COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES

DEPARTMENT OF CURRICULUM AND INSTRUCTION

Adult Education and Community Development Program

THE IMPACTS OF FARMERS TRAINING CENTERS IN ENHANCING THE LIVELI HOODS OF RURAL FARMERS; THE CASE OF KUTCHA WEREDA, SNNP REGIONAL STATES

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A Thesis Submitted To the College of Education and Behavioral Studies Department of Curriculum and Instruction in Partial Fulfillments of the Requirements for the Degree of Master of Arts in Adult Education and Community Development

June, 2018

Addis Ababa, Ethiopia

STATEMENT OF THE AUTHOR

First, I declare that this thesis is my original work and all sources of material used for this thesis have been duly acknowledged. I also declare that this thesis has never been submitted to any other institutions anywhere for academic awards.

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STATEMENT OF ADVISOR

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DECLARATION

This is to certify that the thesis prepared byGizaw Eshetu Aweke, entitled *The Impacts of Farmers Training Centers in Enhancing the Livelihood of Rural Farmers in Kutcha Woreda, SNNP Regional State, Ethiopia* and submitted in partial fulfillment of the requirements for the degree of Master of Arts in Adult Education and Community Development, complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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Acknowledgements

First of all, I would like to thank God for enabling me to come to the level where I am now in my life. This study is the result of the contributions and supports of many individuals. I would convey my deepest gratitude to My Advisor Dr. Desalegn Fufa for giving piece of constructive advice, suggestion, and guidance starting from the proposal writing to the completion of the research work. I would like to thank respondent DAs, and wereda finance and economic development office who provided me with the necessary data for my study. I would like to thank all of my friends who edited all my works and encouraged me during the study. Specially Seifu Muluneh for his translation from Amharic to Gamogna.

I also remain thankful to Kutcha wereda agricultural and natural resource office and all the enumerators who assisted me in data collection with patience, commitment and dedication. Their cooperation was not on the basis of their material benefit but is really their own commitment to help me.

I am deeply grateful to farmers of Kutcha wereda district who responded to all questions with patience and gave information for this research work.

Finally, I would like to recognize my wife, W/ro Zelekua Tsegaye, for her consistent encouragement, wishes and moral support all the time.

Last, but not least, I am grateful to the Addis Ababa University's lecturers especially those of College of Education and Behavioral studies for the knowledge imparted.

Thanks all!

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ACRONYMS

ADLI	Agriculture Development led Industrialization
ATA	Agricultural Transformation Agency
AIDS	Acquired Immune Deficiency Syndrome
ATVET	Agriculture Technical and Vocational Education and Training
BA&NR	Bureau of Agriculture and Natural Resources
BoARD	Bureau of Agriculture and Rural Development
BMGF	Bill and Melinda Gets Foundation
CADU	Chillalo Agriculture Development Unit
DA	Development Agents
FDRE	Federal Democratic Republic of Ethiopia
FTC	Farmers Training Centre
GDP	Gross Domestic Product
GTP	Growth and Transformation Plan
HIV	Human Immune Deficiency Virus
ICT	Information and Communication Technology
IFPRI	International Food Policy Research Institute
MANR	Ministry of Agriculture and Natural Resource
MARD	Ministry of Agriculture and Rural Development
NGO	Non -Governmental Organization
NPC	National Plan Commission
NRM	Natural Resource Management

PADETES	Participatory Demonstration and Training Extension System
PES	Participatory Extension System
PID	Participatory Innovation Development
PTD	Participatory Technology Development
SDPRP	Sustainable Development and Poverty Reduction Program
SG2000	Sasakawa Global 2000
SMS	Subject Matter Specialist
SNNPRS	South Nation Nationalities and Peoples Regional State
UNDP	United Nations Development Program
UNESCO	United Nations Education, Science and Culture Organization
WADU	Wolayta Agriculture Development Unit

ABSTRACT

The objective of this study was to investigate the impacts of FTCs in enhancing the livelihood of Kutcha wereda farmers in the use of modern technologies, improved seeds, saving and becoming a member of cooperative, keeping their health and hygiene and in the change of their attitude. Descriptive survey method was used in the study. In this study quantitative and qualitative methods of data collection were employed. Both primary and secondary data sources were used. The samples were selected using stratified random sampling method. The techniques of data collection for the study were focus group discussion which was prepared for farmers found in three selected FTCs in the Woreda. The questionnaires were distributed for trained farmers, Development agents, and kebele Administrators. Interview was used to collect data from subject matter specialists (SMSs) and wereda Finance and economic development office. The result of the study showed that the training provided in FTCs helped the farmers to enhance their livelihood by changing their attitude, enabled them to use modern technologies to increase productivity, keep their health and hygiene, for saving, and engaging in cooperatives. In the farmers training centers participation of women is very low. There is lack of some materials in FTCs to learn best practices and shortage of experimental places. Based on the above findings and conclusions the following recommendations are forwarded. To achieve the objectives of enhancing the livelihood of farmers effectively the training should be supported by practice and there is a need to assign adequate number of DAs. The FTC training access should consider gender equality. Awareness creation has to be made for the farmers about the relevance and effectiveness of farmers training at FTCs in different aspects to participate more farmers result to enhance their livelihoods.

Key words: *Farmer Training Centers, Livelihood, Enhancement.*

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The population of Ethiopia has climbed to over 94,352 million (CSA, 2017) .In addition to rapid population growth, current challenges of Ethiopian agriculture include severe natural resource degradation, increasing frequency of drought, the HIV/AIDS pandemic that is decimating the productive youth, and worsening state of poverty. A thriving agricultural economy is critical for reducing poverty, ensuring food security and managing natural resources, and to this effect, agricultural extension is expected to play an acceleratory role (Habtemariam, 2007).

Subsistence smallholder agriculture has continuously dominated economic development policy in Ethiopia (Mellor, 2014). This sector contributed about 39% of the country's Gross Domestic Product (GDP) by end of 2014/15. Crop and livestock subsectors accounted for 27.4% and 7.9% respectively, while the residual was accounted for by forestry and fishing (NPC, 2016). Despite its pivotal role, the performance of this sector has remained largely unsatisfactory (Gregory, 2013). The sector is characterized by subsistence oriented, low input and output. In addition, over 90% of cultivated land has been dependent on rain-fed, making the sector highly susceptible to climate change (ATA, 2016).

The Government of the Federal Democratic Republic of Ethiopia (FDRE) formulated agricultural policy and strategies, the Agriculture Development Led Industrialization (ADLI), to overcome the agricultural problems and transform the country's economy. Based on implementation of the agricultural policy, growth in agricultural production and productivity has been registered in the economy. Real GDP grew by 10.3% in 2013/14, with 2.3% of this growth from the agricultural sector. As of 2014, 72.7% of employment was generated by the agriculture sector (UNDP, 2015).

Agriculture Development led Industrialization(ADLI) has served as an umbrella strategy guiding the three most recent five year national plans: the Sustainable Development and Poverty Reduction Program (SDPRP), 2002/03-2004/05; a Plan for Accelerated and Sustained Development to End Poverty (PASDEP), 2005/06-2009/10; and the Growth and Transformation Plan-I (GTP-I), 2010-2015.

In general, Ethiopia's rural development policy and strategies prioritize the transformation of smallholder subsistence agriculture to commercial agriculture through market-orientated production system. Accordingly, the government is investing heavily in agriculture with a focus on public extension services by deploying considerable human and financial resources (ATA, 2016).

Agricultural extension service in Ethiopia dates back to 1953 when the Alemaya Imperial College of Agriculture and Mechanical Arts, now Haramaya University started to provide research-based extension services to the surrounding communities based on the agreement made between the Ethiopian and US governments, following the Land Grant University approach. The history of land grant colleges of agriculture is intertwined with the history of higher education for U.S. citizens of average means. The land grant system began in 1862 with a piece of legislation known as the Morrill Act. This law gave states public lands provided the lands be sold or used for profit and the proceeds used to establish at least one college—hence, land grant colleges—that would teach agriculture and the mechanical arts. Land grants for the establishment of colleges of agriculture and mechanical arts were also later given to U.S. territories and the District of Columbia. The legislative mandate for these land grant colleges helped extend to higher education to broad segments of the U.S. population (Christy, 1992).

Since then, Ethiopia has implemented different types of agricultural extension systems, for instance, College System of Agricultural Extension Program (1953 to 1960s), Comprehensive Package Project (1960-1970s), the Minimum Package Project (1970-1980s), Peasant Agricultural Development Project and Farming System Research Project (1985-1990s). Major challenges encountered during these periods, among others, included instability of the extension system and management, unsustainability of the extension programs and projects, (Wolayita Agriculture Development Unit , Chillalo Agriculture Development Unit, Minimum Package Project etc.), lack of common perceptions between technology generators and extension personnel, inadequate representation and participation of farmers, inadequate trained manpower, limited finances, one way communication and insufficient or even absence of monitoring and evaluation (MoA&NR, 2017).

Over the years, a number of reforms have been taken place to address gaps in the various systems adopted leading to the current system. In 1993, SG-2000 started to demonstrate agricultural technologies as a pilot on major cereal crops. The demonstration conducted by SG-2000 clearly showed great successes and captured the attention of top level officials and development practitioners, encouraging them to replicate the experience of SG-2000 nationwide. The approach was later used as a basis for the current extension package services. In line with this, in 1995, the Government designed and implemented a Participatory Demonstration and Training Extension System (PADETES) as the core element of the extension system of the country. Its main objective was to improve participation of smallholder farmers and demonstrate improved agricultural technologies for improving productivity, incomes and livelihoods of the rural community (MoA&NR, 2017)

The government established and operationalized 25 Agriculture Technical Vocational Education and Training (ATVETs) in different parts of the country to produce skilled development agents (DAs) decided to establish a Farmer Training Centre (FTC) in each Kebele and deployed three DAs with specializations in crops, livestock and natural resources to each FTC. To-date over 83,000 DAs have been trained and graduated, of whom about 56, 000 DAs are working in agricultural extension (MoANR, 2017 and CSA, 2017).

More than a decade has now passed since FTC-based agricultural extension system was introduced. FTCs have been established to serve as centers for information and knowledge sharing, training and demonstration of technologies and innovation close to farmers' residents. Currently, the government has established 12,500 FTCs and will construct the rest to meet the national target of 18,000 FTCs. These FTCs are one of the key instruments for delivery of extension services going forward and can serve as symbols for current successes that the country has achieved in agriculture (MoA&NR, 2017).

The country has recently developed and deployed a Participatory Extension System (PES), a modified version of Participatory Demonstration and Training Extension System (PDTES) although the approach is not yet fully implemented nationwide. Participatory Extension System (PES) was started in 2010, following the commencement of Growth and Transformation Plan (GTP-I), as a means of strengthening participatory extension services. The major changes made in the approach were organization of farmers into development groups and social networks (development groups with 25-30 members on average and one in five group consisting one model farmer as a leader and 5 farmers as followers)(MoA&NR, 2017) .

To improve the agricultural extension system of the country, the Bill and Melinda Gates Foundation (BMGF) supported a review of the Ethiopian agricultural extension program in partnership with the Government of Ethiopia in 2009 (IFPRI, 2009). The review identified the system's strengths and constraints with the aim of improving the system and identifying ways in which such improvements might be scaled up in the future.

The Ethiopian agricultural extension system is based on farmer training centers (FTCs) supported by trained DAs. Currently, government is progressing well in its goal to establish one FTC in each Kebele. So far about 12, 500 FTCs have been established and regional governments are aggressively moving forward to establish the remaining FTCs to meet the national target of 18,000 FTCs. While it is widely agreed that FTCs serve as an entry point to bring about behavioral changes among farmers and lead them towards modern and commercial agriculture, the established FTCs are found at varying levels of functionality and currently most of them are not capable of providing the expected services to farmers (MoA&NR, 2017).

This study was investigated the impact of farmers training centers in the enhancement of livelihood of rural farmers in Kutcha wereda; which is one of the weredas' of Gamo Gofa zone in South Nations Nationalities and Peoples' Regional State(SNNPRS) in Ethiopia. Kutcha wereda is located 442 Km south of Addis Ababa, 242Km west of Hawassa and 177Km south west of Arbaminch town. Relatively Kutcha wereda is found south of Wolayta zone Offa wereda, East of Denba Gofa wereda, West of Chencha and Dita weredas, and North of Daramallo and Zalla wereda. According to population census reports of the central statistics agency(2007), with the general population growth 2.9% annually, its population is estimated at 198,592, of which 97,056(48.87%) were males and 101,536(51.13%) were females. The total numbers of rural households are 22800 (459 females, and 22,341 males). Out of the total population, 15,237(7.672%) people present in urban areas and the remainders of the population which is 183,355(92.328%) live in rural areas (Kutcha WoANR).

There are 32 kebeles in Kutcha woreda and in all of the kebeles, the construction of FTCs have been carried out. All 32 FTCs are operational. Currently there are 67 males and 29 females from three departments (Natural resource, plant, and animal husbandry) altogether 96 development agents in the FTCs. There are also 32 cooperative workers, 32 microfinance agents, 16 animal veterinary (one to two kebeles), 32 youth employment option creators and 16 supervisors in the Woreda who serve the rural community (Kutcha WoANR, 2015). The wereda is divided in to three agro ecology zones; that is dega(5%), woina dega(14%) and kola(81%). The Woreda has the potential for both crop and livestock production, which is mainly undertaken by small holder farmers. There are also a relatively growing number of commercial farms. The agro-ecology in the woreda is best suited for diverse agricultural production (Kutcha WoANR, 2015).

There are a number of rivers that are being used for irrigated agriculture particularly for horticulture production. The wereda is best known for its quality pea nut (lewze) production, which dominates the agricultural production system. Nut is a dominant oily seed which occupies about 30% of cultivated land. It is followed by kidney beans (boloke) (25%), maize (17%) and teff (13%), others such as potato, cassava, local boye, etc which occupy almost 15% as the wereda agriculture and natural resource reported (Kutcha WoANR, 2015). The livestock production of the wereda in 2015 was 453,791(2015). Kutcha is best known for its quality better production. The fattening of oxen within three months in all kebeles of the wereda/district is going on (Kutcha WoANR, 2015).

This research will investigate the impacts of FTCs in enhancing the livelihood of rural farmers who were trained in farmers training centers, and pin point how to overcome the challenges faced in farmers training centers by using extension method service/agricultural advisory service.

1.2. Statement of the problem

Agricultural education and training constitute one of the factors amongst many in agricultural development. The availability of trained farmers and trained advisory personnel does not in itself create or produce something miracle. In addition, there must be land, with the security of tenure necessary for long term planning, a system of marketing which ensures steady and favorable prices, a continuous improvement of agricultural techniques, increasing the quality and quantity of yields, and social services available to the rural community. All these factors together form a suitable climate for development of agricultural production (Markham, 1965). Tito,(1997) as cited in Swanson (1997)noted that extension is a weak instrument when it stands alone, but that it becomes a powerful when combined with price incentives, input supply, credit, seed multiplication, cooperative promotion and so forth.

Habtemariam (2007) also stressed on the importance of looking different factors in combination. Ethiopian agriculture is characterized by traditional and subsistence peasants' farming sub-sector whose access to modern technology and to that of basic education is very limited (MoA, 2000). Agricultural change and development requires mobilization of human resources through education and technical training. Agricultural education and training are key elements in the whole process of agricultural change and the achievement of rising levels of rural prosperity (Assefa, 1991).

The key gaps and limitations of DAs include communication and facilitation skills, participatory approach and rural problem analysis, business plan and value chain development and marketing, conflict management, data collection, analysis and reporting. Similarly, most DAs do not have sufficient technical knowledge and skills to provide hands-on training and demand-driven advisory services. Apart from these, DAs lack FTC managerial and leadership skills to mobilize and use resources efficiently with active participation of the community (ATA, 2017).

Farming in Ethiopia is exposed to various risks such as weather and climate, prices, crops/livestock diseases and pests, conflicts etc… all of them contributing to affecting the livelihoods of smallholder farmers. As known, the sector is dominated by smallholder farmers, who have limited access to information related to agricultural risks management. Moreover, agriculture in Ethiopia is predominantly rain fed which makes it directly vulnerable to weather and climate related hazards and also provide little flexibility for adjustment to cope up with other risk factors. The agricultural extension service of the country is also identified to lack effective mechanism for timely sharing of knowledge and information related to agricultural risk management system to enable the local communities to take appropriate decision and remedial action on time to adjust their agricultural activities with the ongoing changes.

As a result, smallholder farmers didn't get agricultural risk management information to put in place appropriate risk mitigation mechanism to reduce the impact of agricultural risks (ATA, 2017).

In the history of Ethiopian agriculture, it is only recently that development interventions began to penetrate into rural areas with the aim of improving the life of the people. Especially, after the second half of this century, various extension intervention programs have begun either in the form of full-fledged programs or as pilot projects. Unfortunately, the impacts of all of these development interventions were not given much significance in terms of improving the life of the rural population in general and the mode of farming and productivity in particular (Habtemariam, 1997).

Farmer's trainings would take in Ethiopia in various periods of time. Recently there was trainings taken place by the government of Ethiopia in all parts of the country. The trainings were modular trainings, short term trainings for model farmers, frontier farmers, and development group coordinators (they are three in number, chairman, vice chairman &secretary). The trainings taken place in FTCs based on modules, and short documents prepared by Regional Bureau of Agriculture and Natural Resources (BRA&NR). The documents were distributed to each zone and from zones in to weredas and finally in to kebeles. In each stage the document shaped according to the community and topography of the area. It was contextualized according to the wereda and kebele farm land. The trainings were more concentrated on crop cultivation, livestock production, and natural resource management, in addition trainings were given on saving, in becoming a member of cooperatives (to save money for buying of technologies such as inorganic fertilizers, improved varieties of seeds, pesticides, weedicides, else), in health and personal hygiene includes: the way to protect trained farmers from infectious diseases, HIV/AIDS and other sexually transmitted diseases, in utilizing contraceptives to reduce the number of children to have quality life, else.

Extension trainings given to farmers in FTCs concentrated more in modern technology utilization in the farm lands of farmers. Trainings in FTCs give information and knowledge sharing to farmers, training, demonstration and innovations close to farmer's residents. Farmers of Ethiopia traditionally utilized natural composts from the waste of domestic animals; it is also known as animal dung or animal manure around their house to cultivate vegetables and also other cereal crops but the coverage of compost to change the life of farmers was very small. Some other groups of farmers utilized modern fertilizers which are fabricated in factories to increase their yield of productivity, without training in FTCs, but the number of this group of farmers was few and insignificant to bring a change in the communities' life. To make the change to the society significant and to insure food security the trainings in FTCs were available. Here there was no line demarcation between training and farmers who are utilized inorganic fertilizers by their

own initiative without training. The only thing done here was to make the society self-sufficient by assuring food security to this end there was a need to train farmers to cover the whole society.

The trainings are given in the whole country of Ethiopia, so 32 kebeles of kutcha wereda obtained trainings. Here for these study purpose only 16 kebeles was selected but the process of extension training takes place throughout the country Ethiopia. The trainings most of the time comes with seasonal changes like summer, winter, spring and autumn. It is time for preparation of farmers for the coming season to plough their farm land, utilize modern technologies in their farm lands to increase the quality and quantity of production and productivity. Kutcha wereda is one of the weredas of Gamo Gofa zone in South Nations Nationalities and peoples Regional State (SNNPRS). In the wereda in the past five years the government implemented trainings by development agents in the FTCs practically by demonstration, field visit and experience sharing, group discussion, meetings and class lecture. Training of farmers in FTCs taken place continuously for long periods of time, but assessment of trainings could not take place in Kutcha wereda, so the researcher wants to assess what is behind the trainings. The results of trainings securing the basic necessities of trained farmers started from food, shelter, clothes up to developing assets. This improvement of farmer's livelihood was expected from the trainings in the FTCs. For that purpose the researcher grasped some thoughts; a researcher assessed the research on the effectiveness of trainings in FTCs by Bekelech Tesfaye (2014) focused on the effectiveness of FTC training in the economic life of rural adult. The purpose of this research was assessment of the effectiveness of FTCs to improve the economic life of rural adults in terms of the implementation of FTC program, the contribution of FTC training to improve the income level of trained farmers, how the FTC training practices consider principle of adult learning and how it fulfill necessary equipment's and materials. The other researcher Wuletaw Mekuria (2010) focused on effectiveness of modular training at FTCs the training that farmers could perform better enterprises having knowledge gained, skill acquired and attitude changed. Although, restless efforts have been made by government and relevant stakeholders effectiveness of the training couldn't result in at required level, due to multiple challenges.

The researchers have discussed about the effectiveness of FTC training in the economic life of rural adult and focused on effectiveness of modular training at FTCs the training that farmers could perform better enterprises having knowledge gained, skill acquired and attitude changed. Here the researchers didn't mention the impacts of farmers training centers in enhancing the livelihood of rural farmers. The researcher knows very well about the area. Trainings were given in Kutcha wereda for a long period of time in FTCs and farmers were awarded green certificate. However an impact assessment on trained farmer's livelihood hasn't taken place. So to fill the gap in view of the above statement, the researcher is motivated to focus on what are the impacts of farmers training centers (FTCs) in enhancing the livelihood

of the rural farmers: the case of Kutcha wereda. Connected with attitudinal change, food security, utilization of improved seeds and inorganic fertilizers, financial independency, health and personal hygiene, saving habits, engagement in cooperatives in case of Kutcha wereda, Gamo Gofa zone. Impacts are results of some process, in this case impacts are results of trainings in farmers training centers by development agents by providing teaching materials and methods to achieve an expected result from trainings; hear the changes registered by trained farmers were positive.

1.3. Research Questions

1) What are the trainings given by development agents to farmers in FTCs results in enhancing the livelihood of rural farmers?

2) How do the trainings impact on the livelihood of the farmers in terms of enhancing of using improved seeds, inorganic fertilizers, keeping health and personal hygiene, savings, involvement in cooperatives, keeping them from HIV/AIDs and other sexually transmitted diseases, utilization of contraceptives to have quality life, else.

