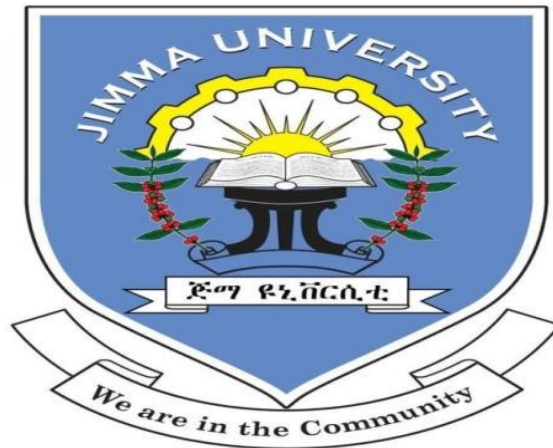


**The Role of NGOs in improving the Livelihood of Smallholder Farmers in Bako-Tibe Woreda of West Shoa Zone, Oromia: A Case Study of Bako Agricultural Research Center (BARC)**



**COLLEGE OF LAW AND GOVERNANCE**

**DEPARTMENT OF GOVERNANCE AND DEVELOPMENT STUDIES**

**Thesis submitted in partial fulfillment of the requirements for obtaining  
Master of Arts Degree (MA) in Civics and Ethics**

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## DECLARATION

This is to certify that the thesis prepared by Efreem kebede Kitata Entitled: The Role of NGOs in Improving the Livelihood of Smallholder Farmers in Bako-Tibe Woreda of West Shoa Zone, Oromia: A Case study of Bako Agricultural Research Center and submitted in partial fulfillment of the requirements for the of Master of Arts degree (MA) in civic and ethics complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

### Approved by Board of Examiners

Chairman, Department Graduate Committee	Date	Signature
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Examiner, External	Date	Signature
Examiner, Internal	Date	Signature

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**List of Acronyms and abbreviations**

ATA- Agricultural transformation agency

BARC- Bako agricultural research center

CDRA-Christian development relief association

CNF –Cultivating new frontier in agriculture

FGD- Focus group discussion

FSC- Farmer service center

GTZ- German technical cooperation

GSO- Grassroots support organizations

INGO- International non- governmental organization

IFAD- International fund for agriculture development

KA- Kebele Administration

MEDAC- Minister of economic development and agricultural cooperation

NGO- Non-governmental organizations

NNGO- National non- governmental organization

ORESPO- Oromia regional economic and social planning office

URT- United Republic of Tanzania

SPSS- Statistical package for social science.

WAO- Woreda agriculture office

WB- World Bank

WARDO- Woreda agriculture and rural development of office

## ***Abstract***

*The purpose of this study was to investigate the role of NGOs in improving smallholder farmer living condition in Bako-Tibe woreda and identified the practice, challenges and awareness on the program. The organization focuses on Increase production & productivity of crops and animal resources, Sustainable management & utilization of natural resources and Enhancing food security and food self-sufficiency. Sampling technique used in this research was purposive sampling method by which Bako-Tibe woreda was selected from the 18 woreda of west shoa zone of Oromia regional state. The criteria for the selection of this woreda are the presence of BARC And from 28 kebele, the researcher was selected five kebele through purposive sampling techniques. The criteria for the selection of kebele was the presences of NGOs which provide agricultural support in those kebele and the presence of large number of farmer group And From 87 staff members, the researcher was selected 6 employees from staff members through purposive sampling techniques. The criterion for the selection of staff members was based on willingness and responsibility in the organization.*

*A descriptive survey research design was used to achieve the purpose of the study. Furthermore Qualitative and quantitative approach was used so as to come up with adequate /proper findings On top of this, for this study, the data gathering were questionnaire, interview and focus group discussion and document review and observation check list. Accordingly, the research sample size was composed of 135 farmers and staff members respondents were selected through simple random sampling. But 103 of them were collected back and 6 questionnaires distributed for the staff members also returned. Data collected using these instruments were analyzed using descriptive statistics percentage and frequency, graph and charts by the help of SPSS besides, thematic analysis was used to analyze qualitative data.*

*The findings of the study showed that the majority of both farmers and staff members were also revealed that education, skill gap, deforestation, market chain, ethnicity problem, weak involvement of regional and local government, weak motoring and evaluation method by BARC and lack of knowledge were the major challenges that observed Bako agricultural research center is currently facing in Bako-Tibe woreda. Therefore, the research has forwarded recommended like the need for continuous training, appropriate technology, diversified market and comprehensive regional policy for effective use of local resources and monitoring and evolution after provided training by BARC and should be cooperatively working together with woreda agriculture office and other stakeholder and both BARC and WAO should be more strength Law and Regulations on ethnicity conflict based on using local natural resources and deforestation activities in selected kebele of Bako-Tibe woreda.*

## **CHAPTER ONE**

### **INTRODUCTION**

This chapter deals with background of the study, statements of the problem, objectives, significance of the study, scope, limitation of the study, and organization of the study.

#### **1.1 Background of the Study**

The need to address a wide range of problems adversely affecting vulnerable groups prompted the emergence and growth of non-governmental organizations (NGOs) globally as we experience them today (De Waal, 1997: 66–68). According to URT (2001), “an NGO is a voluntary group of individuals or organizations which is autonomous and not-for-profit sharing; organized locally at the grassroots level, nationally or internationally for the purpose of enhancing the legitimate economic, social and/or cultural development or lobbying or advocating on issues of public interest or interest of a group of individuals or organizations.

The famine of 1970’s and 1980’s has largely contributed for the influx and emergence of NGO’s in Ethiopian (CDRA, 2004) But NGO’s emerged in Ethiopia in 1930’s as a result of urbanization and economic development. NGO’s are usually community based organization and they develop and works on several projects which help people change their lives. NGO’s also teach people in their respective communities how to lead a better life than they do right now. While some run free education, others teach people basic knowledge that can help them get jobs and earn money rather than give them money directly, these teachings have been seen to improve the levels of their lives at different level with foreign donor funding drying up or reducing significantly in many parts of the world. NGO’s have been recognizing that for a greater sustainability for their work they are going to encourage more local resources mobilization Harri, (2011)

For instance, Salami et al.(2010) argue that most community groups “activities occur in farming systems with the family being important in planning, decision making and implementation of the projects. Such groups also operate within a community level network of relations, the argument continues. To this aspects, Barham and Chitemi (2008) and Anriquez and Stamoulis (2007) add that expansion of smallholder farming through their organized groups stimulates faster rate of poverty reduction. In addition, smallholder farmer groups mediate in intra-community conflicts, build infrastructure, attract other development actors (such as donors,

NGOs) into the community and help many individuals to work more effectively and collectively (Resnick, 2004).

According to Streeten, 1997, some of the functions of NGOs include the following: they are good at reaching and mobilizing the poor and remote communities, they help empower poor people to gain control of their lives and they work with and strengthen local institutions, they carry out projects at lower costs and more efficiently than government agencies and they promote sustainable livelihoods development and to help smallholder farmers to realized food security. Therefore, Different NGO's are working in Oromia with different objectives to achieve the goal of community through voluntarily. There are 53 International non-governmental organization (INGO's) and 176 national non-governmental organization (NNGO's) in the region of which above 35 INGO's and NNGO's are working in west shewa zone of different woreda's, Mostly their roles are on education, health, food security, water, agriculture, HIV/AIDS, economic empowerment, forestry and integrated services. (MEDAC, 2004). However, Bako Agricultural research center is one of the NGO's working Bako-Tibe woreda. The agricultural research center in Bako-Tibe woreda was established 1965 E.C with an agreement signed between the Federal Republic of Germany and the Government of Ethiopia. The general objective of the center are identification prioritization of Increase production & productivity of agriculture and animal resources, Sustainable management & utilization of natural resources, modern plant/vegetation product and Enhancing food security and food self-sufficiency.

It works with smallholder farmers and help them to manage their local resources so as to ensure their future, bridging communities with the market to sell products or earn greater incomes from better management of livestock or crop production, plant/vegetation products and environmental/resources protections, the respect of supporting farmers, pastoralists and forest dwellers with the equipment and know-how to used farming their land system, improved seed, giving training on agriculture.(BARC,2011) Therefore, in order to ensure the effective and efficient implementation of the program, it is necessary to identify its strengths, weakness, threats and opportunities through research and then to propose possible scenarios of retaining the achievements, for correcting the weaknesses /challenges for preventing possible threats and for harvesting the opportunities.

## **1.2. Statement of the Problem**

Livelihood is a comprehensive concept that involves access to resources and activities that households undertake in order to secure their means of subsistence and strategies that they pursue under both normal or abnormal /crisis situations. According to Degefa (2005:10), households that lead sustainable livelihood often feel food secure throughout the year realigning crop cultivation and/or livestock rising or through running own non-farm ventures or to work with somebody else. As he further explains, a household is food insecure when it is incapable of sufficiently feeding its household members from its own production or purchase from the market in return to own cash, which may be earned from the exchange of self-endowment.

WB report of 2008 stated that, smallholder farmers worldwide represent 2 billion people, the majority of which are unable to live on farming as their dominant and sole livelihood strategy, rather being many of them are women and subsist on non-farm and off-farm additional activities. Therefore, Ethiopia is a country of predominantly smallholder farmers. As it is stated by Gezahegn et al. (2003:29) reducing household food insecurity, agricultural diversification through intercropping, relay cropping and even double cropping is widespread in Ethiopia.

As it is stated by Getahun (2003) even though farming has long tradition in Ethiopia and has served as important sources of food, agricultural production and productivity in Ethiopia is below the national requirement. Agricultural productivity in the country is constrained by backward agricultural technologies, population pressure, environmental and natural resources degradation, poverty, inadequate infrastructure and social services and inappropriate policies, which in turn cause food insecurity.

However, the researcher as worked in Bako-Tibe woreda, the smallholder farmers life in selected kebeles is mostly dependent on subsistence farming. Besides, the local farmers engaged especially selling of plant/vegetation products, coffee, mango, green peppers, and bee-keeping and honey production, as the major sources of income generation. However, with a population growth, the lives of the smallholder farmers who depend on the local resources are under enormous threat especially from natural resources degradation and deforestation. From field visits and some discussions with the locals smallholder farmers and BARC, environmental challenges such as deforestation and land use change from forest land to agricultural land had

significant detrimental economic impacts on smallholder farmers especially living adjacent to forest areas. In addition to this, The smallholder farmers in the study kebele areas suffered by high level of illiteracy and skills gap, limited access to financial services, problem of market chain, ethnicity problem based on using local natural resources specially land use conflict between livestock keeper and cultivator, deforestation, weak involvement of regional and local governments, weak monitoring and evaluation of training programs method by BARC and lack of knowledge were the major challenges that observed Bako agricultural research center currently facing in Bako-Tibe woreda. Therefore, these problems related issues initiated the researcher to do research on this topic fill. Therefore, this study aimed at investigating the roles and contributions of the BARC in improving the livelihood of smallholder farmers in selected kebele of Bako-Tibe woreda and the challenges that may hamper the implementation of its programs.

### **1.3. Research Questions**

The research answers the following basic questions.

- 1) What role and contributions do BARC play in improving living condition of smallholder farmer in selected kebeles of Bako Tibe woreda?
- 2) What are the challenges that facing the BARC in the implementation its programs in selected kebeles of Bako-Tibe woreda?
- 3) What are the measures taken to address the challenges that hamper the implementation of BARC programs in selected kebeles of Bako-Tibe woreda?
- 4) What are the effectiveness and efficiency of the measures taken to address challenges that hamper the implementation of BARC programs in selected kebeles of Bako-Tibe woreda?

### **1.4 Objective of the Study**

#### **1.4.1 General objective of the study**

The general objective of the study is to investigate the role of NGO's in improving the livelihood of smallholder farmer in selected kebele of Bako-Tibe woreda of west shewa zone, Oromia: A case study of Bako agricultural research center.



#### **1.4.2. Specific objectives of the study:-**

- To assess the role and contributions of BARC to improving livelihood of local smallholder farmer's in selected kebeles of Bako Tibe woreda.
- To identify the challenges that facing the BARC in the implementation its programs in selected kebeles of Bako-Tibe woreda.
- To examine the measures taken to address the challenges that hamper the implementation of BARC programs in selected kebeles of Bako-Tibe woreda and
- To examine the effectiveness and efficiency of measures taken to address challenges that hamper the implementation of BARC programs in selected kebeles of Bako-Tibe woreda.

#### **1.5. Significance of the Study**

This study has been give better information about the role of NGO's in improving smallholder farmer's livelihood and provides significant benefit for the region in general and for the BARC in particular. Specifically the study is expected:

- To provide adequate information to the Bako agricultural research center about their activity in the kebele.
- To help the Bako agricultural research center to clearly identify different problems associated with their role.
- To help the Bako agricultural research center for better actions in improving the livelihoods of smallholder farmers.
- To assist the Bako agricultural research center for better planning.
- To giving constructive information for the concerned authorities of Bako Tibe woreda to make necessary measures to enable smallholder farmers to diversify their livelihoods.
- to respond to their smallholder farmers food insecurity, informing the concerned governmental and non-governmental organizations that work on food security areas.
- To provide information for the regional government and it opens grounds for further investigation.

#### **1.6. Scope of the Study**

The aim of this study is to investigate the role of BARC in improving the living condition of smallholder farmers in selected kebele of Bako-Tibe woreda. Hence, the study will be delimited/scope to five (5) kebele selected from Bako-Tibe worada of west shoa zone, oromia.

The names of kebeles are Bechera Oda Gibe, Amerti Gibe, Cheka Dimtu, Oda Gudeya and Oda Haro.

### **1.7. Limitation of the study**

The study was not free of limitations. Some of the limitations during the study were the following.

- Time is a major limiting factor because of over loaded work.
- Lack of sufficient budget.
- Lack of accurate information / data source.
- The other constraint was the long time taken to fill and return questionnaires on farmers respondents.
- Lack of return some questionnaires from smallholder farmers' respondents.
- Lack of finding research related to my thesis.
- Political problem/consideration by local people. However, the researchers overcome the encountered problems by visiting repeatedly.

### **1.8. Organizations of the study**

This work is organized in the following chapters:

Chapter one: discuss the introductory part of the study including, the background of the study, the statement of the problem, the objectives of the study, the research question, The scope of the study, the significance of the study and lastly the Organization of the study. Chapter two: Reviews the definitions of the concepts and other related key issues in the existing literature. The third chapter: Encompasses the methodology used in data collection and analysis. Chapter four: includes interpretation of data obtained in relation to the given objectives. The fifth chapter: includes summary, conclusion and recommendation drawn from the study and lastly Reference, appendixes and Photo are also attached to the end of the thesis.

## **CHAPTER TWO**

### **General Literature Review**

This chapter sets out to review the existing literature under the study. In this section, there is presentation of reviews the definitions of the concepts and other related key issues in the existing literature, this help contribute to the understanding of the discussion pertaining the study.

#### **2.1. Concepts and Definitions of Key Terminologies.**

##### **2.1.1. Non-governmental organizations.**

Like other civil society organizations, NGO has no commonly agreed upon definitions globally. NGOs in their broader definitions are “associations formed within civil society bringing together individuals who share common purpose. In the Ethiopian context, as defined by German technical Cooperation (GTZ) 2001), the term is broadly used to denote an organization that meets the following requirements:

- NGO’s are voluntary in their genesis.
- NGO’s engage in relief, service delivery, and advocacy or development activities.
- NGO’s are non-profit or self-serving organizations working to serve the disadvantaged groups of the society.
- NGO’s are non-political.
- NGO’s have no permanent program interest or geographical context.

##### **2.1.2 Rural livelihood**

According to Desalegn, 2008, 1, rural livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living. The author further explains the sustainability of a livelihood; he stated that a livelihood is sustainable if it can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets and provide sustainable livelihood opportunities for the next generation, and which contributes net benefits to other livelihoods at the local and global levels and in a short and long terms.

##### **2.1.3 Smallholder farmers**

Smallholder farmers are defined in various ways depending on context, country and ecological zone. This explains interchangeable use of the term „smallholder“ with „small scale“, „resource poor“ and „peasant farmer“. According to Dixon et al. (2005), the term smallholder refers to

their limited resource endowment relative to other farmers in the sector. This view is incorporated in the definition of Ellis (1999), that smallholder farmers are farm households with access to means of livelihoods in land relying primarily on family labor for farm production to produce for self-subsistence and often for market sale.

## **2.2 Smallholder Livelihood Strategies**

As World Bank (2003: 51) stated, small producers on family farms are those who linked to markets, but have limited assets. This literature also suggested that, these farmers produce a large share of the developing world's food products including rice in Asia, vegetables for domestic markets all over the world, and milk in India and East Africa. These farmers are often poor and operating both in favored and less-favored areas and generally relies on diversified production systems and may have important off-farm livelihood activities. With improved market opportunities, many of these farmers can build their asset base and make the transition to commercially oriented farming. On the other hand, this same source continued describing the smallholder farmers as subsistence oriented farmers that frequently operate in less-favored production environments and lack most of the assets. They have varied livelihood strategies, often operate outside of the market and are prone to high levels of poverty and food insecurity. Within this group, part-time farming is growing in importance accounting for a significant share of family income.

Livelihoods that have the potential return and basically engaged by the target groups are important in achieving a sustainable livelihood. Thodaro and Smith (2003: 284) forwarded that, three basic factors are necessary conditions for agriculture and economic development in general. These include: first accelerated output growth through technological, institutional and price incentive changes desired to raise the productivity of smallholder farms. Second, rising domestic demand for agricultural output derived from an employment-oriented urban development strategy and; third, diversified non-agricultural, labor-intensive rural development activities that directly or indirectly supports and are supported by the farming community. Similarly the quality of the practitioners and the duration of the work are important factors to classify livelihood activities of an area or a country or a society.

