and open economic policies, bilateral and multilateral economic agreements, developed infrastructure facilities in farming areas and government agricultural policies (Mahaliyanaarachchi and Bandara, 2006).

According to MoFA (2007), the increasing levels and multiplicity of standards (food safety and phyto sanitary) in international trade present a growing challenge to market access, especially of high value agricultural export commodities. In the domestic front, a low consciousness of majority of consumers and producers about food safety does not engender a culture of following good agricultural or manufacturing practices (GAP/GMP) among farmers, processors and traders.

2.4 Farmer Based Organisations

2.4.1 Origin of FBO

Salifu and Funk (2012) refer to Farmer based organisations (FBOs) as the grouping of farmers mainly around common interest like the production, processing, storage and marketing of a given agricultural crop or to pool their resources together and facilitate access to credit and farm inputs.

In the past, individual farmers formed many kinds of informal organizations to help solve their internal social and economic problems, but in recent times, the trend is to form FBOs to enable farmers to interact effectively with their external environment (Rondot and Collion 2001)

Previously, extension and extension theories solely focused on supporting individual farm management and promotion of farm level innovations. Looking at the challenges of today, many of these exceed the level of individual farms or farm households. Issues like the management of collective natural resources, chain management, collective input supply and marketing, organisational building multifunctional agriculture and venturing into new markets typically require new forms of coordinated action and co-operation amongst farmers and between farmers and other stakeholders. (Leeuwis 2004).

Farmers' Organizations as put by FAO (2007) are essential institutions for the empowerment, poverty alleviation and advancement of farmers and the rural poor. FAO (2007) further indicates that farmer groups can be effective alternatives where private and public provision of agricultural services have failed, In many cases as Leeuwis (2004) states it, innovation involves or depends on the adequate functioning of farmer and community organisations or groups. He again talks of the ability to make claims as a group. This research shares the analyses made by the FAO, drawing that, FBOs present great opportunities to farmers.

The renewed interest among both public and private organizations to establish farmer based organizations (FBOs) in Ghana, according to Salifu et al (2010) is based on the premise that FBOs give farmers bargaining power in the market place, enable cost-effective delivery of extension services, and empower FBO members to influence policies that affect their livelihoods.

Bonsu (2012), taking FBOs in the context of Ghana mentions of the government, donors and partner organisations identifying FBOs as having a critical role to play in agricultural development and over all food security in the country. In Ghana, for example, in recent policy strategy documents of the Growth and Poverty Reduction Strategy (GPRS II, 2006-2009), the current Medium-term National Development Policy Framework in the Ghana Shared Growth and Development Agenda (GSGDA, 2010-2013), and the Food and Agriculture Sector Development Policy (FASDEP II) all place strong importance on the establishment and strengthening of FBOs as one of the key strategies in developing the predominantly smallholder agricultural sector in the country (MoFA, 2010).

Previous, extension and extension theories solely focused on supporting individual farm management and promotion of farm level innovations. Looking at the challenges of today, many of these exceed the level of individual farms or farm households. Issues like the management of collective natural resources, chain management, collective input supply and marketing, organisational building multifunctional agriculture and venturing into new markets typically require new forms of coordinated action and co-operation amongst farmers and between farmers and other stakeholders. (Leeuwis 2004).

Still on the attributes of FBOs, Uphoff and Wijayaratna (2000) mentions of the review of collective action theory being parallels to the social capital literature, highlighting how structural forms of social capital (roles, rules, procedures and social networks) facilitate mutually beneficial collective action and how cognitive forms of social capital (norms, values, attitudes and trust) are conducive for mutually beneficial collective action. Several other studies have similarly shown how human and social capital formation have been pivotal in solving many communities' development problems, particularly in natural resource management (e.g. Pretty and Ward, 2001).

Private sector organizations, for example, establish FBOs to increase profitability, largely by reducing transaction costs. FBOs enable private entities to deal more effectively and efficiently with smallholder farmers (Gulati et al. 2007). Through FBOs private investors consider reducing the cost of dealing with farmers, enhancing the volume and quality of farm produce and increasing credit recovery rates in farmer's. Many buyers of farm products prefer to work with FBOs instead of individual farmers because the groups are better able to provide stable supplies of quality products (Vorley et al., 2007).

Many governments (World Bank 2007) also establish FBOs to improve rural service delivery and access to public services, to enhance economic growth and peoples' welfare, and to reduce poverty. Some governments require farmers to organize themselves into FBOs as a condition to gain access to support such as or credit (Shiferaw et al., 2011).

Since 2000, the Ghana government and several NGOs have implemented projects for strengthening FBOs in the country. Among these projects, the government has implemented is a World Bank-sponsored Agricultural Services Subsector Investment Program (AgSSIP), implemented from 2000 to 2007. Under the FBO component, AgSSIP provided support for the development of FBOs to allow them to play a major role in shaping agricultural policy, providing services to farmers, and engaging in export activities (AgSSIP 2007).

As much as FBOs have phenomenal strengths, its weakness are evidential. An issue about member participation in FBOs involves dealing with different levels of income of farmers. The very poor farmers would generally find it difficult to join FBOs especially if group activities include assembling of assets or money services as they often have nothing to contribute except labour

Upon the report on the interview by (Salifu et al., 2010), most FBOs suggested that their members received more training from agricultural extension agents (AEA) than farmers who do not belong to FBOs because AEAs specifically target FBO

Showing the inclusiveness and exclusiveness associated with of FBOs. Farmers in FBO are therefore of higher priority to extension workers than individual who are not part of any farmer group.

2.4.2 Activities of FBOs

FBOs in Ghana are involved in a wide range of collective activities, they often engage in more than one activity at a time. Common collective activities include production, processing, marketing, procurement of inputs, and community development, in addition to the mentioned activities are other activities that have long been practiced by groups in Ghanaian rural society, such as internal credit schemes, mutual labour support and welfare services. The welfare services and labour pooling have their roots in the pre-colonial Ghanaian society. More than two thirds of FBOs are found to be engaged in mutual labour support and nearly a half offer welfare services to their members at certain times. What often happens is that, members of an FBO will have a timetable in place so that all members of the group benefit from labour support on their farms. Weeding is the most common activity of the farm for which members pool labour. Welfare services may include in-kind or monetary

contributions to meet costs of health care, school fees of wards, or other pressing and important social activities.

These activities characterises FBOs, however this research would focus more on the production and marketing of farmer produce in FBOs.

CHAPTER THREE: RESEARCH STRATEGY AND METHODOLOGY

3.1 Methodology

A desk study was conducted, where various literatures were compared and contrasted. This gave an in depth theoretical understanding and unravelled the key concepts used in the research. Primary data was collected through the interview of individual farmers both members of FBOs and non-members and Staffs of PFTP. Focused group discussions as **shown in fig 3.2** with farmers were conducted in 4 communities and all observations of importance to the research were noted. The interviews and focused group discussions, were audio recorded with the permission of interviewees and discussants.

The strategy employed for this research is a case study. The interviews presented to the research an in-depth presentation of the perspectives of the interviewees on FBOs. The focus group discussions gave a collective and unanimous opinions on the issues presented. The interaction during the discussions allowed for the views and experiences on FBOs to be shared. Contradictions were easily noted and verifications done straight away. Observations formed an essential method for collecting some information. Issues of relevance to the topic, which has not been planned for or thought of beforehand, were noted as part of the results discussed.