3) What type of trainings given by development agents can change the life of farmers?

1.4 Objecties of the Study

1.4.1 General Objective

The general objective of the study is to investigate the impact of FTCs in enhancing livelihood of rural farmers.

1.4.2 Specific Objectives

The specific objectives of the study are:

1. To identify where there is improvement in the livelihood of the trained farmers.
2. To identify where there is a change in the attitude of the farmers toward small hold farming through modern means.
3. To assess the practices of farmers in the use of saving, participation in cooperatives, use of selected seed and fertilizers.
4. To assess the practices of farmers in the use of saving, participation in cooperatives, use of selected seed and fertilizers.
5. To explore whether the living condition of trained farmers is better than the untrained ones.

6. To investigate if they are becoming competent and scientifically organized farmers by taking care for their health and personal hygiene.

1.5 Significance of the Study

The findings of this study will provide first- hand information to government and non- governmental organizations about the impact of FTCs, change in the attitude to apply modern technologies and change in the ways of their life, or the livelihood of rural farmers by using different technologies. These findings were helpful especially for ministry of agriculture and natural resource in planning and decision making concerning different mechanisms to enhance livelihood of rural farmers. It also gives hints on how to use FTCs in a better way in the future. Finally it was also serving as a baseline for further studies.

1.6 Scope of the Study

The study is confined to one Kutcha woreda only. Moreover, the coverage is limited to 16 FTCs and 200 farmers and 46 extension staff respondents. Therefore, the findings were not generalized for the entire zone. The results were solely based on the responses of the extension staff, trained farmers, SMS group, kebele administrators, wereda finance and economic development office, observation and document analysis of studies. The time of training in one intake is a maximum of 6-months. The periods taken for this thesis were from 2011-2016. However, the recommendations and policy implications of the study were used for other areas of similar contexts and as a basis for further studies.

1.7 Limitations of the Study

The study has limitation due to constraints in time, resource and transport. It didn't cover more weredas.

1.8 Operational Definitions of Key Terms

- ✓ **Adoption**: is the decision to use a new technology, method, practice, *etc.* by a firm, farmer or consumer (Feder, 1985 cited by Tadesse, 2008).
- ✓ **Enhancement**- is becoming effective due to training in the farmers training centers by using different technologies.
- ✓ **Farmers training Centers (FTC)**; a place where farmers receive training or learn both theoretical and practical knowledge and information and agricultural input (MoANR, 2017).
- ✓ **Green Certificate**: is a vocational qualification warrant (authorization) recognized by government for the farmers who have acquired knowledge and skill for a specific job /area/ of agricultural production method (Omer, 2013).

- ✓ **Impact-** change observed on the community after taking some training on the way of their life either positively or negatively.
- ✓ **Livelihood** – this is resulted from different trainings to improve the life by building assets and different activities for a means of living.
- ✓ **Modular training:** is a short term curriculum-based training in which training course materials are compiled in modules and provided for farmers to enable them acquire knowledge and skills of specific agricultural production methods which is warranted by Green Certificate (OBoAR,2008).
- ✓ **Training:** a communication directed at a specific population for the purpose of developing skills, modifying behavior, and increasing competence (NIOSH, 1999).

1.9 Organization of the study

This thesis consists of five chapters. The first chapter deals with the back ground, statement of the problem, basic questions, objectives, significance of the study and scope and limitations of the study, operational definition of key terms and organization of the study. Chapter two deals with reviews of related literatures. Methodological issues could be presented in chapter three. In chapter four the findings are presented. Finally in chapter five summary, conclusion and recommendations are presented.

CHAPTER TWO

REVIEW OF LITERATURE

2.1. Farmers Training and Development

Education is the main instrument for development and knowledge acquisition for a given country's citizen. To increase positive thinking of people, that tied the creativity and job creation as the same time social, economic, and political participation, improvement of basic education is needed. The main purpose of education is to bring about learning. Learning is important for growth and development of a given nation to increase production and productivity. Developed countries have achieved their development and prosperity through quality education. They understood the use of learning earlier and expanded schools for their population. Developing countries including Ethiopia have been lagging behind in education especially in offering quality education to their people.

Accordingly, there are a number of challenges in the provision of extension services for the farmers. However, the challenges of extension can be tackled through diverse objectives using capacity building including trainings with appropriate innovation processes. FTCs are expected to become multi-functional service providers in the future. Emphasis in such centers had been given for demand driven knowledge sharing system rather than supply driven approaches. Capacity building was also linked to the newly established ATVET colleges; since these colleges have been producing the future generation of extension workers that assigned for FTCs. Three main initiatives are undertaking by the government of Ethiopia through capacity building; these are reoriented and strengthen the extension system to increase the capabilities of extension staff, introducing FTC-based extension system, and strengthening the agricultural knowledge management system.

Moreover, capacity building has some additional objectives including developing a national strategic plan for ATVET colleges in the country so as to build up their own long term strategic plans, provision of institutional strengthening grants and transforming them into training institutions with new mandates and long term sustainability plans (Mekonnen, 2008).

Training has to start with the identification of training needs through need assessment approaches. There are different need assessment techniques: Job and task analysis, competency and strategic need assessment, knowledge and skill assessment and organization analysis. Need is the gap between the current condition and a desired condition (Wiley and Inc., 2007). Once the training needs of farmers have been identified, then the next step is organizing of training programs follows. Modular trainings were designed to be given at FTC level for selected farmers on identified contents using training guidelines.

Hence, modular trainings were offered at FTC level using different modules for selected duties and commodities.

Extension education is an applied behavioral science, the knowledge of which is applied to bring about desirable changes in the behavioral complex of human beings usually through various strategies and programs of change and by applying the latest scientific and technological innovations. The objectives of extension education are the expressions of the ends towards which our efforts are directed. In other words, an objective means a direction of movement. Before starting any program, its objectives must be clearly stated, so that one knows where to go and what is to be achieved. The fundamental objective of extension education is the development of the people (krishiworld, 2008).

Training farmers or education for development is one of the numerous activities that need to be carried out by development organizations. Though the significant role played by farmers in providing agricultural products is well understood by the developing countries, the problem of food self- sufficiency is still a great challenge to many of them. To resolve such problems, some of the activities carried out by the developing countries are provision of agricultural inputs and training, especially transferring technological information to the farmers (Terrefe, 1992).

Extension is an instrument that introduces improved cultural practices and new technologies to farmers after technology generation by research center. The contribution of extension service in dissemination of information and technologies which may be influenced by a number of factors such as extension approach, policy, budget, infrastructure, extension program planning, extension monitoring and evaluation. Besides commitment of village extension workers /VEWs to work with farmers, number of contact, coverage and participation of farmers in extension program have significant role for technology dissemination (Alemayehu, 2008).

According to the rural development policies and strategy of Ethiopia (2001), one of the major ways of implementing modern farming methods through extensive utilization of human labor is by motivating the human labor in agriculture through agricultural education and training.

This method focuses on educating and training the agricultural labor and enabling them to use modern agricultural technology and techniques. It is a direction, which fully utilizes all alternatives to enhance agricultural productivity per plot of land through the development of irrigation and highly valued agricultural outputs. It is trained human power centered productivity and technological development strategy.

The strategy further states that in parallel to the efforts to be made to fully utilize the capacity of the uneducated farmers. we have to work hard to substitute the present farming generation by an educated one. An educated farming generation is the one that will obtain general education and therefore, will be able to read written notes and understand and implement new agricultural technology in a scientific way. This requires accomplishing at least the present elementary school education. However, this is not enough, the farmer should obtain agricultural skill training both for their enhancement of knowledge and for improving their livelihood (MoI, 2001).In the document of a plan for accelerated and sustainable development to end poverty (MoARD, 2006) concerning FTC program, it states that the core function of FTCs will be provision of extension services through training and demonstrations and also serve as information and exhibition centers.

On the necessity of training and active participation for success in any rural development endeavor, Bari noted the following:

"For effective rural development, participation of rural people in the development process is essential. But people cannot participate unless they have been motivated or made aware about the changes they need for their welfare. As such training and education is playing a vital role to make the rural people aware and act as subject in the development process "(Bari, 1987, 184).

There had been a continuous debate about what the relationship between education and development and whether one is a prerequisite for the other. Coombs (1985) states that, education is one of the essential prerequisite for human beings continued advancement towards a more powerful and equitable world. However, he warns education is not a development objective in its own right, but a powerful and necessary means for achieving other development objectives when properly designed and implemented. The establishment of farmers' training center is a part of the agricultural technical and vocational educational program. It is envisaged to establish about 15,000 to 18000 farmers training centers throughout the country (one in each existing development center) over the next five years until 2010. Each training center would give training for 60 farmers in one in-take. The duration of training also vary depending on the type of module and the maximum time limit would be 6 months.

The training would be carried out in non-boarding basis and directed towards specific fields of agriculture. Farmers would be awarded a green certificate upon completion (MoARD, 2005). Under this program the syllabus is structured with over 80 percent practice and 20 percent theory.

The syllabus would give more emphasis on practical where trainees would learn by doing rather than classroom learning. With regard to the extension service, it is envisaged that farmers will have access to agricultural extension services during the Plan for Accelerated and Sustained Development to End Poverty (PASDEP) period (MoARD, 2006).

According to the proposal (MoA, 2000), the objective of every farmer training centers is to create farmers, who are business oriented, environmentally conscious, can make use of modern technologies and produce quality farm products. In order to achieve the above mentioned objectives, the role of farmers training centers would be:

- To give specialized training that enables the farmers to get “Green certificate."
- To provide agricultural extension services.
- To provide computer and telecommunication services.
- To provide information on market price standards.
- To provide advisory service on entrepreneurship.
- To serve as permanent exhibition center.

Based on the project proposal of farmers training centers and the PASDEP document, the establishment of FTCs in each kebele, has been under way since, the last five years throughout the country, aiming at training of farmers in different agricultural disciplines. A large number of extension agents/trainers of farmers have been graduated from ATVET colleges and they were assigned to rural areas. A working guideline and curriculum has been sent to regions for its execution based on their contexts.

2.2. Farmers Training Centers (FTC)

FTCs training farmers in modern production management and methods and provision of agricultural extension advisory services. It plays a critical role in technology transfer (ATA, 2017). Farmers training centers (FTCs) are an emerging extension strategy geared towards human capital development through need based hands on practical training in order to facilitate agricultural transformation and rural livelihood improvement. Obviously, the Agricultural Development Led Industrialization (ADLI) strategy is formulated after critical review of past experiences as overarching policy response to Ethiopia's food security and agricultural productivity challenge. The strategy promotes the use of labor-intensive methods to increase output and productivity by applying chemical inputs, diversifying production, utilizing improved agricultural technologies (MoARD, 2007). ADLI also emphasizes the importance of

distinguishing agro-ecological zones and tailors strategies as well as interventions for optimal development outcome.

One of the specific policy measures to improve agricultural productivity and promote food security is agricultural extension service. A key feature of this innovative policy measure is the deployment of extension workers to every rural PA in Ethiopia to facilitate sustained knowledge and skills transfer to smallholder farmers. However, in a situation where many farmers are illiterate, acquiring competence in production, adding value, and marketing presents challenges. Recognizing this fact, the government's response includes increasing the number and education level of Development Agents through providing extensive technical and vocational education and training (TVET) in agriculture and through the establishment of Farmers Training Centers (FTCs) to transfer improved agricultural technologies and give adequate services at a closer reach. FTC- based extension activities will give due emphasis to gender integration and the services will identify activities that will benefit both women and men.

FTCs are used as local-level focal points for farmers to receive information, modular training, demonstrations, and advice, and include both classroom and demonstration fields. They are expected to form an important node between extension and farmers in the agricultural sector (IFPRI, 2007). Moreover, Birhanu *et al.,* (2006), noted that, FTCs are also expected to serve as hubs for the transfer of improved technologies, knowledge and skill development, and the provision of other institutional support services. Overall, FTCs are designed to provide extension services required for transforming agriculture from the current subsistence to market-oriented production system.

2.2.1. Historical Background of FTC in Ethiopia

Informal education was the only means for people in the primitive society. Religion and culture were passed to people through special program of non-formal education around temples, and churches through secular methods like folk media, music, proverbs, tales and songs. As societies grow more complex and modernized, the present formal education system came in but non-formal education system did not disappear merely because formal education appeared on the scene. Extension education had become a powerful instrument of change for bringing about socio-economic transformation of rural people in utilizing the latest scientific and technological innovations and technical knowhow (Pitchai, 2005).

Extension has an important role to play both in improving production efficiency and in promoting technologies to change circumstances and disseminate information on impact evaluation (Madhur, 2000). In Ethiopia, formal extension system started at the time when the agricultural and technical school at

Ambo, Jimma and college of Agricultural and Mechanical Arts of Alemaya that opened in 1947, 1952 and 1953 respectively (YICDOL, 2006) In 1963, agricultural extension was transferred from Alemaya College of Agriculture to MoA. It became the department of agricultural extension which was then organized into three units namely, field service unit, youth club unit and training unit. In 1966, the Institute of Agricultural Research was established and it was the first nationally coordinated agricultural research system in Ethiopia to carry out agricultural research policy, research on crops, livestock, and natural resource and related disciplines (Tsion, 2008). Formal extension service has been started with in establishment of agricultural higher learner institution in 1950s. The Ethiopian government was initiated various comprehensive package development projects focused on the defined geographical areas financed by Swedish International Development Authority (SIDA) (Ebrahim, 2005). In 1986, the then MoA launched the Peasant Agricultural Development Program (PADEP) and implemented T (training) and V(visit) based extension system funded by different donor agencies. SG-2000 programs were started in 1993 with the main aim of increasing agricultural food production at the level of small scale farmers. The major policy framework for economic development of Ethiopia is currently known as Agricultural Development Led Industrialization (ADLI), which was formulated in 1993. Since, 1995 PADETES is the main extension program to be mentioned (Berhanu, 2006; Kaleb, 2008).

A historical survey of the agricultural extension system in Ethiopia (Kassa, 2003; Gebremedhin *et al*., 2006) reveals that it has been at the forefront of agricultural development drives for the last several decades, since government-led agricultural extension services commenced in the 1950s. The Alemaya [later renamed Haromaya] College of Agriculture and Mechanical Arts, that had links with Oklahoma University in the US, was the first to be entrusted with the task of reaching out to farming communities by providing extension services and disseminating research-based knowledge and adult education (Davis *et al*., 2010).

When the Alemaya Imperial College of Agriculture and Mechanical Arts, now Haramaya University started to provide research-based extension services to the surrounding communities based on the agreement made between the Ethiopian and US governments, following the Land Grant University approach. Since then, the country has implemented different types of agricultural extension systems, for instance, College System of Agricultural Extension Program (1953 to 1960s), Comprehensive Package Project (1960-1970s), the Minimum Package Project (1970-1980s), Peasant Agricultural Development Project and Farming System Research Project (1985-1990s). Major challenges encountered during these periods, among others, included instability of the extension system and management, unsustainability of the extension programs and projects, (Wolayita Agriculture Development Unit , Chillalo Agriculture

Development Unit, Minimum Package Project etc.), lack of common perceptions between technology generators and extension personnel, inadequate representation and participation of farmers, inadequate trained manpower, limited finances, one way communication and insufficient or even absence of monitoring and evaluation (MoA&NR, 2017).

Over the years a number of reforms have been taken place to address gaps in the various systems adopted leading to the current system. In 1993, SG-2000 started to demonstrate agricultural technologies as a pilot on major cereal crops. The demonstration conducted by SG-2000 clearly showed great successes and captured the attention of top level officials and development practitioners, encouraging them to replicate the experience of SG-2000 nation-wide. The approach was later used as a basis for the current extension package services. In line with this, in 1995, the Government designed and implemented a Participatory Demonstration and Training Extension System (PADETES) as the core element of the extension system of the country. Its main objective was to improve participation of smallholder farmers and demonstrate improved agricultural technologies for improving productivity, incomes and livelihoods of the rural community (MoA&NR, 2017)

The government established and operationalized 25 Agriculture Technical Vocational Education and Training (ATVETs) in different parts of the country to produce skilled development agents (DAs) and decided to establish a Farmer Training Centre (FTC) in each Kebele and deployed three DAs with specializations in crops, livestock and natural resources to each FTC (MoA&NR, 2017).

2.2.2. Activities of Farmers Training Centers

Specifically FTCs are expected to serve the following activities: regular extension services, modular training, center for information on agricultural marketing, type and quality of marketable products with specific standards and prices, weather condition and forecast, demonstration of improved technologies and techniques and advisory service etc. They are expected to form an important node between extension and farmers in the agricultural sector (IFPRI, 2007).

2.2.3. Challenges of Training at FTC Level

Some documents tried to point out about constraints of the training. There are also evidences that practically observed limitations on delivery and implementation of the trainings such as one way training, lack of need assessment, lack of participation, lack of motivation; lack of clear selection criteria of trainers and trainees, over loading ,lack of cost benefit analysis, absence of feedback and inadequate support media. Transport and housing facilities are not available for DAs, inadequate knowledge on

training techniques, the premises/buildings/ of most FTCs are not fenced, and the security guards were not in place.

Pitchai, (2005) said that without proper scheduling from top level, first line supervisors had difficulty in production norm of employees for attending training programs. Much emphasis was not given to the use of variety of methods, locally available materials and training aids that facilitate effective maximum learning through observation, interaction and practice. The training was not based on supportive and / or corrective feedback, in which learners take time and reflect back up on the experiences gained and draw conclusions (Ousman, 2007).No comprehensive studies and reports available on the effectiveness of the training programs that were being conducted by the centers at different levels starting from farmers up to professionals in agricultural science and technology. Relevant curriculum, training methodology, material aids were not well designed. Theoretical aspects outweighed practical sessions. In addition to unfair and urgent selection of participants in training, time and place were not convenient to farmers (Tsion, 2008).

Assessments on the experience of model FTCs shows that, there was lack of farm plan for different demonstrations, there was no lesson plan on daily and weekly basis and lack of handouts for trainees. These were some of the challenges that should be mentioned (Adebabay et al., 2009).

At ATVETs level, some courses were not offered for DAs related to HIV/AIDS, home science and others. There was no clear training strategy that guides the involved actors towards modular training. Gender insensitivity and top down approaches are another weakness of the program that can be mentioned. Reliable data might not be available; farmers with different educational level were trained together. These were some of the challenges that researchers pointed out and different reports documented (AESP, 2009).

The current extension service in Ethiopia is characterized by:

1. Top-down approach
2. Non-participatory
3. Supply driven not demand driven
4. Gender bias extension services
5. Lack of staff moral
6. Capacity and capability of staff

7. Development agent's involvement in non-extension activities
8. Lack of qualified extension supervisors
9. Insufficient appropriate and relevant technology options both for on crops and livestock sector and
10. Inadequate public funding

2.2. 4. Opportunities of Trainings at FTC Level

There are different opportunities which can be available for proper functioning of FTCs. such prospects are: access to information and technology dissemination (seed, fertilizer, pumps, ploughs, beehives, etc). FTCs can also be serve as research center, demonstration area, participation on planning, center of DAs, center of development for infrastructures (telephone, road, water, electricity, schools, clinic, cooperatives etc), center of adaptation trials for plant and animal species. FTCs could also serve as a permanent exhibition center, farmers' field school, and new intervention area, area of meeting for stakeholders and site of recreation and nursery plots. Improved technologies and indigenous knowledge can be compared at FTCs, contrasted and integrated at FTCs. Livelihood asset creation and coping mechanisms for instance; apiculture, fattening, dairy cows, poultry production, fish-pond farming, fruit and vegetable production, sericulture, conservation techniques, post-harvest structures, organic fertilizer or compost, intercropping, row plantation, and other technologies can be implemented at FTCs (BoARD, 2007).

FTCs are expected to play active roles in linking farmers with the other institutions for different purpose. FTCs also can be used for Participatory Technology Development (PTD) where farmers could select technology options and choose the best that suited to their own condition based on their own criteria. Farmers can adapt and develop technologies together with researchers and extension agents. The platforms can be used for participatory innovation development (PID) where promising local innovations, local practices or indigenous knowledge would be scaled- up or scale out (Habtemariam, 2007).

Three DAs have been employed for each kebele. Upgrading of DAs from certificate to degree level is the most important opportunity (AESP, 2009). DAs must possess competencies of skill, attitude, ability, knowledge and behavioral cluster. They should have an area of expertise to design, deliver, measure, evaluate, facilitate, manage, coach and plan the training utilities. They motivate, initiate and deliver trainings for farmers being involved in experimentation, discussion and decision making. DAs strengthen the role of farmers in the research-extension-farmer linkage. They improve the sense of owner ship of rural communities in technological packages and new knowledge sharing practices (BoARD).

2.2.5. Benefits and Purposes of Trainings in FTCs

In Ethiopian situation, FTCs have many duties and responsibilities at a given community. Awareness creation of farmers can be created through agricultural package training at FTCs level. Orientation about a given technologies, theoretical explanations, skill trainings and other types of meetings can be delivered in FTCs.

Agricultural extension services, modular training that enable farmers to get "Green Certificate", market price information, knowledge sharing, counseling, advising services, permanent exhibition center, socio economic data and demonstrating different improved agricultural technologies are the major functions that were supposed to be organized in each FTC (BoARD, 2007; Adebabay et al., 2008). Modular training was supposed to be given for those farmers who are grade four and above. This is because the trainees can understand the content of the text. After the training, farmers are expected to run their own enterprise on their field so that not only knowledge and skill acquired by trainees but also different income generating schemes can be raised through different commodities of animal, crop and natural resource as a means of profits (BoARD and SWHISA, 2006).Training is used to improve the performance of individuals and has social purposes in addition to getting the job done effectively and for the improvement of productions (spring, 2002; Pitchai, 2005).