### **2.3 Constraints to Livelihood of smallholder farmers**

There are considerable factors that can be pointed as the constraints of the livelihoods diversification in the global contexts. For instance, Reardon, (1997) stated that unequal access to non-farm opportunities are the main cause for poor farmers in Sub-Saharan African countries not to participate in non-farm activities. Similarly unequal access to land holding and non-farm earnings are the other dominant constraint that cause the land less and the limited land owners to engage in non-farm activities because of their land scarcity. For instance Reardon,(1997) Barrett, (2000) and Reardon et al (1992 ) stated that farmers with large land holdings diversify better than farmers with small landholdings and farmers who are near to towns and access to market centers diversify better than those who are far from the market sources and with infrastructural problems. The same is true with wealth differentials, in that richer groups diversify better than the poor households. Therefore, limited access to capitals and other social and economic resources are the most important controlling factors in participation in diverse livelihoods. These factors are also working in the case of Ethiopia and this study is aimed at finding out whether these factors are working particularly in Bako-Tibe Woreda.

### **2.4 Agriculture improvement in Ethiopia.**

Ethiopian agriculture is dominated by smallholder farmers in rural areas and therefore the sector faces several challenges including limited market and market access and poor infrastructure, high costs and limited access to improved inputs and production technologies. Simply put, the question of what NGOs and community groups is summarized in three activities of: implementers, catalysts and partners. Through community groups, efforts of the people are combined with those of development actors (such as NGO, government) to improve socio-economic and cultural conditions of the communities (Akinola, 2008). Akinola further argues that community groups provide an avenue for people to organize themselves for planning action, define their common and individual needs and problems and offer solutions thus facilitating rural development. However, NGOs may not necessarily have positive influences especially in situation where they get locked within unidirectional processes of change and in circumstances where they impose their own agenda and become self-interested actors at the expense of the people they are supporting. World Bank (2007) argue that success in agricultural development necessitates a large number of investment and policy

Measures. These include improving farmer and agro industrial access to markets, investments in infrastructure, information supply, rural education, regulation and policy.

## **2.5. Overview of factors influencing implementation of Agricultural projects**

There are several factors that contribute to agricultural productivity, and these factors influence agricultural projects implementation. Environmental factors aside, economic factors, technological factors, and issues of benefits from farm activities are the main such factors. While environmental factors have tremendously contributed to poor agricultural production with climate change aspects responsible for average temperature variations, leading to increased frequency and magnitude of extreme weather events (Mirza, 2003), resulting in drastic weather conditions have led to drought and floods, limiting the implementation of agricultural projects and programs, attention should be paid to the development of needed infrastructures to improve the quality of the environment, the integration and cooperation of various agencies and the maximum participation of the citizens. The main factors in agricultural productivity seem to be land use and land ownership; use of agricultural inputs, extension services and market availability. These factors have a cultural dimension of gender that also influences and contributes to the productivity. In the literature review, each of these factors is reviewed individually, and those impacted by the cultural dimension of gender, analyzed with this in mind.

### **2.5.1 Economic factors**

The most direct contribution of agricultural growth is through generating higher incomes for farmers. Two conditions affect the influence of this on poverty. First, there is the degree to which the poor are engaged in farming which determines the farm income levels and secondly condition is the extent to which output growth raises incomes. Should increase output drive down product prices, or costs of production rise as the demand for inputs increases, the rise in gross margins may be small. In particular, if land is scarce, increased returns to agriculture may be reflected in higher land rents. In cases where the poor till land belonging to others, the capitalization of benefits into higher rents could seriously undermine the contribution to poverty reduction (Kobayashi et al., 2007). When output increase is due to technical innovation, benefits to the poor who farm, and for whom farming provides the majority of their income, may be limited for several reasons. First, adoption by the poor can be limited due to lack of access to inputs and to the knowledge necessary to use the technology, as well as by a scale bias in the new technology - as, for example, when inputs are indivisible, such as with some machinery.

Secondly, market imperfections or policies that limit the access of small farmers to inputs, including credit. Poor farmers may be more risk-averse than wealthier ones and therefore unlikely to adopt techniques that increase the variance of yields. Finally, new technology might not suit the agro-climatic conditions typical of many smallholdings.

### **2.5.2 Farm income levels**

Even if the majority of the world's poor live in rural areas - estimates vary from around 60% they do not necessarily engage in farm activities. Jazairy et al. (2002) found that, for a sample of 64 developing countries, 64% of the 'functionally vulnerable' (that is, in this case, the rural poor) were smallholders who can gain directly from on-farm production growth and 29% were landless. The extent of involvement in farming varies geographically, so that in sub-Saharan Africa smallholders typically account for 77% of the poor, where as in Asia the comparable figure is less than half (reported by Cox et al., 2007). But even when the poor do typically farm, their production is often small: indeed many smallholders, even those who grow food crops mainly for their own consumption, may have to buy in food. Incomes from farming may thus make up only a small fraction of their total income.

### **2.5.3 Technology Adoption**

When output increase is due to technical innovation, benefits to the poor who farm, and for whom farming provides the majority of their income, may be limited for a number of reasons. First, adoption by the poor can be limited (Hazell and Haddad, 2001) due to lack of access to inputs and to the knowledge necessary to use the technology, as well as by a scale bias in the new technology for example, when inputs are indivisible, such as with some machinery. Secondly, market imperfections or policies that limit the access of small farmers to inputs, including credit. Poor farmers may be more risk-averse than wealthier ones and therefore unlikely to adopt techniques that increase the variance of yields. Finally, new technology might not suit the agro-climatic conditions typical of many smallholdings. For instance, the adoption of the first wave of green revolution cereal varieties was largely confined to irrigated areas with good soils, and even then required major inputs of pesticides and fertilizer. In contrast, many of the rural poor live in rain fed areas and arid and semi-arid zones (Lipton, 2001). When technology and policies are biased against smallholders, agricultural growth can even have perverse effects on poverty. For example, technical change can result in an increase in

landlessness as large farmers and landlords expand their cropped area by taking in land 10 previously rented out or by appropriating previously common land and Generating higher incomes being the key factor of farmer participation in agricultural activities; will enable the researcher to find out how farm economy influence implementation of agricultural projects in BARC.

#### **2.5.4 Land**

Land in Kenya is highly concentrated and unequally distributed across the regions between income groups and by gender. Land inequality is highest in the Coastal region, followed by the Western, Eastern and Northern regions. Land is concentrated among the wealthier households and inequality is higher in urban than rural areas. There are deeply rooted gender biases in land ownership rights: male-headed households hold between 80% and 90% of the ownership rights of the land available in Kenya (Nayenga, 2008). Land is both a 'social' and economic asset. As an economic asset, land works either as a financial tool or production tool. Land as a production tool is essential in production of agricultural goods. At the same time, land can be held as a hedge against inflation and for speculation. In so far as land is a factor of production and a store of value, it also has great social and political significance. Access, ownership and use of land in society depend on the legal structures governing land access and use.

In fact, people do not participate in projects unless they believe that they are in their best interest to do so. For instance, farmers must see an advantage or expect to obtain greater utility in adopting a technology. In addition, farmers must perceive that there is a problem that warrants an alternative action to be taken. Without a significant difference in outcomes between two options, and in the returns from alternative and conventional practices, it is less likely that farmers, especially small-scale farmers will adopt the new practice (Abara and Singh, 1993). Farmers may receive little long-term benefits from technological adoption, which negatively influences adoption.

#### **2.5.5 Gender issues in Agricultural projects**

Gender has a direct influence on most aspects of human behavior. Gender is culturally ascribed through a system of social, economic, political and historic relations and these relations shape its interactions with population and development (FAO, June 2000). Gender issues therefore have a relationship with agricultural development activities and are therefore considered as one of the



factors that could influence participation in agricultural production activities. Among the factors in this dimension include land ownership, land use, use of agricultural inputs, extension services and market availability.

## **2.6. Measurement taken to address the challenges of implementation of agricultural development project**

Despite the woes highlighted by the violence surrounding competition for natural resources such as conflict diamonds, natural resources can play a positive role in conflict resolution. Indicators of successful management of natural resources that have contributed to peace include establishment of standards and agreements and efforts at cooperation, co-management, and conservation. We've already mentioned the numerous agreements relating to water and to oil and gas as well as examples of benefit sharing concerning timber. Such cooperative actions by parties in conflict can be stepping-stones to continued diplomatic engagement that is necessary to alleviate conflict and build peace. Outside actors have used many techniques in conflict and post-conflict situations to shape natural resource management. International demand drives the value of many natural resources, and thus outsiders participate in the natural resource market. International organizations, foreign investors, and trade-partner countries that are part of this market can influence the local market and governance. In conflict situations, cooperation from these key actors is necessary for the alleviation of improper natural resource use that can escalate and sustain conflict. For example, outside parties have helped with negotiations and agreements, suggested solutions such as eco-parks or sustainable development and conservation mechanisms, pushed for adherence to international standards, and provided the necessary aid and economic incentives to make changes a possibility and help resolve conflicts (Anon.2010).

The United Nations, for example, passes resolutions and organizes arms embargos or sanctions to help the natural resource business curb illicit economies and move toward transparency. UN peacekeepers and outside security forces can establish peaceful zones and barriers around disputed land, pipelines, oil fields, and other resource-related structures, to help prevent the return of violence. International financial institutions such as the World Bank Group can help with advice on revenue transparency and management, economic stability, and financing resource-driven debts. International businesses and their affiliates can recognize illicit economies and require certification of legal import, export, and trade. Finally, NGOs are often present in

post-conflict situations to deliver humanitarian relief, help resettle refugees and internally displaced persons (IDPs) who have often been forcefully removed from resource rich areas, and monitor human rights violations. These NGOs also advocate for enforcement of international standards and other methods of natural resource wealth management. (“Security Council Renews Cote d’Ivoire Arms, Diamond Bans,” <http://www.un.org/News/Press/docs/2006/sc8904.doc.htm>, December 15, 2006;)

Strong and stable government is essential to slow down the rate of deforestation. (FAO,2010) considered that half of the current tropical deforestation could be stopped if the governments of deforesting countries were determined to do so and Environmental NGO’s contribution towards conservation management has been enormous. They have the advantage over government organizations and large international organizations because they are not constrained by government to government bureaucracy and inertia. They are better equipped to bypass corruption and they are very effective at getting to the people at the frontier who are in most need (FAO, 2010).

## **2.7 Non-governmental organization (NGO)**

### **2.7.1 The Roles of NGOs and Livelihood situation in Ethiopia**

There is scarcity of studies done on NGOs in Ethiopia and most of the existing ones focus on the activities of the organizations, especially in the areas of relief and rehabilitation and their unhappy relations with government (Zewdie and Pausewang, 2002). The NGO being relatively the strongest part of civil society has pivotal roles in the political and economic transformation in Ethiopia. Perhaps the greatest challenge that the country faces is that of ensuring food security. This is so because of the low technological base of agriculture, limited rural infrastructure and off-farm employment compounded by neglect and inappropriate policies over many years. The food security strategy, whose implementation has begun, is meant to break the complex problems to close the food gap and ensure food security. (2000 as cited in Devereux, 2000: 1) Vice-Minister, Ministry of Economic Development and Cooperation (MEDAC), Government of Ethiopia.

### **2.7.2 Role of non-governmental organizations in promoting sustainable agriculture development**

Non-governmental Organizations, commonly known as NGOs play an important role in lives of people and in supporting economic development in different ways. One of the areas that receive support from NGOs is the agricultural sector. Through this, people get employment, earn a living, lives improve and the economies grow. In understanding the role of NGOs in agricultural development, it is important to note that violent conflicts, including civil and military have negatively affected agriculture in most parts of the Africa and other areas in the world. There is poor agricultural research capacity resulting from market inefficiencies and the collapse of extension services to the public, largely affect access and use of farm inputs, thus reducing agricultural production. Life has to go on in the aftermath of any conflict because people recollect their broken pieces of life and begin a new journey. Without such reestablishment, people rely on aid, making the population food insecure and highly exposed to high food prices. Most donors consider NGOs since they establish themselves with a short time, are flexible, accountable and objective in handling their mandate (WB, 2005).

NGOs have an important role to playing a crucial role in providing strong support to the development issues. They have an important role, especially where the government and private sectors are showing less interest. One of the main sectors is agriculture. It is observed that many countries across the world provide support for modern agriculture, mainly to increase the productivity for commercial purpose without considering the environment sustainability (Pingali, 2001) however; the concept of sustainability of agriculture is gaining moment from last few years. The NGO technologies undoubtedly increased production and labor efficiency, but there are some draw backs, which are concerned over low nutrition, poor taste, adverse effects on soil productivity, harm to the environment, decrease in water table, increase salinization, pollution due to fertilizers and pesticides, genetic erosion, reduced socio economic values and similar effects on environment. Therefore, the concept of sustainability of agriculture is gaining moment from last few years.

In particular, agricultural extension is an important development intervention for increasing the growth of the agricultural sector in light of rising demand and supply-side pressure and promotion of sustainable, inclusive and pro-poor agriculture and, hence, economic development.

Under the extension system, agents interact with farmers to provide them with information and aid the development of their managerial skills. Extension agents disseminate information on agricultural practices and optimal input use, and advise farmers directly on specific production problems, thus facilitating a shift to more efficient methods of production. In this way, the extension mechanism not only accelerates the diffusion process and the adoption of new varieties and technologies but also improves farmers' managerial ability and encourages the efficient use of existing technologies by improving farmers' know-how. These two distinct roles of agricultural extension may have different effects on farmers' performance in attempting to close management and technology gaps (Dinar et al. 2007).

The extension system in Ethiopia comprises a multitude of governmental and nongovernmental organizations. Nongovernmental organizations (NGOs) traditionally provide advice to farmer groups allied to the provision of microcredit and/or target their services to agricultural development. Such NGOs have become the main service providers in countries where the governments are unable to fulfill their traditional role because of limited human resources and service capacity (World Bank, 2005). In Bangladesh, where increasing urbanization is reducing the amount of agricultural land, increasing the efficiency of the agricultural sector is important, as increasing the sector's productivity and growth potential will create opportunities to achieve food security and reduce rural poverty. Currently, about 400 international, national and local NGOs are directly engaging in the agricultural sector with the aim of achieving these goals (Anonymous, 2003)

## **2.8 The challenges of NGOs**

Most NGOs have challenges which are external and internal for the organization. Recognition of the changing and important role of NGOs for development and an understanding of the challenges context of NGOs in which they work has led to a growing focus on NGOs capacity as an agenda for NGO partners be they donors, international NGOs or other support organizations. Likewise, benchmarks along a scale of say, financial strength, need to be adapted to the context of a specific organization and its own stage of development.

The Ethiopian civil society, especially the NGOs sector has been engulfed with various external and internal problems for a long time (Clude, 2010) Therefore, the challenges may be categorized into two broad parts; external and internal. The External Challenges such as Government attitude, Bureaucracy, Participation, Rules and regulations and the internal challenges such as Capacity limitation, Weak private sector, Democratic culture and values.

## **2.9. Program focus**

Agriculture is one of the pillars of the Ethiopian economy and the overall growth of the country is highly dependent on the success of the agriculture sector. The Government of Ethiopia has demonstrated strong commitment to agriculture and rural development through the consistent allocation of over 10% of the national budget to deliver enhanced agricultural technologies and support services. Therefore, The general objective of the center are identification prioritization of crop, livestock and natural resource production problems and planning and executing problem oriented research. Generation of agricultural technologies and promotion to the end users. In short target of the center are to increase production & productivity of crops and animal resources. Sustainable management & utilization of natural resources and Enhancing food security and food self-sufficiency.

The success of Farmer Service Center (FSC) is not only a solution in inputs distribution but also key indicator for the success of public private partnership in agriculture transformation.

Production and Productivity Senior Director at Agricultural Transformation Agency (ATA) Dereje Biruk said that ATA has been implementing the Feed the Future Ethiopia Commercial Farm service project in collaboration with ministries and states' bureaus of Agriculture and Natural Resources with the financial support from the USAID and technical support from Cultivating New Frontier in Agriculture (CNFA). The Center aims to improve production and productivity of smallholder farmers by establishing FSCs in Amhara, Oromia, SNNP and Tigray states through public -private partnership modality.

He further said that Center will provide smallholder farmers with quality farm inputs such as improved seeds, agro-chemicals, farm tools and equipment, veterinary drugs and equipment, advisory services and training all leading smallholder farmers to sustainably increase production and household income.

Government of Ethiopia in collaboration with many other concerned bodies has made a lot to improve. "We have seen some improvements; our agriculture still faces many challenges. I was born and grew up in this state and have spent considerable years as a farm input supplier. So I know very well what it are like to be a farmer as well as a farm input supplier.