3.2 Sample selection

The topics discussed were clearly outlined by the researcher. Farmers were visited in their communities where the focused group discussions took place. Four communities from the working zone of PFTP, namely, Dabogshie, Daashie, Dakpemyili and Sakpalua in the East Gonja District of the Northern region of Ghana, would be selected. These communities have active FBOs operating in them and the organisation (PFTP) has worked with farmers in the communities for over 10 years. It was assumed that much information of FBOs could be attained from these areas of operation of the organisation.

Using checklists as presented in **Appendix**, a total of 14 individual interviews were conducted. 5 Individual farmers of FBO membership (2 males, 3 female) were interviewed to gathering from them their take on FBOs and extension delivery by PFTP using FBOs. The individual farmers were randomly selected from the list of members in each FBO. With the assistance of the FBO executives in the communities, 4 farmers (2 males, 2 females) of non-FBO membership were randomly selected and interviewed. The selection of the number of males and females was influenced by the organisations' way of selecting its recipients. The organisation has a bias for females and hence work majorly with them. The head of extension department and an extension staff in charge of FBO development from PFTP were interviewed. From them, the organisational strategies were much highlighted upon. This was used in comparison with the actual results on the field.

Figure 2 Researcher interviewing a member of an FBO in Dakpemyili community



Source: Author, 2013

In all 5 FBOs were engaged in a focused group discussion, a maximum of 27 discussants in a group with ages between 18 to 60 years were present for discussion.² FBOs namely, Anphani Farmers Group and Yembelaboguni Group were selected from a community called Sakpalua. The other 3 groups, Tumthiaya Farmers Group, Welima so shiya Farmers Group and Bobgu Nyagsa Farmers group were select from Dabogshie, Daashie and Dakpemyili respectively.

Figure 3 A Focused group discussion with Welima so shiya Group in Daashie community.



Source: Author, 2013

The 5 FBOs were selected from the list of FBOs in the communities as documented by PFTP. The selection was done with the help of the FBO development officer of PFTP. Though there were several other associations, the selected were the dominant and active groups of associations in the communities. 5 FBOs member executives from each FBO group engaged in the discussion was interviewed. The executives gave a more managerial response on the operation and benefits derived from the FBOs.

There was an in-depth search into the archives of the organisation, documenting information from the history, strategies and plans of the organisation. The documents I looked through were, yearly and half yearly reports, FBO development training manuals, Organisational action plans document, FBO meeting minutes.

Data Analyses

The recorded interviewed were transcribed for representation as findings in the report .The findings were discussed in comparison with literature.

Ethical Issues

The selected interviewees and focused group discussant were first sensitized on the objectives of the research. Their consent was sort and an appointment was later made for interview sections and discussions. They signed a consent form which was witnessed by other individuals.

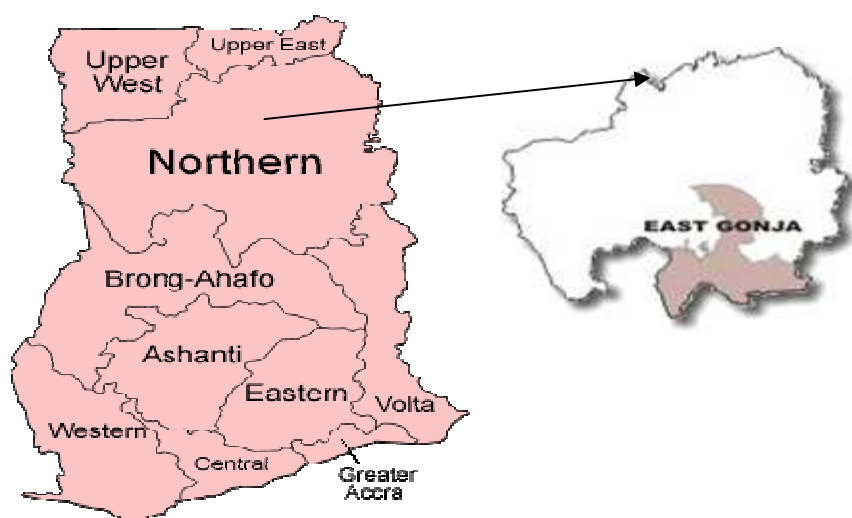
3.3 Background of the area

Ghana is divided into 10 administrative regions .The Upper West, Upper East and Northern Regions make up Northern Ghana and the other seven make up the southern Ghana. The vegetation of Northern Ghana is savannah with shorter raining seasons of about six month, yet referred to as the breadbasket of the country, having majority of its population into farming. Dabogshie, Daashie, Dakpemyili and Sakpalua are small villages in the East Gonja district which is located in the south-eastern corridor of the Northern Region of Ghana. The population of the district per the 2010 housing census is 135,450 with a total land area of the district is 10,787 square kilometres occupying 15.3% of the land mass of the Northern Region. The capital of the district is Salaga.

The natural vegetation in the district is Guinea Savannah Woodland, which consists of trees that are drought resistant. Most of these trees are of economic value. Notable amongst them are the shea and dawadawa trees. Compared to the rest of the Northern Region, the tree cover is dense although intense harvesting for fuel wood is fast reducing the natural flora. At the extreme south-east, the vegetation is dense and semi-deciduous trees such as oil palm trees, raffia palms and others can be found.

The main economic activity of the people is farming, it employs about 80% of the population. The confluence of the Volta Lake and some of its major tributaries including the White Volta and the Dakar River are found in the district. The collection of water provides the potentials for water transport, irrigation development and fishing activities, (composite budget, 2012).

Figure 4 Map of Ghana, Northern Region



Source, Ghana. USAID. gov, 2013.

3.4 Limitations of the study

The researcher had transportation difficulties as communities selected were about 100 kilometres away from the researchers' location. Though the researcher could understand the Dagomba dialect spoken by the inhabitants of the communities she used an interpreter during the transcribing of the data recorded. This was because the farmers mostly spoke in riddles and poetic styles of which the researcher needed assistance to understand.

The period for the research fell on the farming season of Northern Ghana. The interviewees and FBO members were busy on their farms. Focused group discussions were sometimes rushed through or cut short at the request of the farmers to attend to their farms. At the same period was Ramadan fast, most of the farmers were fasting, this also cut short discussions and interviews, to make way for daily Muslim prayers.

The women in the mixed groups did not contribute much and as such, contributions from them was limiting as compared to the men. The few contributions from the women was as a result of persistence from the researcher.

Figures of yields given by farmers could not be verified because of the period of the research. Farmers were planting and did not have produce to show. The challenge was that, some farmers could not give the exact quantities of their last harvest, they gave an estimation of which could not be verified.

An attempt to find a male gender group was not possible. As there was no functioning FBO of that kind in the communities.

In the interviews with some of the women individual farmers, there were interferences from husbands, who walked in and sometimes made contributions or contradicted what the women said. The children of the women also interrupted interviews which made the women lose concentration or lose track of whatever is being said. It was difficult to isolate the women for interviews without interruptions.

During individual interviews some members always needed confirmation or verification from colleagues or family members on whatever responses are made. It was rather difficult to get all information on the checklist from an individual.

The rains interfered in the scheduled times for interviews and focused group discussions. When the rains came, the roads leading to some of the communities were flooded of which was a challenge for the researcher to ply with a motorcycle.

CHAPTER FOUR: RESULTS

4.1 Basic information about respondents.

4.1.1 Individual respondents

The table below gives a representation of the individuals interviewed for the research.