Adebebey, et al. (2008) pointed out that FTCs assist farmers to make good decisions, leading to optional use of their resources and efficient use of water and other resources. Furthermore, training has additional benefits for moral building, individual motivation, financial gain, capacity to develop new technologies and methods, higher productivity or profit, increase the quality of output and customer satisfaction and foster dynamic and forward looking. Training helps a business run better, adds flexibility and efficiencies in processes. Training is essential for knowledge transfer, gives seasonal work and an investment in a company. It can also give a better service to clients (Pitchai, 2005; YICDOL, 2008).

To increase production and productivity, farmers need to have trainings. Formal, non-formal and informal trainings are equally important. But, farmers have opportunity to learn non- formal trainings at their farming community through different training programs. Aiming this fact, the government has made potential development instruments including modular trainings at FTC level. Extension agents were trained at ATVET Colleges, Farmer Training Centers were established, training modules and texts have been prepared and some other progresses were achieved (BoARD, 2007).

2.2.5.1. Modular Training

Oromia Bureau of Agriculture and Rural Development (OBoARD, 2008) defined the modular training as a short term curriculum-based training in which training course materials are compiled in modules and provided for farmers to enable them acquire knowledge and skill of specific agricultural production methods. The main goal of the modular training is to enable farmers produce quality products and become competent in markets. This could be enhanced through skill-oriented farmers. The training is on specific agricultural production methods for a period of six months (MoARD, 2007). On top of this, the role of extension as Birhanu and others (2006) indicated, is more critical for commercial oriented farmers than for subsistence farmers.

When farmers produce primarily for the market (both domestic and export markets), quality and standard of the produce become much more important than during subsistence production, since competitiveness depends partly on quality of produce. Meeting quality of produce depends heavily on the use of the right technologies and methods of production.

Participants of the modular training, after successful completion, are expected to achieve the following objectives:

i. Actively participate in regular extension activities, adopt improved technologies and share experiences for others;

ii. Become market-orientated producers and competent markets;

iii. properly use information provided on weather condition and forecast and timely application on own farm;

iv. properly handle costs and benefits analysis on production and marketing of commodities;

v. Self-motivated in adoption of time and labor-saving technologies and commitment in management of natural resources;

vi. Sustainably produce quality products in the field of specialization; and

vii. Organize in cooperatives with similar farmers to facilitate credit from lending agencies by themselves and become successful in mutual efforts.

2.2.5.2 Purpose of Modular Training

In Ethiopian situation, FTCs have many duties and responsibilities at a given community. Awareness creation of farmers can be created through agricultural package training at FTCs level. Orientation about a given technologies, theoretical explanations, skill trainings and other types of meetings can be delivered in FTCs.

Agricultural extension services, modular training that enable farmers to get "Green Certificate", market price information, knowledge sharing, counseling, advising services, permanent exhibition center, socio economy data and demonstrating different improved agricultural technologies are the major functions that were supposed to organize in each FTC (BoARD, 2007 and Adebabay , 2008) as cite in Biruk (2010). The purpose of FTC is to make a linkage with institutions that give different services for farmers through FTC. And also different institutions in agricultural sector including rural micro-finance credit institutions, cooperatives, research centers, health clinics, schools, private traders and entrepreneurs can contribute to give technical, financial and institutional assistance. Institutions have important roles for farming communities. They deliver rules and regulations that can help to understand the cultural setup of people and strengthen community-based organizations. Institutions can have roles in quality control, pollution regulation, influence human behavior, reduce risk and uncertainty by establishing stable structure and build resilience to shocks that minimize transaction costs and address externalities (Ellis, 1999) as cite in Biruk (2010).

In training there are phases, which are planning phase, implementation phase/execution phase, monitoring and evaluation phase.

A. Planning phase

The first component in developing a training program is finding out about the people to be trained and the type of training they need. This process and the information collected are usually called needs assessment. Needs assessment broadly defined, as a systematic process for establishing priorities and making decisions regarding program planning, development and operations. It indicates what training should focus on and helps to define the training objectives. It also aids in the selection of the training activities (Swanson and others, 1997).

The planning phase contains several activities. Training need assessment and curriculum development are very important steps of this phase. Training need assessment is a condition of identifying where there is a gap between ''What is" and ''What should be" in terms of incumbents' knowledge, skill, attitude and behavior for a particular situation at one point in time.The first component in developing a training

program is finding out about the people to be trained and the type of training they need. Training need identification is possible through different analytical procedures. The possible methods for individual analysis include performance appraisal, interviews, and questionnaires, analysis of behavior, informal talks, checklists, counseling, recording, surveys and observations. Curriculum development is also the most important part in a training program after a need for training has been identified. The curriculum specifies what and how it should be taught (Swanson *et al*., 1998).

B. Implementation phase

It is the actual conduct on delivery of training based on physical facilities, sequence of training and choosing effective training methods and techniques to deliver it. Once the planning phase of the training program is completed, then it is time to implement the course. Implementation is a point where a trainer activates the training plan or it is the process of putting a training program into operation. Once the training center and concerned organizations agree to implement training, the next step is to deliver effective training using arranged available resources. All these resources need to be well managed and coordinated to run the program smoothly (Swanson *et al*., 1998).

C. Monitoring and evaluation phase

Monitoring is an internal activity designed to provide constant feedback on the problem the training program is facing, and the efficiency within which it is being implemented. It is continuous assessment of gathering information on all the aspects of a given duty. Evaluation is a periodic assessment of the relevance, performance, effectivenessand impact of a given activity in the context of its stated objectives which involves comparisons requiring information from outside the project in time, area and population (St Mary, 2006).

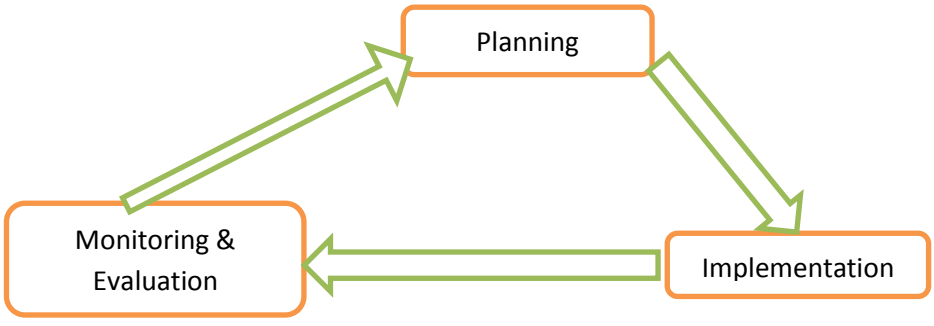

Figure: 1phases of Training

2.3. Roles of FTCs in Enhancing the Livelihood of Farmers

According to Marsden (1998); as cited in Adesati et al, (2006) the aim of training is three fold:

1. To provide workers with the appropriate tools, which include both conceptual and technical issues to carry out their work more effectively,
2. To make them aware of recent comparative developments within their fields of interest,
3. To open up alternative ways of thinking and implementing social development programs.

In the FTC guideline, there are two aims mentioned for establishing training centers. The first is creating farmers well equipped with essential knowledge and skills which enable them to use natural resource wisely, and produce market-oriented agricultural products in order to increase their productivity and income. The second is building up the country economy by improving the farmers subsistence living standard through market oriented agricultural production by making use of integrated agricultural knowledge of indigenous and modern technology (MoARD, 1997).

2.4 Impacts of Training in the Livelihood of Farmers

The rate of agricultural growth in Ethiopia depends on the speed with which the current subsistence-oriented production system is transformed into knowledge based oriented production systems. Among the many institutional support services that need to catalyze the transformation process, the agricultural extension service plays a major role, since it contributes to the development of the skill and knowledge of farmers to adopt new and improved technologies and the approaches and processes with which the skill development and access to information are realized. (Berhanu et.al: 2006)

The agricultural extension service at the farmers training center (FTCs) was expected to play an active role in linking farmers with other institutional support services such as input supply, credit, co-operative promotion, and agricultural produce marketing. To bring realistic transformations in agricultural extension services, farmers must be trained to improve their knowledge, skill and attitude towards deciding on their own affairs, access to information, exposure to improved farming and living practice (Berhanu et.al.2006) .

Agricultural training is key elements in the process of agricultural transformation and realization of rising levels of rural community livelihoods. The training programs should be integrated in to overall development policies. The impact of training can inspire farmers toward a better living and enhance production and productivity, higher income and improvement in their standard of living (Berhanu et.al.2006).

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This section presents the details of methodology used to conduct the survey. These are research design and method, source of data, sample and sampling techniques, data collection instruments, data validity and reliability**,** procedures of data collection, methods of data analysis, and ethical considerations.

3.1 The Research Design

The study was carried out using descriptive survey design because this method is suitable to obtain sufficient information on the issues under study from relatively large number of cases at particular time. The descriptive survey method also helps to provide adequate information that enables the researcher to suggest some valuable alternatives. Supporting this, Keeves (1990) has pointed out that a descriptive survey design is a fact-finding study with adequate and accurate interpretations of the findings.

In this chapter ways and strategies of the study were set to address the basic questions. In doing so, both quantitative and qualitative approaches were applied.

3. 2. Sources of Data

Both primary and secondary sources were used in this study. The primary data are agricultural development agents (DAs), trained farmers, subject matter specialists (SMS), Wereda finance and economic development and kebele administrators. The selection of these sources of data was based on the expectation that they have better information and knowledge about the issue. Since they have better involvement and interaction with the farmers training activities in the training centers.

Secondary data were gathered from documents of wereda agriculture and natural resource office, kebele administration office, farmers training centers, wereda administration office, wereda finance and economy development office and other committee's documents which are relevance to the objective of this study.

3.3 Sample Size and Sampling Techniques

In the wereda from the total number of FTCs, 32 in number, 16 FTCs were selected for the study by random sampling. Consequently, in collaboration with development agents/extension agents of the respective FTCs list of trained farmers are prepared (those who have taken either modular training or short-term trainings).

Finally, from the total number of 676 trainees, 200 respondents were selected by using stratified random sampling and this was 29.6% of the total population. Stratified random sampling is advantageous when it

can be used accurately, because it ensures each subgroup within the population receives proper representation within the sample.

46 development agent workers and 6 subject matter specialists, in the selected FTCs were included in the study. In addition 16 kebele administrators, 30 trained farmers were selected for focus group discussion, and 1wereda finance and economic development office head were included in the study. Totally 299 respondents were drawn for the study. The detail of the population sample size and sample technique is shown in the following tables.

Table3.1. Sample size and sampling techniques

Respondent	Population	Sample size	Percentage	Sampling technique	Methods of data collection
FTCs	32	16	50%	Simple random sampling	-
Kebele Development Agents	46	46	100%	All are included	Questionnaire
Kebele administrators	16	16	100%	All are included	Questionnaire
Subject Matter Specialists (sectorial monitoring system teams from wereda level)	6	6	100%	All are included	Interview
Wereda finance and economy development office	1	1	100%	All are included	Interview
Trained Farmers	676	200	29.60%	Stratified random sampling	Questionnaire
Total	777	285	36.68%		

Table 3.2 Kebeles of Trained Farmers, House Holds and Selected Number of Trained Farmers and their percentage.

No.	Kebeles	FTCs	Number of trained house holds	Selected number of trained farmers	Percentage
1	Fango	Fango	50	15	7.50%
2	Galle	Galle	39	11	5.50%
3	Shochora	Shochora	40	11	5.50%
4	Kodowono	Kodowono	63	19	9.50%
5	Basso	Basso	16	5	2.50%
6	Sikole	Sikole	36	11	5.50%
7	Masha Chaba	Masha Chaba	46	14	7%
8	Morka	Morka	72	21	10.50%
9	Kullo	Kullo	60	18	9%
10	Kapisa	Kapisa	60	18	9%
11	Kuto	Kuto	45	13	6.50%
12	Wuzete	Wuzete	36	10	5%
13	Choiyta	Choyita	20	6	3%
14	Woyza	Woyza	34	10	5%
15	Dana	Dana	30	9	4.50%
16	Mengeda	Mengeda	29	9	4.50%
	Total		676	200	100%

3.4. Data Collection Instruments

The data gathering tools used in this study was questionnaire, interview, focus group discussions, observation check list and relevant documents analysis guide.

3.4.1 Questionnaire

The questionnaire was first prepared in English and then translated into Gamogna, the locally spoken language of the area.

The questionnaire contains close ended and open ended questions. Three sets of questions were prepared for agricultural development agents, trained farmers, and kebele administrators. The total items for trained farmers were 43; from these 34 questions were close ended; 9-choice, 6-yes & no and19 was scaled by rank, 9-was open ended. The items for development agents were 1-choice, 4-yes& no, 8-rated by rank totally 13 were close ended and 7-were open ended total of 20. The items for kebele administrator's 1-choice, 4-yes &no, 5-rated by rank totally 10 close ended, and 6-were open ended Questionnaire is not

the only instrument to gather accurate and factual information about people's opinions and views but it also serves as an appropriate tool to obtain a variety of opinions within relatively short period of time. In this regard, Koul (1998) suggested that questionnaire is widely used in educational research to obtain information about certain conditions and practices and to acquire opinions and attitudes of individuals and groups.

3.4.2. Interview

The interview questions were first prepared in English and then translated to Gamogna. Prepared interview questions were employed as an instrument to collect significant and relevant information from wereda SMSs, wereda finance and economy development officers. Two sets of interview questions were prepared; these were semi-structured because the interview questions were predetermined but open ended questions. Some of the questions and their sequence are determined in advance, while others evolve as the interview proceeds. There were 6-interview questions in each set. In each interview session in SMS team and wereda finance and economic office; in case of SMS team each session takes 1:00 o'clock and in case of wereda finance and economic office each session takes 30:00 minutes, the interview was jotted by the researcher. At the time of interview the researcher interviewed the interviewee and it was facilitated by the researcher. The reason for using interview questions was that it provides flexibility for both the interviewer and interviewee to better explain more explicitly what he/she knows and thinks about the issue. These interview questions were designed to supplement the information that was collected by the questionnaire. These interviews were conducted by the researcher and notes were taken while the interviewees were responding to the questions. All interview questions designed for wereda agriculture and natural resource office experts (SMS) revolve around the following contents: the impacts of farmer training centers, the role of DAs in training farmers, the impact of the training on trained farmer's livelihood and the lessons that could be learnt from trained farmers.

3.4.3 Focus Group Discussion with Trained Farmers

Focus group discussion was also carried out with trained farmers in three groups consisting of 10 individuals in one group. The items which are prepared for focus group discussion was one set it contains seven open ended questions for discussion. Focus group discussion is good way to gather together people from similar backgrounds or experiences to discuss a specific topic of interest. It can be used to explore the meanings of survey findings that cannot be explained statistically. The selection of kebeles was taken place based on their efficiency in wereda level by wereda A&NR. From three kebeles Shochora had high efficiency, Galle kebele had medium efficiency and Choiyta kebele had least efficiency. The researcher investigated the impacts of the training on the life of trained farmers, by considering their use of

fertilizers, breeding seeds, in the case of health, nutrition, contraceptives, family planning, involvement in cooperatives, saving, etc.

3.4.4Observation

Based on the MoA&NR FTC standard and other observable realities the sixteen sampled FTCs were assessed and evaluated one by one through direct observation by the researcher himself. For observation the researcher prepared a check list about things which are observed in FTCs and out of FTCs on farm lands of model farmers.m The researcher has assessed the current status of the sixteen FTCs with a check list to have knowledge about the previous training time of FTCs through direct observation and by asking trained farmers, extension agents, SMSs, and team leaders.

3.4.5 Document Analysis

Secondary data were collected from different documents in government organizations working in the study area to complement primary data. The document analysis was used to collect data from previously documented activities regarding the trainings of farmers in FTCs in previous times. The researcher obtained documents from different offices; for example the census result of the population, statistical data of farmers, budget allocated for trainings from wereda finance and economic development office. Modules of trainings from 2013-2017 based on crop cultivation, livestock production, health and personal hygiene, savings, else were obtained and collected from office of wereda agriculture and natural resources. The portfolios of trained farmers were obtained from each kebele FTCs.

3.5 Data Validity and Reliability

In order for assessments to be sound, the providers must be free of bias and distortion. So, reliability and validity are two concepts that are important for defining, measuring and controlling bias and distortion.

3.5.1. Validity

Validity refers to the accuracy of an assessment whether or not it measures what it is supposed to measure. Even if a test is reliable, it may not provide a valid measure. So, the researcher undertook a pilot survey prior to the actual implementation of the questionnaire to prove legibility, formatting/type setting and logical sequences of the questions for actual survey. The researcher also availed himself in friendly and good interpersonal relation with research subjects to extract reliable data in data collection procedures. The pilot test was carried out in one of the farmers training centers, other than that of the target farmers training centers to test validity and reliability; so based on the pilot test the researcher has excluded two items and made a modification of other two items.

3.5.2. Reliability

Reliability refers to the extent to which assessments are consistent or free from errors of measurement that can be gauged by consistency of scores while validity refers to the appropriateness, meaningfulness and usefulness of the specific inferences made from a given measurements(APA, 1985:19). Reliability test is done to the instrument to test whether it represent its correspondent variable. Cronbach's alpha test was done to measure the internal consistency of the questionnaire. According to Nunally (1978) a value of at least 0.7 is recommended to be satisfactory coefficient for Cronbach's alpha test.

3.6 Procedures of Data Collection

First the data gathering tools were developed; the pilot test was carried out in one of the farmers training centers, other than that of the target farmers training centers to test validity and reliability of the instruments. This helps the researcher to check whether or not the items are clear and understandable by the respondents, i.e. the development agents, subject matter specialists, trained farmers, and kebele administrators. So based on the pilot test the researcher has excluded two items and made a modification on other two items. In each farmers training centers the sources of data were invited by the respective wereda agriculture and natural resource office for orientation. Sixteen (16) enumerators who have an educational background above twelve grades, who speak the language of the area (Gamogna) fluently and who have an experience in data collection were employed on contractual basis. Before, they went to the field, orientation was given about how to approach farmers, the ways how to conduct questionnaire, and so on. During the data collection period the researcher has made close supervision to each enumerator. After the respondents complete filling the questionnaire, the completed questionnaires were collected by the researcher.

For the interview; the researcher visited the respondent's office first for appointment then for interview. Finally all the respondents were interviewed one by one by the researcher and their responses were recorded on sheets of paper. Focus group discussion was carried out with three kebele trained farmers from Shochora, Galle and Choiyta kebeles in each kebele 10- trained farmers participated.

Three kebeles were selected purposively based on their involvement of modern extension service activities in selected 16 kebeles as top, medium and low to enhance their livelihood. The focus group discussion was carried after getting permission from kebele agricultural office. Observation of each FTC by the researcher has taken place. The final data gathering tool was document analysis. The data gathering from documents of each farmers training center, different offices was conducted by the researcher using the checklist. On such a way the researcher completed data gathering from each FTC.

3.7 Techniques of Data Analysis

All the data gathered through questionnaire, interview, focus group discussion, observation, and document review were analyzed by using both quantitative and qualitative techniques after coding, sorting and organizing the information that were gathered. To narrate the data collected through interview, focus group discussion, observation and document analysis, qualitative analysis method was employed. Then quantitative information obtained by statistical analysis was done by calculating frequency count and percentage. Then analysis and interpretation were made in relation to the basic questions of the study and then the findings of the study were compiled. Finally conclusions and recommendations were made.

3.8 Ethical Considerations

The need to respect the participants' rights cannot be over emphasized (O'Leary 2010:29). According to De Vos et al. (2012:115), ethical principles are important for every researcher. They should always guide the interaction and the relationship with the participants, decision-making and sensitive treatment of the participants. Aware of the fact that trampling on the participants was unethical, the study was thus premised on mutual trust, acceptance, cooperation and respect in order to prevent any bad effects on the participants involved (De Vos et al. 2012:113).

While there are excess of ethically important principles, the research took in to account the following ethical aspects as relevant to this study, namely gaining access to the research sites and informed permission using written letters and the consent of the sources of data.

CHAPTER FOUR

Data Presentation, Analysis and Interpretation

This chapter present analyzes and discusses the data which were collected on the study of the impacts of farmers' training centers in enhancing the livelihood of farmers in Fango, Galle, Shochora, Kodowono, Basso, Slkole, Masha Chaba, Morka, kullo, Kapisa, Kuto, Wuzete, Choiyta, Woyza, Dana, and Mangada kebeles of kutcha wereda in 2018. The data were collected through questionnaires, interview, focus group discussions, observation and documentary analysis. Questionnaires were distributed to 200 trained farmers, 46 extension development agents, and 16 kebele administrators. All of the questionnaires were properly responded, returned and used in the analysis. The data was organized using tables and followed by discussions. The responses given and the subsequent analysis made are expected to be adequate to draw conclusions for the study. Interview was conducted with six SMS team and one wereda finance and economic development Office. Focus group discussion was carried out with 30 trained farmers from three kebeles. Observation and documentary analysis were also carried out.

4.1. Background of the Respondents

The demographic characteristics of sample trained farmers, and DAs in this study include, sex, age category, educational status, marital status and specialization of DAs. In order to provide a clear image about respondents who were involved in the study, some major characteristics of them were presented in tables below.

In table 4.1 below regarding the sex of trained farmers 178(89.38%) of them were males and the remaining 22(10.62%) of them were females. The participation of females in FTC was very low. This implied that there was a need to increase the number of females with their counterpart in participation in trainings to have good productivity by applying modern technologies.

Connected with the age of trained farmers, there were no trained farmers in range of 18- 25. From 26- 35 there were 56(28.12%), from 36-50 there were 114(56.88%) trained farmers were included; the remaining trained farmers above 50 years of age were 30(15%).

The above explanation suggested that majority of trained farmers about170 (85%) were young dynamic adults and they were in their productive age.

Table.4.1: Background of Trained Farmers.