The farm service center at Bako is aimed at increasing production and productivity of small holder farmers in Bako and its sounding areas. But it could be achieved through making good quality farm inputs available, timely with required volume, affordable and accessible to the farmers in uninterrupted manner ([allafrica.com/stories/201705220979.html](http://allafrica.com/stories/201705220979.html))

## **2.10. Conceptual and Analytical Framework**

Different government agencies, international organizations and individual researchers have developed different sustainable livelihood frameworks with minor differences in the general contents, especially in the components of the livelihood capitals; to understand the diverse livelihoods and their role in responding to poverty and food insecurity in rural communities. Both conceptual ideas and available empirical studies have been taken into consideration for developing the conceptual model. The framework considers context, livelihood assets, existing structures and process and livelihood strategies which directly and local farmers participation in income activities to continue their personal income and eventually increase household income of smallholder farmers, wellbeing, living standard and reduce poverty, institution, organizations and polices may support the availability, opportunities and productivity of assets as well as farmers livelihood. The components of the conceptual framework are Environment of rural society, livelihood assets of local smallholder farmers, livelihood strategy of rural household farmers, transforming structures and process, livelihood outcomes (Dr, rumer,2012)

## Conceptual Framework of Factors Affecting Livelihood of Smallholder Farmers

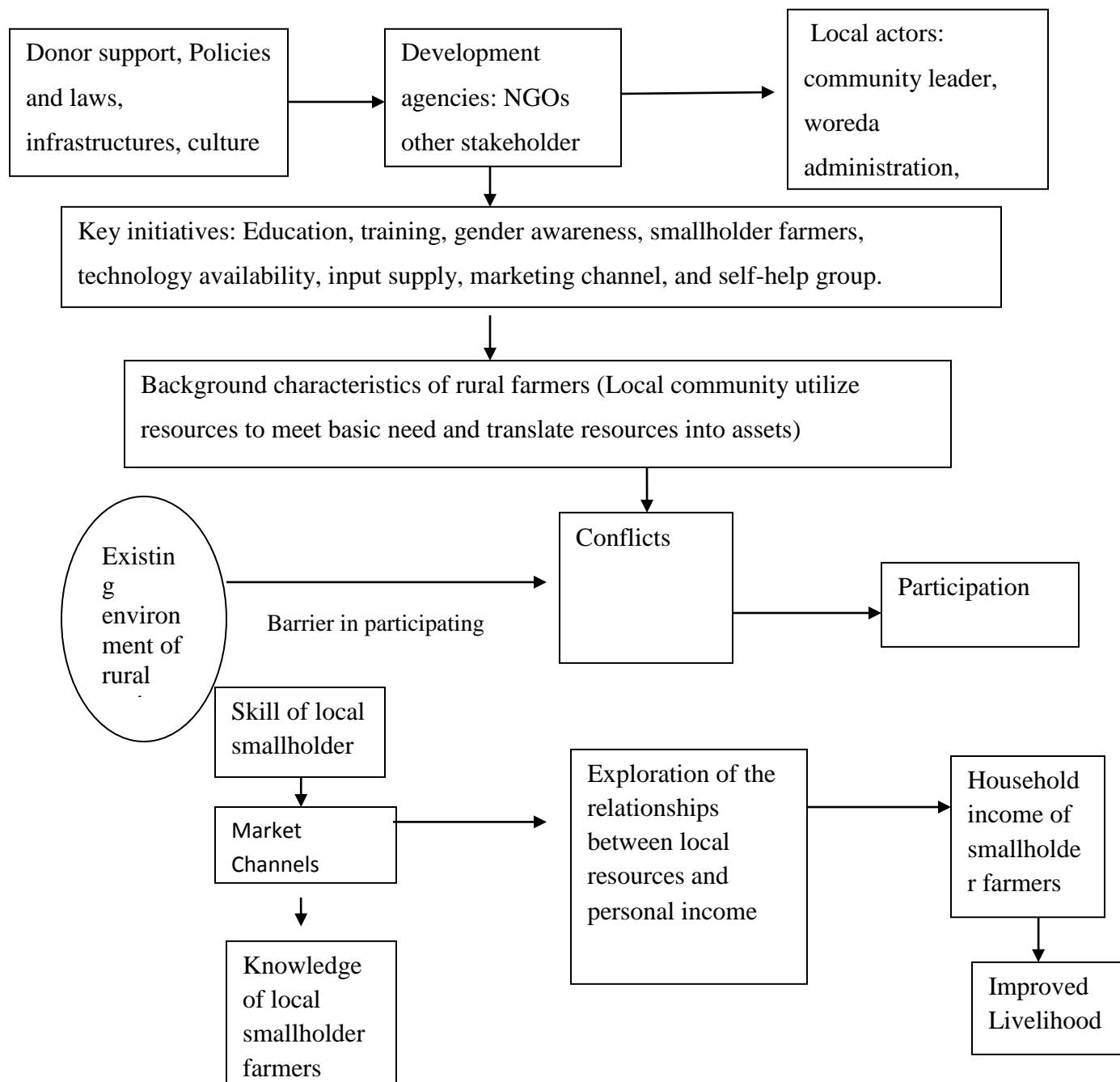


Figure 2.1: Conceptual framework of factors affecting livelihood of smallholder farmers

Source, Dr, 2012

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODS**

This chapter presents description of the study area, research design, and source of data, population study, sample size, sampling procedure, data collection methods and instruments, and method of data analysis techniques.

#### **3.1. Description of Study Area**

Bako-Tibe Woreda is one of the 18 Woreda which found in West Shewa zone and found at the Western part of the zone at about 250 km from the regional capital city and national capital, Addis Ababa, and 125 km away from the zonal capital, Ambo. According to the source from the Woreda Agriculture and Rural Development Office has the total area of 80,876 hectares or 808.67sq.km. Relatively Bako-Tibe Woreda is bounded by Jimma Ganati Woreda of Horo-Guduru Wollega Zone in the north, Jimma Rare Woreda of Horo-Guduru Wollega in the north-west, Cheliya Woreda of West Shewa Zone in the East, Gobu-Sayyo and Wamaa Boneya Woreda of East Wellega Zone in the west and south west. According to woreda agriculture and rural development office, 2009 shows that the total population who live in Bako-Tibe woreda is 145,604 of which 117,940 are rural populations and 27,664 are the urban dwellers. The NGO's movement in the Bako-Tibe woreda has gradually expanded after the decline of derge regime. According to Bako agricultural research center, 2013 annual report currently there are 8 NGO's operating in the woreda in different project areas such as Education, HIV/ADIS, Heath, Water, Agriculture, Food security, Forestry and Economic empowerment. From among the 18 Woreda, this study was focused on one Woreda, i.e. Bako-Tibe Woreda in which BARC is operating currently. So that, the researcher has been selected Bako Tibe woreda purposively this because Bako Tibe woreda have more beneficiary woreda than other woreda and the only NGO's in the woreda that engaged in vegetation products and local resources usage activities.

The Kebele for data collection have their own average distance from the woreda capital of Bako. They are Bechera Oda Gibe (7 kms), Amarti Gibe(15kms) Cheka Dimtu (25kms) and Oda Gudeya (29kms) and Oda Haro(34kms) away from Bako respectively( ORESPO V-III, 1999).



Map of woreda Division of west shoa zone and case study woreda

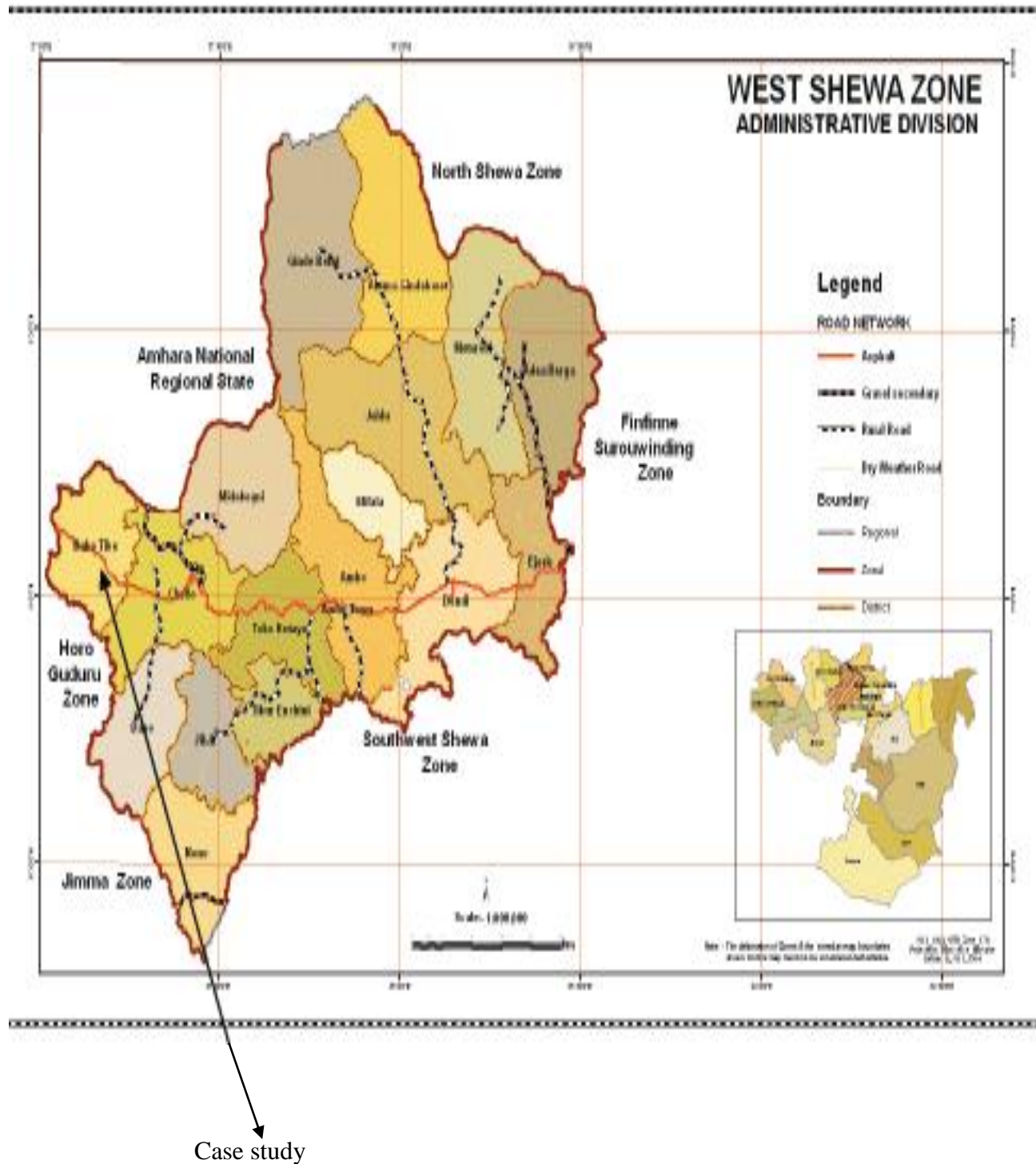


Fig. 3.1: Map of Woreda Division of the West Shoa Zone and the Case Study Woreda

(Source: Oromia Physical Planning Office)

### **3.2. Research Design and Strategy**

To realize this objective, a descriptive survey research design was used in the study. Wiersma (1995) mentioned that descriptive survey method becomes useful when the purpose of the research is to picture the current situation. It also allows collection of the data using tools and documentary analysis describes and interprets what it is. In addition, it is concerned with conditions or relationships that exist, opinions that are held, processes that are going on, effects that are evident, or trends that are developing. Basically, survey method helps to obtain first-hand information from small samples representing large size population and also enables the researcher to have access to multiple methods of collecting information. Furthermore, in this study the qualitative and quantitative approach was used so as to come up with adequate findings. Combining the two methods (quantitative and qualitative approach) is helpful to come up with well validated and substantial findings. Collecting diverse types of data provides a better understanding of the research problem and is helpful to strengthen the reliability (Creswell, 2003:55).

### **3.3. Data Sources**

The data for this study was collected from both primary sources and secondary sources. Primary data was collected from questionnaires, key-informant interview, FGD and observation. While secondary data were obtained from woreda agriculture and rural development office (WARDO) Bako agricultural research center (BARC) and from different sources like web sites, policy and annual reports of organization.

### **3.4 Sampling Methods**

#### **3.4.1 Population Study**

The population of this study was employees Bako agricultural research center and local farmers in selected kebele of Bako Tibe woreda. As mentioned previously in description of study area, the total population who live in Bako-Tibe woreda of 28 kebele was 117,940 rural populations. But for this study, five selected kebele of total rural population. Therefore, the total population in selected kebele of five was 24,360 smallholder farmers and 87 employees' staff members. From 87 employees' staff members, for this study, 6 employees staff members were selected.

#### **3.4.2 Sample Size and Sampling techniques**

The sample size from which data were collected comprised of 135 respondents. The sample size was limited to 135 respondents by the researcher due to budget constraints. At the same time,

Kaewsonthi and Harding (1992) also described it as cost effective in terms of resource use. However, Matata et al. (2001) argued that a sample size in the range of 80-120 respondents is desirable with low degree of biasness in results. Sampling in this case is purposive as stated by Patton (1990s). Purposeful sampling selects information that is rich case for in depth Study and a researcher can reach a targeted sample quickly. It is easy to get a sample of subjects with specific characteristics. Additionally, researchers are able to draw on a wide range of qualitative research designs.

A multistage sampling technique was used in this study for the selection of the smallholder farmers, staff members and respondents. The selection was in three stages as follows: The first sampling stage employed purposive sampling to select 5 out of 28 kebele of Bako-Tibe woreda. five kebele namely Bechera Oda Gibe, Amarti Gibe, Cheka Dimtu, Oda Gudeya and Oda Haro were purposively selected, The criteria for selecting the kebele was the presence of BARC which provide agricultural support in those kebele and the presence of large number of farmer groups which were caused by land use conflict between livestock keepers and cultivators. After selecting the kebele the next step was to select staff members, therefore, a purposive sampling to select 6 out of 87 employees' staff members. The criteria for selecting staff members were based on willingness and responsibility in the organization. The third stage was the sampling of respondents. A sample of 135 respondents was obtained by simple random sampling procedure from the five selected kebele and six selected staff member respondents to fill the questionnaire.

**Table 3.1 Population, sample size and sampling techniques**

Name of kebele/organization	Study Population	Sample size	percent	Techniques used	Remark
Bachera ode gibe	6755	$(6755/24360)*129= 36$	28	Purposive	
Amarti Gibe	5600	$(5600/24360)*129=30$	23.2	Purposive	
Cheka Dimtu	4144	$(4144/24360)*129=22$	17.0	Purposive	
Oda Gudaye	4872	$(4872/24360)*129=25$	19.4	Purposive	
Oda Haro	2989	$(2989/24360)*129=16$	12.4	Purposive	
Total	24360	129	100	Purposive	
Staff members	87	$(87/87)*6=6$	100	Purposive	
Total	87	6	100	Purposive	
Total sample size of kebele and staff members = 135 respondents					

Source: from BTWARDO (2009)

NB. BTWARDO- Bako-Tibe woreda agriculture and rural development offices

### 3.4.3 Method of data collection and instrument procedure

To secure reliable and adequate information, selecting of appropriate data collecting instrument is essential. Therefore, for this particular study was mainly employed questionnaires, Interview, Focus Group Discussion (FGD), and document review or observation checklists were used. Each techniques and procedure is discussed below.

- **Questionnaires:** - A questionnaires is an enquiry of data gathering provided or respond to statements in writing and used to get factual information, (Best and Kahan, 2005), so the researcher used questionnaires for similar cases. This study used questionnaires for household farmers and staff members of BARC .The questionnaires are included 5 open ended and 36 close ended items which are basically aimed the role and challenges of BARC in improving living condition of smallholder farmers. The close ended items were formulated in five point liker scale (strongly disagree =1, Disagree=2, Undecided=3, Agree=4, and strongly agree=5) and open-ended items were provided for the respondents to freely express their ideas. Therefore, for staff members questionnaire was prepared in English while for household farmers questionnaire was prepared both in English and Afaan Oromoo to ease understanding of the issues and the type of information /data required for this study and similar issues. However, Questionnaires were given only farmers who knew

how to read and write answers in the spaces provided. Accordingly, One hundred thirty five (135) questionnaires were distributed to the smallholder farmers in selected kebele of Bako-Tibe woreda and staff members of BARC. But 103 of them were collected back and 6 questionnaires distributed for the staff members also returned. The questionnaires had two categories: the respondents' personal characteristics and items relevant to the role and challenges of BARC in improving livelihood household farmers program.

- **Interview:** -In qualitative research, Interview is a major instrument of data gathering (Creswell, 2009). It is used to collect live from the data the interview was used conducted in face-to face encounter (between the researcher and the informant) and in a place where convenient for the interviewees .The interview questions were prepared in English and interpreted to Afan Oromo Language for more clarity of concept for respondents during interview. The interview is dealt only with staff member and the interview with staff was done on pre -arranged program. Therefore, from the six staff members respondents, the researcher were selected two respondents purposively based on their willingness and responsibility in the organization has been interviewed using separate check-lists prepared for each of them on issues related to the role and challenge of BARC improving livelihood of smallholder farmer. The interview of the two key informant lasted for about 50-55 minutes. And their responses were recorded on the mobile recorder and written on the note book and finally, the audio taped data were transcribed by the researcher.
  
- **Focus Group Discussion Guide(FGD):-** regarding the important of FGD Sarantokos (2005, P. 195) cited the following: Focus group discussion is employed to bring about changes in the group and its members, as the result further proved valuable information about group process, attitude changes and manipulation, opinion of the group members. Focus Group Discussions (FGD) was used to obtain information from only household farmers of sixty five (65) smallholder farmers was selected purposively from five in selected kebele. The criteria for the selection of household farmers based on the willingness and the ability to motivate in their kebele but from five selected kebele, the researcher come to established one group members because of time constraints. However, at least ten household farmers each selected kebele should be actively participating in FGD.

The researcher prepared semi-structured questions and posed for the group discussion. The FGD questions were prepared in English then interpreted to Afan Oromo Language for more clarity of concept for respondents during discussion and activity interaction among group participants. The researcher led the discussion and strived to investigate the views and ideas of each discussant by probing. The focus group discussion was held to strengthen the questionnaire responses that the participant of the study gave earlier. The Focus Group Discussion focused on the investigation of the role and challenges of BARC in improving the living condition of smallholder farmers. The whole FGD was recorded by using mobile recorder and finally the data obtained was transcribed by the researcher.

- **Observation:**-meanwhile, I was observing about the area of my concern related to livelihood activities of local farmers, resource status of the area, I have taken photos and record such observed realities on my note book that I used for further clarification and interpreted during data analysis and discussion.

### **3.7 Method of Data Analysis Procedures**

The study has employed both qualitative and quantitative research methods. Thus data that was collected through both qualitative and quantitative methods, entered in to computer software by SPSS. Quantitative data was analyzed by descriptive statistics, in which tables, graphs, charts, and percentages were employed and qualitative data were presented, categorized narrated, summarized and used for further triangulation in the course of analysis, explanation and justification.

## **CHAPTER FOUR**

### **DATA ANALYSIS, DISCUSSION AND PRESENTATION**

This chapter deals with Presentation, Analysis and Interpretation of the data obtained from the sample farmers and staff members by using the data gathering tools (questionnaire, interview, focus group discussion (FGD) and document observation review) to search for appropriate solutions to the basic questions of the study. The data collected through closed and open ended questions from farmers and staff members were presented in tables, analyzed using percentages, frequency counts, graph and chart. The qualitative data obtained through interview, FGD and observation was presented and analyzed in descriptive form together with the quantitative analyses of related questionnaire items. Therefore, One hundred thirty five (135) questionnaires were distributed to the smallholder farmers in selected kebele of Bako-Tibe woreda. But 103 of them were collected back and 6 questionnaires distributed for the staff members also returned. And Pre- arranged program interviews were conducted with 2 key informant staff members and FGDs conducted from smallholder farmers selected kebele of Bako- Tibe woreda. This sections starts with characteristics of respondents and the second sections deals with the analysis and interpretation of the role and challenges of BARC implementation program concerning in improving living condition of smallholder farmers.