Table 4 Individual respondents

	Males	Females	Total
Executives of FBO	4	1	5
Member of FBO	2	3	5
Non-member of FBO	2	2	4
PFTP Staff	2	0	2
Total individual interviews	10	7	16

4.1.2 Group respondents (focused group discussion)

The table below shows the names of the FBOs and the constituent of each focused group discussion session per groups. The meanings of the names of the FBOs were explained by the members as:

1-Anphani Farmers Group: Means a group of strength.

2-Yembelaboguni: wisdom or knowledge is found in people working together or being in a group and not as an individual.

3-Tungteeya: The little beginning has spread everywhere. Tung is a plant. It is commonly called a bottle gourd or a long melon. The fruit is harvested in its young stage as a vegetable or harvested dried and used as a bottle, a pipe or a utensil. The group is likened to it because the leaves of the plant are broad and cover the ground. Making reference to the initial struggles and the current establishment of the group.

4- Walima Soziya means it is better to keep yourself doing something productive than to fold your hands and look above in anticipation.

5- Bobgu Nyagsa, meaning togetherness is sweeter.

Table 5 Group respondents

No.	Group names	Males	Females	Total
1	Anphani Farmers Group	11	2	13
2	Yembelaboguni Group	2	8	10
3	Tumthiaya Farmers Group	0	15	15
4	Welima so shiya Farmers Group	6	21	27
5	Bobgu Nyagsa Farmers group	4	9	13
	Total	23	55	78

4.2 The intentions of PFTP in using FBOs

From PFTP's organisation brochure, the overall goal of the organisation is to increase food security, reduce poverty and improve the livelihood of the rural communities in the areas of operation of the organisation. To attain the goals of the organisation, a new direction in extension delivery was employed in 2005. The FBO approach was intended to bring farmers together in attaining the following:

- Increase farmers access to market, sales and information
- Increase the linkages between farmers and local service providers (extension service providers, financial institutions, transport owners etc.)
- Increase agricultural productivity of farmers
- Empower farmers to be able to advocate and lobby on issues concerning their welfare.

The new direction was introduced to PFTP by an organisation called, Association for Church-Based Development Projects Secretariat (ACDEP). ACDEP is Network of NGOs of which PFTP is a part, with a secretariat which serves as a nerve centre for the NGOs in the network mainly working in rural communities. The secretariat is responsible for facilitating development programmes and capacity building for all the NGOs in the network and establishing linkages between them and resource institutions and individuals.

ACDEP in the year 2004 introduced the FAMAR (Farmer Market Access) project. The project aimed at increasing the productivity of farmers by organising them into viable gender balanced organisations or groups and creating a source of marketing for the farmers.

Before 2004, PFTP worked with individual farmers and smaller groups of farmers, called production units. The production units consisted of farmers helping each other in production. The PFTP head of department recounted the existence of an act common amongst the traditional production units called 'Kpaa' in the Dagomba dialect in Ghana. What usually happened was that, on the day prior to a market day, young men in the group, moved to an individual member's farm to help, this activity was rotated till all members had their turn. The problems identified by PFTP were that, as a result of the good agronomic practices introduced to the farmers by the organisation, farmers were seeing positive results in their production but had difficulties in marketing their products. This situation was observed by the field staffs of the organisation over the years. On several occasions opinions amongst the farmers presented this problem to the organisation for assistance.

In his interview? The PFTP head of department said the organisation appreciated that small-scale farmers operate under very difficult conditions and various constraint, but noted that some of these bottlenecks could be overcome if they bring together their efforts to form organised groups. Providing for its members a meaningful solution to its members.

On the one hand, to the advantage of PFTP, an objective of the FBO component is to make extension services available to groups of farmers rather than individuals for more cost-effective and rapid introduction of good/appropriate interventions.

When asked the FBO development coordinator gave the following reasons as to why FBO is revered by the organisation. First, peer education is prominent amongst the FBOs. Secondly, attending to individual farmers consumes more time, as both the farmer and the extension staff do not have much time to spare. As a third point, FBOs promote participatory trails or demonstrations, since demonstrations on member farms influences farmers more. And finally the FBO approach is on the whole aiding to gain some PFTP's goals and aims.

4.2.2 The shift to an FBO approach by PFTP

On the records of PFTP, the organisation works with 2,500 farmers. The individual farmers approach as used by PFTP was abandoned for the group approach. These farmers have been grouped into 103 active primary FBO and 1 secondary FBO. There are three levels of the FBOs. A primary FBO, which is made up individual community farmers. The secondary is a group at a zonal levels, with farmer representatives from the primary FBOs. And the tertiary which is at a regional level, the secondary FBO representatives make up the tertiary FBO.

4.3 The organisational aspects of the FBOs

The table below shows the gender makeup of the membership of the FBOs.

Table 6 FBOs interviewed

No.	Group names	Community	Group type	Year formed	Males	Females	Total
1	Anphani Farmers Group	Sakpalua	mixed	2011	12	4	16
2	Yembelaboguni Group	Sakpalua	mixed	2008	5	8	13
3	Tumthiaya Farmers Group	Dabogshies	female	2005	1*	15	15 + 1*
4	Welima so shiya Farmers Group	Daashie	mixed	2006	10	18	28
5	Bobgu Nyagsa Farmers group	Dakpemyili	mixed	2005	18	14	32
	Total				46	59	105

The FBOs are in three categories, which are solely males, solely females and a mixed group.

Group 1 is a break away from group 2, which was bigger and older. Both groups are found in one community. Group 1 started as a males group and later accepted 4 hardworking women. Group 3, is a female group, but has employed the services of a male to play the role of a secretary. Group 5 consists of two sub groups of females and males, they join on certain activities and divide on others. The women in the group have a saving scheme of which they save money and give to an individual in a rotational order, till everyone gets her turn.

4.3.1 Purposes and benefits of FBOs

In group 1, it was said that the reasons for the establishment of their FBO is to be able to access credits and obtain assistance from PFTP. In group 2 the chairman said,

'Lately without a group you cannot go for credits from financial institutions'.

So as a strategy to get loans, they saw it fit to form groups. From group 4 it was also said that, times have changed, NGOs no longer assist individual farmers but groups of farmers. Two men in group 5, contributed to indicate that PFTP advised them that, working as an individual does not make one stronger to achieve enough but as a group they would be able to do more to improve their lives and the community.

In group 3, the leader referred to as the "Maga-jia" (a Dagomba name given to a female leader) was quick to say "Sungsun" (to support and help each other) as a reason for the

formation of their group. She gave an illustration, to make clear her point. She picked up a stick and put it on the floor. She tried picking it up with one finger but was unable to. She then added another finger and was able to pick it up. She then added that, one can imagine how very easily it will be to pick up the stick should you use all fingers.

Still in group 3, one of the members said that, through the formation of the FBO, the group has gotten to know each other well and have grown a sense of care for each other. She said that, when she does not see one of the group members in a while, she goes to their houses to enquire about their health.

In group 4, one woman said that, the FBO has improved their lives; they do not fell trees rampantly as before for their livelihood. This was shared by the group as most people nodded their heads in agreement to what she said. Another woman in group 4 said that, formerly, the women did not have ambitions and anything to show off, but now they cultivate soya beans and maize and rear animals all as a result of being a member of the group. I asked all the women in the group, whether they shared in the contribution made, a loud “yes” was said as another woman said,

“We have enriched our lives and are able to pay our children’s school fees through the soya beans and maize cultivation and animal rearing. We are able to feed our families with the proceeds.”