No.	Character	Category	Frequency	Percent
1	Sex of the respondents	Male	178	89.38
		Female	22	10.62
2	Age of the respondents	18—25	-	-
		26—35	56	28.12
		36—50	114	56.88
		51 and above	30	15
3	Marital status	Married	183	91.25
		Single	12	6.25
		Widow	1	0.63
		Divorced	4	1.87
4	Educational level	Illiterate	30	15
		Basic(literacy education)	24	11.87
		Primary(1-8)	82	41.25
		Secondary(9-12)	64	31.88

In case of marital status trained farmers, about 183(91.25%) of them were married, 12(6.25%) of them were single, 4(1.87%) of them were divorced and the remaining 1(0.63%) respondent was widow. From this it could inferred that almost all trained farmers 195(97.5%) were married and single. This gave them ethical respect ion within the society to involve in different modern extension service activities.

Regarding educational level of trained farmers, about 30(15%) of trained farmers were illiterate. 24(11.87%) of trained farmers learnt basic education (literacy education). 82(41.25%) & 64(31.88%) of trained farmers learnt primary education (1-8) and secondary education (9-12) respectively. This implied that above half of trained farmers were the ability to read and write, that helped them to understand trainings easily, furthermore for utilization of modern technologies to improve productivity. Some of trained farmers about 30(15%) were illiterate, so they were needed to learn how to read and write basic education in future.

Table 4.2 Background of Development Agents (DAs)

No.	Character	Category	Frequency	Percent
1	Sex	Male	38	82.6
		Female	8	17.4
2	Age	18-23	6	13.04
		24-28	18	39.13
		29-33	13	28.26
		34-38	5	10.86
		39& above	4	8.71
3	Field of specialization	Animal husbandry	14	30.43
		Plant science	18	39.13
		Natural resource management	14	30.43
4	Marital status	Married	33	71.74
		Single	13	28.26
5	Educational level	12+3	21	45.65
		10+2	24	52.17
		10+1	1	2.17

Table 4.2 above showed the demographic conditions of development agents (DAs), in those males were 38(82.6%) and the rest 8(17.4%) DAs were females. The proportion of females to males was low. There was a need to motivate female's participation in agricultural activities.

In the age category DAs from 18-23 age old were 6(13.04%), 24-28 age old were18(39.13%), 29-33 age old were 13(28.26%), 34-38 age old were 5(10.86%) and the remaining DAs who have 39 years old and above were 4(8.71%) in number. This implied that development agents were better experienced to support trainees at the time of training.

In case of specialization 14(30.43%) of them were specialized in animal husbandry, 18(39.13%) of them specialized in plant science and 14(30.43%) of DAs specialized in natural resource management. The required amount of DAs in each kebele were three from each field of specialization, but there were lack of two animal husbandry and two natural resource management DAs. Here there were a need to have two animal husbandry DAs and two natural resource management specialized DAs. Connected with marital status 33(71.74%) of them were married and others 13(28.26%) of them were single.

When we saw the educational level of DAs, 21(45.65%) of development agents were 12+3 or they were first degree holders. Others about 24(52.17%) of DAs were with 10+3 level of diploma and 1(2.17%) of DAs was 10+1 level certificate. This inferred that most development agents had better knowledge in training farmers in FTCs.

Quantitative Data Analysis

4.2 Farmers Training Centers Implementation of Training

In Table 4.3 below, the majority of trained farmers about 151(75.63%) of them replied that the time allotted for modular training was sufficient. Some of trained farmers about 40(20%) of them replied that the time allotted for modular training was not sufficient for trainees to get expected knowledge and skills from the training. Few of trained farmers about 9(4.37%) of them replied that the time allotted for modular training was too much. The above expression implied that majority of trained farmers agreed that the time allotted were enough for modular training.

Connected with the proportion of practical to theoretical modular training, majority of trained farmers about 169(84.38%) replied that the modular training which were given in the FTCs were more practical. But some of trained farmers about 21(10.62%) of them replied that the trainings which were given in FTCs were more theoretical. 10(5%) of trained farmers replied that trainings were given in equal proportion theoretically and practically. From this it could inferred that the trainings which were given in the FTCs were more practical and it was helped to attain the objectives of modular training in the FTCs.

Table: 4. 3. The Methods in FTCs.

No.	Item	Category	Frequency	Percent
1	The time allotted for modular training	A. Sufficient	151	75.63
		B. Insufficient	40	20
		C. Too much	9	4.37
2	The proportion of practical to theoretical modular training	A. Equal	10	5
		B. More theoretical	21	10.62
		C. More practical	169	84.38
		D. Others		
3	The methodology of training	A. Demonstration	104	36.6
		B. Class lecture	5	1,8
		C. Group discussion	21	7.5
		D. Field visit and experience sharing	70	24.6
		E. Mixed	84	29.5

In table 4.3 above regarding training methodology, about 104(36.6%) of trained farmers replied that the methodology was demonstration. Others about 70(24.6%) of trained farmers replied that they were applied field visit and experience sharing. Some of trained farmers about 21(7.5%), and 5(1.8%) of them replied that they were used group discussion, and class lecture methodologies respectively. Some other

groups of trained famers about 84(29.5%) of them replied that they were utilized mixed methodologies. This implied that trained farmers in FTCs utilized different methodologies such as demonstration method, field visit and experience sharing, class lecture, group discussion, else in FTCs. According to Ministry of Agriculture and Rural Development of Ethiopia, the training methodologies were mixed type, group discussions, demonstrations, and field visits.

Both trainers and trainees should practically work, use demonstration in the field, go for field visits and experience-sharing (MARD, 2007).

4.3 Contribution of Farmers in the FTC

Table 4.4. Participation of Farmers in the FTC

No	Item	Category	Frequency	Percent
1	Did you participate in FTC functioning?	A. Yes	152	76.25
		B. No	48	23.75
2	In which activity did you participate?	A. FTC construction	152	37.4
		B. Committee member	32	7.8
		C. Plough	60	14.8
		D. Demonstration	37	9
		E. All	126	31
3	Who encouraged you to participate in extension service?	A. Former members in the area	19	9.37
		B. Self-initiation	36	18.13
		C. DAs in the area	125	62.5
		D. Local level administrators	14	6.87
		E. Mass media	6	13.3

In Table 4.4 above 152(76.25 %) of the trained farmers; about replied that they were actively participated during the training. On the other hand, 48(23.75%) of trained farmers said that they did not actively participated in the training. This implied that majority of trained farmers were actively participated in the training.

Regarding participation of farmers in FTCs; 152(37.4%) of trained farmers replied that about were participated in FTC construction. 37(9%) trained farmers were participated in demonstrations in FTCs. Other trained farmers about 32(7.8%) and 60(14.8%) of them participated in committee participation and plough respectively. Above half of trained farmers about 126(31%) were participated in different activities in farmers training centers. From this it could inferred that trained farmers participated in FTC in different activities, starting from construction of FTCs, as a committee member, in plough,

demonstration, else. Connected with this the variation was only the degree of participation, but all farmers were participated in different activities in FTCs.

Concerning encouragement of trained farmers to participate in extension service; 125(62.5%) of trained farmers replied that they were encouraged to participate in extension services by the agitation of DAs. 36(18.13%) of trained farmers participated in extension services by initiation of themselves. The remaining trained farmers about 19(9.37%) and 14(6.87%) were participated by former members of the area and by local level administrators respectively. The remaining about 6(3.13%) trained farmers were participated by hearing from mass media. Here these inferred that majority of trained farmers were encouraged to participate in extension service by agitation of DAs. Generally trained farmers were encouraged to participate in extension services by all activities mentioned above as by DAs, former members of the area, by their own initiation, by mass media and by local level administrators.

4.4 Differences in the Society due to Training Extension Services

Table4.5. Participation of Trained Farmers in Extension Services

No	Item	Category	Frequency	Percent
1	What new intervention you observe following the extension service?	A. Road construction	163	37.8
		B. Credit facility	44	10.2
		C. Input supply facility	37	8.7
		D. Market access	31	7.3
		E All	155	36

Connected with intervention of trained farmers in extension services; trained farmers intervened in all activities which could take place in FTCs, such as road construction, credit facility, input supply facility, market access, etc. Trained farmers about 155(36%) of them replied that they were intervened in all extension activities. Regarding road construction about 163(37.8%) trained farmers were participated in road construction. About 44(10.2%), 37(8.7%), and 31(7.3%) of trained farmers were intervened in credit facility, input supply facility and market access activities. From this it could inferred that trained farmers were intervened in all extension service activities.

Table 4.6 Trained Farmers in Relation to their Wealth

No.	Item	Category	Frequency	Percent
1	Is there economical wealth difference in the society due to the training of extension service?	A. Yes	200	100
		B. No	-	-

Concerning wealth difference in the society due to training the extension service; all trained farmers about200 (100%) replied yes. There was great wealth difference. For example: when you cultivated maize crop on one hectare of land by utilizing inorganic fertilizers and new varieties of seeds as advised by agricultural experts you delivered 76-80 quintals of maize, but when farmers traditionally cultivated they were obtained from a hectare of land 14-18 quintals (Kutcha wereda A&NR Office, 2015). In a single hectare of land there was a 62 quintals difference of yield. That trained farmers utilized inorganic fertilizers and improved varieties of seeds were improved production and productivity in their plot of land. This implied that there were great wealth differences in the society by training extension services in FTCs.

Table 4.7 Participation of Trained Farmers in Agricultural Activities

No.	Characters	Category	Frequency	Percent
1	Did the farmers in this area participating in the agricultural activities willingly?	A. Yes	194	96.88
		B. No	6	3.12
2	Would you continue to apply high yielding varieties, use of fertilizers and pesticides without the involvement of any external supporter?	A. Yes	165	82.5
		B. No	35	17.5

Concerning participation of trained farmers in agricultural activities willingly; about 194(96.88%) of trained farmers participated in agricultural activities willingly. Only few of trained farmers about 6(3.12%) of them couldn't participate in agricultural activities by their willing. From this it could inferred that trained farmers were utilized inorganic fertilizers, improved varieties of seeds and they were interested to participate in agricultural activities by their own.

Trained farmers on continuing to apply high yielding varieties of seeds, inorganic fertilizers and pesticides; about165 (82.5%) of trained farmers replied that they were continuing by applying agricultural inputs without the involvement of any external supporter. This implied that trained farmers, who were developed knowledge, skill and abilities from trainings utilized modern technologies, improved their production and productivity. Some of the respondents about 35(17.5%) of them needed the involvement of external support to utilize modern technologies. This implied that majority of trained farmers were utilized modern technologies increased their productivity and initiated for economic development.

4.5 Attachment of the Community and Development Agents

Table 4.8. Approach of DAs within the Community

No	Item	Category	Frequency	Percent
1	Do DAs appropriately prepared when they were training you?	A. Yes	194	96.88
		B. No	6	3.12

Regarding development agents preparation in training trainees, about194 (96.88%) of trained farmers replied yes, that development agents were prepared them appropriately in training trainees. Few of trained farmers about 6(3.12%) replied no, that development agents didn't prepared themselves in training time. From this it could inferred that majority of trained farmers agreed that almost all DAs were prepared themselves appropriately at the time of training.

Table 4.9 Access to Extension Service of Trained Farmers

No.	Characters	Category	Frequency	Percent
1	Were DAs friendly and easily approachable regarding your farm problems?	A. Yes	195	97.5
		B. No	5	2.5
2	How was access to the extension service?	A. Accessed by those who are near to the center	44	16.8
		B. Accessed by DAs	57	22
		C. By 1 to 5 representatives	15	5.7
		D. By development leaders	34	12.9
		E. All	111	42.6

Regarding DAs approach in solving the farm problems of trained farmers, Trained farmers about 195(97.5%) of them replied yes. But few of trained farmers about 5(2.5%) replied no. development agents approach regarding trained farmers farms were not problem solver. The above expression suggested that almost all DAs approach to solve farm land problems of trained farmers were very interested and solved the problem of farmers in improving their production and productivity.

In table 4.9 above concerning the access to the extension service of trained farmers, about 44(16.8%) of trained farmers replied that they were accessed by those who were near the center. 57(22%) of trained farmers replied that they were accessed to the extension service by DAs. 15(5.7%) of trained farmers were accessed to the extension service by one to five representatives. 34(12.9%) of trained farmers were accessed to the extension service by development leaders. Trained farmers about 111(42.6%) of them

replied that they were accessed to the extension service by all stakeholders; those near the center, by DAs, by 1 to 5 representatives, and by development leaders. Analysis of findings indicated that majority of farmers accessed to extension service by DAs, by those near the center, by development leaders and by one to five representatives of the kebele.

4.6 Farmers Training Centers Environment in Training

In table 4.10 below concerning participating in extension education program helps in improving ways of farming/productivity, trained farmers about 79(39.38%), & 60(30%) of them replied that participating in extension education program helped them in improving ways of farming or productivity very high and high respectively. The remaining respondents about 59(29.37%), & 2(1.25%) replied that participation in extension education program helped trained farmers in improving ways of farming medium and low.

Here it could infer that participating in extension education program trained farmers were improved ways of farming/ productivity.

Table 4.10. Benefits of Trained Farmers from Training

No.	Characters	Category	Frequency	Percent
1	Participating in extension education program helps in improving ways of farming/productivity.	Very high	79	39.38
		High	60	30
		Medium	59	29.37
		Low	2	1.25
		Very low	-	-

Table 4.11 Importance of Extension Education Program to Trained Farmers

No.	Characters	Category	Frequency	Percent
1	Participating in extension education program helps to increase my income from the farm.	Very high	62	31.25
		High	75	37.5
		Medium	59	29.38
		Low	4	1.87
		Very low	-	
2	Lessons taught can easily be applied in my daily field activities.	Very high	77	38.75
		High	65	32.5
		Medium	50	25
		Low	8	3.75
		Very low	-	-

Regarding participating in extension education program helps to increase my income from the farm; about 62(31.25%) and 75(37.5%) of trained farmers replied that Participating in extension education program were increased their income from the farm very high and high respectively. Some of trained farmers about 59(29.38%) of them replied that Participating in extension education program increased their income from the farm medium. Few respondents about 4(1.87%) of trained farmers replied that Participating in extension education program increased their income from the farm low. From this it could infer that majority of trained farmers participating in extension education program improved their income from the farms.

In table 4.11 above trained farmers concerning lessons taught can easily be applied in my daily field activities; about 77(38.75%) of trained farmers replied that they were taught lessons easily by applying in their daily field activities very high. Others about 65(32.5%) of trained farmers replied that lessons taught by DAs were applied in their daily field activities high. 50(25%) of trained farmers replied that lessons taught by DAs were applied in their daily field medium. Few of the respondents 8(3.75%) replied that they were applied in their daily field activities low. This inferred that majority of trained farmers about 142(71.25%) were applied the lessons taught in their daily life very high and high.

Table 4.12 Contribution of DAs in Relation to Farmers

No.	Character	Category	Frequency	Percent
1	DAs provide continuous support to help me to apply and implement the information that was taught.	Very high	69	34.37
		High	83	41.25
		Medium	40	20
		Low	8	4.38
		Very low	-	-

Table 4.12 above concerning DAs provide continuous support to help me to apply and implement the information that were taught; trained farmers about 69(34.37%) and 83(41.25%) replied that DAs provided continuous support helped them to apply and implement the information taught very high and high respectively. Some of the respondents about 40(20%) of trained farmers replied that DAs provided continuous support helped them to apply and implement the information taught medium. Few of the respondents about 8(4.38%) of trained farmers replied that DAs provided continuous support helped them to apply and implement the information taught low. From this it could inferred that majority of trained farmers trained by DAs in FTCs were applied the taught in their daily life very high and high.

Table 4.13 Trained Farmers in Relation to Need of Extension Service

No.	Characters	Category	Frequency	Percent
1	The extension system (through DAs) offers what I really need.	Very high	105	51.88
		High	67	33.75
		Medium	27	13.75
		Low	1	0.62
		Very low	-	-

Concerning the extension system through DAs offers what I really need; trained farmers about 105(51.88%) of them replied that the extension system through DAs were offered what they really needs very high. Others about 67(33.75%) and 27(13.75%) of trained farmers replied that the extension system through DAs were offered what they really need high and medium. Few of the respondents about 1(.62%) of trained farmers replied that extension system through DAs were offered what they really need low. This implied that most of trained farmers about 172(85.63%) of them offered from the extension system what they were really need.

In table 4.14 below regarding the quality of extension agents in helping farmers; trained farmers about 132(66.25%) of them replied that the quality of extension agents were helped farmers very high. 43(21.25%) of trained farmers replied that the quality of extension agents were helped farmers high. Some of the respondents about23 (11.25%) of them replied that the quality of extension agents helped farmers medium. Few of the respondents about 1(0.63) & 1(0.62%)) of them replied that the quality of extension agents helped farmers low and very low. These implied that most of the extension agent's quality were helped trained farmers very high and high in agricultural activities in their farm land.

Table 4.14 Qualities of DAs in Helping Farmers

No.	Character	Category	Frequency	Percent
1	The extension agents have the necessary qualities in helping farmers.	Very high	132	66.25
		High	43	21.25
		Medium	23	11.25
		Low	1	0.63
		Very low	1	0.62

4.7 Farmers Adoption of Extension Activity Advises

Table 4.15.Technology Utilization of Trained Farmers

No.	Extension Activities	Category	Frequency	Percent
1	Utilization of improved seeds	Very high	118	58.75
		High	70	35
		Medium	10	5
		Low	2	1.25
		Very low		

In Table 4.15 above trained farmers connected with utilization of improved seeds; about 118(58.75%) of them replied that they were used improved seeds very high and 70(35%) of trained farmers replied that they were utilized improved seeds high. The remaining trained farmers about 10(5%) of them replied that they were utilized improved varieties of seeds medium. Few of the respondents about 2(1.25%) of them replied that they were utilized improved varieties of seeds low. Analysis of findings indicated that majority of trained farmers about 188(93.75%) were utilized improved varieties of seeds.

Table 4.16 Utilization of Inorganic Fertilizers

No.	Characters	Category	Frequency	Percent
1	Utilization of inorganic fertilizers	Very high	103	51.25
		High	75	37.5
		Medium	21	10.63
		Low	1	0.62
		Very low	-	-

Trained farmers in case of utilization of inorganic fertilizers; about 103(51.25%) and 75(37.5%) of trained farmers utilized inorganic fertilizers very high and high respectively. Some of trained farmers about 21(10.63%) of them utilized inorganic fertilizers medium. Few of trained farmers about 1(0.62%) of them utilized inorganic fertilizers low. This implied that majority of trained farmers about 178(88.75%) were utilized inorganic fertilizers.

Table 4.17 Utilization of Pesticides and Weedicides

No.	Characters	Category	Frequency	Percent
1	Utilization of pesticides and weedicides which are treated by agricultural experts	Very high	86	43.12
		High	75	37.5
		Medium	34	16.88
		Low	5	2.5
		Very low	-	-

In table 4.17 above regarding utilization of pesticides and weedicides; trained farmers about 86(43.12%) of them utilized pesticides and weedicides very high. 75(37.5%) of trained farmers replied that they were utilized inorganic fertilizers high. Some of the trained farmers about 34(16.88%) of them replied that they were utilized pesticides and weedicides medium and few of the respondents about 5(2.5%) replied that their utilization of inorganic fertilizers were low. These implied that 161(80.62%) trained farmers were utilized pesticides and weedicides in their farm land.

Table 4.18 Benefits from Utilization of Technology

No.	Characters	Category	Frequency	Percent
1	Yield of productivity	Very high	80	40
		High	87	43.75
		Medium	29	14.38
		Low	4	1.87
		Very low		

In table 4.18 above respondents connected with yield of productivity; about 80(40%) and 87(43.75%) of trained farmers replied that yield of productivity were very high and high. Some of trained farmers about 29(14.38%) of them replied that their yield of productivity was medium. Few of the trained farmers about 4(1.87%) of them replied that yield of productivity was low. Generally majority of trained farmers' yield of productivity was high and very high. From this it could inferred that they were utilized improved varieties of seeds, inorganic fertilizers, pesticides and weedicides, as a result they were delivered high and very high yield of productivity.

Table 4.19 Trained Farmers in Relation to Achievement of Food Security

No.	Characters	Category	Frequency	Percent
1	Achievement of food security	Very High	66	33.13
		High	93	46.25
		Medium	39	19.37
		Low	2	1.25
		Very low	-	-

In table 4.19 above concerning achievement of food security; trained farmers about 66(33.13%) of them replied that they were very high in achievement of food security. 93(46.25%) of trained farmers replied that achievement of food security were high. Some of the respondent's in achievement of food security replied that about 39(19.37%) of trained farmers achievement was medium. Finally few of the respondents about 2(1.25%) of them replied that achievement of food security was low. From this the researcher taught that majority of trained farmers who utilized varieties of improved seeds, inorganic fertilizers, pesticides and weedicides yield high productivity and achieved their food security.

4.8 Health and Personal Hygiene of Trained Farmers

In Table 4.20 below connected with awareness of trained farmers to keep their health and personal hygiene; trained farmers about 79(39.38%) of them replied that they were awared very high to keep their health and personal hygiene, About 90(45%) of trained farmers replied that they had developed high awareness to keep their health and personal hygiene. Some of the respondents about 31(15.62%) of them replied that they were medium in keeping their health and personal hygiene. From this it could inferred that most of trained farmers had gained knowledge from the training very high and high to keep their health and personal hygiene.

Table 4.20. Trained Farmers in Relation to Health and Personal Hygiene

No.	Items	Category	Frequency	Percent
1	Aware to keep his/her health and personal hygiene	Very high	79	39.38
		High	90	45
		Medium	31	15.62
		Low	-	-
		Very low	-	-
2	They have good awareness in keeping themselves from infectious diseases	Very high	83	41.25
		High	91	45.63
		Medium	26	13.12
		Low	-	-
		Very low	-	-

In table 4.20 above trained farmers connected with keeping themselves from infectious diseases; about 83(41.25%) of them were keeping themselves from infectious diseases very high. 91(45.63%) of respondents connected with keeping themselves from infectious diseases replied that they were highly awared in keeping themselves from infectious diseases. Some of the respondents about 26(13.12%) of them replied that they were medium knowledge in keeping themselves from infectious diseases. This inferred that most of trained farmers about 174(86.88%) of them were very high and high knowledge of keeping themselves from infectious diseases.