#### **4.1. Socio demographic characteristics of Respondents.**

By describing characteristics of the respondents, it is possible to know some background information about the sample population who participated in the study. The following table shows the general characteristics (sex, age, marital status and educational level of respondents involved in the study.

**Table 4.1.A.Sex, Age, Marital status and educational level of household farmers.**

No	Characteristics	Category	Responses	
			Frequency	Percent
1	Sex	Male= 19-75 Yrs	72	69.9
		Female= 19-65 Yrs	31	30.1
Total			103	100.0
2	Marital status	Single	22	21.4
		Married	79	76.7
		Divorced	2	1.9
Total			103	100.0
3	Educational level	Illiterate	28	27.2
		1-4	36	35.0
		Basic education	9	8.7
		5.8 Grade	14	13.6
		9-12 Grade	10	9.7
		College and above	6	5.9
Total			103	100.0

Source :( Own survey, 2017)

As can be seen from the above table 4.1, Items,1, concerning the farmers' respondent survey at Bako-Tibe woreda by the researcher found out that, 31(30.1%) of the total household farmers surveyed are female and the rest 72(69.9%) household farmers are male. Regarding age group that range from 19 years to above 65 years accounts for 72(69.9%) of the total sample households are male participated in the survey and the age group that ranges from 19 years to 65 years accounts for 31(30.1%) of the total sample female households were participated in this study.

As the household survey indicates the above table 4, A, Item 2, of the total sample households 79(76.7%) are married and 22(21.4%) of them are single and 2(1.9%) of them are divorced. As it is indicated the above table 4.1A, Item 3, shows that, the educational level of the respondents.



The respondents consists all kinds of education background. Accordingly, 28(27.2%) of the respondents are who are never been to school and they are illiterate and second position from 1-4 grade having 36(35%) as shown from the table and major respondents which account,14(13.6%) of the respondents attended grade 5-8 while 10(9.7%) and 9(8.7%) attended grade 9-12 and basic education respectively. Out of the respondent, 4.9% attended revealed more than 50% them attained junior and secondary school. Very few 6(5.9%) of the respondents were attained above grade 12. Therefore, the data shows that majority of the respondents can write and read properly.

**Table: 4.1B. Sex, Age, Marital status and Educational level of staff members.**

No	Characteristics	Category	Responses	
			Frequency	Percent
1	Sex	Male= 19-65 Yrs	5	83.3
		Female= 19-65 Yrs	1	16.7
Total			6	100.0
2	Marital status	Single	2	33.3
		Married	4	66.7
Total			6	100.0
3	Educational level	Certificate	1	16.7
		Degree	4	66.7
		Master	1	16.7
Total			6	100.0

Source: (Own survey, 2017)

As can be seen in table 4.1B, in relations to gender distributions of the respondents, accordingly 5(83.3%) of the respondents are male and the remaining is female. The ages of all the six respondents are between 19-65Yrs which implies they are on the working age and the majority of the respondents are male. And regarding marital status, Out of the six respondents 4(66.7%) respondents are married and the proportion of single respondents takes 2(33.3%) respondents are single and the remaining 3 are married. Finally, The educational levels of respondents of the above table, 4(66.7) of them are first degree holders while 1(16.7) of the respondents are certificate holders. The remaining 1(16.7) of the respondents is second degree holders. Therefore, the respondents are matured enough to respond to the question properly.

#### 4.2. The role and contributions of BARC in improving the living condition of local smallholder farmers in selected kebele.

Table 4.2 Household farmers on the role of BARC in improving livelihood of farmers.

NO	Items	Value	Responses					
			Household farmers: 103					
			SA	A	Un	DA	SDA	Tot
1	The role of BARC in my kebele is significant.	F	0	90	0	13	0	103
		%	0	87.4	0	12.6	0	100
2	BARC has helped local farmers in Utilizing local resources efficiently and effectively.	F	2	40	0	58	3	103
		%	1.9	38.9	0	56.3	2.9	100
3	BARC provided me training on how use plant/vegetation product effectively.	F	3	61	0	34	5	103
		%	2.9	59.2	0	33.1	4.85	100
4	BARC has helped me in using irrigation activities through effectively and efficiency.	F	0	8	0	72	23	103
		%	0	7.8	0	69.9	22.3	100
5	BARC has provided me training on how to produces modern Green peppers coffee and mango production activities.	F	0	56	0	42	5	103
		%	0	54.2	0	40.9	4.9	100
6	BARC has provided me training on how to bee keeping and honey production.	F	0	61	0	34	5	103
		%	0	59.2	0	33.1	4.85	100
7	BARC has provided me training on how to use and protecting the local natural resource and environment from damage.	F	1	67	0	23	12	103
		%	1.0	65.0	0	22.3	11.7	100
8	BARC has provided me training on how to farming land system, improved seeds and fertilizers used to increase productivity.	F	3	85	0	15	0	103
		%	2.9	82.5	0	14.6	0	100
9	BARC has helped me in using modern animal husbandry activities.	F	0	15	0	82	6	103
		%	0	14.6	0	79.6	5.8	100
10	BARC has helped me in food security.	F	0	23	0	68	12	103
		%	0	22.3	0	66	11.7	100
11	BARC assists me to form a cooperative among farmers so that I benefited from local resources through equitable manner.	F	3	7	0	55	38	103
		%	2.9	6.7	0	53.4	36.9	100
12	BARC has played significant role in my kebele on agriculture.	F	0	75	0	28	0	103
		%	0	72.8	0	27.8	0	100.

Source: (Own survey, 2017)

NB: SA=strongly agree A=agree, UN=undecided, DA= disagree, SDA= strongly disagree,

As can be observed in the above table 4.2, item 1, respondents were requested that the role of BARC in their kebele is significant, from 103 respondents, 90(87.4%) farmers respondents have agreed While 13(12.6%) farmers respondents disagree on this issues. Therefore, it can be concluding that, the majority of the respondents which accounts for 90(87.4%) accepted the role of BARC in their kebele is significant but only about 13(12.6%) respondents rejects on the issues. As it was indicated in item 2 of above table 4.2, respondents were asked about the BARC assistance for efficiently and effectively usage of local natural resources. Accordingly, 40(38.9%) farmers respondents have made their agreement on the statement While 2(1.9%) farmers respondents have strongly agreed and 58(56.3%) and 3(2.9%) farmers respondents has made their disagreement and strongly disagree respectively. Therefore, based on the findings of the data, one can conclude that contributions of BARC in kebele of farmers for efficient and effectively usage of local resources should be poor.

As it is indicated in item 3 of above table 4.2, the respondents were asked we see the responses of respondents concerning using modern plant/vegetation product effectively. Among the respondents 5(4.85%) of them strongly disagree that the BARC didn't provided training them for the usage of modern plant/vegetation products effectively While 61(59.2%) farmers' respondents agreed that the BARC has training them for the usage of modern plant/vegetation products effectively Consequently, when we see farmers respondents who are strongly agree and disagree they are account for 3(2.91%) and 34(33.1%) respectively. These shows about 39(37.9 %) of the respondents didn't accept on this statement while the rest 64(62.1%) are accepted, Therefore. Based on the finding of the data, one can conclude that majority of farmers respondents are agreed on the point. As shown in item 4 of above table 4.2, the respondents were asked about BARC has helped in using modern irrigation effectively, accordingly, 23(22.3%) of them have strongly disagreed on the statement while 8(7.8%) farmers respondent has showed their agreement. And 72(69.9%) farmers' respondents are disagreed on the issues. Therefore, based on the finding of data shows that the majority of the respondents which account 95(92.2%) respondent are against on statement that BARC didn't supported me in using modern irrigation effectively.

As it is indicated in items 5 of above table 4.2, farmers' respondents were asked regarding training provided by BARC how to using Green pepper, coffee and mango production in their

kebele. Accordingly, 56(54.2%) farmers respondents has agreed that BARC has helped them in using modern Green pepper, coffee and mango production While 42(40.9%) and 5(4.9%) farmers respondents has disagreed and strongly disagreed on the issues respectively, Therefore. The result shows that majority of the respondents are supported that BARC has role on using modern Green pepper, coffee and mango production. As it is indicated in item 6 of above table 4.2, the respondents were asked we see the responses of the respondents concerning in using modern bee keeping and honey production activities through effectively and efficiency. Among the respondents 5(4.85%) of them strongly disagree that the BARC didn't helped them for the usage of modern bee keeping and honey production. While 61(59.2%) farmer respondents agreed that the BARC has helped them for the usage of modern bee keeping and honey production and 34(33.1%) farmers respondents should be disagree on the statement. Therefore, Based on finding of the data shows that, majority of the respondents should be accepted on the issues that the participation of BARC regarding bee keeping and honey production should be satisfaction.

As it is revealed in items 7 of above table 4.2, respondents were asked that on the level of agreement concerning assistance/training of BARC for their kebele on the conservation and using of local natural resource and environmental protection from damage. Accordingly, 23(22.3%) farmers' respondents showed their disagreement. While 12(11.7%) of the respondents strongly disagrees and very few respondents which account for 1(1%) have strongly agreed. However, about 67(65.0%) of the respondents are supporting the statement BARC has helped them in protecting and using local natural resources and environmental protection from damaged. Therefore, based on the finding, majority of respondents are accepted on this issue that BARC have a role on local natural forest conservation system and environmental protection from damage. As it is indicated in item 8 of above table 4.2, respondents was asked that BARC provide training for the farmers how to farming their land, improved seed and fertilizers. Accordingly, 85(82.5%) farmers' respondents have made their agreement while 3(2.9%) and 15(14.6%) of them has strongly agreed and disagreed respectively. Therefore, based on finding data revealed that more than 85% of the respondents accepted BARC has been providing them training on agriculture in order to increase productivity.

As it is indicated in item 9 of above table 4.2, respondents were asked on the role of BARC has helped/training in using modern animal husbandry activities. Accordingly, out of 103 farmers

respondents 6(5.8%) of them have strongly disagreed on this point While 15(14.6%) farmers respondent has showed their agreement. On the other hand, 82(79.6%) of the respondents are disagree with the statement, Therefore, when we concluded from the data, majority of the respondents should not be accepted on this issues. As can be observed in item 10 of the above table 4.2, respondent were asked concerning food security of rural farmers, Accordingly, 12(11.7%) of them strongly disagreed that the BARC didn't helped to secured food security While 68(66%) of the respondents agreed that the BARC has helped in food security. However, when we see respondents who are disagreeing they are account for 23(22.3%). Therefore, based on finding of data shows that majority of respondents are agreed on this point.

As it is indicated in item 11 of above Table 4.2, respondents were asked that the role of BARC in supporting the local farmers to form cooperative that will make them benefited more from the available local natural resources. Accordingly, Majority of the respondents has put their level of disagreement of which 55(53.4%) disagreed while 38(36.9%) of them strongly disagreed on the issues that BARC assists them to form a cooperative and 7(6.8%) respondents revealed that they are agreed with the statement and few member of the respondents around 3(2.9%) strongly agreed with the statement. Therefore, based on finding of data shows that, majority of the respondents didn't agreed on the issues that BARC assists them to form a cooperative in order to benefit from the local natural resources through equitable manner. As it is revealed in item 12 of the above table 4.2, respondents were asked on the role BARC on agriculture. Accordingly, Out of 103 respondents 94(91.3% of them have agreed with the statement while 9(8.7%) of the respondents have showed their disagree agreement. Therefore, the data shows that majority of farmers respondents has put their agreement on the point.

Furthermore, the data collected through FGD with farmers and observation check lists Accordingly, the first question forwarded to group participants were asked that BARC is significant in your kebele, majority of the respondent should be accepted on this point but a few respondent specially the group participants come from Oda Haro kebele should not be accepted on this issues. Secondly, the question forwarded to group participant were asked that, regarding the wisely utilization of local natural resources through effectively and responsibly ways, Accordingly, majority of the participants said that BARC does not supported how to use the local natural resources through responsibly and effectively ways specially participants that come from

Bachare Oda Gibe, Oda Haro and Check dimtu kebele are good examples on this issue because of ethnicity conflict based on using local natural resources in this kebele especially land use conflict between livestock keepers and cultivators should be resolved properly. For the sake of this, the contributions of BARC should be poor.

Thirdly, questions forwarded to group participants were asked concerning modern using plant/vegetation products effectively, irrigation and green pepper, coffee and mango production activities in their kebele and the researcher observing farmers' environment, majority of group respondents regarding modern plant/vegetation products effectively should be accepted on this statement. But concerning modern using irrigation activities in selected kebele effectively, all group respondents should not be accepted on this issue. On the other hand, regarding modern coffee, green pepper and mango production activities, majority of the group participants said that the BARC should be provided training to local kebele farmers. Therefore, the participations of BARC should be satisfactory. Fourthly, regarding the conservation and using of local natural resources and environmental protection provided training by the BARC were asked and document review and observation during field visits, majority of group participants should be accepted on the issues.

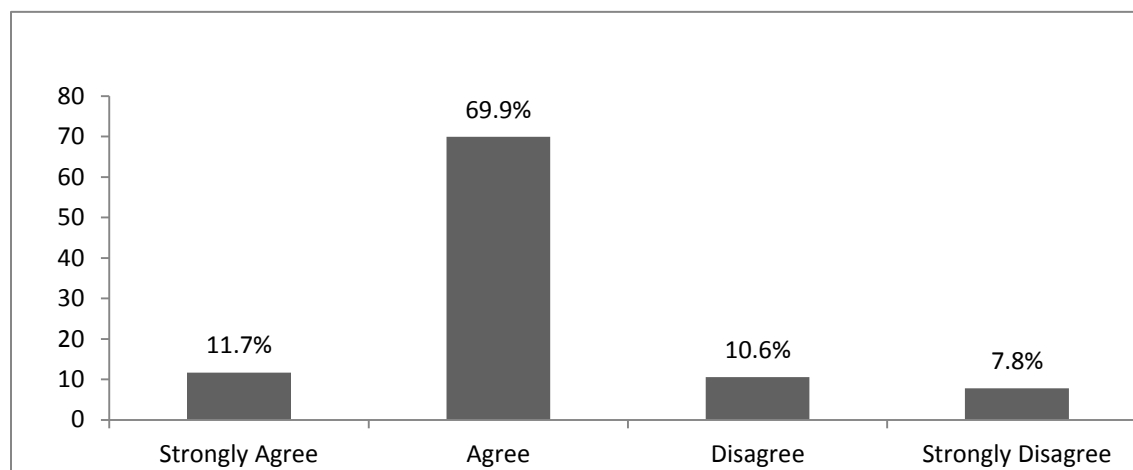
While concerning provided training on how to use farming their land system, improved seed and fertilizers used in order to increase productivity were asked, majority of group participants should be accepted on the point that the BARC should be training to farmers. And similar with bee keeping and honey production in selected kebele were asked, majority of group respondents should be agreed on this issue that BARC has provided training on how to bee keeping and honey production to enhance income of the farmers. But regarding modern animal husbandry production activities in selected kebele were asked, majority of group participants could not be accepted on this issue that the participation of BARC concerning the modern animal husbandry activities should be poor. Finally, regarding food security, cooperative and agriculture activities in selected kebele were asked and group participants explained that, majority of group participants said that the activities of the BARC should be satisfactory regarding to realized food security. But regarding to form cooperative farmers in selected kebele should be poor due to ethnicity problem based on using local natural resources especially land use conflict between livestock keepers and

cultivators But concerning agriculture activities, majority group participants explained that the motivation of BARC should be satisfactory.

In generally, the researcher concluded that what the FGD respondents suggested possible solution in the future, Some of the possible solution the group participants what you have raised are:- in order to move out poverty and famine to realize food security of rural farmers, both WAO and BARC or others stakeholder should be work together more and both the organization must be provided continuous training to all local farmers concerning how to use local natural resources in equitable manner and to protected from damage and after training, both organizations should be monitoring and evaluating for the implementation of program continuously.

#### **4.3. The challenges that facing the role of BARC in improving the living condition of smallholder farmers.**

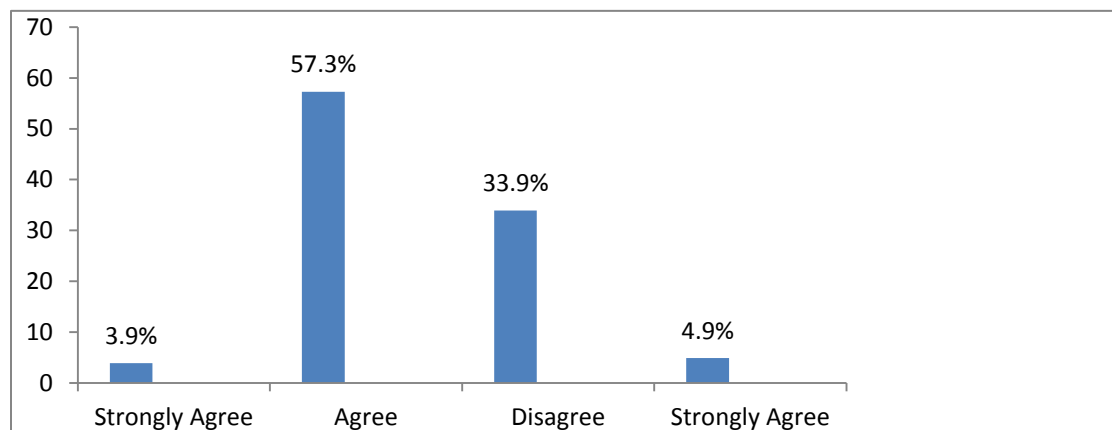
**Graph 4.1.Responses of household farmers on skill gap.**



**Source: (Own survey, 2017)**

As it is indicated the above graph showed that, more than 72(69.9%) of the respondents agreed that, they have skill gap to use the local resources before the intervention by the BARC While About 12(11.7%) farmers respondents revealed that they strongly agreed with the statement. But less portion of the respondents which accounts for less than11 (10.6%) and (8)7.8% were against the statement respectively .Therefore, based on finding of data, one can be concluded that, majority of the respondents agreed that, they have skill gap before the intervention how to used our local natural resources through effectively and efficiently ways.