Sharing of ideas and support as benefits of being in a group were indicated by all groups. As all the groups mentioned of going in groups to help work on the farms of members during planting, weeding and harvesting.

Figure 5 Anphani group on the farm of a group member to assist in farm work



Photo: author, 2013.

A group executive of group 1 interviewed had this to say about the groups: when the group was started, most individuals did not know and did not have the habit of saving monies, but now, the group contributes money and saves some at the bank. The monies saved at the banks are withdrawn during farming seasons and redistributed or when needed to sort out very pressing issues.

A woman from one of the groups, said that, yes, this has truly brought women into the open. She smilingly said that,

“Formerly we only knew and saw our men in the rooms only, but now we all see each other outside and sit together in the open”.

Out of the five groups, the females in group 5 had an existing “susu” system, where equal amount of monies are collected and kept by an individual which is given to an individual, this is rotated till every female member gets her turn.

An executive mentioned that, tractor operators have taken a new desire to consider and give priority to ploughing for farmers in FBOs or groups. This he said has put the FBO in a good standing during land preparation periods were tractor services become scarce and expensive.

4.3.2 Formation and Operation of FBOs

According to the PFTP staffs, the FBOs the organisation helped form, were done in two ways. The first is that, the organisation takes an existing informal group in a community which is upgraded into an FBO status through a series of training. In communities where there is no group of any sort all, the second way is to create them, which is done by going through some steps.

Firstly, the whole community is sensitized on group formation. The people are left to think it through and asked to form groups of interest in the following categories: male groups, female groups and mixed groups. Based on the desires of farmers these groups are formed.

According to some farmers, issues which were considered by them, before making a decision to join the groups formed were; cultural issues (e. g, women are deterred from joining groups of which their husbands are members in), age limitations (the youth do not often join the older ones) and other social issues (e. g. one joins a group due to how familiar one is with the members, friendship)

After these groups are formed, PFTP does a needs assessment of the community, which is used as a guidance in developing a training manual for training section for the newly formed groups. The farmer groups are trained, at the end of the trainings, the group stands a chance of being registered under the Department of Co-operatives of Ghana. The registration officially turns the group into an FBO. However the group has to fulfil some requirements, which are; the group should have opened a bank account, have a functional executive body, a by-law or constitution and an active membership of not less than 15 having regular meetings. In fulfilment of all requirements, a certificate is issued to the group, which then becomes an FBO.

The FBO executives interviewed said the groups were managed by a group of 5 executives (President/chairman, secretary, financial secretary, organiser, women's leader).

All the executives mentioned of a regular meeting time, where members come together this is how meetings are called:

A day or two before the meeting day, a child is sent to every compound of a group member, informing him/her of the impending meeting. At the time of the meeting day, a bell is rang, the group members recognise that the bell is about the meeting spoke of earlier. The ringing of the bell was particular of the Sakpalua community.

Payment of monthly dues, which was mentioned by all the executives as an activity in the group, was a challenge for 4 executives. One executive commended her FBO for making significant efforts in payment of their dues.

The researcher observed that, the discussions of the single gender group which were females, was much lively. Almost every woman had something to contribute. In the mixed group, the men dominated the conversations. The women had to be pushed to make a contribution, otherwise they just agree to contributions of the made by the men.

Again in the female group, it was observed that, before the start of the group discussion, a woman shared a problem she was encountering on her farm, she immediately got inputs from fellow women on what to do.

An observation of the researcher was that, the women were first to reach the meeting place for the group discussion.

4.4 Increasing crop productivity and production through FBOs

4.4.1 State of crop production and productivity

The figures in the table below were derived from a 2013 report of PFTP, the figures have been calculated from the average yields of farmers in the working area of PFTP from 2005 to 2013. This research was interested in representing the differences in yield from the start of the operation the FBO approach and the current state.

Table 7 Productivity per unit acre of some crops of FBOs in 2005 and 2013

Crop	Year (2005) Unit (kg/acre)	Year (2013) Unit (kg/acre)
Soya Beans	350	700
Groundnuts	200	600
Maize	400	700

Source: 2013 half year report of PFTP.

According to the PFTP staffs interviewed, the organisation aids farmers to increase their farm yields by providing for them training sections on good and recommended agronomic practices, such as, timely planting and application of fertilizers, plant spacing, and timely harvesting amongst others. High yielding crop varieties are introduced to the FBOs for consideration and at certain times purchased by the organisation for the groups. The organisation also gives credits to FBOs who were not successful in acquiring loans from financial institutions like the Rural Banks and Credit Unions. In addition to the monies given on credits, the organisation provides ploughing services to the FBOs, where fields are ploughed for farmers on credits to be repaid as a group.

The crops the farmers interviewed reported to cultivate include both crops which are of interest to PFTP and therefore give assistance for its cultivation and those that are not. Maize, groundnuts, cowpeas, rice, soya beans and yams.

In reaction to how the production and productivity on the fields of farmers have been influenced since they joined or formed the FBO, the following responses were given in different groups.

During the group discussion in group 1, a farmer said that, he did not value the droppings of his animals, until he joined the group and was educated on the importance of using the droppings of his small ruminants on his fields to increase the soil fertility. He said he was also taught how to rightly apply the manure for maximum usage to reduce loss especially through runoffs.

All the five groups talked of the advice of PFTP to reduce the size of their farms and concentrate their efforts (e.g. time, fertilizers and labour) to a smaller area to obtain the maximum yield of their fields. This they tried and were successful. A farmer from group 2 said

"Instead of my 5 acres farm which I cultivated all the time, I reduced it to 2 acre. I had a good harvest and was able to pay the credit I took, which could pay for a loan of 5 acres".

The women in group 3 said that, in the group, they have been taught new methods of farming (e.g. sowing seeds in line), how to make fire barriers to prevent bush fire. They went on to say that, just a bag of Nitrogen Phosphorus Potassium (NPK) fertilizer was used by them on an acre of land but now they have been taught how to apply ammonia as well and using the right quantities. They said, they are now profiting much more as compared to the old practice.

In group 4, the executive interviewed mentioned of teaching his FBO on certain practices after he was trained by PFTP. He taught the FBO how to apply animal droppings on the farms, if fertilizer cannot be afforded. One member added that, he tried it and his yield was more than those who applied fertilizer. Another member said, he has learnt how to create routes in and around the farm for vehicles (tractors) to pass without destroying his crops. The whole group agreed again with what one man said about learning from his colleagues in the FBO, how to make channels in the farm for water to reach all areas of the farm.

Out of the 5 separate individual interviews held with farmers in FBOs, all of the interviewees agreed to have seen an improvement in the production and productivity of their crops. Amongst the 4 non-member farmers interviewed, 2 of them were worried about the state of their crop yields, the other two said they were happy about their current productivity.

4.5 Increasing market access of FBOs

From the documentations of PFTP, before the start of the cropping season, a forum is organised by SFMC (Savannah Farmers Marketing Company), the main produce buyer of the FBOs working with PFTP. At the forum, both the sellers (FBOs) and the buyers (SFMC) present proposed prices for the purchase of farm produce. The prices are set in comparison with the open market prices. The agreement reached is sealed with a contract document, which is signed by the SFMC, FBOs and PFTP.