In table 4.21 below connected with HIV/AIDS and other sexually transmitted diseases; respondents about 91(45.63%) of them replied that they were very high awareness to keep them from HIV/AIDS and other sexually transmitted diseases. Some of the respondents about 80(40%) of them replied that they were high knowledge to keep them from HIV/AIDS and other sexually transmitted diseases. Some of the respondents about 26(13.12) of them replied that they were medium knowledge in keeping them from HIV/AIDS and other sexually transmitted diseases. Finally few of the respondents replied that about 3(1.25%) of them were low knowledge in keeping them from HIV/AIDS and other sexually transmitted diseases. These implied that most of trained farmers about 171(85.63%) of them were very high and highly awared to keep them from HIV/AIDS and other sexually transmitted diseases.

Table 4.21 Trained Farmers in Relation to HIV/AIDS and Contraceptives

No.	Characters	Category	Frequency	Percent
1	They are aware to keep them from HIV/AIDS and other sexually transmitted diseases	Very high	91	45.63
		High	80	40
		Medium	26	13.12
		Low	3	1.25
		Very low	-	-

Table 4.22 Trained Farmers in Relation with Contraceptives

No.	Characters	Category	Frequency	Percent
1	They have a knowledge of utilizing contraceptives to keep their family number by learning from health extension workers	Very high	119	59.38
		High	49	24.37
		Medium	30	15
		Low	2	1.25
		Very low	-	

In table 4.22 above connected with utilizing contraceptives to keep their family number; trained farmers about 119(59.38%) of them replied that they were very high knowledge of utilizing contraceptives to keep their family number as they were learnt from health extension workers. Some of the respondents replied that about 49(24.37%) of them were high knowledge of utilizing contraceptives to keep their family number. 30(15%) of trained farmers were medium knowledge in utilizing contraceptives. Finally few of trained farmers about 2(1.25%) of them replied that they were low knowledge of utilizing contraceptives. This suggested that about 168(83.75%) of the respondents were very high and high knowledge of utilizing contraceptives to keep their family number as they were learnt from health extension workers in FTCs.

4.9 Trained Farmers in Relation to Economic Improvement

In Table 4.23 below the main goal of training farmers was to increase their income generation and economic improvement. Based on that most of the trained farmers connected with financial independency; about 186(93.13%) of them replied yes, they were financially independent from any governmental or non-governmental organizations. Few of trained farmers about 14(6.87%) of them replied No; because they were not changed economically, as a result they were financially dependent. This data implied that majority of trained farmers about 186(93.13%) were financially independent because of getting extension service trainings in FTCs.

Table 4.23. Trained Farmers in Relation to Economic Improvements.

No.	Extension Activities	Category	Frequency	Percent
1	Are you financially independent?	Yes	186	93.13
		No	14	6.87
2	Have you started saving in your kebele micro finance institution?	Yes	199	99.37
		No	1	0.63
3	Have you improved your residence from the previous standard?	Yes	199	99.37
		No	1	0.63
4	Have you become the member of cooperatives in your kebele?	Yes	184	91.87
		No	16	8.13

In Table 4.23 above connected with saving of trained farmers in kebele micro finance institution; trained farmers who were used modern technologies produced surplus products by increasing their productivity. As a result, they had money above their basic needs, so they were started saving. Here about 199(99.37%) of trained farmers replied yes, and few of trained farmers about 1(0.63 %.) of them replied no, they couldn't start saving. This implied that almost all trained farmers started saving in their kebeles microfinance institutions.

Trained farmers connected with improving their residence from the previous one; they were replied yes, about 199(99.37%) were changed their residence from the previous one by corrugated sheets and so on. Only 1(0.63%) said no. This indicated that trained farmers changed and improved their residence all in all from the previous one by corrugated sheets.

Most of the trained farmers about 184(91.87%) of trained farmers were members of cooperatives. Only some 16(8.13%) of them were not becoming members of cooperatives. This indicated that almost all trained farmers were members of cooperatives.

4.10 Questionnaire for Development Agents

In Table 4.24 below regarding the change in farmer's livelihood after getting training in FTC, 28(60.86%) development agents replied that trained farmer's livelihood were changed very highly. Others, about 10(21.73%) of DAs replied that the change in livelihood of trained farmers were high. Some of development agents 6(13.04%) replied that change in the livelihood of trained farmers after getting training in FTC were medium. Few of the respondents about 2(4.35%) of DAs replied that change in the livelihood of trained farmers were low. This implied that change in the livelihood of trained farmers as assessed by development agents were very high and high, only 6(13.04%) and 2(4.35%) of development

agents assessed that change in trained farmers livelihood were medium and low. This implied that majority of trained farmers were changed their livelihood as development agents' assessment.

Table 4.24. Development Agents in Relation to the Improvement of Trained Farmers

No.	Character	Category	Frequency	Percent
1	Livelihood improvement	V. high	28	60.87
		High	10	21.74
		Medium	6	13.04
		Low	2	4.35
		V. low	-	-
2	Health and personal hygiene	V. high	23	50
		High	22	47.83
		Medium	1	2.17
		Low	-	-
		V. low	-	-

In Table 4.24 above according to DAs impact assessment of trained farmers in enhancing their health and personal hygiene; development agents about half 23(50%) replied that trained farmers were kept their health and personal hygiene very high and almost half of the development agents about 22(47.83%) replied that trained farmers were kept high their health and personal hygiene. Lastly one development agent 1(2.17%) replied that trained farmers were kept their health and personal hygiene low. This implied that trained farmers were kept their health and personal hygiene very well according to development agents' assessment.

Table 4.25 Development Agents in Relation to Saving of Trained Farmers

No.	Characters	Category	Frequency	Percent
1	Saving	V. high	30	65.22
		High	9	19.57
		Medium	6	13.04
		Low	1	2.17
		V. Low	-	-

Connected with saving of trained farmers; development agents about 30(65.22 %) & 9(19.57%) replied that trained farmers were saved very high and high respectively. Development agents about 6(13.04%) replied that some of trained farmers were saved medium. Development agents about 1(2.17%) replied that few of trained farmers saved low. This indicated that almost all of trained farmers were saved their wealth

in micro finance institutions as development agent's assessment. Trained farmers saved in their microfinance institution in 2008 E.C. were taken as example. From 16 kebeles, 200 trained farmers all had started saving but the amount of saving was according to the person interest its minimum was 30ETB and maximum 300ETB monthly. Members' income and saving.

Saving/income	Number of Trained Farmers	Minimum	Maximum
Monthly saving	200	30	300
Annual saving	200	360	3600
Monthly income	200	180	7675
Annual income	200	2160	92100

Table 4.26 Assessing Trained Farmers Utilization of Technology by DAs

No	Item	Category	Frequency	Percent
1	The use of modern technologies such as improved seeds, inorganic fertilizers and pesticides	V. high	22	47.8
		High	19	41.3
		Medium	3	6.5
		Low	2	4.4
		V. low		-
		Not at all	-	-
2	The change in the attitude of the trained farmers towards adapting modern technology	V. high	27	58.7
		High	10	21.73
		Medium	9	19.57
		Low	-	
		Not at all	-	-

In Table 4.26 above connected to the use of modern technologies such as improved seeds, inorganic fertilizers and pesticides; development agents about 22(47.8%) replied that utilization of modern technologies by trained farmers were very high. 19(41.3%) of development agents replied that trained farmers utilization of modern technologies were high. 3(6.5%) of development agents replied that trained farmers utilization of modern technologies were medium. The remaining 2(4.35%) of development agents replied that utilization of modern technologies by trained farmers were low. From this it could inferred that about 41(89.1%) development agents replied that, majority of trained farmers were utilized modern technologies improved their productivity.

In table 4.26 above trained farmers change attitude in adopting utilization of modern technology; 27(58.7%) & 10(21.73%) of development agents replied that trained farmers were adopting utilization of modern technologies very high and high. 9(19.57%) of development agents replied that trained farmers were adopting utilization of modern technologies medium. This implied that majority of development agents about 37(80.43%) were replied that trained farmers were adopted utilization of modern technologies.

Table 4.27 SMSs Evaluation of DAs and Trained Farmers

No.	Characters	Category	Frequency	Percent
1	SMSs evaluation of trained farmers and DAs in participating in your center	V. high	26	56.5
		High	14	30.4
		Medium	6	13.1
		Low	-	-
		V. low	-	-
		Not at all	-	-

In table 4.27 above according to SMS teams' participation in evaluating DAs and trained farmers, 26(56.5%) and 14(30.43%) development agents replied that SMS teams' participation in evaluating us and trained farmers were very high and high at the time of training in FTCs. Some of the development agents about 6(13.04%) replied that SMS teams' participating in evaluating us and trained farmers were medium in training time. This indicated that majority of development agents about 40(86.93%) replied that SMS teams were participated in evaluating us and trained farmers very high and high in training times.

Table. 4. 28. DAs Views on the Condition of the Training

No.	Activities	Category	Frequency	Percent
1	Did you have a training curriculum and syllabus?	Yes	46	100
		No		
2	Would you give equal right to all farmers in getting training?	Yes	31	67.4
		No	15	32.6
3	Would you have a managerial and leadership skill?	Yes	37	80.43
		No	9	19.57

In Table 4.28 above regarding curriculum and syllabus for training farmers in FTCs; all development agents replied yes. This implied that all development agents had training curriculum and syllabus.

In giving equal right to trained farmers in getting trainings; about 31(67.4%) of development agents replied that they were given equal right to all farmers. The remaining DAs about 15(32.6%) of them replied that they didn't gave equal opportunity for trained farmers. This implied that more than half of DAs were given equal right to trained farmers in getting training.

Connected to managerial and leadership skill of development agents; majority of development agents about 37(80.43%) of them replied that they were managerial and leadership skill in training farmers in FTCs. The remaining 9(19.57%) of development agents replied that they were lack managerial and leadership skill. This implied that majority of DAs were managerial and leadership skill in training farmers.

4.11 Questionnaire for Kebele Administrators

In Table 4.29 below adjusting favorable time of training for trainee farmers; majority of kebele administrators about 12(75 %) of them replied yes, that the time adjusted were favorable for trainee farmers. 4(25 %) of kebele administrators replied no, they didn't adjusted the training time by not affecting the working time of farmers. This implied that majority of kebele administrators agreed that the training time were adjusted for training was not affecting farmers working time.

Table 4.29 Kebele Administrators Activities in FTCs

No.	Extension Activities	Category	Frequency	Percent
1	Would you adjust training time by not affecting the working time of farmers?	A. Yes	12	75
		B. No	4	25
2	Are DAs in your kebele interested in training farmers in FTCs?	A. Yes	14	87.5
		B. No	2	12.5
3	Do DAs have a plan in training farmers in FTCs?	A. Yes	13	81.25
		B. No	3	18.75

Regarding DAs interest in training farmers; majority of the kebele administrators about 14(87.5%) replied yes, that DAs in the kebele were interested in training farmers in FTCs The remaining about 2(12.5%) of kebele administrators replied no, that DAs in the kebele didn't interested in training farmers in FTCs. Here kebele administrators suggested that majority of DAs were interested in training farmers in FTCs.

Connected with planning of DAs to train farmers in FTCs; majority of kebele administrators about 13(81.25%) of them replied that yes, DAs had a plan to train farmers inFTCs. The remaining 3(18.75%)

of the kebele administrators replied that DAs didn't have a plan at the time of training farmers inFTCs. This inferred that majority of DAs in FTCs had a training plan to train farmers.

Table 4.30. Technology Utilization of Trained Farmers as Rated by kebele Administrators

No.	Extension activities	Category	Frequency	Percent
1	Utilization of technologies by trained farmers is----------	A. Very high	8	50
		B. High	4	25
		C. Medium	2	12.5
		D. Low	1	6.25
		E. Very low	1	6.25

In Table 4.30 above connected with utilization of modern technologies by trained farmers; about 8(50%) & 4(25%) of kebele administrators replied that trained farmers utilization of modern technologies were very high and high. 2(12.5%) of kebele administrators replied that trained farmers utilization of modern technologies were medium. Finally Few of kebele administrators about 1(6.25%) & 1(6.25%) replied that trained farmers utilization of modern technologies were low and very low. This implied that majority of trained farmers were utilized modern technologies increased productivity as assessed by kebele administrators.

In table 4.31 below concerning initiation of trained farmers to utilize agricultural technologies, 2(2.5%) of kebele administrators replied that trained farmer's utilized agricultural technologies by initiation of DAs. 3(18.75%) of kebele administrators replied that trained farmer's utilized agricultural technologies by initiation of kebele administrators and 3(18.75%) of kebele administrators replied that trained farmers initiated to utilize agricultural technologies by their own initiation. Kebele administrators about 8(50%) of them replied that trained farmers were initiated by both DAs and kebele administrators for utilization of agricultural technologies. Here utilization of modern technology by trained farmers as kebele administrator's assessment was high. This inferred that trained farmers were utilized agricultural technologies.

Table 4.31 Initiation of Trained Farmers by Kebele Administrators

No.	Characters	Category	Frequency	Percent
1	Who initiated trained farmers to utilize agricultural technologies?	A. By DAs	2	12.5
		B. By Kebele administrators	3	18.75
		C. By their own initiation	3	18.75
		D. By Both DAs & kebele administrators	8	50
2	At what level extension trainings in FTCs changed the livelihood of trained farmers?	A. Very high	9	56.25
		B. High	5	31.25
		C. Medium	1	6.25
		D. Low	1	6.25
		E. Very low		

In table 4.31 above regarding extension training in FTCs changed the livelihood of trained farmers; about 9(56.25%) & 5(31.25%) of kebele administrators replied that extension training in FTCs changed the livelihood of trained farmers very high and high respectively. Some of kebele administrators about 1(6.25%) & 1(6.25%) of them replied that extension training changed the livelihood of trained farmers were medium and low. This implied that majority of kebele administrators about 14(87.5%) of them replied that extension training in FTCs were changed the livelihood of trained farmers.

Table 4.32. Items related with changes in income and personal hygiene as Rated by kebele Administrators

No.	Extension activities	Category	Frequency	Percent
1	Improvement in the health and personal hygiene of trained farmers	A. Very high	6	37.5
		B. High	7	43.7
		C. Medium	2	12.5
		D. Low	1	6.3
		E. Very low	-	-

In Table 4.32 above concerning keeping the health and personal hygiene of trained farmers, kebele administrators about 6(37.5) &7(43.7%) of them replied that keeping the health and personal hygiene of trained farmers were very high and high. Some of kebele administrators about 2(12.5%) of them replied that trained farmers were kept their health and personal hygiene medium. Kebele administrators about 1(6.3%) of them replied that trained farmers kept their health and personal hygiene low. This indicated that majority of kebele administrators replied that trained farmers were kept their health and personal hygiene very well.

In table 4.33 below regarding improvement in income generation and economy of trained farmers; kebele administrators about 5(31.25%) & 7(43.75%) of them replied that improvement in income generation and economy of trained farmers were very high and high. 4 (25%) of kebele administrators replied that improvement in income generation and economy of trained farmers were medium. Kebele administrators assessed trained farmers and agreed on that trained farmers were improved in income generation and economy very high and high.

Connected with saving trained farmers as they have assessed by kebele administrators; about 16(100%) of kebele administrators replied that all trained farmers were in saving. This indicated that trained farmers were started saving developed wealth from their production by utilizing modern technologies in their farm.

Table 4.33 Economic Improvement and Saving of Trained farmers Rated by Kebele Administrators

No	Characters	Categories	Frequency	Percent
1	Improvement in income generation and economy of trained farmers	Very high	5	31.25
		High	7	43.75
		Medium	4	25
		Low		-
		Very low		
2	Are trained farmers started saving?	A. Yes	16	100
		B. No	-	-
3	Do SMS teams observe your kebele regularly?	A. Yes	12	75
		B. No	4	25

Regarding regular observation of SMS teams the farm lands of trained farmers; 12(75%) of kebele administrators replied that observation of SMS teams the farm lands of trained farmers were very high. 4(25%) of kebele administrators replied that SMS team members didn't observe trained farmers in their farms regularly. This implied that majority of trained farmers were observed by SMS team in their farm regularly as they were assessed by kebele administrators.

Qualitative Data Analysis

4.12. Focus group discussion with trained farmers at Shcocorea, Galle and Coiyta FTCs

Focus group discussion took place with three kebele trained farmers from Shochora, Galle and Choiyta kebeles, in each kebele 10- trained farmers participated. The discussions which took place in each kebele

were almost similar one with the other. To present the discussion the researcher went to kebele agriculture office to get permission, and he get permission to discuss with focus group discussion participants and started his discussion with them.

4.12.1 Focus group discussion

The main objective of this focus group discussion was to assess the impacts of FTC in enhancing the livelihood of farmers. On February 8, 2018 the researcher went to Shochora kebele FTC at 9:30 morning and he contacted DAs in the kebele. The researcher introduced himself and told them about the purpose of his arrival in their FTC. To avoid communication gap and to make all group members to be active participant, the discussion was carried out both in 'Gamogna' and 'Amharic' languages. The discussion was held with ten (10) trained farmers in the presence of DAs, whose educational background was from six to twelve grades.

As a startup, the questions raised for the focus group discussions were:-

1. What are the contributions of FTCs to; Livelihood of trained farmers, Health and personal hygiene, Productivity of trained farmers in comparison with traditional farming, saving, family planning, conservation of natural resources, quality of life.

2. As a trained farmer when you compared your life or livelihood before and after training, is there difference?

3. As you are a trained farmer, how do you lead your life or livelihood in case of :

    - Crop production, livestock production, health of you and your family, economic independence, saving and as a member of cooperatives.

The contribution of FTCs in livelihood of trained farmers was to develop income for the family of trained farmers and to improve their way of life. For all of these improvements first at the time of training farmers developed knowledge and skill to improve their way of life. In focus group discussion some participants said that, "The training was good to change our life". Some other participants told that, "The training was good but due to shortage of time and difference in understanding", we couldn't reach the change as expected from the training goal.

Connected with health and personal hygiene participants in the discussion told that; especially with the involvement of health extension workers we are supported and improved our health and personal hygiene

by having latrine, by washing our bodies and clothes regularly, cleaning of our house and surroundings, etc.

In the discussion with trained farmers about improvement of production and productivity; participants discussed and said that, after training in FTC our behavior and attitude was changed and we are interested to utilize modern technologies in our farm and utilization of modern technologies increased the productivity, but there were some constraints in relation to the rise in the cost of inorganic fertilizers improved varieties of seeds and other inputs, else, In addition to there were a problem of getting market access, transportation problem to take the products to market and interference of brokers in between us and the traders.

Participants in case of saving said that before training we were suspicious of saving in the commercial bank of Ethiopia and in micro finance institution in kebele level, but after taking trainings we developed knowledge about the advantage of saving and we started saving in our micro finance at kebele level and in the commercial bank of Ethiopia.

Concerning family planning the training in FTCs helped farmers in how they lead the family with the income they got from their farm process. Here the participants of focus group discussion taught that, "Family planning helped them to keep the number of their family with their income". Before the trainings; they think the teachings concerned with family planning as a soul by saying "Children's are gifts of God", but after training it was good for us to lead our family without disturbing our economy and also to have good family in its economy, health, educational level and in all aspects of social life.

In conservation of natural resources trained farmers get knowledge from FTC how to conserve the natural resources and their contribution to global climate. In our discussion with trained farmers said that keeping our environment green by planting different species of plants keep our climate precious to us to live in it. Participants discussed and appreciated the government action in water shed development activities which were done at country level. All the above mentioned activities increased the quality of life of trained farmers. It helps farmers how they feed clean their environment by keeping their health and personal hygiene. They got information on how to lead quality life by increasing productivity and income generation.

Comparing the life of trained farmers with their previous life before training:

the participants of "Shochora kebele" said before training we had poor production and low productivity, lack of information and knowledge, lack of knowledge in technology, low income due to less

productivity. On the other hand trained farmers as a result of training changed their attitude and behavior, so participants said that after training we were changed by so many things, such as utilization of modern technologies like inorganic fertilizers, improved varieties of seeds and other inputs as a result the production and productivity increased. We trained farmers were near to extension information and also we were awared about best technologies and best practices.

In discussion with trained farmers, they said connected with crop production they were used new technologies and inputs released and we managed farming from first preparation of land up to harvesting time. As in livestock production participants told that they were tried to improve their current livestock varieties and there wants to reduce the number of old species of livestock and replace them by new varieties of livestock.

Participants in case of economic independence, saving and becoming a member of cooperatives told that, based on local farmers saving and borrowing process for crop production and purchased from cooperatives in there developed our income level and saved for tomorrow.

Finally the researcher discussed with participants about participation in extension education program, how you were intended for attending?, almost all of them said that they were intended to attend in desire to get knowledge, and they needed the ways of farming, want to get awareness on market issues and they awared of the farm inputs subsides in our area, to get information on weather alerts for the season etc.

4.12.2 Focus group discussion

The main objective of this focus group discussion was to assess the impacts of FTC in enhancing the livelihood of farmers. On February 3, 2018 the researcher went to Galle kebele FTC at 9:30 morning and I was contacted with trained farmers in kebele. The researcher introduced himself and told them about the purpose of his arrival in their FTC.

The contribution of FTCs in livelihood of trained farmers was developed to income for the family and to improve their way of life. “Participants in the discussion said”, Connected to the change in the livelihood, they were improved their livelihood as a result of training in the FTCs by development agents. In discussion with trained farmers they taught that the trainings given in FTCs were interesting because development agents applied different methods at the time of training practical activities demonstration, field visits in the farms of better farmers, group discussion, etc.

Connected with health and personal hygiene participants in the discussion told that, health extension workers in collaboration with DAs supported us to improve our knowledge in keeping our environment clean, and personal hygiene.

In the discussion with trained farmers about improvement of production and productivity; participants said that, we developed knowledge about utilization of modern technologies like inorganic fertilizers, improved seeds, pesticides, weedicides and the way when we prepare our farm land and for how many times it was tilled, application of the methods and utilization of technologies improved our production and productivity. Some of the participants made a complaint and said that, to utilize technologies as trained by development agents the rise in value of inorganic fertilizers and improved varieties of seeds hinders the application in the farm. Here in improvement of production and productivity participants forward other problems and they said that, "There were a problem of roads to get the products in to the market; there were interference of brokers in the market, which devaluates our income".