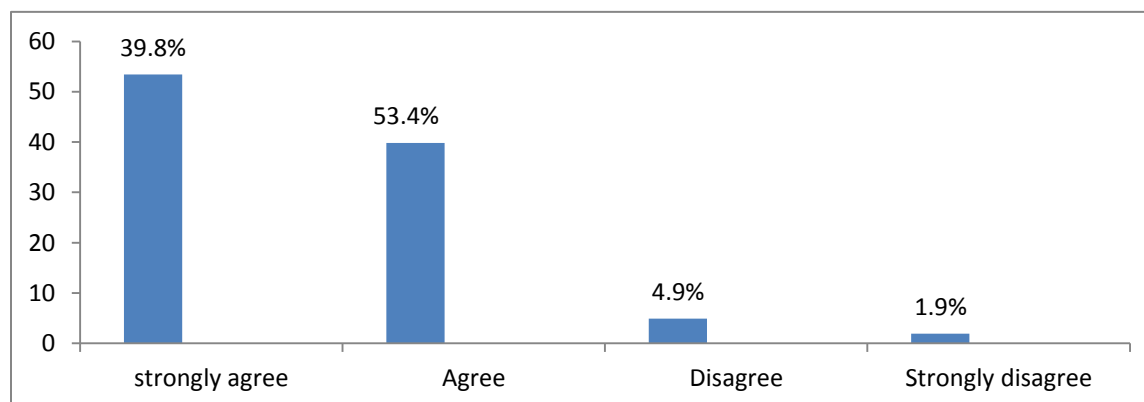
**Graph: 4.2 Smallholder farmers on BARC Activity to improve their skill gap.**



**Source: (Own survey, 2017)**

As shown in the above graph, respondents were asked whether the BARC has supported the local household farmers to improve their skill gap. Accordingly, 59(57.3%) of the respondents agreed with the statement which is followed by a 35(33.9%) of disagreement by the respondents. When we see the other level of agreement equal proportion of respondents of each 4(3.9%) and 5(4.9%) has strongly agreed and strongly disagreed with the statement respectively. Therefore, based on findings of the data showed that more than 62(61.4%) of farmers respondents are agreed with the statement that BARC has helped them to improve their skill gap concerning how to use local natural resources through effective ways.

**Graph: 4.3 Responses of smallholder farmers on education.**



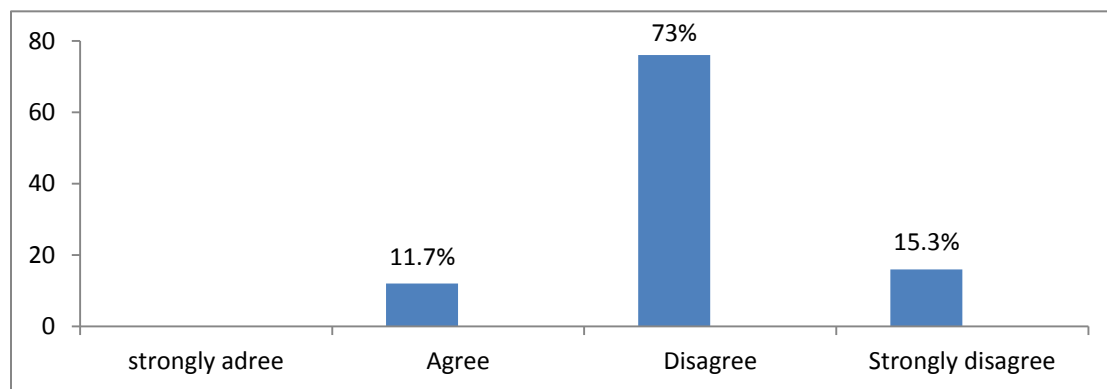
**Source: (Own survey, 2017)**

As it is indicated the above graph shows that how the education levels of the local smallholder farmers affects the income they generate from local resources. Accordingly, 41 (53.4%) of the



respondents has agreed with the statement while 55(39.8%) of the respondents strongly agreed and 5(4.9%) and 2(1.9%) of the respondents are disagreement and strongly disagree on this point respectively. Therefore, from data, we concluded that majority of the respondents accepted on this issues.

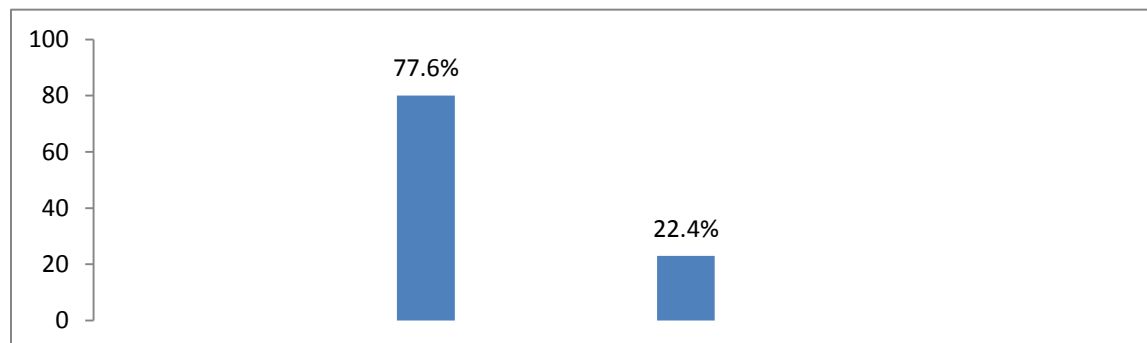
**Graph: 4.4. Responses of smallholder farmers on market chain**



**Source: (Own survey, 2017)**

As it is indicated in the above graph, respondents were asked on the market chain. Accordingly, Out of 103 respondents more than 12(11.7%) has agreed with the statement while 76(73%) of the respondent has showed their disagreement and 16(15.3%) of the respondents are strongly disagreed. Therefore, the data shows that, majority 92(88.3%) of farmers respondent are disagreement on the statement that there was no market chain concerning plant/vegetation products.

**Graph: 4.5 Farmers on the responsibility to search for a market chain.**

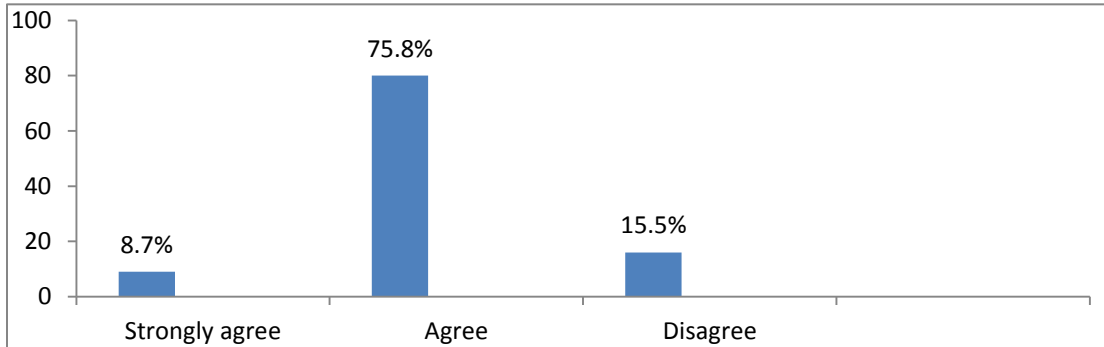


**Source: Own survey, 2017)**

As it is revealed the above graph, respondents were asked that about the body which has been in charges of searching for market chain for the products of local farmers produced. Accordingly,

It's clearly seen from the graph that, majority of farmers respondents (85.4%) said that BARC has helped in charge of searching for the market chain. Therefore, Out of this 23(22.4) respondents are agreed. But out of the sample respondent 80(77.6%) of them disagreed with the statement. Therefore, based on finding of data, one can concluded that, BARC in charges of searching market chain for plant/vegetation production should be poor.

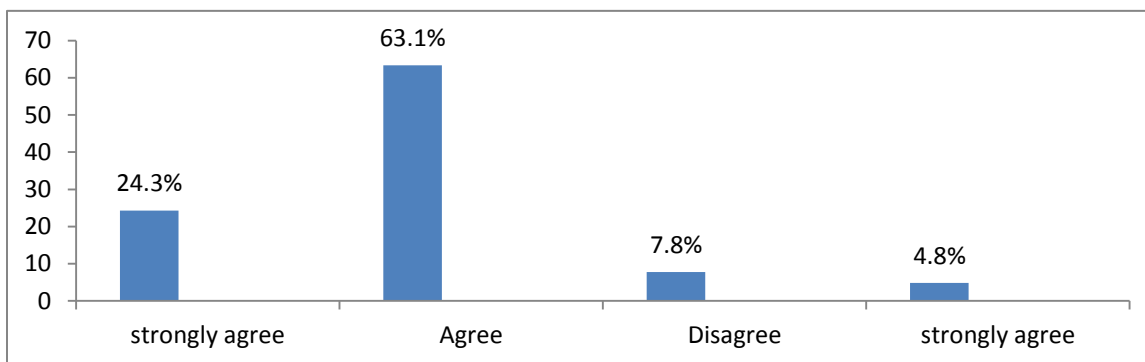
**Graph: 4.6 Farmers on deforestation activities**



**Source: (Own survey, 2017)**

As shown the above graph, respondents were asked that on existence of deforestation in the kebele. Accordingly, 89(84.5%) of them responded said that there is high deforestation activities in selected kebele. But the reaming 16(15.5%) farmers respondents said that there is no deforestation in their kebele. Therefore, based on finding of data shows that, there is a practice of deforestation in selected kebele of Bako-Tibe woreda.

**Graph 4.7 Smallholder Farmers on the effort to reduce deforestation**

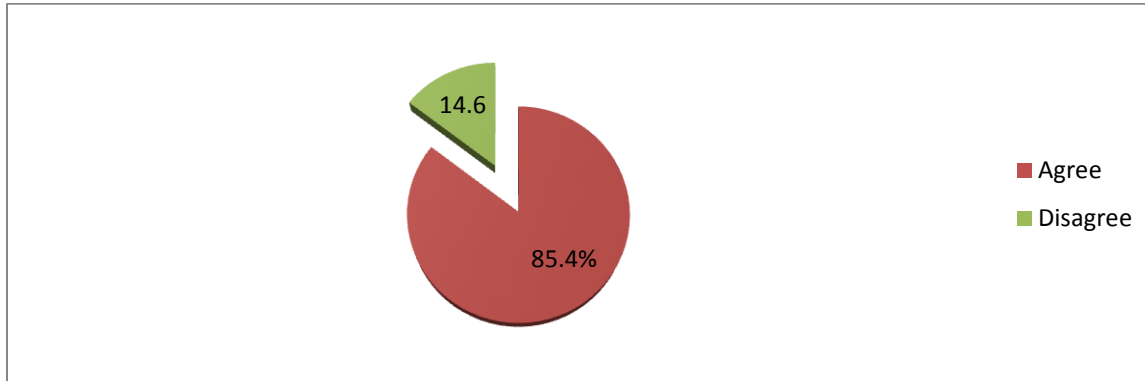


**Source: (Own survey, 2017)**

From the above graph, we can see that 65(63.1%) of the respondents and 25(24.3%) of the respondents showed their agreement and strongly agreed on this issues respectively, while 8(7.8%) and 5(4.8%) of sample respondents showed their disagreement and strongly

disagreement with the statement respectively. Therefore, from the data concluded that the contribution of BARC in reducing deforestation activities should be satisfactory.

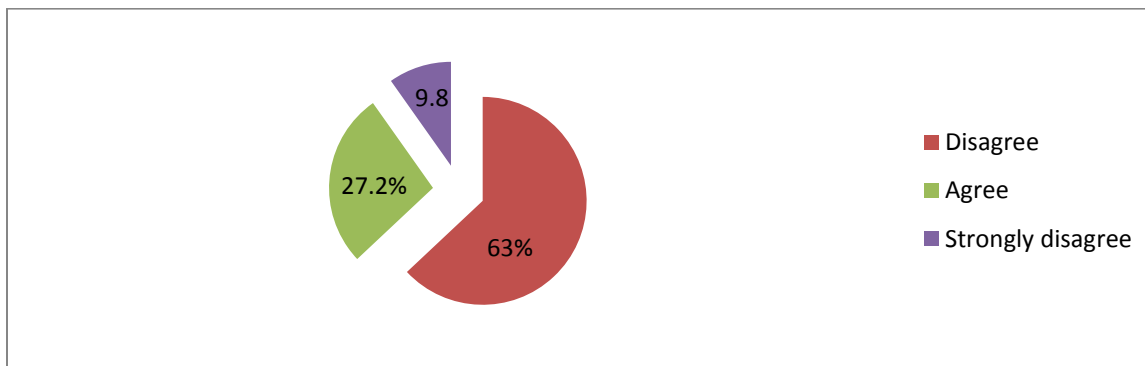
**Fig 4.1 farmers on ethnicity problems based on local natural resources**



**Source: (Own survey, 2017)**

As can be shown from above pie-chart 4.1, respondents showed that 88(85.4% of respondents have agreed with the statement that there is ethnicity problem in using the local resources in their respective kebele While 15(14.6%) of sample respondents have put their disagreement on this statement. Therefore, as concluded from the data, majority of the respondents accepts on this statement that there was ethnicity conflicts based on local natural resources.

**Fig.4.2.The role of government to use the local resources through equitable manner.**

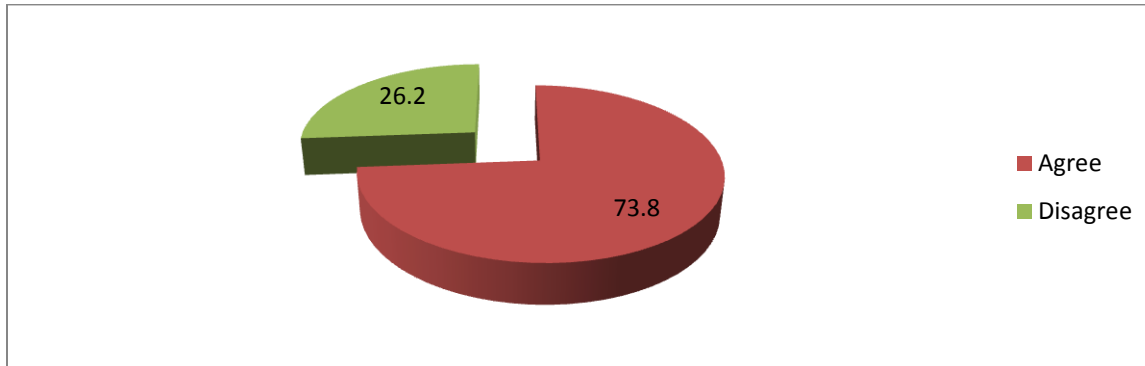


**Source: (Own survey, 2017)**

As indicated in the above pie-chart 4.2, respondents were asked on the role of government to reduce ethnicity problem in the kebele so as to use the local resources through equitable manner, Accordingly, great proportion respondents 65(63%) respondents said that the role of the local government in reduce ethnicity conflicts in selected kebele should be poor While 28(27.2%) and

10(9.8%) of the respondents agree and few are strongly disagree with the statement. Therefore, from the data concluded that, majority of respondents doesn't accepted on the statement that, the role of local/regional government to reduces ethnicity problem based on using local natural resources through equitable manner should be poor.

**Fig. 4.3 Measures taken to address the challenges of BARC in implementation program in selected kebele of smallholder farmers.**



**Source: (Own survey, 2017)**

As it is indicated the above pie-chart 4.3, respondents were asked concerning measure taken to address those challenges reduces by BARC. Accordingly, from 103 respondents, majority 76(73.8%) respondents should be accepted on the issues and 27(26.2%) respondents didn't accept on this point. Therefore, when we concluded from finding of the data, majority respondents said that BARC should be taken serious measures to address those challenges that existed in selected kebele of Bako-Tibe woreda. But their problem is still exercised.

Furthermore, data collected through FGD and document reviewed, the first question forwarded to group a participant was what are the major challenges that hamper the role BARC in your kebele were frequently observed? According to the majority of them are skill gap, education, market chain, deforestation and ethnicity problems are frequently observed. Moreover, as mentioned by some group respondents' participants specially, Bachere Oda Gibe and Cheka Dimtu kebele community who living in this area are challenges by ethnicity problem based on local natural resources such as land use conflict between cultivators and livestock keepers. Therefore, the role of both BARC and woreda agriculture offices regarding the distributions of using local natural resources through equitable among farmers in selected kebele were poor during discussion specially, the participation of Woreda agriculture office should be poor. But

the participation of BARC should be satisfactory. To sum up, the FGD respondents in supporting the above analysis of discussion confirmed that, the majority of participants pointed out that skill gap on using local resources, level of education, absences of market chain concerning plant/vegetation productions, deforestation, ethnicity problems and poor participation of woreda government/regional government and weak monitoring and evaluation method by BARC are the major problems that facing the role of BARC in improving livelihoods of farmers in selected kebele.

As mentioned by some group participants, after the coming the BARC our kebele, the above problems should be less solved regarding skill gap, education, market chain, deforestation, ethnicity problems. But their problem is still not solved in right ways especially concerning market chain, ethnicity problem based on using local natural resources and deforestation problem should be there fairly. From the above discussion, one can conclude that lack of market chain and ethnicity problems regarding in using local resources related causes contributions are a lot of the problems of local smallholder farmers in selected kebele of Bako- tibe woreda.