The pact of PFTP in the contract signed is to facilitate the buying of the produce by providing transportation and personnel to organise the buying process. PFTP also provides quality checks on produce bought.

4.5.1 State of marketing of FBOs

According to the staffs interviewed at PFTP, they see a market assurance for the FBOs and a reduced transportation cost plus risk involved should farmers transport their own farm produce individual to the market on market days for sale. In addition, PFTP outlined the following challenges the farmers faced prior to the market access intervention introduced to the FBO.

- Farmers were not benefiting as prices were determined by the middle men who were the main buyers.
- The challenge of storage leads to loss of produce when markets are delayed.
- Price drops in market due to abundance in production leading to low income.

When the farmers were asked of the nature of marketing prior to the formation of the FBO, the responses were that, individual buyers sometimes middle men, travelled to the communities to buy produce, the buyers extorted from them as they had a traditional way of measurement using the hand and standard bowl called “kuruwaa” in Dagbani, which the buyers take advantage of to cheat farmers. According to one of the women individually interviewed, the buyers sometimes buy 5 bowls of grains at the cost of 4 bowls, but out of desperation and limited options, she was mostly entreated to sell.

Another woman interviewed said, the produce are also sold to interested persons in the community. In the case of selling to someone you are fond of, pricing becomes very difficult, making one sell very cheaply and later running at a loss.

In group 4, the issue of poor storage was raised. The farmers agreed by nodding their heads as one man said that, storing the farm produce till a market is found for it, was a challenge. Most of the harvest got lost beforehand.

On the subject of the current way of marketing, the farmers in all the groups indicated that, they had a good price for their produce. However a member of group 2 was of the view that, the buyers could do a lot better at increasing the prices. According to the farmers the measuring scale as used by the buyer, was to their advantage. They said the measurement allowed them to sell smaller quantities at reasonable prices. A women in group 1 said,

“Last year, my maize was bought at GH¢ 25.00 per bag (100kgs).I filled my sacks to the brim. When the buyers came, the quantity in the sacks were all reduced. This allowed me sell more bags than I expected.”

Still in group 1, a woman again said that, she is happy the buyers come all the way to the community to buy the produce. This she said had relieved her a lot since she used to carry her produce on her head and walk miles to the market and if she is lucky she finds a buyer or else she has to carry it back home without a buyer. All the other groups appreciated the ease of the headache associated with the transport of farm produce to the market.

In group 5, a man said that, he gets his money as the SFMC pays on spot. He is also happy that he uses the money wisely as he not tempted to spend the sales unnecessarily as he does when he goes to the market to sell.

A farmer in group 4 said that, despite a contract signed and the good price of produce presented by SFMC, he would not hesitate to sell to the open market should the prices be above what has been presented by SFMC. This was backed by other farmers in the group.

In three of the groups there were complaints of the unavailability of a storage facility for the group produce, since the produce are converged at a spot, in wait for the SFMC.

From the interviews with non-FBO-members all of them said they faced challenges in marketing their farm produce. A woman said, she gives the produce to her husband to send to the market since he has a motorcycle and finds it easier to get to the market. Her problem was that, she receives just a little money back from her husband after the sales of the produce, that is if she is lucky or nothing at all, though the produce has been sold. The additional challenges mentioned were on difficulties in transporting produce to markets, determining of prices by middle men, poor storage of produce which reduces produce quality, hence low sales.

4.6 Challenges and Weaknesses of FBOs

The weaknesses identified with FBOs by PFTP as reported by the head of extension department were that, the high illiteracy rate amongst farmers posed a challenge as some FBO members had a poor understanding of group formation concepts, the farmers expect short term benefits rather than long term which discourages them in the group. The PFTP FBO coordinator mentioned that, some FBOs have been turned into a “family FBO” consisting of relatives. This, the organisation feels reduces the seriousness of the group and the executives being prone to having role conflicts. The organisation has also observed that, the group solidarity as used as a collateral by banks and other financial institutions is not working effectively as some group member are not fully committed to the group.

In group 4 the secretary said that, the group lacked the skills in planning and writing well to access resources for the group and the community as whole.

An individual FBO member interviewed said that, she did not have a guarantee to obtain desired benefits from the group, for example in getting the exact amount of loan asked for.

The executives of the groups complained of the poor commitment of some group members, this was seen in payment of dues and attendance of meetings.

Some executives said that, there are instances where the executives themselves do not come for meetings making it more difficult for the few available/present executives to handle the group.

A farmer sadly said that,

“One problem we are facing is that, the rate at which we meet with PFTP has declined, we used to meet frequently, especially on our farms, but this has changed; we hardly meet. Now, I feel the organisation does not know the problems we are facing currently, likewise we don’t know what they have for us”.

The non- FBO members gave their negative impressions on the FBOs. One of the men said that,

“In the group I see that they do things in the same ways, for me, I sometimes want to do things differently from others, for this reason, I think it would be difficult for me should I join the group”.

Another woman, who sells in addition to farming said,

“I see the FBOs meet a lot. They just sit there and chat, am sure they even gossip about people”.

The researcher asked of the assistance the group gives to an individual should him or her experience a bad harvest. During the group discussions the responses were positive, they said produce are gathered from members and delivered the unfortunate individual. During an individual interview with a woman. She said there has never been any help of this sort given to an individual. She added that, during bad harvests, people would rather keep quiet over it than to receive help from fellow farmers, who would, in future, refer you to it, probably in a negative manner. She referred to it, as shame and it mars the image of the individual.

From the FBOs, there was a complaint on the attitude of some NGOs of which PFTP is a part of. The organisations keep the FBOs in wait for a long time during scheduled meeting times. This was as bother as farmers said farm and other activities were put on hold.

CHAPTER 5 ANALYSIS AND DISCUSSION

5.1 Intentions of PFTP

The goal of PFTP is to increase food security, reduce poverty and improve the livelihood of the rural communities in the areas of operation of the organisation. Using FBO to achieve the aims of the organisation is could be considered a good direction, considering the challenges of extension service deliverers, such as less personnel in extension, transportation challenges and financial issues amongst others in Ghana. The approach was initiated in 2005, which could mean that, the organisation has battled with various approaches until then, this is not to say that using the FBOs have solved all the problems of the organisation.

In the paper of the Directorate of Agricultural Extension Services (DAES,2011) on agricultural extension approaches being implemented in Ghana, there is a recommendation for the development of FBOs, seeking for the promotion of village-level and community-based organizations of farmers with special interest and vulnerable groups such as women, youth, rural poor, tribal and nomadic people.

The challenge of reaching individual farmers as practised by PFTP before 2005 was complicated further by the fact that farmers' information needs vary even within a given geographical area due to variations in soil, elevation, microclimate and farmers' means and capabilities. The large size of the clients inevitably as put by DAES (2011), leads to a situation where only a limited number of farmers have direct interaction with extension agents. Since direct contacts are rationed, agents often exercise selectivity as to which farmers they interact with, and the selectivity often manifests preference for larger, better endowed, and more innovative farmers, who can provide some in-kind payment.

Though agreeing with DAES (2011), it could also be argued that, since farmers have individual and peculiar needs, attending to them in groups leaves most of the farmers handicapped as individual issues may not be given the necessary attention in a group.