Connected with saving, participants in FTCs said that:

> "We expected saving before training somewhat there were illusions in our mind,
>
> but its advantage was presented by development agents at the time of training.
>
> We developed knowledge of saving and its advantage and we were saved in our micro
>
> finance institution of kebele and in commercial bank of Ethiopia. Finally participants said that,
>
> they all were started saving in microfinance institutions and in commercial bank of Ethiopia,
>
> the amount varies according to their income".

Connected with family planning participants said that, the trainings in FTCs helped farmers in how they lead their family with the income they got from their farm process. Here the participants of focus group discussion taught that, family planning helped them to keep the number of their family with their income. Before we couldn't take trainings we thought the teachings concerned with family planning as a soul by saying "Children's are gifts of God", but after training it was good for us to lead our family without disturbing our economy and also to have good family in its economy, health, educational level and in all aspects of social life.

In conservation of natural resources trained farmers getting knowledge from FTC how to conserve natural resources and their contribution to global climate.

In our discussion with trained farmers, participants said that:

"Keeping our environment green by planting different species of plants kept our climate precious to us to live in it".

The participants discussed and appreciated the government action in water shed development activities which were taken in country level. The water shed development program improved the forest coverage, prevents land degradation, maintains the soil degraded as a result fertility of soil increased and the environment had become safe to live in it,

Here above all mentioned activities increased the quality of life of trained farmers. It helped farmers in all aspects of quality of life to lead how they feed, and clean their environment by keeping their health and personal hygiene. They got information on how to lead the best quality of life from best production and income generation.

Comparing the life of trained farmers with their previous life before training; the participants of Galle kebele said that, "Before training we had poor production and low productivity", due to lack of information and knowledge in technology utilization and dissemination and we ignored to use inorganic fertilizers when ordered by DAs and kebele administrators as a result our income was low and we couldn't manage our family in better way. On the other hand trained farmers as a result of training they were developed knowledge, skill, and abilities in agricultural activities, so participants said that,

"After training we were changed by so many things, and we developed knowledge in technology utilization and its advantage were increasing production and productivity".

Additionally they said, "We trained farmers were neared to extension information and also we were awared about best technologies and best practices".

In discussion with trained farmers, connected with crop production, they said, "Starting from land preparation for sawing crop seeds, utilization of different technologies we had developed knowledge by training, which improved our production and productivity". As in livestock production participants told that, "We were tried to improve our current livestock varieties and reduced the number of old species of livestock and replaced them by new varieties of livestock with high productivity species".

Participants in case of economic independence, saving, and becoming a member of cooperatives participants told that, "Economic independence was coming as a result of getting more production by

utilizing modern technologies in the farm lands of farmers". To become economically independent a farmer started saving, Savings were taken in cooperatives. Cooperatives were collected money from farmers saving and they could buy inputs for sale. Trained farmers who saved before used inputs from cooperatives. As participants said that, "To become economically independent; they were needed to utilize modern technologies, which improved productivity it brought savings. We became member of cooperatives, when we did become economically independent". Finally the researcher discussed with participants about participation in extension education program, how you were intended for attending?, almost all of them said that, "We were intended to attend in desire to get knowledge, and wanted to learn new knowledge and ways of farming, want to get awareness on market issues, and had been awared of the farm inputs subsides in our area.

4.12.3. Focus group discussion

The main objective of this focus group discussion was to assess the impacts of FTC in enhancing the livelihood of farmers. On February 6, 2018 the researcher went to Choiyta kebele FTC at 9:30 morning and he was contacted with DAs in kebele. The researcher introduced himself and told them about the purpose of his arrival in their FTC.

The contribution of FTCs in livelihood of trained farmers was to develop income for the family of trained farmers and to improve their way of life. For all of these improvements trained farmers developed knowledge and behavioral change. In focus group discussion some participants said that, "The training was good to change our life". Some other participants told that, "The training was good, but due to shortage of time and difference in understanding of trainees, in case of that we couldn't reach the change as expected from the training goal".

Connected with health and personal hygiene participants in the discussion told, "From the training we had developed knowledge, skill and ability especially with the involvement of health extension workers, and we improved our health and personal hygiene by having latrine, washing our bodies and clothes regularly cleaning of our house and surroundings".

In the discussion with trained farmers about improvement of production and productivity; participants said that, "After training in FTC we were understood how production and productivity increased, so we were interested to utilize modern technologies and utilized it increased the production and productivity". Some of the participants said, "We suspected to utilize inorganic fertilizers in our farm, because the fertilizer was acidic by its nature, so it harms our land, and we wanted only to use improved varieties of

seeds". Few of trained farmers said that, "In utilizing fertilizers there were continuous increment of cost which hindered in utilization to cover the whole farm land".

Concerning saving, participants said that, "Before training we were suspected to save in commercial bank of Ethiopia and in micro finance institution in kebele level, but after we took training; we developed knowledge of saving and we had known about the advantage of saving and its interest, we were started saving in our micro finance institution at kebele level and in commercial bank of Ethiopia".

Connected with family planning the training in FTCs helped farmers; how they lead the family with the income they got from their farm process. Here the participants in discussion taught that, "Family planning helped us to keep the number of our family with our income". Participants when discussed in connection with family planning taught that, "Before we didn't understand trainings as good; we took family planning as a soul by saying"Children's are gifts of God", but after training it was good for us to lead our family without disturbing our economy and also to have good family in its economy, health, educational level and in all aspects of social life".

In conservation of natural resources trained farmers getting knowledge from FTC how to conserve the natural resources and their contribution to global climate. In our discussion with trained farmers, participants said that, "Before the training taken we had traditional knowledge about conservation of natural resources; after training we had developed more knowledge and modern mechanisms of keeping our environment by water shed development activities by planting different species of plants and made our environment safe".

Here above all mentioned activities increased the quality of life of trained farmers. It helped farmers in all aspects of quality of life to lead how they feed, clean their environment by keeping their health and personal hygiene control their family number with their income, saving, becoming economically independent and conserving their natural resources to make good global climate. They got information on how to lead the best quality of life from best production and income generation.

Comparing the life of trained farmers with their previous life before training, the participants of Choiyta kebele said that, "Before training we had not use inorganic fertilizers, improved seeds, in addition to that our farm land was very small and sloppy due to that reason we had poor production and low productivity". And participants in the discussion said that, "After training we had developed knowledge and skill about utilization of agricultural inputs and agricultural techniques to plough on sloppy lands, as a result we improved production and productivity".

In discussion with trained farmers about crop production, they said that, “We were used new technologies and inputs released and we managed farming from first preparation of land up to harvesting time”. As in livestock production participants told that, “We were tried to improve our current livestock varieties and there reduce the number of old species of livestock and replace them by new varieties of livestock with high productivity”.

Participants in case of economic independence, saving, and becoming a member of cooperatives told that, “We were economically independent, because by utilizing agricultural inputs we had improved production and productivity and started saving and became a member of cooperatives”.

Finally the researcher discussed with participants about participation in extension education program how you were intended for attending?, almost all of them said that, “We were intended to extension education in desired to get new knowledge and ways of farming, awareness on market issues, became awared of the farm inputs subsides in our area, and got information on weather alerts for the season”.

4.13 Interview with SMS Team of the Wereda

The following interview with SMS teams of the wereda Agriculture and Natural Resource Office to assess the impacts of FTC in enhancing the livelihood of farmers in Kutcha wereda especially in sixteen selected kebeles. The interview was prepared to six experts by the researcher himself. For that purpose the researcher went to wereda Agriculture and Natural Resource Office to get permission, and he was got permission to interview for February 10, 2018; morning at 3:00. The questions prepared were:

Does the training in each kebele go with the standard given by Ministry of Agriculture and Natural Resource?, In your journey to FTCs, are practices there at the level in the national standard? Was the training changed the livelihood of farmers? How? Is there change on the trained farmers in relation to the use of technologies to improve productivity, saving, health and personal hygiene, to keep them from HIV/AIDS and other sexually transmitted diseases and use different contraceptives to control their family number, etc?, At what level are the knowledge and skills of DAs in management and leadership necessary for the training?, How do you evaluate the training in FTCs in terms of materials and methods used?

In the first interview, the question raised to SMS experts were the training given in FTCs to farmers at the standards of Ministry of Agriculture and Natural Resource?, The interviewee said that:

> “The trainings given in FTCs were at the standard of MoANR “.

The second interview question rose to SMS experts were, in your journey to FTCs, were practices there at the level in the national standard? The interviewee said that:

"The practices in FTCs were more or less in the level of the national standard".

Trainings and any practices taken in FTCs went in the level of national standard.

The third interview question was presented to interviewee, was the training changed the livelihood of farmers? How? Informant- 1answered and said that "The training which given in FTCs changed the livelihood of trained farmers". Informant-3 said:

"The training was given in FTCs changed the livelihood of farmers in changing their awareness on adoption of technologies and with this they adopted new technologies and practices and increased their production and productivity".

The training was changed the livelihood of farmers. Generally as interviewees answered the training changed awareness and behavior of farmers to adopt new technologies as a result the production and productivity of their farm was increased.

The fourth interview question was presented to interviewee, was the trained farmers in relation to the use of technologies to improve productivity, saving, engaging in cooperatives, health and personal hygiene, to keep them from HIV/AIDS and other sexually transmitted diseases and use different contraceptives to control their family number, etc? The interviewees in the wereda A&NR office on February30/2018 on 3:00 morning said that "There was change on trained farmers in relation to the use of technologies; this improved their productivity, health and personal hygiene, their savings, preventing them from HIV/AIDS and other sexually transmitted diseases, used contraceptives to manage their family number".Informant-4, said on February 30/2018 on 3:00 morning:

"Trained farmers had knowledge of utilizing modern technologies and other inputs, as a result they increased their productivity. With increase in production surplus product was taken to market by searching for market access, and as they trained saving, trained farmers saved their money in micro finance institutions, engage in cooperatives, preventing them from HIV/AIDS and other sexually transmitted diseases, used contraceptives to manage their family number".

Generally interviewees of the office of wereda A&NR explained trained farmers had a knowledge of utilizing modern technologies which increased productivity as a result farmers started saving, they kept their health and personal hygiene, they kept them from HIV/AIDS and other sexually transmitted diseases and they are controlled their family number by using different contraceptives.

The fifth interview question was presented to interview, at what level had the knowledge and skills of DAs in management and leadership necessary for the training? The interviewees said that:

> "most of development agents have knowledge of managerial and leadership skill in training farmers in FTCs, but some of them had problem of managerial and leadership skill in training farmers in FTC".

As stated by SMS teams some of development agents had knowledge of managerial and leadership skill, but due to lack of educational chance, low salary, lack of incentives, lack of transportation, lack of residence for some DAs and shortage of modern technology in rural areas, and they didn't apply their knowledge in training farmers to achieve the goal of MoANR.

The sixth interview question was presented to interviewee, how did you evaluate the training in FTCs in terms of material and methods used? As SMS teams said that:

> "In FTCs some of the materials like seats, black board, duster, flip chart, chalks were presented, but there were no internet connection, electric light, computers, DVD, CD, television, projectors, etc."

Connected with methods as national standard the training was expected to given 80% practical and 20% theoretical, but as SMS teams answered in some FTCs trainings more about theoretical than practical. Generally the majority of FTCs training methods were more practical than theoretical, and it included demonstration, field visit, field day, meeting, group discussion.

In summarizing SMS teams interview, trainings in FTCs developed knowledge and skills of farmers which leads farmers in improving their livelihood by utilizing modern technologies, started saving, keeping their health and personal hygiene, preventing them from HIV/AIDS and other sexually transmitted diseases, and they had used contraceptives to manage their family number. Most DAs had managerial and leadership skill in training farmers in FTCs. In evaluating FTC training based on material

and methods there were some materials in FTCs for training, but not at the standard of MoA&NR and the methods given were more practical as indicated by MoA&NR.

4.14. Interview with Wereda Finance and Economic Development Office

This interview was prepared to wereda finance and economic development office by the researcher himself. For this purpose the researcher went to wereda finance and economic development office to get permission, and he was got permission to interview. The interview questions were prepared:

Did you allocate budget for extension service trainings in FTCs? Do you think it is adequate?, If your answer is yes, how do you follow the budget utilization in FTCs?,Was the budget allocated to each FTC distributed on time?, Did you have good working environment with the wereda A&NR office on running the budget and follow up of the budget term by term? , Would you visit the FTCs with in each training session and give comment on the use of budget allocated?, What changes did you observe on the livelihood of farmers who took the training?

The interview with wereda finance and economic development office was taken on February 30/2018, morning at 3:00 in the office of the head.

The first interview question was: did you allocate budget for extension service trainings in FTCs? Did you think it was adequate? The head answered and said:

> "It was allocated budget for extension service trainings, but the allocation of the budget was not adequate. It was budgeted in each year for one FTC only three thousands. This amount of budget could not precede the trainings in FTCs as plant, animal husbandry and natural resource management trainings".

The second interview question was: if your answer is yes, how did you follow the budget utilization in FTCs? The head of the office answered and said,

> "We followed the budget utilization in FTCs, regarding the financial flow twice a year by the experts of finance officers".

The third interview question was: was the budget allocated to each FTC distributed on time? The head said:

> "The budget was distributed on time in each FTC".

The fourth question was: did you have good working environment with the wereda A&NR office on running the budget and follow up of the budget term by term? The head said:

> "We had a good working environment with wereda A&NR office in running budget, and followed up the budget term by term".

The fifth question was: would you visit the FTCs with in each training session and gave comment on the uses of budget allocated? The head said,

> "We were visited each FTC in each training session and gave comment on the uses of budget allocated".

And finally the sixth question was: what changes had you observed on the livelihood of trained farmers? The head said:

> "We observed changes on livelihood of farmers who took the training by securing food; changing their environment from degradation to rehabilitate, and following agricultural systems against drought and hunger to secure food".

To summarize the interview questions with wereda office of finance and economic development, connected with budget allocation it was allocated budget for extension trainings, but the allocation of the budget was not adequate. It allocated only 3000 ETB for three departments. It was not enough for preceding the activities in FTCs. The office followed the budget utilization in FTCs twice a year by the experts of finance officers. Connected with allocation of budget on time; it was allocated and distributed on time to each FTCs. Regarding working environment with wereda A&NR, it had good working environment with wereda A&NR office in running the budget and followed up the budget term by term by visiting each FTCs. From the interview observed changes on livelihood of farmers took by securing food; changing their environment from degradation to rehabilitate, and following modern agricultural systems against draught and hunger to secure food".

4.15 Observation

The researcher in his observation went to each FTC which was selected for this study. Started from buildings, from 16 FTCs, 5 FTCs were built according to the standard given by MoANR 3- blocks (Fango, Morka, Galle, Sikole and Mengeda). 11-FTCs (Dana, Kapisa, Shochora, Kulo, Wuzete, Kuto,

Woyza, M/chaba, K/wono, Basso, and Choiyta) were built only one block, which served as store, office and training hall.

Connected with the land of FTCs as a standard placed by MoANR 3-5 hectar of land was required by each FTC. Here in my case FTCs less than one hectar included M/chaba, Woyza, Choiyta, Kapisa and Basso. Other 11-FTCs had 3-5 hectar of land for demonstration and field practices. All FTCs had materials such as black board, seats, chalk, duster, flipchart else, but they hadn't light, television, internet connection, DVD, CD, projector, telephone, else. In the observation of the researcher the DAs were interested in their activity and they were working with kebele administrators cooperatively and in positive manner. In my observation I grasped in the FTC office trained documents of DAs from their shelf, there were lesson plans, teaching notes and certain graphs which were used as teaching aids were present. In my observation, the farm lands of trained farmers were in better condition in comparison with other untrained farmers. Trained farmers house management and the quality of their residence were attractive and interested in my observation. In the observation of the researcher the training program of FTCs were ceased.

4.16 Document Analysis

The researcher went in document analysis starting from writing the proposal of the thesis. In that document analyzed to get census of population of the wereda statistics of employees, and farmers in each kebele, agro ecology of the wereda, conditions for crop production, livestock, and natural resource were obtained from documents in wereda agriculture and natural resource office. Farmer's activities recorded during training times in FTCs by DAs in demonstration; field visits on the farm lands of trained farmers were analyzed from FTC document offices. The portfolio of trained farmers was obtained from both FTCs and kebele administrative offices. The budget allocated for five years 2011-2016 were obtained from wereda finance and economic development office. The curriculum and syllabus for training which were prepared at regional level were obtained from both 16- FTCs and wereda agriculture and natural resource office. The curriculum was prepared in Amharic language at regional level, and also the training was given to farmers by Amharic and by the local language of the area "Gamogna".

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

INTRODUCTION

In this chapter, summary of the major findings, the brief conclusions of the research and the possible recommendations on impacts of FTCs in enhancing the livelihood of rural farmers in Kutcha wereda especially in 16- kebeles are provided. The recommendations were made based on conclusions and the major findings of the research.

5.1. Summary of the Major Findings

From the overall analysis of the data obtained from different sources, the following major findings have been obtained:-

- The training provided in FTCs changed the livelihood of farmers by improving their income level and productivity.

- The training given in FTCs helped farmers in keeping their health and personal hygiene including preventing them from HIV/AIDS and sexually transmitted diseases, keeping their family number by using contraceptives methods to have quality life.
- As a result of training in FTCs, trained farmers started saving in microfinance institutions and in commercial bank of Ethiopia.
- The training provided in FTCs changed the attitude and behavior of farmers; as a result, farmers utilized modern technologies and improved their production and productivity.
- The training of farmers in FTCs made them aware of the advantages of cooperatives and as a result trained farmers became members of cooperatives and used credits for buying and using inorganic fertilizers and improved seeds from their institution.
- Trained farmers got the knowledge of conserving natural resources to reduce soil erosion and global warming by practicing in watershed development physically and biologically.
- Untrained farmers had poor production and low productivity because they did agricultural activities in traditional ways without utilizing modern technologies.
- Few farmers lack of knowledge about the relevance and benefits of the FTC training.
- The FTC training program lacks gender equality.
- The FTC trainings were more practical supported trained farmers by demonstration, field visits in the farm lands of trained farmers.
- The number of DAs required in each FTC as standard by MA&NR was given three specialized in plant, animal and natural resource management. Here almost 96% of DAs were available in FTCs in training time, which made the trainings effective.
- Materials like blackboard, chalk, duster, pilfchart, curriculum guides and field materials were available in FTCs.
- Concerning materials used to learn best practices through video conference, telephone service, TV, were lack in the FTCs.
- Some DAs demotivated to lead and manage farmers at the time of training due to their internal motives connected with incentives, upgrading, far from new technologies in rural areas, else.

- Difference in understanding of trainees,
- Cost increment of inorganic fertilizers and improved varieties of seeds, and
- Lack of roads to get products in to markets or generally lack of infrastructures development in rural areas.

5.2. Conclusions

This research focused on the impacts of FTC in enhancing the livelihood of rural farmers. The study concluded that the FTC training program had lack gender equality, materials and equipment's at the time of training, few farmers' lack knowledge about the relevance and benefits of the FTC training, some DAs demotivated to lead and manage farmers at the time of training due to their internal motives connected with incentives, upgrading, infrastructures, farness of technologies in rural areas, else. However, the trainings which are taken place in FTCs was positive; changing the attitude and behavior of trained farmers and improved the livelihood of them: by increasing their production and productivity, income level, by improving their health and personal hygiene, preventing them from HIV/AIDS and other sexually transmitted diseases, utilized contraceptives to reduce the number of children to have good and quality life, making them conscious about natural resource conservation, engaging in cooperatives. Trained farmers have better in their life when comparing them with untrained ones starting from their land management knowledge, utilization of technologies, saving, health and personal hygiene, else. The FTC trainings were more practical supported trained farmers by demonstration, field visits in the farm lands of trained farmers, else.

5.3 Recommendations

Based on the above major findings and conclusions the following recommendations have been forwarded so as to improve the impacts of FTCs in enhancing the livelihood of rural farmers.

- To improve the livelihood of farmers in interested way, there must be a need to fulfill the materials and equipment's in FTCs, such as audio and video conference, magazines, regular telephone access, electric light, television and internet to have best practices in FTCs.
- There must be a need to recruit two animal husbandry and two plant science development agents.
- To have good climate by green plant coverage, there must be to prepare seedlings on time and plant after the physical work in water shed development expected from wereda office of A&NR.

- In these study women farmers' participation is very low. Hence, alternative training programs should be arranged to encourage females' participation equally with their counter parts so as to improve productivity and to solve various farming problems of females'.

- There must be a need to restart the ceased FTCs program by communicating with wereda agriculture and natural resource office to have continuous change and development in livelihood of farmers by getting out of non-extension works.

- There were understanding differences among trained farmers based on their educational level. To overcome this problem, there must be a need to group farmers at the time of training in relatively similar educational level or standard.

REFERENCE

Adebabay Mengist, Mesfin Astatkie and Sajja,N., 2009.Strengthening the capacity of DAs and Woreda Agricultural experts to train the farmers on modular courses in FTC. Training of Trainers, Training report. Bahir Dar. Ethiopia.

Adebabay Mengist,Mesfin Astatkie, and Sajja, N., 2008. Assessments on DAs capability in planning and delivering of training to farmers in FTC setting.

AESP (Agricultural Extension Service Process), 2009. Community problem and need assessment survey. Linkage of stake holders and people mobilization and organization technical manual. Bahir Dar.

Alemayehu Shishigu, 2008. Farmers' perceptions on the effectiveness of cooperatives in disseminating agricultural technologies. An M.Sc thesis presented to the School of Graduate Studies of Sokoine University, Morogoro, Tanzania.

Arnon,1981. Modernization of agriculture in developing countries. Resources, potentials and problems. John Wiley and Sons, Chichester, New York.