Furthermore ,Group Participants were asked to provide their opinion with regard to measures taken to address those challenges of BARC, Accordingly, all group participants should be accepted on the issues because BARC has provided training to farmers about the rule and regulation of local natural resources policy through equitable manner and those challenges of BARC implementation program in order to improve the living condition of smallholder farmers and to create awareness among farmers about the impact of conflict and to solve conflict through negotiation and diplomacy with help of kebele elders but regarding smallholder farmers there is big problem changed in to practices due to various reason such as ethnicity problems based on using local natural resources was the major ones because since both indigenious and non-indigenious smallholder farmers who live in Bako-Tibe woreda and also weak monitoring and evaluation provided training by both BARC and woreda agriculture office, However, according to group participants and document reviewed explained that, those challenges should be reduces with the efforts of BARC but their problem could not be still effectively and efficiently addressed because of this their implementation program should be poor.

Conclusion, FGD respondents suggested the following possible solution in the future for the perceived problems in carrying out challenges of the role of BARC in implementation program in smallholder farmers kebele, Some of the possible solution the group participants what you have raised are the following points. In order to move out chronic poverty and famine to realize food security of rural farmers kebele, both BARC and WAO should be work cooperatively and both the organization must be provided continuous training to all local farmers about challenges of BARC in implementing their program in selected kebele of smallholder farmers and to creates more awareness among farmers about advantages of BARC for the contributions of smallholder farmers and After training both organization should be weekly or monthly monitoring and evaluate training that are provided by BARC for the implementation of program in selected kebele of smallholder farmers of Bako-Tibe Woreda are the major ones. Finally, group participants concerning measures taken to address those challenges of BARC implementation program, both BARC and WAO should be provided continuous training to tackle those challenges to realized food security of rural farmers and to strength more law and regulation of using local natural resources and should be punished by money and prison a farmers who participated in deforestation activities and ethnicity conflicts based on local natural resources because this problem are big obstacles for BARC implementation program in selected kebele of woreda were among the suggestions given.

#### 4.4. Staff member on the role of BARC.

**Table 4.3 Staff members on significances of the role of BARC in selected kebele of farmers.**

No	Items	Val ue	Responses					
			Staff members of BARC					
			SA	A	UND	DA	SD A	Total
1	The role of BARC is significant on the pilot kebele of Bako-Tibe woreda.	F	1	5	0	0	0	6
		%	16.7	83.3	0	0	0	100
2	BARC has helped the local farmers in utilizing local resources effectively.	F	0	4	0	2	0	6
		%	0	66.7	0	33.3	0	100
3	BARC has provided training for smallholder farmers on how and to use the plant/vegetation product effectively.	F	0	5	0	1	0	6
		%	0	83.3	0	16.7	0	100
4	BARC has helped the local farmers in Bako-Tibe woreda pilot kebele in using modern	F	0	1	0	5	0	6

	irrigation and animal husbandry activities effectively.	%	0	16.7	0	83.3	0	100
5	BARC has helped the local farmers in Bako-Tibe woreda pilot kebele's on green pepper. Coffee and mango production and bee keeping and honey production.	F	2	4	0	0	0	6
		%	33.3	66.7	0	0	0	100
6	BARC has supported/training the local farmers of Bako-Tibe woreda pilot kebele' on how to use and conserving local natural forest and environment protection.	F	1	5	0	0	0	6
		%	16.7	83.3	0	0	0	100
7	BARC has provides training for the local farmers how to farming their land, improved seeds, fertilizers used to increase productivity of farmers.	F	1	5	0	0	0	6
		%	16.7	83.3	0	0	0	100
8	BARC is supporting the local smallholder farmers in food security.	F	1	5	0	0	0	6
		%	16.7	83.3	0	0	0	100
9	BARC has assists the local farmers to form a cooperatives so that they can benefit from the local natural resources effectively and responsible.	F	0	2	0	0	4	6
		%	0	33.3	0	0	66.7	100
10	BARC has played significant role on agriculture in Bako –Tibe woreda.	F	1	5	0	0	0	6
		%	16.7	83.3	0	0	0	100

**Source: (Own survey. 2017)**

**Note that:** SA=strongly agree 4A=agree, UND=undecided, DA= disagree, SDA= strongly disagree,

As can be shown in item 1, the above table 4.3, Items 1, states that 1(16.7) of respondents has strongly agreed that the role of BARC in their kebele is significant. In line with this 5(83.3) of respondents made their agreement on the issues. Therefore, the data clearly shown us all the 100% respondents has made their agreement with the statement that the role of BARC in pilot kebele are significant. As it is indicated in item 2, the above table 4.3, respondents were asked about the BARC assistance for efficient and effective usage of local resources. Accordingly, 2(33.3) of respondents has disagreed that the BARC doesn't helped the local farmers in usage of local natural resources through effectively While 4(66.7%) of respondents made their agreement with the statement. Therefore, the data shows that majority of the respondents agreed with the statement. As it is indicated in item 3 the above table 4.3, respondents were asked on provides training for the farmers plant/vegetation product effectively used, accordingly, 5(83.3) respondents have made their agreement on the point and the rest 1(16.7%) also disagreed with

the statement. Therefore, the data revealed that, majority of respondents accepted BARC has been provides training for farmers on how to produced and used plan/vegetation product effectively.

As it is revealed in the above table 4.3, Items 4, respondents were asked on the role of BARC in using modern irrigation and animal husbandry products effectively, Accordingly, from the six respondents, 5(83.3%) of them disagreed with this statement and 1(16.7%) respondents agreed with the statement. Therefore, the result shows that majority respondents have put their disagreement with this statement. As can be shown from the above table 4.3, Items 5, from six (6) respondents, 2(33.3%) of the respondents strongly agreed While 4(66.7) of the respondents agreed with the statement that the BARC has provide training local farmers in pilot kebele on how to used coffee, Green pepper and mango production and bee keeping and honey production Therefore, the result shown us none of the six respondents agree with the statement. As it is indicated the above table 4.3, Items 6, presents that 1(16.7%) of the respondents strongly agreed While 5(83.3%) of the respondents agreed on this issues that BARC has helped farmers in pilot kebele on conserving local natural resources and environmental from damage. Therefore, the result shown us none of the six respondents agreed on this point.

As it is indicated in table 4.3, Items 7, respondents were asked on provides training for the farmers concerning how to farming their land, improved seed and fertilizers, accordingly, 5(83.3) respondents have made their agreement on this point and the rest 1(16.7%) also strongly agreed with the statement. Therefore, the data revealed that, majority of respondents accepted BARC has been provides training for farmers. As it is revealed in the above table 4.3, Items 8, respondents were asked on realized food security of rural farmers. Accordingly, 1(16.7%) of the respondents strongly agreed While 5(83.3%) of the respondents agrees with the statement that BARC is supporting the farmers in food security. Therefore all the respondents accept on this issues .As it is indicated in the above table 4.3, Items 9, respondents were asked that the role of BARC in supporting the local smallholder farmers to form cooperatives. Accordingly, Majority of the respondents 4(66.7) has put their level of disagreement on this point While 2(33.3) are agreed with the statement that BARC assists local farmers to form a cooperative. Therefore, the data shows majority of the respondent 4(66.7) didn't supported the idea that BARC assists the



local smallholder farmers to form a cooperative so that they can benefit from the local natural resources.

Finally, as it is indicated in the above table 4.5, Items 10, respondents were asked that on the role of BARC on agriculture in the woreda. Accordingly, Out of the six respondents 1(16.7) respondents have strongly agreed with this statement while 5(83.3) respondents has showed their agreement on the point. Therefore, All of the respondents 6(100%) are agreed on the issue that BARC has importance on the agriculture in the woreda.

Furthermore, data obtained from two key informant interviewed and document review were asked about the general objectives of BARC, concerning their role, contributions and challenges in improving the living condition of smallholder farmers, Primarily, according to two key informant interviewed participants said that, the contribution of BARC to smallholder farmers in order to realized food security of farmers, the organizations should be supported/provided training for the local farmers regarding how to used local resources through responsibly or effectively ways as well as how to farming their land system, crop production, improved seed, fertilizers and how to produces modern coffee, Green pepper and mango production, how to conserves local natural resources and environmental protection, how to produce modern plant/vegetation product, modern animal husbandry, irrigation used effectively and agriculture should be supported/training for the local smallholder farmers in order to move out poverty and famine to realized food security of rural smallholder farmers in selected kebele even out the woreda. But when we see the practical ways that are exercised by the local smallholder farmers should be poor because of their skill gap, financial problems and also due to lack of interest to learn from model farmers. In additions to this, the interviewed participants said that, concerning, modern use of irrigations and animal husbandry activities effectively that are exercised by local smallholder farmers should be poor because our organizations activities in selected kebele should be poor,

Conclusion, according to interviewed respondents suggested the following possible solution in the future, the BARC should be work more cooperatively with farmers and WAO and should be cooperate farmers 1 to 5 group without ethnicity problem as well as to provided continuously training to reduce skill gap of farmers with the help of WAO and other stakeholder and with

local farmers through unity in order to realized food security of rural farmers as well as to promote economic development of our country.

#### 4.5 Challenges that facing the role of BARC in implementing their program in selecting kebele.

**Table 4.4 Staff members on challenges that hamper the role of BARC**

No	Items	Value	Responses.					
			Staff members of BARC.					
			SA	A	UN D	DA	SD A	Total
1	The facts that the local farmers are educated affect the income they generate from local natural resources.	F	1	5	0	0	0	6
		%	16.7	83.7	0	0	0	100
2	The local farmers have skill gap of using the local resources before the intervention by BARC	F	0	5	0	1	0	6
		%	0	83.7	0	16.7	0	100
3	BARC has helped the local smallholder farmers to improve their skill gap of using local natural resources.	F	0	5	0	1	0	6
		%	0	83.7	0	16.7	0	100
4	There is a market chain for farmer's products forest.	F	0	2	0	4	0	6
		%	0	33.3	0	66.7	0	100
5	The local farmers had an increased income from selling of forests product after the intervention by the BARC	F	1	3	0	2	0	6
		%	16.7	50.0	0	33.3	0	100

**Source: (Own survey, 2017)**

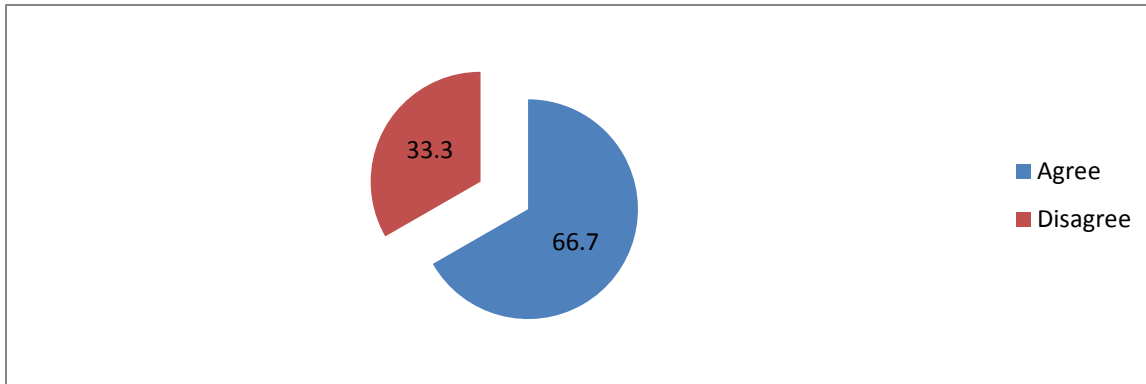
**NB:** SA=strongly agree A=agree, UN=undecided, DA= disagree, SDA= strongly disagree, As it is indicated in the above table 4.4, Items 1, respondents were asked on education. Accordingly, 5(83.7) of the respondents agreed on the point While 1(16.7) of the respondents strongly agreed with the statement. Therefore, Based on finding of data the fact that the farmers are educated affects the income they generated from local resources. As it is indicated the above table 4.4, Items 2, showed us more than 5(80%) of the respondents are agreed that farmers have

skill gap to use local natural resources before the intervention by the BARC. But few respondent that means 1(16.7) of the respondents which accounts for 1/6 were against the statement. Therefore, we can see from the table that majority of the respondents are accepted that the presences of skill gap before the intervention by BARC.

As it is revealed in the above table 4.4, Items 3, indicates that the BARC assistance for the improvement of the skill gap of farmers. Accordingly, (16.7) of respondents has disagreed with the statement and 5(83.3) of respondents has made their agreement with the statement. Therefore, the data shows that majority of the respondent are accept on the issues. Finally, concerning the above table 4.4, Items, 4, revealed that the responses of respondents on existence of market chain. Accordingly, from out of the six of the respondents, 2(33.3) have agreed with the statement While 4(66.7) disagrees on this issues. Therefore, the data shows that majority of the respondents didn't agree on this point.

Finally, as show the above table 4.4, Items 5, revealed that the income of smallholder farmers gained after the intervention by the BARC. Out of the 6 staff member respondents very few respondents which are only one individual respondent have shown its disagreement with this statement and more than 95% of them agree with this statement. Therefore, from the above data indicates that, majority of the respondents accepted with the statement that after the intervention of BARC, Farmers income from selling of plant/vegetation products should be satisfactory. But there was lack market chain still know.

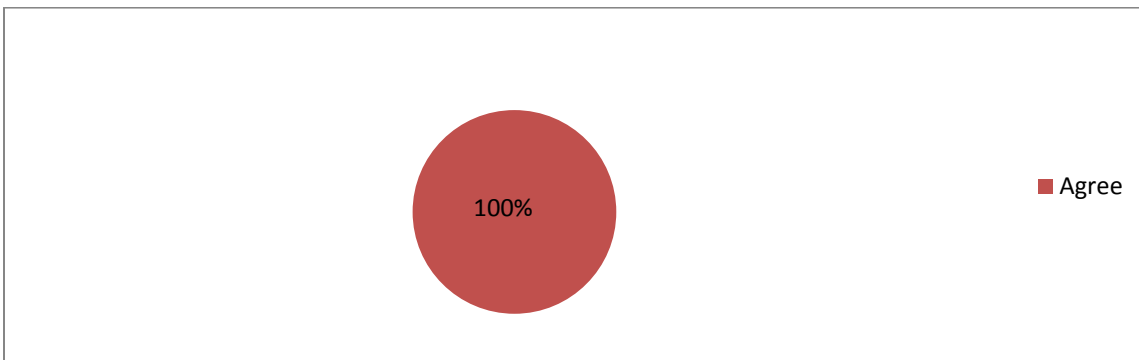
**Figure 4.4 Staff member responsibility to search for a market chain.**



**Source : ( own survey, 2017)**

As it is indicated in the above pie chart 4.4, respondents were asked that BARC is in charge of searching market chain for the farmers' forest products. Accordingly, 4(66.7%) of respondents has agreed with this statement and 2(33.3%) of respondents has put their disagreements on the points. Therefore can see from the figure that majority of the respondents has accepted on this statement that BARC has charge of searching market chain for farmers plant/vegetation products in increase income of smallholder farmers in selected kebele.

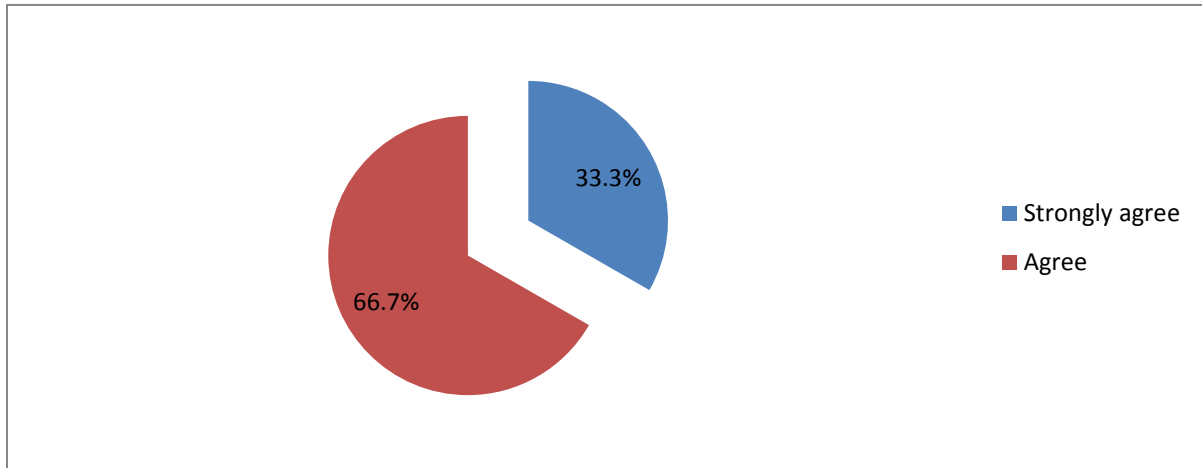
**Figure: 4.5 Staff members on deforestation.**



**Source: (Own survey, 2017)**

As it is indicated in the above pie chart, respondents were asked that, all respondents are accepted on statement that there is deforestation in the selected pilot's kebele's of Bako-Tibe woreda.

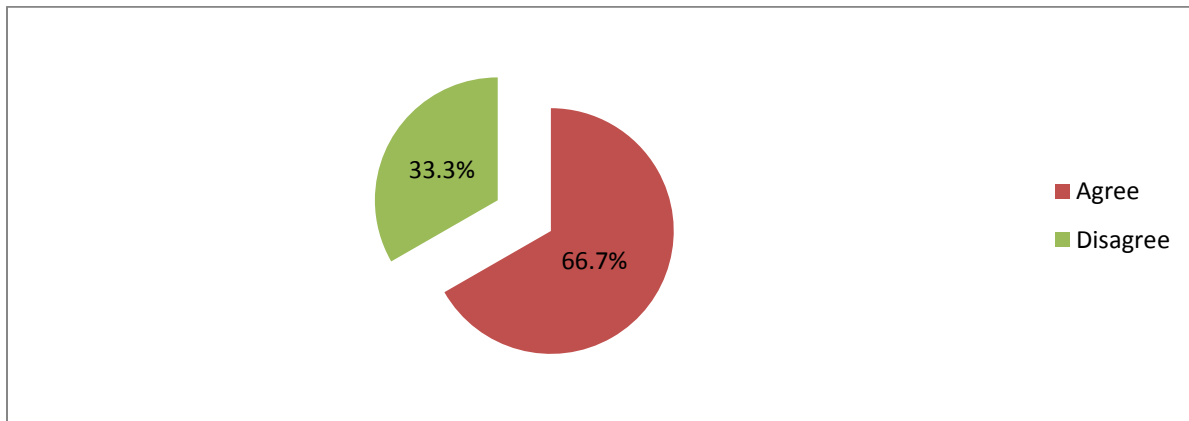
**Figure: 4.6 Staff member of BARC on effort to reduce deforestation**



**Source : ( own survey, 2017)**

As shown the above Figure 4.6.presents that the BARC has made its effort to reduce deforestation. Accordingly, from the six respondents, 2(33.3%) of the respondents have strongly agreed with this statement and each one of the reaming 4(66.7) respondents has agreed on this point. Therefore, when we see the majority of the respondents that means 6(100%) respondents are accepted on this issues that the role of BARC has significant.