From the findings it is noted that, all farmers under the jurisdiction of PFTP have been put into groups, which means that, some farmers may have joined or formed groups out of compulsion. The FBOs may be formed just to be in good standing with PFTP to be able to access or receive certain resources. According to the findings of Funk et al (2012) FBOs involved in production tend to be more concerned with capturing resources like training and financial aid than with generating profits.

As part of the intentions of PFTP is to bring farmers together, farmers may have come together to form groups, but as to whether farmers are really together as one remains unanswered. Though the meanings of the names of the FBOs selected as seen in 4.1.2, suggests the groups gave a thorough thought to the naming, considering the poetic nature of the names with togetherness embedded in almost all cases, togetherness could therefore remain a theoretical concept. This would confirm what was written on this by Funk et al (2012). Nonetheless the names of the groups suggest very positive intentions rather than just the capturing of resources.

As an advantage of FBOs, PFTP sees FBOs to promote participatory trials. The researcher observed on the field a trial going on the farm of the chairman of the Anphani farmers group. Although there is no hard evidence and it was not researched as such, it seems likely that the trials and plot demonstrations would be driven more to the farms of the FBO executives rather than the ordinary members. This bias could defeat the participatory purpose of the trial.

To the advantage of PFTP, the FBO approach has presented to the organisation a cost-effective strategy indeed. The complaint of field staffs over fuel has died down as the frequency and travelling distances have been reduced.

As to whether PFTP has achieved all the initial intentions outlined in this research remains to be further investigated as this research has looked more into the agricultural production and productivity as well as the marketing of farm produce. However, in a general perspective, the FBO approach as practised by PFTP can be said to be successful to an extent. With the collaborations of FBOs with PFTP in carrying out activities and the growing interest of farmers to form and join FBO, gives positive indications of the approach. The reports of farmers on the opportunities presented to them as a result of the FBO means the approach has had a head way.

5.2 What FBOs stand for in East Gonja.

From the research it was established that most of the FBOs were formed out of compulsion. The first reason is that, PFTP asked the farmers to form groups and they did, the next is that, credit and financial institutions would rather give loans to groups than individuals. From Tinsley, (2004) it is spelt out that, for many donor and NGO projects, joining an FBO is the only way to partake in and receive support from projects, with no consideration given to farmers who are not members of such groups. To some, FBOs have become a means to an end. In this same light Tsekpo (2008), stated that in Ghana the formation of FBOs is regarded as a means of securing patronage from the government and donors. An interesting finding of Salifu and Funk (2012) is that, the Northern part of Ghana, where this research was undertaken, has more FBOs which are externally started as compared with the Southern part of Ghana. Externally driven FBOs in certain cases may lack ownership of the group, which could be a setback for the FBO.

To other FBOs, the group meant much more to them than just a mandatory assignment. The observations made was that, the women in the groups and those interviewed spoke more passionately about the groups than the men did.

PFTP pointed out that, some FBOs have been turned into a “family FBO” consisting of relatives. Though the members of the FBOs did not point out this issue, the organisation felt that, a group made of most family members reduces the seriousness of the group and the executives become prone to having role conflicts. Salifu et al (2010) makes reference to kinship, appearing to be a major reason for participation in FBOs. Kinship was broadly defined as nonprofessional ties such as an ethnic, religious, gender, tribal, and/or family-based relationship.

The groups all spoke of assisting each other in various ways in the FBOs. The contradictory response received on helping each other during bad harvest, showed that, no one was ready to carry the weak along in the group. Individuals had to fight their own battles, though to the outside, the groups seemed to help each other. What is amazing is that, an individual who needs help may not receive or appreciate it when it is presented to him or her as presented by a respondent in 4.6.

From the findings, the women in the groups spoke very much of how their lives have been influenced by the FBOs. It was clear that their dependence on their husbands for petty items had been reduced. However, an observation worth discussing which still shows the much dependence of the women on their men. In the all-female group, a male was employed as the secretary, yet the group still maintained that it is a female group. The group could not find a female amongst them who could read and write. In most cases during selection of executives, which is in line with the findings of Funk et al, (2007), the members are astute enough to always have someone literate and educated as a secretary. They may select the oldest or the most respected people in the community to lead them in the other positions.

Before the formation of an FBO, PFTP outlined a series of steps which selected communities are taken through. Amongst the challenges of PFTP in working with FBOs was

the high illiteracy rate amongst farmers in general, therefore posing a challenge in the understanding of FBO formation concepts, should draw the attention of the organisation in repackaging the formation approach to suit the farmers.

The illiteracy level as complained about by PFTP explains the complaint of a group secretary, pointing out that the groups lacked the skills in planning and writing well to access resources for the group and the community as a whole. According to Funk et al (2007), it is assumed that the most common training received by groups are in agricultural practices, book keeping, and leadership. And that, given the generally successful management in most FBOs, leadership training in particular may not be a high priority.

A cry of some of the farmers is that, the extension staffs of PFTP are rarely seen by farmers. The reduced frequency is considered an advantage to PFTP, yet a bother to the farmers. The farmers still prefer the individual visits especially on farms, where individual plights could be carried on.

Could the whole FBO system be a waste of time? This question is asked by the researcher as a result of comments by some interviewees considering the activities and meetings of FBOs as a complete waste of time. Referring the groups to belong to lazy farmers who only sit and wait for help from external bodies. The opinion made cannot be discredited, as in the findings of Salifu and Funk (2012), the initiators of some FBOs reported that, they established the FBO because they observed that other FBOs were receiving benefits, usually from government and NGOs. In any case, some of the members' spoke of spending lots of time in wait for personnel's from PFTP to FBO meetings, which delays members in working on their individual farms and other activities.

As observed by the researcher in 4.3.2, unlike in the mixed group, the females in the single gender group expressed themselves freely. The presence of the men in the mixed groups may have caused the women to be quite. This compared to the single gender group showed that, single gender groups encourage participation than the mixed group. In the

Gathering from another observation still in 4.3.2, the timeliness of the women to the focused group discussion venues, showed that, the women were more committed to the FBOs than the men were. The reluctance of the men in attending the meeting gave a negative connotation, of which, it could be assumed that, that is the usual attitude of the males to the group.

The dominance of the men in the mixed FBOs indicated the likelihood of the men sharing resources received amongst themselves first and later the women. Having maximum control could lead to abusing of the group resources.

5.3 Agricultural production and productivity

The evaluation of the extension impact involves measuring the relationship between extension and farmers' knowledge, adoption of better practices, utilization of inputs, and ultimately farm productivity and profitability and the related improvement in farmers' welfare. But "farmers' decisions and performance are influenced by many other systematic and random effects and thus reliably ascertaining the impact of extension advice to farmers requires fairly sophisticated econometric and quasi-experimental methods" (Birner et al. 2006).

Despite the above, PFTP has documented figures of crop yields which the organisation is tempted to associate with the efforts or services rendered to farmers.

Members of the FBOs acknowledged that, the FBOs received farm inputs and trainings on good agronomic practices from PFTP. Of which positive results on the farms have been recorded. It is however interesting to note the difference in average yields recorded by PFTP

and the average yields of MOFA (2010) for the entire country Ghana. The table of MoFA shows the achievable yields. The vast differences in the average yields and the achievable yields shows there is still much needed to be done to achieve optimum yields on farms.

Table 8 Productivity per unit acre of some crops of FBOs in 2005 and 2013

Crop	Year (2005) Unit (kg/acre)	Year (2013) Unit (kg/acre)
Soya Beans	350	700
Groundnuts	200	600
Maize	400	700

Source: 2013 half year report of PFTP.