ATA,2017. Vision, systematic Bottle necks and priority interventions.

Bari, Mahbubul, A.K.,1987. Training and Education in Rural Development. BIDS, Dhaka.

Bekelech Tesfaye,2014. The Effectiveness of Farmers Training Centers in the Economic life of Rural Adults: the case of Wonchi wereda. An MA thesis presented to University of Reading.

Berga Lemaga, D. Borus, R. Kakuhenzire, G. Woldegiorgis, D. Tibanyendera, J. Nshimiyimana, , E. Schulte-Geldermann, and I. Barker, (2013). Capacity building: A basis for Technology adoption and sustainable potato production in Eastern Africa. Acta Hort. (ISHS) 1007:649-655. http://www.actahort.org/books/1007/1007_75.htm.

Berhanu Gebremedhin, D.Hoekstra and Azage Tegegne, 2006.Commercialization of Ethiopian agriculture:Extension service from input supplier to knowledge broker and facilitator. ILRI (International Livestock Research Institute). Addis Abeba, Ethiopia.

Berhanu Gebremedhin, Hoekstar, D and Azage Tegegne, 2006. commercialization of Ethiopian agriculture. Extension service from input supplier to knowledge broker and facilitator. IPMS working paper ILRI, Nirobi.

BoARD (Bureau of Agriculture and Rural Development), 2007. Training on participatory extension system for experts in Amhara National Regional State of extension Department. Bahir Dar.Unpublished.

BoARD and SWHISA (Bureau of Agriculture and Rural Develo.pment and Sustainable Water sHarvesting Institutional Strengthening in Amhara), 2006. Agricultural system in Amhara region strengthening farmer-research-extension. pp. 69-71.Linkage Proceeding of Regional work shop held on 13-14 April, 2006. Bahir Dar Ethiopia.

Christy, R. D., and L. Williamson, eds. *A Century of Service: Land-Grant Colleges and Their Universities, 1890-1990*. New Brunswick, N.J.: Transaction Publishers, 1992.

Churi, A. J., Mlozi, M. R. S., Tumbo, S. D., & Casmir, R. (2012). Understanding farmers information communication strategies for managing climate risks in rural semi-arid areas, Tanzania. *International Journal of Information and Communication Technology Research, 2*(11), 838–845.

Coombs, P.H., 1985. The world crisis in education: the view from eighties. Oxford, Oxford University Press.

Davis, K., Swanson, B., Amudavi, D., Ayalew, D., Flohrs ,A., Riese, J., Lamb, C. and Zerfu, E. 2010. *In-depth Assessment of the Public Agricultural Extension System of Ethiopia and Recommendations for Improvement*. IFPRI Discussion Paper No.01041. Washington, D. C.

De Vos, AS, Strydom, H., Fouché, C.B. &Delport, C.S.L. 2012.Research at grass roots for the social sciences and human services professions. (4th edition). Pretoria: Van Schaik.

Ellis, F., 1999. Grass root organizations and institutions. Agricultural policies and institutions in developing countries. School of development, unities of East Angla Cambridge University press: 181-190.

EU, 2005. Small and medium size enterprise project monitoring and evaluation Manual. EU consultants, Brussels.

Feder, L., R.E. Just, and D. Zilberman (1985). "Adoption of Agricultural Innovation in Developing Countries: A survey." Economic Development and Cultural Change, Vol 32(2): 255-298.

Gebremedhin, B., Hoekstra D. and Tegegne, A. 2006. *Commercialization of Ethiopian Agriculture: Extension Service from Input Supplier to Knowledge Broker and Facilitator*. IPMS Working Paper No. 1, International Livestock Research Institute, Nairobi (Kenya).

Habtemariam Abate, 1997. Targeting Extension Service and the Extension Package Approach in Ethiopia, MoA, Addis Ababa.

Habtemariam Abate, 2007. Review of Extension Systems Applied in Ethiopia with Special Emphasis to the Participatory Demonstration and Training Extension System, FAO, Addis Ababa.

IFPRI (2010). In-Depth Assessment of the Public Agricultural Extension System of Ethiopia and Recommendations for Improvement. Addis Ababa.

IFPRI (International Food Policy Research Institute), 2007. Strengthening Agricultural Education and Training in Sub-Saharan Africa from an Innovation Systems Perspective.Janice A. Miller and Diana M. Ossineke, 2002.Training Needs Assessment. Training andDevelopment Committee. New York, USA.

K1rishiworld,2008. Using Integerated Group Management in Kenya, UK, Neatherland and SA.

Kaleb Kelemu, 2008. Agricultural Knowledge and Information system (AKIS). Module 1 and2. Yardstick International College of Distance and Open learning. Addis Ababa

Kassa, B. 2003. Agricultural Extension in Ethiopia: The Case of Participatory Demonstration and Training Extension System. *J. Soc. Dev. Afr.*, **18(1)**: 49–83.

Keeves, J.P. (1990). Educational Research, Methodology and Measurement: An international Hand Book. New york : Pargamen press plc.

Khairul Baharein Mohd **Noor** Faculty of Management, Universitiy Selangor, Malaysia, Investigating Training Impact on Farmers' Perception and Performance, International Journal of Humanities and Social Science, volume.1,No.6, June 201

Koul.L. (1988).Methodology of Educational Research. New Delhi: Vikas publishing PvtLtd

Krishi world, 2009. The Pulse of Indian Agriculture: Agricultural Extension Education, Learning and Teaching in Extension. http // www. krishiworld. com/ html. agri- extension-edui.html, (Retrieved onJanuary 15,2009)

Kutcha WoANR,2015, Woereda Statistical Report, Kutcha Wereda, Selamber

Madhur, G., 2000.Agricultural extension. An impact evaluation. www.worldbank. org/html/oed. Washington, D.C.27p. Accessed on October 20, 2009.

Markham, A.E.G.., 1965. Agricultural Education and Training in Africa, Dakar, AIDEP.

Mattee, A. Z. (1994). Reforming Tanzania's agricultural extension system: The challenges ahead. *African Study Monographs*, *15*(4), 177–188.

McMillan, J.H. & Schumacher, S. 2010. Research in education. New York: Harper Collins.

Mekonnen Mekuria, 2008. Project profile of Rural Capacity Building Project in Amhara BoARD. Bahir Dar. Ethiopia.

Mellor, J. W. (2014). High rural population density Africa – What are the growth requirements and who participates? Food Policy DOI: 10.1016/j.foodpol.2014.03.002

Ministry of Agriculture Food Security and Cooperatives. (2007). *Annual Report-Final Draft.*Retrieved from www.kilimo.go.tz/highlights/Annual%20Report%202006-07.pdf

MoA, 2000. Farmers Training Centers Project Proposal. M0A , Addis Ababa.

MoA, 2000. Farmers Training Centers Project Proposal. M0A , Addis Ababa.

MoANR, 2017(Ethiopia Ministry of Agriculture and Natural Resources). Ethiopia's Agricultural Extension Strategy (Draft), vision, Systemic Bottlenecks and Priority Interventions. Addis Ababa, Ethiopia.

MoARD(Ministry of Agriculture and Rural Development), 2007. Participatory Agricultural Extension System. Addis Ababa.

MoARD, 2007. National level extension activities performance evaluation report(unpublished). MoARD, Addis Ababa.

MoARD, 2005. Working Guidelines of Farmers Training Centers. (Amharic Version), MoARD,Addis Ababa.

MoARD, 2006. Federal Democratic Republic of Ethiopia, Agricultural Policies, Programs and Targets for a Plan for Accelerated and Sustainable Development to End Poverty, MoARD, Addis Ababa

MoARD, 2008. National level extension need assessment report(unpublished).MoARD, Addis Ababa.

MoI, 2001. The government of the Federal Democratic Republic of Ethiopia, Rural Development Policies, Strategies and Instruments. MoI, Addis Ababa.

MoI, 2001. The government of the Federal Democratic Republic of Ethiopia, Rural Development Policies, Strategies and Instruments. MoI, Addis Ababa. Extension: a Reference manual, FAO, Rome.

NIOSH (National Institute for Occupational Safety and Health) (1999). A Model for Research on Training Effectiveness. Published by US Department of Health and Services, Washington.

NPC (National Planning Commission) (2016. Growth and Transformation Plan II (GTP II) (2015/16-2019/20). Addis Ababa.OSSREA (2015). Strengthening farmers' organizations in Tanzania a case study of farmers' group organizations in selected districts. OSSREAPublications.Available

Nunally J.1978. Psychometric Theory. Me Graw-Hill, NewYork,NY

O'Leary, Z. 2010. The essential guide to doing your research project. London: Sage.

OBoARD, 2008. Oromia Bureau of Agriculture and Rural Development. Addis Ababa.

Omer H. Guyisso (2013). Women participation in modular training programs in Farmers' training centers: The case of Wolisso district, Oromiya Regional state. Master's thesis, Haramaya University. Ethiopia.

Ousman Surur, 2007. Effectiveness of agricultural development training program . The case of Tef and livestock farmers of Alaba Woreda, Southern Ethiopia. An MSc Thesis presented to School of Graduate Studies of Haramaya University. Ethiopia: 106-108.

Pithai, C., 2005. Benefits of training. Cooperative extension and training. Department of cooperative. Faculty of dry land agriculture and natural resource. Mekelle university. Ethiopia. (Unpublished)

Rutatora, D. F., & Mattee, A. Z. (2001). Major agricultural extension providers in Tanzania.*African Monograph, 22*(4), 155–173.

Sheffield, James R. and Victor Diejomach, 1972. Non-formal education in African Development. New York: African American Institute.

Spring, Joel, 2002. Social purpose of education. American Education 10th Edition, new schoolUniversity press.

St.Marry University College, 2006. Human Development Report, Introduction to development perspective UNDP.

Swanson, B. E., & Samy, M. M. (2003). *Decentralization of agricultural extension systems: Key elements for success*. Retrieved from http://info.worldbank.org/etools/docs/library/51025/ZipAgExtension1/ag_extension1/Materials/May6Session1/Decentraliz ation-India4-18-03_paper.pdf.

Swanson, E. Burton, Robert, P. Bentz and Andrew, J. Sofranko, 1998. Improving Agricultural Extension. A reference manual. Food and agriculture organization of united nation. Rome: 80-82.

SwansSon B.E., R.P. Bentz and A.J. Safranko. 1997. Improving Agricultural Extension :a Reference manual, FAo,Rome.

Terrefe Bekele, 1992. Farmers' Training Programs with Special Emphasis on Residential Farmers Training centers in Ethiopia. An M.Sc thesis presented to University of Reading.

Tsion Tesfaye, 2008. Effectiveness of training offered by an Ethiopian Institute of Agricultural Research to farmers. The case of Holeta, Melkasa, and Debre Zeit Agricultural Research centers. An MSc Thesis presented to the School of Graduate Studies of Haramaya University, Ethiopia. 58p.

Tuckman, B.W. 2012. Conducting educational research. New York: Harcourt.

UNDP (2015). ETHIOPIA: Key Economic and Social Indicators. Ethiopia Quarterly Key Economic and Social Indicators produced by the Policy Advisory Unit, UNDP Ethiopia. No.2

Wambura, R., Acker, D., & Mwasyete, K. (2012). Extension systems in Tanzania: Identifying gaps in research (Background papers for collaborative research workshop). Retrieved from https://docs.google.com/file/d/0B0k_cmRaulGQQXZHdkk3bEZfNTg/edit?pli=1

Wiley, John and Inc, Sons, 2007. A practical guide to need assessment. Second edition. 989Market Street, San Francisco, CA 94103-1741.

Wuletaw Mekuria, 2010. Effectiveness of Modular Training at Farmer Training Center :the case of Fogera wereda. An MA thesis presented to University of reading.

YICDOL (Yardstick International College of Distance and Open learning), 2008. Fundamental of training. Training methods and techniques, module 1. Addis Ababa. Ethiopia.

YICDOL (Yardstick International College of Distance and Open learning), 2006. Basic ofExtension Education. Extension Methods and Approaches. Addis Ababa. Ethiopia.

Appendixes

Appendix -1

Addis Ababa University

College of Education and Behavioral Studies

Department of Curriculum and Instruction

Questionnaire for Trained farmers

The purpose of this open-ended questionnaire is to gather data for the research study entitled "**Impacts of FTC's in enhancing the livelihood of farmers in kutcha woreda".** Hence, you are kindly requested to provide your genuine responses. The information you provide shall remain confidential and it will be used for research purpose only.

Thank you in advance for your cooperation!

Instruction: Please write; make a circle on the choice or thick on the space provided.

Instruction 1: Personal Data: 1

1.1. Kebele----------

1.2 Age----------

1.3 Sex Male---------- Female----------

1.4. Marital status 1) married 2) single 3) widow 4) divorced

1.5. Educational level: - 1. Primary Education

2. Secondary education

3. Basic education

4. Illiterate

5. Higher Education

INSTRUCTION 2: The following are questions for trained farmers based on the facts which have taken place in the training.

Questionnaire for Trained Farmers

1. What do you think about the time allotted for modular training duration?

A) Sufficient B) Insufficient C) Too much

2. What is the proportion/mix of practical to theoretical modular training?

A) Equal B) More theoretical C) More practical D. others (specify)

3. Which training methodology was used? A) Demonstration B) Class lecture

C) Group discussion D) Field visit and experience share E) mixed F. others (specify)

4. Did you participate in FTC functioning? A) Yes B) No

5. If yes, in which activity did you participate? A) FTC construction B) Committee

Participation C) ploughing D) Demonstration activities F) others (Specify)

6. If no, what hinders you from that activity? Please jot down the reason(s). ----------
---
---

7. When did participatory extension practices started in this area? A. 2002 B. 1998

C. 2000 D.1999 E. other (specify)

8. When did you start to be a member of extension service? ----------
---

9. Who encouraged you to participate in extension training and services?

A. former members in the area B. self-initiation

C. DAs in the area D. local level administrators E. all

10. What new intervention did you observe following the introduction of extension practices?

A. road construction B. credit facility C. input supply facility D. market access

E. all F. others (specify)

11. What special services are given to extension members as compared to other members in this area?
A. training B. credit C. advice D. input supply E. all F. others (specify)

12. How is the access to the extension services?

A. accessed easily by those who are near to the center

B. accessed by DAs themselves C. by one to five representatives

D. by development leaders E. everybody can access it

13. Is there wealth difference in the society due to the training of extension system?

A. yes B. no C. other specify it

14. If yes, who are the beneficiaries? ----------

15. If you have said no, who are the losers?----------
---

16. Are the farmers in this area participating in agricultural activities willingly?

A. yes B. no

17. If no, what is the reason; please explain ----------
---

18. Would you continue to apply high yielding verities, use of fertilizers and pesticides without the involvement of any external supporter? A. yes B. no

19. If yes, why? Explain it ----------
---

20. If no, why? Explain it----------
---

21. When and how long did you train in FTCs? ----------
---

22. Do DAs appropriately prepared when they were trained you as trainers?

A. yes B. no

23. If no, why? Please explain it ----------

24. The extension agents are friendly and easily approachable regarding my farm problems?

A. yes B. No

INSTRUCTION 3:

PART 1: Answer the following questions inside the table based on the rank from 5 up to 1 according to your interest. Note:- Number 1 represents- very low, 2- Low, 3- Medium, 4- High,And 5- Very high

Table 1. Motivation of extension work.

	Extension Activities	Rank				
		5	4	3	2	1
1	Participating in extension education program helps in improving ways of farming /productivity					
2	Participating in extension education program helps to increase my income from the farm					
3	Lessons taught can easily be applied in my daily field activities					
4	I like to attend the extension education program because the DAs provide continuous support to help me apply and implement the information that was taught					
5	The extension system (through DAs) offers what I really need?					
6	The extension agents have the necessary quality in helping farmers					

PART 2: Fill the column according to your utilization of technologies.Note: 5- V. high, 4- High, 3- medium, 2- Low, 1-V. low and 0- Not at all

Table 2. Crop production and productivity of trained farmers

NO.	Extension activities	Evaluation method					
		5	4	3	2	1	0
1	Utilization of improved seeds						
2	Utilization of in organic fertilizers						
3	Utilization of pesticides and weedicides which are treated by agricultural experts						
4	Yield of productivity						
5	Achievement in food security						

PART 3: Fill the table based on your training on what stage you are present in health and personal hygiene. Note: 5- V. high, 4- High, 3- Medium, 2- Low, 1- V. low and 0- Not at all

Table 3. Trained farmers in case of their health and personal hygiene

No.	Extension activities	Evaluation method					
		5	4	3	2	1	0
1.	Aware to keep his/her personal hygiene						
2	Theyhavre good awareness in their about keeping themselves from infectious diseases						
3	They are aware to keep them from HIV/AIDS and other sexually transmitted diseases						
4	They have a knowledge of utilizing contraceptives to keep their family number by learning from health extension workers						

PART 4: Fill the table below as Yes and No according to your activities impact of training in FTCs. Note: 2- Yes, 1- No

Table 4. Trained farmers connected with economic improvements

No.	Extension activities	Evaluation method	
		Yes	No
1	Are you financially independent?		
2	Have you started saving in your kebele microfinance station?		
3	Have you improved your residence from the previous standard?		
4	Have you become the member of cooperatives in your kebele?		

Appendix -2

Addis Ababa University

College of Education and Behavioral Studies

Department of Curriculum and Instruction

Questionnaire for Development Agents

The purpose of this open-ended questionnaire is to gather data for the research study entitled "**Impacts of FTC's in enhancing the livelihood of farmers in kutcha woreda".** Hence, you are kindly requested to provide your genuine responses. The information you provide shall remain confidential and it will be used for research purpose only.

Thank you in advance for your cooperation!

Instruction: Please write; make a circle on the choice or thick on the space provided.

Part I: - Personal data

Work place---------- Sex---------- Age----------

Marital status----------

Educational level ----------

Field of study----------

Your current responsibility----------

Part 2: Answer the following questions.

1. Did you have training curriculum in your FTCs? A. yes B. No

2. If you have said no , how do you train farmers in FTCs? ----------
---

3. What was your activity at the time of training farmers to change their attitude to accept technologies in their farm lands?

A. By showing in the demonstration field B. By telling them in the FTCs theoretically

C. By using both methods which are mentioned above D. others (specify)----------

---

4. In your training of extension services, are the necessary materials available at the expected standard in FTCs (training curriculum and others)? A. yes B.no

5. If no, what was the reason; please mention some of the reasons, and how do traine farmers in FTCs?----------6. Connecting with your training at the FTCs at what level would you evaluate the participation of supervisors and SMSs in your center to help both you and training farmers?

A. very good B. good C. medium D. low

7. As compared with the former life of farmers livelihood of trained farmers has improved ------- A. very high B. high C. medium D. Low E. V.low F. Not at all

8. What were the major problems encountered by the farmers training centers in the provision of livelihood skill training? ----------9. Would you give equal right to all farmers in getting training access?

A. yes B. No

10. If no, what is the reason explain briefly, ----------

11.As you have seen at all from training time up to this period, what do you say as a lesson from training farmers about extension services in the FTCs?----------

---

12. Do you have any more points to add or to comment on?

13. When at the time of you gave training to farmers, would you have a managerial and leadership skill to mobilize the community? A. yes B. No

14. If no, what is the reason? Explain it ----------

Table 1 : The improvement of trained farmers after training in FTCs in the following areas as rated by DAs.

No.	Activities	Rate					
		Very High	High	Medium	Low	Very Low	Not at All
1	Livelihood						
2	Health and personal hygiene						
3	Saving						
4	The use of modern technologies such as improved seeds and pesticides						
5	Attitude toward adapting modern technology						
6	Evaluating supervisors, SMSs in participating in your center to help you and trainees						

Appendix -3

Addis Ababa University

College of Education and Behavioral Studies

Department of Curriculum and Instruction

Questionnaire for kebele Administrators

The purpose of this open-ended questionnaire is to gather data for the research study entitled "**Impacts of FTC's in enhancing the livelihood of farmers in kutcha woreda".** Hence, you are kindly requested to provide your genuine responses. The information you provide shall remain confidential and it will be used for research purpose only.

Thank you in advance for your cooperation!

Instruction: Please write; make a circle on the choice or thick on the space provided.

Part I: - Personal Data

Work place---------- Sex---------- Age----------

Marital status----------

Educational level ----------

Your current responsibility----------

Part 2: Questionnaire for Kebele Administrators in relation training in after the and the changes observed after the training.

1. Who select the trainees in your kebele? ----------
---

2. In your kebele would you adjust training times by not affecting the working time of the farmers?
A. Yes B. No

3. Are DAs in your kebele are interested in training of farmers in FTCs?

A. Yes B. No

4. Do DAs have a plan in training farmers in the FTCs? A. Yes B. No

5. As a kebele administrator, at the time of training farmers, what type of mechanisms are you used in your kebele to reduce drop out of farmers from training centers?----------

---

6. How do farmers in kebele use modern technologies? ----------

7. In your kebele, would trained farmers utilize technologies by their own initiation or by support and agitation of you and DAs ? A. By their own initiation B. By DAs C. By kebele administrators D. By both DAs and kebele administrators E. By coercion of wereda

7. At what level extension trainings in the FTCs changed the livelihood of trained farmers? A. Very High B. High C. Medium D. Low E. Very Low F. Not at All

8. If yes, at what level the changes you have observed in the livelihood of the farmers?

A. Very High B. High C. Medium D. Low E. Very Low F. Not at All

9. If no, explain the reasons for no changes? ----------

---

10. At what level the change in the life of farmers in their utilization of technologies?

A. Very High B. High C. Medium D. Low E. Very Low F. Not at All

11. At what level the change in the health and personal hygiene of trained farmers?

A. Very High B. High C. Medium D. Low E. Very Low F. Not at All

12. If your answer is no, what is the reason? ----------

13. At what level the changes in income generation or economic improvement of trained farmers?

A. Very High B. High C. Medium D. Low E. Very Low F. Not at All

14. Are trained farmers in your kebele started saving?

A. Yes B. No

15. What changes have you observed on the trained farmers in your kebele after taking the extension service trainings?

Appendix -4

Addis Ababa University

College of Education and Behavioral Studies

Department of Curriculum and Instruction

Interview for Subject matter specialists

The purpose of this open-ended questionnaire is to gather data for the research study entitled "**Impacts of FTC's in enhancing the livelihood of farmers in kutcha woreda".** Hence, you are kindly requested to provide your genuine responses. The information you provide shall remain confidential and it will be used for research purpose only.