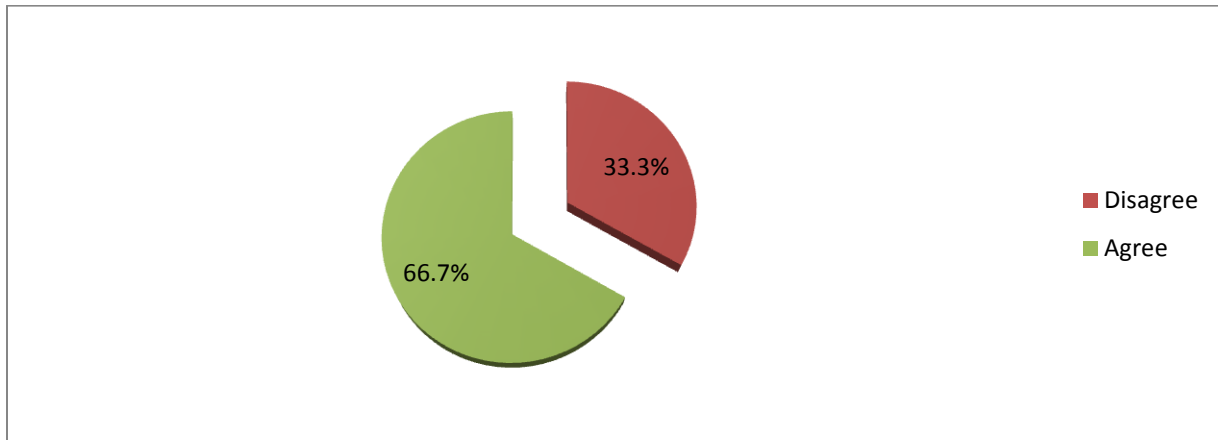
**Figure: 4.7 Staff member of BARC on ethnicity problem in using the local resources.**



**Source: (own survey, 2017)**

As it is indicated in above pie chart 4.7, indicates that, 4(66.7%) of the staff member shows there is the existence of ethnicity problem on the usage of the local resources. While 2(33.3) respondent has put its disagreement with this statement. Therefore, the majority of the respondents show that there is the existence of ethnicity problems on using natural resources.

**A figure 4.8 staff member on the local government has made an intervention to reduce the problems.**



**Source: (own survey, 2017)**

As it is indicated the above pie chart 4.8, revealed that data shows the intervention of local/regional government in the kebele so as to make the beneficiary of farmers to use its local resources in equitable manner. From the 6 respondents 4(66.7%) of them forwarded its agreement with the statement While 2(33.3%) has forwarded their level of disagreement with this statement. Therefore, based on finding of data, majority of respondents didn't agree on this issue that the participations of local/regional government to reduce those conflicts should be poor.

Furthermore, data gathering from the key two informant interview and document review check list, According to interviewed participants said that, the challenges that faces BARC in its operation in the farmer kebele, the first challenges is the knowledge to how to produce more and better forest products by the farmers what we call it skill gap and education and the second challenges are deforestation in the selected kebele of farmers. The third challenges are the ethnicity problem available in the community. As known the majority of the community living in the selected kebele of woreda are indigenous people But there are also less non indigenous people who living the selected kebele of woreda. The four challenges is lack of market chain for the farmer plant/vegetation products and less knowledge about the benefit of plant/vegetation products and the fifth challenges is less involvement of regional and local government on the issues that they need to solve. Finally, there is weak monitoring and evaluation methods by the BARC should be confirmed during interviewed participant said.

Conclusion, message transferred from interviewed participants, In order to move out poverty and famine to realized food security of farmers, interviewed participants suggested the following possible solution in the future for the perceived problems in carrying out challenges that the role of BARC in implementation their program in selected kebele. Some of the possible solution the interview participants what you have raised are the following points. The smallholder farmers need regular motoring and evaluation about their progress and need recognitions from them. The local community, BARC, leader of community, government and other organizations are key players in terms of meeting those challenges and bringing about these essential changes on the living condition of the smallholder farmers/community and continuous awareness/training creation mechanism need to be delivered for the officials of the woreda and after training should be monitoring and evaluating both by BARC and WAO the effectiveness of training program and implementation and finally, should be more strength law and regulation on using local natural resources policy and to be punished by money and prison a farmers/community who involved specially ethnicity conflict based on using local natural resources and deforestation activities in their kebele because this two issues are a big problem for the implementation program of BARC in pilot of kebele of farm land.

**4.6. The measures taken to address challenges that hamper the implementation program of BARC and their effectiveness and efficiency to reduce those challenges.**

Table.4.5. Measures taken to address challenges that hamper the implementation program of BARC and their effectiveness and efficiency to reduce those challenges.

No	Items	Value	Responses					
			Staff members of BARC					
			SA	A	UN D	DA	SDA	Total
1	Is there your organization measure taken to address the challenges that hamper implementation of program of BARC?	F	0	6	0	0	0	6
		%	0	100	0	0	0	100
2	If you take the measures, is there reduces the challenges that hamper the	F	0	4	0	2	0	6

	implementation of program of the organizations (BARC).	%	0	66.7	0	33.3	0	100
3	The local or regional government has made an intervention to reduce challenges that hamper the role of BARC?	F	0	2	0	4	0	6
		%	0	33.3	0	66.7	0	100
4	Is there effectiveness and efficiency to reduce those challenges that hamper the organizations?	F	0	1	0	5	0	0
		%	0	16.7	0	83.3	0	0

**Source :( own survey, 2017)**

**NB:** SA=strongly agree A=agree, UND=undecided, DA= disagree, SDA= strongly disagree,

As it is indicated the above table 4.5 of Items 1, indicates that 6(100%) responses of respondents said that, Our organizations should be taken serious measures to address those challenges of implementation its program in selected kebele. As shown the above table 4.5 of Items 2, revealed that data shows that 4(66.7%) respondents should be agreed on the issues While 2(33.3%) respondents didn't accepted on this statement. Therefore, based on finding of data majority of respondents should be agreed on this issues that after the organization measures taken to address those challenges should be minimized.

As show the above table 4.5 of Items 3, revealed that the intervention of local or regional government to reduce the challenges that hamper the implementation program of BARC. Accordingly, 2(33.3%) responses of respondent should be agreed on the issues While 4(66.7) respondent didn't accept on the issues. Therefore, from the above data indicates that, majority of the respondents said that the role of either local or regional government concerning measures taken to address those challenges that hamper the implementation its program in selected kebele should be poor. Finally, from the above table 4.5 of item 4, regarding effectiveness and efficiency to reduce those challenges that hamper implementation program of organizations, Accordingly, 5(83.3%) responses of respondents didn't accepted on the issues But1(16.7%) respondents should be accepted on the statement. Therefore, when we concluded from the above data, majority of respondents said that there is no effectiveness and efficiently to reduce the challenges that hamper implementation program of the organizations in selected kebele.



In generally, data gathering from the manager of BARC and one key informant staff members and document reviewed, respondent were asked is there measures taken to serious address those challenges program implementation of your organization which are practical exercised by farmers either direct or indirect factors, According to an interview participants explained that there were serious measures taken to address those challenges of BARC specially the issues of ethnicity conflicts based on using local natural resources has a big challenges problems of our organization even the problem of Ethiopian agriculture for today and similar with problems of market chain and deforestation and weak monitoring and evaluation method by WAO are the majors ones, so that, in order to reduces those challenges to secured food security rural farmers in selected kebele, Our organization should be worked day in and day out with WAO and smallholder farmers by provided training/awareness about the role of BARC in improving farmers life as well as those challenges that hamper our organization and provided training about the policy and strategies of using local natural resources through equitable manner without ethnicity problem But when we come to implementation, there was poor due to ethnicity conflict based on using local natural resources because since both indigenous and non-indigenous smallholder farmers who live in selected kebele of Bako-Tibe woreda,

Therefore, BARC should be go to kebele and place of farmers to discussion about the issues, so that, according to interview participants said that after long time discussion should be arrive on consensus i.e. this kinds of bad actions should not be repeated again in our kebele even all farmers should be oath for to live peace and stability and to use their local natural resource through equitable manner, However, after six month or one year, Ethnicity conflicts based on using local resources should be occurred again this happened because of WAO and KA should not be monitoring and evolution after provided training by BARC even by BARC and breakdown of rule and regulation of local elders. Therefore, the participation of WAO, KA and BARC regarding controlling conflict should be poor because of this conflict should be raised. And similar with the activities of deforestation in selected kebele this happened due to over population who live in selected kebele because of this their effectiveness and efficiency measures taken to address those challenges of BARC implementation its program in selected kebele should poor. And also again, concerning market network their problems should be viable

according to interviewed participant secured, therefore, the market chain of plant/vegetation product of farmers should poor.

Conclusion, what we concluded from the two key interviewed participant, in order to realized food security of rural farmers in selected kebele in the future, Firstly, both BARC and WAO even KA should be work cooperatively with daily actively participation of kebele farmers. secondly, also provided continuous training/awareness to address those challenges of BARC implementation its program in selected kebele of smallholder farmers specially to avoid ethnicity problems based on using local natural resources and similar with deforestation activities. Thirdly, after training should monitoring and evaluate with help of WAO and KA concerning the implementation of program. Fourthly, concerning those challenges, both BARC and WAO should be more strength Law and Regulations Due to the nature and extent of forest destruction, efforts to stop the farmers activities can be complemented by laws and regulation at governmental and organizational levels. As much as farmers increasingly become aware of deforestation consequences and keeping the local forests viable and finally, replanting of forests that have been reduced by fire or felling to secured food security of rural farmers. Fifthly, to be punished by money and prison smallholder farmers or local community who participate again on ethnicity conflicts based on local natural resources and deforestation activities with the help of woreda/regional government, local smallholder farmers/local community who live in woreda and other stakeholder in order to realized food security of rural farmers in woreda. Finally, regarding market chain, in the future both BARC and WAO should be searching market chain of farmers especially farmers who produced plant/vegetation product as local or regional and national level to increase income of rural farmer.

Conclusion, the researcher concluded that data gathering from FGD and interviewed of both farmers and staff members, concerning the role of BARC both respondents should be provided all most similar answers on the issues but some responses has different between the respondents especially regarding irrigation and cooperative activities their answers should be less different on the issues. This difference answers happened because of skill gap and awareness between farmers to farmers as well as farmers to BARC and as the study revealed, the major challenges that facing the implementation program of BARC in improving living condition of farmers that confirmed through by questionnaires, FGD, interview and observation, both respondents should

be provided similar answers such as skill gap, education, market chain, deforestation, ethnicity conflict based natural resources, land use conflict especially between livestock keepers and cultivators and weak involvement of woreda agriculture office and BARC are the challenges that are facing BARC currently. These challenges occurred because of weak monitoring and evaluation method by both BARC and WAO.

However, the researcher has crosschecked what the staff members and farmers' responses data gathering from FGD and interview. So that, responses of FGD with farmers has almost similar to responses of key informant interviewed with staff members. As can see above smallholder farmers in selected kebele of Bako-Tibe woreda have skill gap and awareness how to using local natural resources through equitable manner and how to produced and using plant/vegetation product effectively and efficiently used. So, there is a gap what farmers claim about agriculture policy and what the smallholder farmers have developed. This may lead to smallholder farmers' gap of promoting their income.

## **Chapter Five**

### **Summary, conclusion and Recommendations**

In this chapter, the researcher presented the summary, conclusion and recommendation of the findings.

#### **5.1. SUMMARY OF THE MAJOR FINDINGS**

This study attempted to investigate the role of NGO's in improving living condition of smallholder farmer in Bako-Tibe woreda's of west shewa zone, Oromia: A case study of BARC. The study was based on descriptive survey research design was used because useful when the purpose of the research is to picture the current situation. Furthermore both qualitative and quantitative research methods were employed so as to come up with adequate/proper findings. The data were gathered from primary and secondary data sources. The Primary data was collected through questionnaires, key-informant interview, FGD and observation while the secondary data for the study was obtained from WARDO and BARC and from different sources like web sites, policy and annual reports of organization.

A multistage sampling technique was used in this study for the selection of the smallholder farmers, staff members and respondents. The first sampling stage employed purposive sampling to select 5 out of 28 kebele of Bako-Tibe woreda. five kebele namely Bechera Oda Gibe, Amarti Gibe, Cheka Dimtu, Oda Gudeya and Oda Haro were purposively selected, The criteria for selecting the kebele was the presence of BARC which provide agricultural support in those kebele and the presence of large number of farmer groups which were caused by land use conflict between livestock keepers and cultivators. The second stage, purposive sampling to select 6 out of 87 employees staff members. The criteria for selecting staff members were based on their willingness and responsibility in the organization. The third stage was the sampling of respondents. A sample of 135 respondents was obtained by simple random sampling techniques from the five selected kebele and six selected employees' staff member respondents to fill the questionnaire.

Data were gathered from Questionnaires, interview and focus group discussion, observation and document review were employed together information. For smallholder farmers in selected kebele a questioner which was translated in Afaan Oromoo and focused group discussion was

employed while for the staff members a questioner and an interview was examined. Therefore, from 135 questionnaires were distributed from sample respondents. But 103 of them have been properly filled and returned. All the six questionnaires distributed for the staff members of were also properly filled and returned. The data collected were analyzed by using table, percentages, frequency counts, graph, and chart and the qualitative data was analyzed using content descriptive technique based on the analysis of basic questions and interpretations of data, the major findings of the study are summarized as follows.

With regard to the role and contributions of the BARC in improving livelihood of smallholder farmers as frequency counts, percentages respondents reported that, The majority 90(87.4%) and 5(83.3%) of farmers and staff members respondents reported that role of BARC should be important in improving living condition of smallholder farmers. But concerning utilizing local resources and plant/vegetation product effectively used, half of the above of respondents 61(59.2%) reported that the BARC couldn't helped effectively while Majority of staff members respondents 5(83.3) reported that BARC has helped the local farmers how to used local natural resources through equitable manner and plant/vegetation products effectively used but their effectively implemented should be poor, While majority 64(62.1) farmers respondents said that the BARC should be training how to produce plant product as well as how to conserve natural resources or environment from damage and majority of staff members said that BARC has provided training to smallholder farmers But their implementation should be satisfactory.

Regarding, how to produce modern (technical used) coffee, Green pepper, mango and how to used farming their land system, improved seeds and fertilizers and bee keeping and honey production, majority 90(87.4) respondents reported that, the BARC should be training for farmers. But concerning, modern irrigation, animal husbandry and cooperative, majority of the respondent said that, the participations of BARC should be poor. While majority of the staff members' respondent said that, BARC should be provided training to farmers but the implementation should be poor. Therefore, in order to avoid knowledge gap/ awareness among the farmers in their responses to open-ended questions, interviewed and FGD respondents suggested the following possible solution, some of the possible solution the interviewed and group participants what you have raised are the following points:- Both WAO and BARC should be work together as well as both the organization must be provided continuous training to all

local farmers and after training should be monitoring and evaluation the training who living in the woreda regarding production and productivity of agriculture method and how to use local natural resources in equitable manner, how to protect environment from damage and to developing and giving awareness of stakeholders to participate in agriculture activities to develop a sense of the role and contributions of BARC in improving the living conditions of smallholder farmers as well discussing with head of WAO, local community of kebele and BARC continuously to solving problems of smallholder farmers in order to secured food security of rural farmers.

Concerning challenges that hamper the role BARC program implementation as frequency counts, percentages as well as interview and focus group discussion respondents reported that, majority of the respondent both farmers 95(88.5%) and staff members 5(83.3%), skill gap, education, market chain, deforestation, ethnicity problem, weak involvement of regional and local government and poor monitoring and evaluation methods by BARC are the challenges that hamper the implementations program of BARC currently in Bako-Tibe woreda. Therefore, in order to reduce those challenges of organizations to secured food security of rural farmers the respondents were offer to list possible solutions through interview and focus group discussion. Smallholder farmers need regular motoring and evaluation about their progress and need recognitions from them. The local community, BARC, leader of community, government and other organizations are key players in terms of meeting those challenges and bringing about these essential changes on the living condition of the smallholder farmers/community and to create continuous awareness/training creation mechanism need to be delivered for the officials of the woreda.

Data gathering from questionnaires, interview and FGD of both staff members and farmers, there were a serious measures taken to address those challenges of BARC such as provide continuous awareness and training for both smallholder farmers and woreda agriculture office and to strength Law and Regulations, to be punished by money and prison specially the issues of ethnicity conflicts based on using local natural resource and land use conflict especially between livestock keepers and cultivators because this issues were a big challenges problems of BARC even the problem of Ethiopian agriculture as well as similar with the problems of market chain and deforestation are the majors ones But when we come to implementation, there was poor due

to ethnicity conflict based on using local natural resources and land use conflict especially between livestock keepers and cultivators because since both indigenous and non-indigenous community who live in selected kebele of Bako-Tibe woreda and also the involvement of local and regional government should be poor because of this conflict should be raised. And similar with the activities of deforestation because of this their effectiveness and efficiency measures taken to address those challenges implementation program of BARC should poor and Concerning market network their problems should be viable, so that, the forest product of farmers should be poor market linked.