Table 9 Average yield of some selected food crops in Ghana and achievable yields

Crop	Average yield Kg/acre	Achievable yield Kg/acre
Maize	680	2400
Rice	960	2600
Soya beans	600	920
Groundnuts	600	1000

Source: MoFA, 2010.

Considering the nature of the yields of the PFTP, the farmers of the Northern part of Ghana could be commended because, despite the savannah nature of the region and the sole dependency on one raining season annually. As verified with the farmers, the yields recorded by PFTP look encouraging as per the average yield of the entire country, though recorded in different years.

The figures presented could however be furthered agued on despite the testimonies of farmers and the records of PFTP. As importantly indicated by Waddington et al (2010) assessing the impact of extension on agricultural productivity, means, one needs to take into account that productivity improvements are possible only if a differential exists between the actual productivity on the farms and what could potentially be produced with better know-how, subject as always to farmers' preferences and resource constraints. This is however difficult to ascertain. The research cannot uphold the presented figures as the influence on productivity could rather be vast.

An interesting finding was that, the non-member farmers of FBOs, reported of yields not so different from the members of the FBOs. Based on this, one can say that, a farmer does not need to be a part of some group of a sort to gain resources in increasing farm yields.

The farmers appreciated the help received from the FBOs in relation to their farm works as presented in 4.5. Aside the resources received from PFTP, fellow members in the groups engaged in collective actions such as mutual labour support in planting, weeding and cultivating of member farms. As presented in 4.3.1, farmers showed satisfaction to what the group was achieving.

5.2 Marketing of farm produce of farmers.

One of the specific strategies in the FASDEP of MoFA (2007) is to improve accessibility from farm to market centres. In the same document, there is a highlight on some constraints limiting market access besides poor infrastructure are lack of marketing skills, inadequate product development for effective utilisation of farm produce and generally weak commodity value chains.

The challenges outlined by MoFA, are in the same line of challenges outlined by PFTP and the farmers engaged in the research. However, the findings of the research indicates that, much progress is being made in that light. To address most of the marketing challenges of the farmers, PFTP in collaboration with ACDEP, has linked up the FBOs to produce buyers like SFMC in Ghana.

Though most farmers were happy with the prices at which their produce was purchased, a few thought that the prices could be increased for the benefits of the farmers. The farmers were however ready to bridge contracts with produce buyers should there be an instance where the open market prices exceeded the prices set by produce buyers. Though farmers may be justified to sell their produce to obtain the highest possible profits, it also becomes evident that some of the farmers have not come to a full understanding of the value chain concept and the legalities in contracts as deduced from the report of some farmers in 4.5.1. Contracts signed by farmers by thumb printing without hesitation may also show that, the contracts terms were not fully understood.

Without the current assistance of PFTP in marketing the farm produce, the farmers said they would maintain the FBO and still market as a group. This form of marketing, would mean that, members of an FBO as mentioned in Salifu and Funk (2012) would not necessarily engage in collective production or agro-processing but only decide to use a common means to transport their product to market centres. In most cases, one or two members accompany the product to sell on behalf of the group.

The women in the groups as mentioned earlier on are especially happy about the marketing improvements, considering the many efforts the women have to put into getting their produce to the market centres for sale as compared to the men. A good marketing intervention of reasonable pricing and timely purchasing is of very much importance.

An issue of storage was very much raised in all the groups. The complaint was about the challenge in hording farm produce as a group in wait for the produce buyers. A question worth asking according to the researcher on such an issue is, could such group needs be addressed as a team? Instead of waiting for external help in most cases. Could the interviewee who regarded members of FBOs as lazy and always in lye wait for aid be right?

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

This research sought to explore Farmer Based Organisations Extension approach as used by the Presbyterian Farmers Training Program in the East Gonja District, Ghana.

According to the discussion and analyses of the findings of this research, the research has seen that, the intentions of PFTP in working with FBOs was to increase farmers access to market, sales and information, increase the linkages between farmers and local service providers and to increase agricultural productivity of farmers and empower farmers to be able to advocate and lobby on issues concerning their welfare. Working with FBOs has presented a more cost effective way of reaching farmers for PFTP.

PFTP in its efforts to achieve all intentions seems to have been successful in increasing agricultural productivity of farmers and increasing farmers' access to the market. However some of the challenges experienced by PFTP in working with the FBOs as found in this study are that, the FBO members still do not understand the purpose of the association and do not know the worth of forming an association like an FBO. It was revealed that, because of the demands of services providers like extension services, financial institutions and NGOs, farmers are (or feel) compelled to join FBOs.

On the whole, the FBO approach as practiced by PFTP seems to be successful to some extent. The approach could be said to be working well, with considerations in the satisfaction shown by the farmers, the organisations report of being more efficient in extension work, collaboration with marketing companies, linkage of FBOs to financial institutions and the collaboration of the farmers in the FBOs all indicate that, the approach seems to be working well.

The study also found that FBOs gave a platform to farmers to present and have their needs addressed, giving farmers a loud voice. On the other hand, some voices, like those of the women and the poor in the groups, remain a lot more silent or even unheard. The men showed dominance in the FBOs which reinforced the submission and vulnerability of women in the groups. The men had more access and control over the group resources, putting the men in higher social status. The women however had greater control over group resources when in women only FBOs.

The study found that, the single gender groups shared and helped each other more than the mixed gender groups. Women in the groups have become less dependent on their husbands, as certain items can now be afforded by them.

Paper work and documentation was a challenge for most FBOs, as it was needed in cases of contracts and obtaining loans. This was worsened by the fact that many of the members and even executives were illiterate. Regarding education in general. The men were more educated than the women which left the female FBOs more handicapped in terms of paper work.

Despite other domestic responsibilities, women in both single gender FBOs and mixed FBOs showed more commitment to the FBOs.

The knowledge of farmers on crop production and productivity has increased by taking part in the FBO, this has been through knowledge sharing amongst the farmers and trainings received from PFTP. Farmers received help from each other on farm works, like weeding, planting and harvesting. Productivity was reported to be on the increase by the years. The productivity was however difficult to be solely associated to the efforts or assistance received from PFTP and FBOs.

Marketing of farm produce has been greatly improved through a market access strategy. Marketing has become a lot easier according to the farmers and they were found to have seen the very importance in marketing as a group and would continue in doing so even without help from an external organisation.

However, it was found that storage of farm produce till the buyer's purchase the produce remains a challenge for the farmers.

6.2 Recommendations

To increase the vibrancy of the FBOs, PFTP may consider reducing the level of involvement in the formation and operation of the FBOs so to give the FBOs a greater sense of ownership of the group.

In order to also reduce the level of dependency of FBOs on the organisation, the FBOs could be trained more in books and record keeping or skills that will equip the executives in managing the affairs of the FBOs.

Individual farmers, who are in FBOs out of compulsion and would want out, could arrange an extension package with PFTP to be attended to separately. This however would have to be within the capacity of PFTP. Farmers could be charged for the special services rendered to them.

FBOs should be trained and encouraged to fully understand the group worth and opportunities that association and collaboration presents. This can reduce the total dependency of some FBOs on donations from NGOs and the government.

PFTP should consider issues of gender inequalities in FBOs and give it the necessary attention. The organisation should therefore consider giving a gender training to the extension staffs and to have gender issues on its agenda so to prevent the organisation from reinforcing gender inequality in FBOs.