Thank you in advance for your cooperation!

Instruction: Please write; make a circle on the choice or thick on the space provided.

Part 1: Background Introduction

Wereda Kutcha

Name of FTC----------

Serial number ---------- Interviewer full name: ---------- Date of interview ----------

Work place---------- Sex---------- Age----------

Marital status of the interviewee----------

Educational level ----------

Field of study----------

Your current responsibility----------

Part 2: Interview for /SMS/ On the Condition of FTCs Training.

1. Does the training in each kebele go with the standard given by Ministry of Agriculture and Natural Resource?

2. In your journey to FTCs, the FTCs are practice in the national standard?

3. Has the training changed the livelihood of farmers? How?
4. What changes the trained farmers got relation to the use of technologies to improve productivity, health and personal hygiene, saving, etc
5. At what level are the knowledge and skills of DAs in management and leadership necessary for the training?
6. How do you evaluate the training in FTCs in terms of materials and methods used?

Appendix- 5

Addis Ababa University

College of Education and Behavioral Studies

Department of Curriculum and Instruction

Focus Group Discussion with Trained Farmers

The purpose of this open-ended questionnaire is to gather data for the research study entitled "**Impacts of FTC's in enhancing the livelihood of farmers in kutcha woreda".** Hence, you are kindly requested to provide your genuine responses. The information you provide shall remain confidential and it will be used for research purpose only.

Thank you in advance for your cooperation!

Instruction: Please write; make a circle on the choice or thick on the space provided.

1. What are the challenges to FTCs?
2. What are the contributions of FTCs to: Livelihood of trained farmers?, Health and personal hygiene?, Productivity of farmers in comparison with traditional farming?, Saving, Family planning, Conservation of national resources, Quality of life.

3. As a trained farmer, when you compare your life or livelihood before training with after training, what changes have you observed?

   A. The quality of house you are living in is? (good, better or covered by corrugated iron or grass; express briefly, orally)

   B. Can you afford to get health service, if you or your family is getting sick? (yes, no then explain by comparison)

4. As you are a trained farmer, how do you lead your life or livelihood in case of: crop production, livestock production, health of you and your family, economic independence, saving , as a member of cooperatives, in control of HIV/AIDS and utilization of contraceptives
5. What have you benefited from the extension training you got?
6. If you have ever participated in extension education program, indicate the reason you were intended for attending? Village policy, desire to get knowledge to apply on my farm, convinced

by friend, want to learn new ways of farming , want to get awareness on market issues, be aware of the farm inputs subsides in my area ,get information on weather alerts for the season, others (specify)

7. Do you have any other additional opinion? Please mention some.

Appendix- 6

Addis Ababa University

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Interview for wereda Finance and Economic Development Office

The purpose of this open-ended questionnaire is to gather data for the research study entitled "**Impacts of FTC's in enhancing the livelihood of farmers in kutcha woreda".** Hence, you are kindly requested to provide your genuine responses. The information you provide shall remain confidential and it will be used for research purpose only.

Thank you in advance for your cooperation!

Instruction: Please write; make a circle on the choice or thick on the space provided.

1. Do you allocate budget for extension service trainings in FTCs? Do you think it is adequate?

2. If your answer is yes for question number1, how do you follow up the budget utilization in FTCs?

3. Is the budget allocated to each FTCs would be distributed on time?

4. Do you have good working environment with the wereda Agriculture and Natural Resource office on running the budget, and follow up of the budget term by term?

5. Would you visit the FTCs with in each training session and give comment on the use of budget allocated?

6. What changes have you observed on the livelihood of farmers who took the training?

Appendix - 7

Shaakko 1: Oychcha lohida Goshshanchchataw 1(Translated)

Azazo: Hayssappe kallidi diza sohotan xaafon woykko mallata ( ), (x) wotid inte zaaro be Ssite.

Asateta Hanota 1

1.1 Qabbale----------

1.2 Yeletha laytha----------

1.3 Matuma Ade---------- Macca----------

1.4 Gelo hanota A.Gelidaysa B.Gelibenaysa C.Brshshetidaysa d.Hayqon xay Dayyssaess

1.5 Timirtte deta A. koyro deta B.namʔanto deta C.Dometa deta D. tamaaribenaysa E.xooqa detaa

AzAZA 2 : Hayssappe kallidi diza oyshshati lohida goshshanchchatas lohisow wode be7etiy tumata zariyo oyshssha gidida gishshaw zarro imite.

1. Lohiso keethan lohisowan imetida ga7amo wode---------- A. gidees B.gidena guxxes C. gididka dares
2. Lohiso keethan lohiya goshshanchchatas othi bessonne othi bessoonta ogen imatishe takikida lohisoy ay malati?

A.giigashin B. dariya baggay othi beso gidena C.darya bagay othi beso D. haysappe karre gidikko yotitte

3. Goshshanchcata lohiso keethan imetiy lohiso go7etiza hilla oge aymale? A. othi besson B.qonccison C. cuggatobban D. oosetida oodo be7onne era shakkon E. hayssape dumma ogen gikko yootite

4. Goshshanchchata lohiso keethan neye gishaye dizeshen? A. ba7awa B. de7ees

5. Ne zaaroy e: A. luxeta keetha keexon B. komite ooson C. goshsha ooson

D. oothi besso xaban E. harra ooso bella

6. Goshshanchchata lohiso keethan oothi bessow shaakketenta gidikko shakket

Nta mala diggida gassoy aybe?----------

1. Inte heera issoy issowu era asso othi besso lohisoy domemetidoge awude? A. 2002 M.L. B.1998 M.L. C.2000 M.L. D. 1999 M.L. E. hayssappe dumma gidikko yottite

2. Nena ha goshsha ossiyo othi besso lohisonne hashshetethan gelidoy?----------

3. Nena ha goshsha ossiyo othi besso lohisonne hashshetetha osso walaketena mala oothiday oone? A. kasetid lohida goshshanchchati B. ta huphe C. qabaliyan be7etiya goshsha maddo ossanchchatan D.qabale kalletathan E. hara gidiko yoota

4. Goshshanchchata luxisiyo keethan oothi besso lohiso gammo wodiyan ay lamme be7ideti? A. oge meshsho B. tale7e hanota gigga C. goshsha osos koshshiyabata shishsho giggagididosa D. nu murutas giya hanotay gigga gididoga E. ubbanka F. haray de7iko yoota

5. Goshshanchchata lohiso keethan lohida goshshanchchatas gidini lohena goshshanchchatas ay mala mala maddoy oosetide? A. lohiso B. tali7eimo maddo C. zore imo D. goshsha maddo mishshata shishsho E. ubbaka F. haggappe dummabay de7eko yotta

6. Inite xellan assiyo oososi maddo imoy ay malati? A. goshshanchchata lohiso keetha heeran diza asatas B.goshsha oso keetha osanchchatas C. dichcha oso kalletisaysatas D. issowa ichcha kalletisaysatas E. ubba asaka dentethidi

7. Goshshanchchata lohiso ekkida asappene lohisowa ekkibena asa giddon dussa dichchanne mishsha haron diza dummatetay lamme de7i? A. e, de7es B. bawa C. hara qofay de7eko qonccisite

8. Bollan shiqida oyshshas ne zaaroy ‘e’ gidiko nam77appe go7etiday awaysse?----------
   ----

9. Paydo 13 shiqqida oyshshas ne zaaroy ‘bawa’ gidayssa giddonta gidikko nam77appe qohetiday awayss?----------
   ----

10. Heeran diza goshshanchchay ha oosowan hashshetiyoge ba dossane? A. ‘e’ dossan B.dossan giddena

11. Bollara diza oyshsha giddena gada zaariko gassowa qonccisa----------
    ----

12. Qaabale gidin linateoosanchcha dentethoy bayita murutagujiy maddabarenne guxxune dhale neppe ekkay? A. ‘e’ ekkays B. ekkike

13. ‘E’ onika dentethenta ekkays gikko qonccisa----------
    ----

14. Dentethoy bayintha ekka erkko gikko gaasowa qonccisa----------

15. Awudenne ayikkena wodes goshshanchchata lohiso ekkishe,lohiso keethan lohiso kalladi?---------
    ----

16. Goshshanchchata lohiso keethan lohiso ekkishe, lohiso imiza oosan chchati luxxisanawu giggidi yizona? A. ‘E’ B.imokona

17. Luxxisiiya oosanchchay lo7o giggi yidi lohiso ena gikko ne gikko ne giddo gassoowa qonccisa---
    ----
    ----

18. Qaabale goshsha ooso maddo immiza oosan chchay dexxoy bayinta ishshatetan ta metowa siyesi, ubbata kalli be7es. A.’E’, be7es B. be7ena

Azazo 3: Kalliya zaaran shiqqiza oyshshata nababada 5ppe 1 gasso diza paydotappe issowan malate wotta.

Zaara 1: Asiyo oosowa qaata dentetho hanota. Kekiso: 5- kehippe xoqqa, 4- Xoqqa, 3- gidotto, 2- ziqqa, 1- kehippe ziqqa, 0- osetiybena.

Paydo	Asiyo ooso hanota	Detha					
		5	4	3	2	1	0
1	Asiyo ooso mara luxxisowan shaakketada ta goshsha loythas Murutakka gujas						
2	Asiyo luxxisowan immetiya asiyo ooso maray ta gallas gallas hanota gigga oothisi						
3	Wodiyan wodiyan immetiya asiyo ooso maray ta gallas gallasa hanota gigga oothisi						
4	Asiyo mara luxxisuwa ta kalliyoge goshsha ooso maddiya oosanchchay tasi immiya pace banlinta maddowa go7ethana						
5	Goshsha ooso maddiya oosanchchay baggara immetiya luxxisay ta koyiyoga						
6	Goshsha ooso maddiya oosanchchay immya luxxisoy ay kena ne heera goshshnchcha maddisi gayi?						

Zaara 2: Haysappe garsara diza zaara giddon goshsha ooso maddiya mishshata go7 eta hanota xeelidi 4ppe -0 gasso diza paydotappe issuwan malatite. Haagan 4- daro xoqqa, 2-xoqqa, 2giddoto, 1- ziqqa,0- keheipe ziqqa Lolhida goshshanchchata muruta muritiso hanota.

paydo		Detha				
		4	3	2	1	0
1	Doretida zeeretha go7eta					
2	Bitta maddabare gozeta					
3	Shaarappanne guxxune dhiyisiyahale go7eta					
4	Muurutateta gujo nata					
5	Quman bana danddayo hanotan					

Zaara 3: Lohida goshshanchchata payatetanne barenta geshshateta naago hanota. Kekiso: 5- daroppe xoqqa, 4- xoqqa, 3- giddoto, 2- ziqqa, 1- keheipe ziqqa.

paydo	Payatetha naago maara	Makka mishsha				
		5	4	3	2	1
1	Ba huphph geshshatetha naaganaw danddiysiya era cuccumis					
2	Asape asako adhiya harggeppe bana naagana era dichchisi					
3	Edise harggeppene matuma gayetotetne yiza harggetappe bantana naggana era cuccumisona					
4	So asa dichcha hasi hasi yelo dhalen go7etan naago era demidosona					

Zaara 4: Haysappe garssan shiqqida oyshshatas “Ee” woyko “Akay” gadda goshsha luxxiso keethan luxxida goshshanchchata de7owan lohisoy ehida lammiya qonccisa. Kekiso: Ee- 2, Akkay- 1.

Paydo	Oosetida oosota	2	1
1	Asa kushe keelappe laa kiyasi		
2	Ta de7iyo qabalen diza makkron mishhsha qorppaysi		
3	De7o keetha ooso kaseppe lo7o hanotan kexxas		
4	Issippeteta ooso mabbaran gellasi		

Goshsha Dichcha Oosanchchas Shiqqida Oyshsha

Gilo 1: Hanota

Oso soho---------- Matuma---------- Laytha----------

Gelo Hanota----------

Timirtte Detha----------

Luxxido era----------

Ha7i diza awatetay----------

Gilo 2: Kalliya oyshshatas zaaro imam.

1. Ne diza heeran de7iya goshshanchchata luxxisiyo keethan immetiyda timirtte woga naggida ogen giggida timirtte? A. Ee B. Akkay
2. Ne zaaroy “akkay” giddikko goshshanchchatas luxxisoy ay ogen immetide?----------
   ----
3. Luxxisowa wode neni goshshan chchata eshowa lamada goshshanchchati barinta gaden goshsha murutisiya mishshata go7etana mala oothida oosoy aymale?

A. oothi besso sohowan qonccisowan

B. goshshanchchata luxxiso keethan qaalan qonccison

C. oothi bessowanne qlla qonccison

D. haray de7iko qonccisa

4 .Luxxisoy goshshanchchata lohiso keethan immetishe luxxisuwa immoy detha naagidage ?

A. Ee B. Akkay

5.Ne zaaroy “akkay” gidiko gassoy aybe? Watada luxxisuwa goshshanchchata lohiso keethan immadi? ----------

---

6. Qabale piligi xeelo oosanchchtenne worada eranchcha cugati nesi giddin goshshanchchatas immido kafiya wata xeelay? A. daro lo7o B. lo7o C.giddoto D. ziqa E. kehippe ziqa

7. Luxxida goshshanchchata ha7inne luxxetappe sinthan etasi diza de7owa hanotanne lammiya wata xeelay? A.daroppe lammetis B. laametis C.giddoto D. ziqa E.kehippe ziqa

8. Luxxida goshshanchchati luxxetappe kassonne ha7i barinta payatethanne geshshateta naaguwayida lamme ay mala gayi? A. kaseppe laammetiday baa B. laammetis

C. kaseppe ubba ittis D. kumetha eta dussay kasse diza gade woga dussappe laammetis E.harabay de7iyko qonccisa

9. Luxxida goshshanchchati mishsha qoraphiyo hanota ne piliga xeelishene ay malati ?

A. ubbayka qoraphe dommida B. baggay qoraphe dommida C. ubbayka dommibokkona

D. harabay de7iko qonccisa

10. Goshshanchchatas shiqqqiya muruta gujiya mishshati heera carkkwa honotara ginati?

A. Ee B. Akkay

11. Akkay gikko ne gassuwa qonccisa?----------

---

12. Goshshanchchaxoqqati goshshanchcha lohiso keethappe simishshin de7iya xoqqa mettoy aybe?----------

13. Goshshanchchata luxxisayda ubba goshshanchchata gina mokkaekkay? A. Ee, ubba gina mokkays
B. Akkay,hanida kena mokowos C. akkay dummtetay de7es

14. “Akkay” gikko, nam77a garsan diza dumateta gassowa qonccisa?----------

15. Goshshanchchati lohisowappe guye tekkinolge go7eteta hanotay ay male?----------Goshshanchchati goshshanchchatu tammariyo kethan tamariddi goetobapappe goshsha dichcha ossanchchatu ayppeiyan beetishshin hegappe garssan beadda kuntha. Kekiso:

5-Daroppe xoqqa, 4- xoqqa, 3- Gidoto, 2- ziqa, 1-kehippe ziqa, 0- osetibena.

Paydo	Poloti	Rate					
		5	4	3	2	1	0
1	Dusa lammidaga						
2	Payatethane geshshatetha nages						
3	Minja minjiyo maran						
4	Bitta madaberiyane sharapane dumma dumma itta batta worriya xxaliy goettosona						
5	Qoffa wodiya technonlogiya goetanaw lammida						

Shaakko 3:

Qabale ayso kallotas goshshanchchata luxxiso keetha keetha immetiya lohiswan betide laameta hanota xeelliaga.

1.Lohiya goshshangoshshanchchata qabaleppe doryaye onne?----------

2. Goshshanchcha luxxetas doretida wode goshshanchcha goshsha ooso wodiya bochchonta ogen doretide? A. Ee B. Akkay

3. Goshsha dichcha oosanchati goshshanchcha luxxisiyo keethan goshshanchchas immiyo lohisowa immishe barintappe dendiduffaytidi immiyona? A. Ee B. Akkay

4. Goshsha dichcaoosanchchati immiyo lohiswa immanappe sintha luxxisowas giggidi yizona?

A. Ee giggisona B. akkay bawa

5. Goshshanchchati lohisowappe qanxxi attenadan oothanaw ay ogeta go7eteti?----------

---

6. Goshshanchchata wodiya "teknologe" go7eteta hanota wata xallay?----------

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7. Ha asiyo "istiretege" lohisoy goshshanchcha de7owa laammiya malati? A.Ee B. Akkay

8. Ne zarroy Ee giddiko neni beasi giyo lammetappe amarageta qonccisa----------

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9. Ne zarroy akkay giddiko lammey yibena gaassoti aybakkonne qonccisa----------

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10. Lohisowan oykketidi goshshanchchata goshsha dichcha gujiya mishshata go7eten lamme de7i?

A. Ee, de7es B.Akkay bawa

11. Lohida goshshn chchatas payatethanne barinta geshshatetha naago hanotan yida laamme de7i bawe?
A. de7es B. bawa

12. Ne zaaroy akkay gidikko gassoy aybe?----------

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13. Lohiyda goshshanchchatas dussa hanota lammene mishsha qorapho dichchay de7i bawe?

A. de7es B. bawa

14. Inite qabaliyan lohida goshshanchchati mishsha qorapho dommidona? A. dommidosona

B. dommibokona

15. Lohiyda goshshanchchata bolla lohisoppe guye

be7ido lamme ay male?----------

Shaakko 4

Goshsha dichcha oosanchchatasnne piligi xeliyane kafiya eranchchatas shiqqida qaala oyshsha.

Shaakko 1- kumetha xeelonne gelo

-worada----------

Luxxisya keethay de7iya sohoy (kabala)----------

Shaako paydo ----------Laytha----------

Luxxida era qommo----------

Ha7i diza ooso awateta----------

Shaakko 2:

1. Immetide diza goshshanchchata lohisoy goshshanne medheta haaro mocconappe immetiza gigga luxxiso detha mara kallida hanotan immeti?-
2. Immetiya goshshanchchata lohisoy goshshanchcha dussa lammiya malati?
3. Qabaliyan immetiya lohisoy kumetha dere dethan immetiyagara gine?
4. Lohida goshshanchchati goshsha dichcha gujiya mishshata go7etan murutatha dichchan, barinta payatethanne geshshsateta naaganwenne mishsha qoraphowan bessida esha lamme de7i?
5. Lohiya goshshanchchata aysowaninne kalliso eray goshsha dichcha oosanchchatas diza eray ay dethan dize?
6. Lohisow goshsha dichcha gujiya mishshata go7etetha maran watada piliga xeelay?

Shaakko 5:

Cuga tabba lohida goshshanchchatara, goshsha dichcha oosanchchtara, qabale aysotaranne woradappe shiqqida era chchataranne worada mishshanne dichcha ooso keethara.

1. Lohisowa woden meto getetidi shaakketida bati aybe aybe?
2. Goshshanchchata luxxiso keetha immothay aybe? Haysappe garssara shiqqida cachchata maran xeelishe:-

- Lohida goshshanchchata hanotara
- payatethanne geshshateta naago hanotara
- muruta gujoy koyiro diza hanotara
- mishsha qorappo hanotara
- So asa dichcha naago hanotara
- Medheta haaro naago hilla hanotara
- Dussa detha dichchidi dussa hanotara

3. Lohisoppe Guyenne sintha de7iya dussa hanota xeelishe mishsha pulluto medhin ne dussa bolla be7ida laamme:-

- Nayta luxxisos qanxiyo mishsha baggara
- Ne dussa keetha kexxo baggara
- Ne heeran diza payatetha naago keethan go7eta hanotara

4. Ane lohida goshshanchchadan ne dussa watada kalletisayda de7ay?

- Muruta murutisonne muruta gujo hanotara
- Mehe haro hanotara
- Ne ganne so asa payatetha naago hanotara
- Mishsha asappe naago hanotappe nena la7a keso hanotara

- Mishsha qoraphpho hanotara
- Isspeeteta ooso cuga hashshetiyoga baggara
- Eedise harggeppe naaggoteanne yeleta dichcha naago hilla go7eta kallo baggara

5. Neni lohisowappe demida go7a watada qonccisay?
6. Ha lohisowan neni gelana demdayda ogeya qonccisa
    - Heera naago kitan
    - Ahisowan lohada go7etan koyida gishsha
    - Ta laggeti tana ammantin
    - Orata orate goshsha hillataeranas tasi diza qofappe
    - Ta murutas giya giya koshshappe dedidagan
    - Goshsha dichchiza wode mishshata eranas tasi diza ammoppe dedidaggan
    - Heera eaccisarko hanota era demmans diza qofappe
    - Haray de7ikko gujada qon

Saakko 6:

Worada mishsha dichcha giggiso ooso keetha qaala oyshshas shiqqidaysa.

Shaakko 1

Ooso bessa---------- Matuma----------Laythay----------

Gelo hanota----------

Timirtte detha----------

Luxxido timirtte qommo----------

Ha7i diza ooso awateta----------

Shaakko 2:

1. Inte goshshanchchata luxxeta keethas halchchida mishshay giddesinne gigga geti?

2. Bolla oyshshas zaaroy “Ee” gidiko ha mishsha go7eteta ente baggara kalli be7oy ay male?

3. Ha inte goshshanchchata luxxiso keethas battida mishshay wodiyan luxxeta keethas gakki?

4. Intenne goshshanne medheta haaro naago ooso kethay issippe giggan oothiya hanotaynne inte kalli xeeloy ay malati?

5. goshshanchchata luxxiso keetha lohisowan mishsha go7eta hanota kalli be7eti?

6. Ha kalli be7owan inte be7ida laamme lohida goshshanchchata matan aymalati?