The executives of the FBOs may consider attending literacy classes to sharpen their skills in writing and reading. This could make the executives more effective in managing the FBOs.

Marketing companies run at a loss when farmers bridge their contracts with them. To prevent farmers from bridging marketing contracts, the marketing company may consider elaborating more and simplifying the terms of contracts to the understanding of the farmers, prior to signing of signatures.

To reduce postharvest losses of farmers produce especially during storage and for quality produce, produce buyers in contract with FBOs can collaborate with the FBOs to make arrangements for storage after harvesting till the marketing period. Good storage could increase farmer's profit as the produce would be in its best state for sales.

The issue of the paper work and documentation challenge, could be addressed by PFTP in the organisations of training sections for FBO. The organisation could consider teaming up, with literacy classes teachers or institutions to give special classes to the FBOs. The classes should not be restricted to the executive body, all the FBO members would need the classes, since the executive body is most cases changed.

Given the strengths and equal participation of single gender FBO over mixed gender. Mixed gender FBO groups should not be encouraged over single gender FBOs. In possible situations, the strengths and weaknesses of both group types can be presented to farmers for individual decisions and choices.

This research has presented questions which may need further study, it is therefore recommended that, for future research, an exploration of the characteristics of the different categories (mixed gender, solely females and males) of FBOs.

Another possible research is to find out the effectiveness of the FBO as an agricultural extension approach.

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Appendix

Appendix 1: Checklists

Checklist for PFTP

General information

1. How long has the organisation PFTP worked with FBOs?
2. How many FBOs are you working with currently?
3. Why did the organisation choose to work with FBOs?
4. How does the organisation facilitate the formation of FBOs?
5. How does the organisation work with FBOs after formation?
6. What challenges do you face in working with the FBOs?
7. How different is working with individual farmers from working with FBO's?
8. What do you have to say about the effectiveness of this approach?
9. What strengths and weaknesses do you see about the approach?
10. Which successes achieved by the organisation can you attribute to this approach?
11. What can you say about the use of this approach in the next 10 years?

The production or yield of farmers.

1. What is the current state of crop production amongst farmers?
2. How has yields of farmers been influenced through working with FBOs?
3. How has PFTP contributed to the production of farmers?
4. How has the FBO's aided in the work of PFTP to increase production of farmers?
5. How does PFTP address the production of non-member farmers of FBO's?
6. What success story can PFTP boost of in terms of production of farmers?

Marketing of farmers produce

1. Why is the marketing of farmers produce important to PFTP?
2. How was PFTP involved in the marketing of farmers produce before the formation of FBO's?
3. What challenges did the organisation see farmers go through in the previous way of individual farmers marketing?
4. How has PFTP helped in the marketing of the farm produce of FBO's?
5. How has the marketing intervention contributed to market accessibility of member farmers of FBO's?
6. How do you think farmers feel about the marketing of their produce now as compared to previously?
7. Do you think on the whole the marketing intervention has been effective?

Checklist for FBO executive

General information

1. When was the group created?
2. How long have you been an executive?
3. What is the purpose of the group?
4. How does the FBO operate?
5. How does the group work with PFTP?
6. What is the membership?
7. How long has the FBO worked with PFTP?
8. What role did PFTP play in the formation of the FBO?

The production or yield of farmers

1. How does the FBO help members to increase their production?
2. What interventions has been introduced by PFTP to increase production?
3. How has the yields of members been generally influenced since the formation/joining of the FBO?
4. How do you feel about the interventions introduced?
5. What has been the results of the interventions to the members of the group?
6. What are the disparities on the state of farm performances of members, if there is any?
7. How does the executives address individual farm problems of members?
8. What do you think of the production of farmers in general?

Marketing of farmers produce.

1. How does the executives manage/facilitate the marketing of the produce of members of the FBO?
2. How does the executives collaborate with PFTP in marketing the farm produce of members?
3. How different is marketing of the farm produce of members before the formation of the FBO and after?
4. How are members benefiting from the market?
5. What challenges are you facing as executives in terms of current ways of marketing?
6. How do you feel about the current way of marketing?
7. How do you think PFTP can better its services in terms of helping the group to market its produce?

Checklist for FBO

General information

1. What was the initial purpose for the start of the FBO?
2. Has the purpose been achieved?
3. How is the relationship between the FBO and PFTP?

The production or yield of farmers

1. How has your yields been generally influenced since the formation of the FBO?
2. How has PFTP contributed to your production?
3. How does PFTP present interventions on production through the FBO?
4. How does the FBO help each other in terms of members' production?

Marketing of farmers produce.

1. How were your produce marketed before the intervention of PFTP? What technologies have been introduced by PFTP to you?
2. What opportunities were presented to you by the previous way of marketing?
3. What challenges were faced before the influence of PFTP on marketing? How were they introduced using your group?
4. What is the current way of marketing your farm produce?
5. How does the FBO influence the marketing?
6. What do you like about the current way of marketing?
7. What do you dislike about the current way of marketing?
8. How different is the current way of marketing from the previous?
9. How does the FBO help each other in terms of marketing farm produce?
10. Do you have any success or challenging stories/encounter to share on the aspect of marketing in being part of the group?
11. How do you think PFTP can better its services in terms of helping the group to market its produce?

Checklist for individual farmers of FBO

General information

1. Which FBO(s) are you a member of and for how long?
2. Why did you join?
3. What have you gained from joining the group?
4. What challenges do you face as an individual joining the group?

The production or yield of farmers.

1. What have you learnt from the FBO in relation to increasing your crop production?
2. How has your yields been influenced since you joined the FBO?
3. How has PFTP contributed to your production?
4. How has the group helped you personally in terms of your crop production
5. How has your income been influenced since you joined the FBO?
6. What is the change in your hunger gap before you joining the FBO and now?
7. How many squared meals do you have in a day?
8. Has your meals changed in anyway, since you joined the FBO?
9. How do you feel about the state of your crop production?

Marketing of farm produce.

1. How have you benefitted from the FBO in terms of marketing your farm produce?
2. What positive experiences can you share on marketing since you joined the FBO?
3. Can you share with me an experience that has not been pleasant to you in relation to marketing of your produce in being part of the FBO?
4. How do you think PFTP can better their services in terms of assisting FBO's in marketing?

Checklist for a none member farmer of an FBO

General information

1. How many years have you been farming?
2. What crops do you farm?
3. Why are you not part of any FBO?
4. Do you feel a need to join any of the FBO's? Why?
5. As an outsider, what benefits have you seen your farmers derive as a result of being part of the FBO?
6. From an outsiders perspective what do you see in FBO's that needs attention?

Marketing of farmers produce.

1. How do market your farm produce?
2. What are the opportunities in marketing your produce this way?
3. What challenges do you face in marketing your produce?
4. What steps have you taken to address your challenges?
5. How do you think your marketing would be influenced should you join an FBO?
6. What help would you need in relation to marketing your farm produce?

The production or yield of farmers.

1. What crops do you cultivate?
2. What are your current yields?
3. Has your yields changed over the years?
4. What are your observations of the yields/production of farmers in FBO's?
5. What influence do you think joining an FBO can have on your production?

Appendix 2: Photo gallery



Set for the communities



Interviewing a non-FBO member



Daashie community.



The device used to assemble FBO members in Sakpalua community.



FBO members at work in a members farm



A section of



Focused group discussion.



A section of the female FBO