Conclusion, the researcher concluded from interview participant's and FGD, in order to realized food security of rural farmers, in the future both BARC and WAO even kebele leaders should work together with daily actively participation of kebele farmers and also provided continuous training to address those challenges of BARC and to daily monitoring and evaluate with help of woreda office and kebele leader concerning the implementation of program and also concerning deforestation and ethnicity problem based on using local natural resources, Both BARC and WAO should be more strength Law and Regulations Due to the nature and extent of forest destruction, efforts to stop the farmers activities can be complemented by laws and regulation at governmental and organizational levels, As much as farmers increasingly become aware of deforestation consequences and to be punished by money and prison. Finally, regarding market chain, in the future both our organization and woreda agriculture office should be searching market chain at local/regional and national especially for plant/vegetation product to increase income of farmers.

Generally, as can be see above smallholder farmers in selected kebele of Bako-Tibe woreda there were skill gap and awareness how to used local natural resources through equitable manner and plant/vegetation product and vegetation effectively and efficiently used. So, there is a gap what farmers claim about agriculture policy and what the smallholder farmers have developed. This may lead to smallholder farmers' gap of promoting their income.

## 5.2 CONCLUSION

From the results of the study, it was implied that there were many factors that hinder effective implementation program of BARC in improving living condition of smallholder in selected kebele of Bako-Tibe woreda of west shoa zone oromia. In order to implement the program effectively, enhancing the involvement of community, local and regional government and providing awareness for all stakeholders and after training monitoring and evaluating are most important. Accordingly, the findings of research indicated that training given on smallholder farmers was unsatisfactory and less consistent due to ethnicity problem based on using local natural resources through equitable manner. Furthermore, the study revealed that there were skill gap, education, market chain, ethnicity and land use conflicts, deforestation, less involvement of local and regional government and poor monitoring and evaluation method by BARC has the challenges that facing the implementation program of BARC in improving the living conditions of smallholder farmers currently in Bako-Tibe woreda.

Therefore, based on findings, it is possible to conclude that the implementations of BARC improvement program has not done much as indicated in challenges frame work in the sample respondents .As a result, this clearly indicated that the BARC are not effectively addressing the needs of the smallholder farmers living conditions. Generally, BARC of the study area were unsatisfactory in implementation of smallholder farmers living conditions improvement program due to ethnicity problem based on local natural resources and less monitoring and evaluating method by BARC because of this there was no effectively and efficiently to reduces those challenges.



### 5.3. RECOMMENDATIONS

The study revealed that some important point needs future attention by BARC and the concerned stakeholders. The research suggests the following points as a recommendation. The recommendation may help for enhancement and strengthen the living condition of the smallholder farmers in the future. Therefore, in the light of the results of this study the researcher recommends the following:-

- To enhance productivity and economic viability of the local smallholder farmer's frequent and continuous training, technical advice and material support should be the prior concern.
- To diversify the market link for the local smallholder farmers product.
- Forest or Natural vegetation's play a crucial role in the livelihoods of the farm households, but deforestation is a severe problem in Bako-Tibe Woreda. Hence, the BARC and woreda's agriculture and rural development office should take in to consideration the participatory afforestation programs.
- To facilitate the implementation of the program by BARC continuous awareness creation mechanism need to be delivered for the official of the woreda.
- At present there is no clearly stated policy regarding the usage of local resources in the region. As a result a lot of problems exhibited in the woreda of the region. In order to minimizes and address this program comprehensive regional policy, law and guidelines that support forest dependent farmers access, forest use right and benefit sharing arrangement is quite indispensable to solve the existing problem.
- There are a lot of local natural resources available in the woreda. If BARC or other NGO's even the government intervene on other woreda then it will make the farmers more profitable and contribute much for the GDP growth of the woreda or region in particular and for the country in general.
- The BARC need to develop forest based livelihood assessment and participatory value chain analysis and
- Irrigation potential of the study area is higher, but people's involvement is very limited or minimize. Therefore, BARC and WAO should work on this issue to enhance farmer involvement in irrigation activities etc.

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**Appendix A: Survey Questionnaire Administered to Smallholder Farmers of selected kebele's.**

**JIMMA UNIVERSITY**

**COLLEGE OF LAW AND GOVERNANCE**

**DEPARTMENT OF GOVERNANCE AND DEVELOPMENT STUDIES**

**Topic: The Role Played by NGOS in agriculture to improve smallholder farmers in Bako-Tibe woreda's kebele's of West shoa zone of Oromia: A Case study of Bako agricultural research center.**

**Questionnaire to be completed by kebele's household farmers**

**Dear Respondents:**

This questionnaires' aims to assess the role of NGO's in agriculture to improve household farmers in Bako Tibe woreda's: The case of Bako Tibe woreda's. It is intended for academic purpose only for preparation of a thesis.

Your first-hand information has a paramount value for me and your answer is fully confidential and creates no harm to you. Make a tick for your answers on the box provided.

Thanks for your cooperation in advance.

Socio demographic characteristics of the smallholder farmers.

1. Age.

Below 18 years

36-65 years

19-35 years

above 65 years

2. Sex. Male

Female

3. Marital status.

Single

Widowed or widow

Married

Divorced

4. Occupation.

Farmer

Hand craft

Civil servant

Merchant

Daily laborer

Honey producer





	kebele's on agriculture activities.						
Questions regarding factor affecting role of Bako agricultural research center.							
14	I have a skill gap of using the local resources before the intervention by Bako agricultural research center.						
15	I have used my own mechanism to improve my skill to use forest products more efficiently.						
16	Bako agricultural research center has helped me to improve my skill gap of using resources.						
17	Don't have a skill gap after intervention by the Bako agricultural research center.						
18	I have a market chain for my forest (vegetation) products.						
19	I will search a market chain for my products.						
20	Bako agricultural research center will search a market chain for my forest products.						
21	My market chain is						
A	Local						
B	Regional						
C	National						
D	International						
22	There is forest deforestation in my kebele's.						
23	Deforestation reduces the income I generate from the forest products.						
24	There is a measure taken to reduce deforestation						
25	Though there is measure taken to reduce deforestation and the problem is still existed.						
26	Bako agricultural research center has made an effort to reduce deforestation.						
27	The production of my forest(vegetation) products is						
A	High						
B	Medium						
C	Low						
D	None						
28	My production has made increasing after the intervention by Bako agricultural research center.						
29	My Educational level affects the income I generate from local resources.						
Questions regarding major constraints (challenges) they are facing to implementing the role of Bako agricultural research center.							
30	There is ethnicity problem in my kebele's.						
31	The local or regional government has made an intervention to reduce the ethnicity problems so that the community uses the local resources in equitable manner.						
32	There is a cultural problem in using the local resources.						
33	Cultural problem has been reduced by major effort of						
A	Government						
B	Bako agricultural research center						

C	Elders of kebele						
D	Others						
34	The cultural problem has not been reduced yet.						
Questions regarding living conditions of the smallholder farmers.							
35	I had an increasing income from selling of forest products before the intervention by Bako agricultural research center.						
36	My family/own life has been changed from efficient utilization of local resources.						
37	I have opened my own business from the income I generate by selling forest products.						
38	The income I generate from the selling of forest products is sustainable.						
39	I have efficiently utilizing all local resources.						
40	Is there measures taken to address those challenges of BARC.						

Close ended question for smallholder farmers.

41. What type of role do you think the Bako agricultural research center plays to increase the living conditions of the smallholder farmers? -----  
-----

42. What challenges do you face in utilizing the local resources efficiently? -----  
-----

43. What measures taken to address challenges that hamper the implementation program of BARC?-----  
-----  
-----



- 5 = Sirritti Walii galuu
- 4 = Walii galuu
- 3= Kan Hin murteessine
- 2= Kan walii hin galle
- 1= Kan sirritti hin fudhanne

T/L	Gosoota Gaaffii	5	4	3	2	1
1	Qorannoon G/Galeessa Qonna Baakkoo Ganda kee irratti gaheen inni qabu ol-aana (Baay'ee Barbaachiisaa) dha.					
2	Qorannoon G/Galeessa Qonna Baakkoo Qotee Bultoonni qabeenya uumamaa naannootti argamu haala gariin akka itti Fayyadamtuuf si gargaaraa jiraa?					
3	Gaaafii armaan gaditti tarreeffamanii jiraniif deebii Dhuunfaa kee kenni.					
	A) Qorannoon Giddu galeessa Qonna Baakkoo kun Oomisha Bunaa fi Maangoo gurgurtaan akka fayyadamtuuf si gargaaraa?					
	B) Qorannoon Giddu Galeessa Baakkoo Jallisii Ammayyaa akka fayyadamtuuf si gargaareeraa?					
	C) Qorannoon Giddu Galeessa Qonna Baakkoo kun Horii Ammaayyaa akka horsiiftuuf si deeggareeraa ?					
	D) Qorannoon Giddu Galeessa Qonna Baakkoo Qabeenya Uumamaa naannoo kan akka Bosoonaa Uumamaa akka sirritti kunuunsituuf hubannoo siif kene jiraa ?					
	E) Qorannoon Giddu Galeessa Qonna Baakkoo Qotee Bultoonni Naannoo isaanii akka kunuunsaniif isaan gargaareeraa ?					
4	Qorannoon Gidduu galeessa Qonna Baakkoo kun Oomisha Biqiltuu haala ammayyaan akka Oomishtuuf Leenjii siif kennee beekaa?					
5	Qorannoon Gidduu galeessa Qonna Baakkoo Qonna Ammaayyaa, Sanyii Filatamaa, Xaa'oo fi Xaa'oo Aadaa haala sirriin akka fayyadamtuuf Hubannoo siif kennee beekaa?					
6	Qorannoon Gidduu galeessa Qonna Baakkoo Wabii Nyaataa qotee bulootaa Mirkanessuuf sirritti gargaareera ?					
7	Qorannoon Gidduu galeessa Qonna Baakkoo Qotee bulootaa Naannoo gurmessuun Qabeenya uumamaa naannoo keessan keessatti argamu wal-qixxummaatiin akka fayyadamtaniif hubannoo isaniif kenne jiraa?					
8	Qorannoon Gidduu galeessa Qonna Baakkoo kun Qonna naannoo keef bu'aan inni buusaa jiru ol aanaadha?					
9	Qorannoon Gidduu galeessa Qonna Baakkoo Ganda kana keessatti Hojii adda adda irratti qindoominaan isin waliin hojjechaa jiraa?					
	Gaaffii miidhaa Dhaabbata Miti-Mootummaa irraatti fiduu danda'an irratti xiyyeffatu					
10	Qorannoon Gidduu galeessa Qonna Baakkoo kun osoo hojii Ganda keessan keessatti hojii hin eegaliin dura qabeenya uumamaa Naannoo keetti argamu haala gaaritiin faayyadamuuf hanqina beekumsaa ykn Dandeetti ni qabdaa?					
11	Qorannoon Gidduu galeessa Qonna Baakkoo kun Hojii erga eegalee booda qotee bulootaa Naannoo keef qabeenya uumama irratti rakkoo hanqina beekumsaa yookiin dandeettiisaan qaban jijjiree jiraa?					
12	Qorannoon Gidduu galeessa Qonna Baakkoo kun erga naannoo keessaan seenee hojii eegalee booda haqinni dandeettiifi fi beekumsaa					

	hin jiruu?					
13	Ati Oomisha biqiltuu Oomishte kanaaf Gabaa sirriitti ni qabdaa/ Gabaa kan ofiif barbaaduu sidhaa?					
14	Qorannoo Gidduu galeesssa Qonnaa Baakkoo Wal-hidhiinsa Gabaa isiniif uumee jiraa?					
15	Oomisha garaagaraa Oomishaa jirtaniif eenyutu wal-quunamsiisa gabaa isiniif taasisaa jiraa?-					
	A) Bulchiinsa					
	B) Naannoo					
	C) Biyyoolessa					
	D) Miti-Mootummaa					
16	Qorannoon Gidduu galeesssa Qonnaa Baakkoo Bosona Uumamaa fi Nam- tolchee akka kunuunsitaaniif Leenjii isiniif kenneraa ?					
17	Akka Ganda kee kanatti Bosona Uumamaa fi Nam- tolchee kan irra midhaan Abiidaa fi manca'insaa irra gahaa jiraa?					
18	Manca'iinsi Bosonaa naannoo kee keessatti uumamee galii Oomisha Bosona irraa argattuu hir'isee jiraa?					
19	Manaca'iinsa (Gubiinsa) Bosona uumamaa fi Nam- tolchee taasifame irratti tarkaanfiin seeraa fi bulchiinsaa fudhatamee beekaa? Yoo fudhatames rakkiniichi ammaas itti fufee jiraa?					
20	Qorannoon Gidduu galeesssa Qonnaa Baakkoo Maca'iinsa Bosoonaa hir'isuuf carraaqii guddaa godhee jiraa?					
21	Oomisha biqiltuu qotee bultoonni naannoo kee omishaa jiran:					
	A) Ol aanaa					
	B) Gidduu Galeessa					
	C) Gad-aanaa					
	D) Bu'aa tokkoollee hin qabu.					
22	Dhaabbanni kun erga Ganda keessan dhuufe Oomishni biqiltuu qotee bultoonii omishaan Dabalee jiraa?					
23	Hanqina ogeessa qonnaan Barnoonni Qotee Bultootaaf kennamuu dhabuun itti Faayadama Qabeenya Uummama Naannoo keessanii irratti miidhaa fiduun galii isin argaatan xiqqeessee jiraa?					
Kaayyoolee Dhaabbatni Qorannoo Gidduu-galeessa Qonna Baakkoo Qabatee Socho'u Gufachiisuu Danda'an beekuuf gaaffiilee qophaa'an						
24	Wal qoqqoodinsa Qomoo fi Aadaa Naanno keessaa bu'uureffate jiraa?					
25	Wal dhabdeen Qommoo fi aadaa bu'uureffatee jiratoota Ganda keessan jiddu jiru Mootummaan Naannoo, Bulchiinsi godinaa, aanaa fi Ganda jiddu galuun wal dhabdee kana hir'isutiin qabeenya uumamaa akka wal-qixa fayadamtaan isin taasiseeraa?					
26	Wal dhabdee qomoo fi aadaa hir'isuun caarraaqii eenyuu ilaallataa?					
	A) Mootummaa					
	B) Qorannoo Gidduu galeesssa Qonnaa Baakkoo					
	C) Jaarsoolii Biyyaa					
	D) Kan biro					
27	Wal dhabdeen Qomoo fi aadaa hangam hir'ataa jiraa?					

28	Qorannoon Gidduu galeesssa Qonnaa Baakkoo ganda keessan dhuufiin dura bu'aan Oomishaa biqiltuu irraa argamuu dabalee turee?					
	Erga dhaabbanni kun dhufee hoo akkami?					
29	Qabeenya naannoo keetti argamu faayadamtee haallii jireenya kee fooyya'ee jiraa?					
30	Rakkooleen dhaabaticha irratti fidhan murtoon fudhatameera.					

31, Jireenya qonna bulan jijjiruuf qorannon qonna Baakoo maal fa hojjecha jira akkasumasdeegersamaalfakeennajirajetaniiyaadu\_\_\_\_\_

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32, Qorranoo qonaa Baakoo irratti midhan ykn hojii isaa haala gaarii akka hin hojjanne irratti midhan fidan jiru? Yoo jiru jetani maal faa dhaa, akkamiti furamuu danda'u jate yaada, garaa fuulduraisaamaalta'uqabaa\_\_\_\_\_

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33. Murtoon fudhatamee jira? Yoo fudhatame midhan isaa hagam hirate jira\_\_\_\_\_

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**Appendix C: Survey Questionnaire Administered to staff member of Bako agricultural research center.**

**JIMMA UNIVERSITY**  
**COLLEGE OF LAW AND GOVERNANCE**  
**DEPARTMENT OF GOVERNANCE AND DEVELOPMENT STUDIES**

**Topic: The Role Played by NGOS in agriculture to improve smallholder farmers in Bako-Tibe woreda's kebele's of west shoa zones Oromia: A Case study of Bako agricultural research center.**

**Questionnaire to be completed by kebele's household farmers.**

**Dear Respondents:**

This questionnaires' aims to assess the role of NGO's in agriculture to improve household farmers in Bako Tibe woreda's: The case of Bako Tibe woreda's. It is intended for academic purpose only for preparation of a thesis.

Your first-hand information has a paramount value for me and your answer is fully confidential and creates no harm to you. Make a tick for your answers on the box provided.

Thanks for your cooperation in advance.

Socio demographic characteristics staff member of BARC.

1. Age.

Below 18 years	36-65 years
19-35 years	above 65 years

2. Sex. Male Female

3. Marital status.

Single	Widowed or widow
Married	Divorced

4. Job position-----

5: Educational level. Degree

Certificate Masters

Diploma Phd

For the following questions that follow please use the following scale to express the extent to which you agree or disagree with the statement given in the questioners. Please tick: If you

Strongly Agree	Agreed	undecided	Disagree	Strongly Disagree
5	4	3	2	1



S.No		5	4	3	2	1
Questions regarding the role of BARC.						
1	The role of Bako agricultural research center is significant on the kebele's of Bako-Tibe woreda's.					
2	Bako agricultural research center has helped the local farmers in utilizing local resources efficiently and effectively.					
3	Please indicate your level of agreement with each of the following statement.					
A	Bako agricultural reseach center has helped the local farmers in using modern forest production.					
B	Bako agricultural research center has helped the local farmers on the coffee Green pepper and mango production.					
C	Bako agricultural research center has supported the local farmers on conserving local forest and environmental protection.					
4	Bako agricultural researcher center has provide training on how to use the forest products effectively,					
5	Bako agricultural researcher center has provide training on how to use modern farming system and use of certified seeds.					
6	Bako agricultural research center has helped the local farmers on using modern irrigation system.					
7	Bako agricultural research center has helped local farmers on using modern animal husbandry system.					
8	Bako agricultural research center has supported the local farmers the ways to protecting the natural forest.					
9	Bako agricultural research center provided providing training to the local farmers on how to use fertilizers.					
10	Bako agricultural research center has helped the local farmers to secure in food security.					
11	Bako agricultural research center has to form a cooperative to obtaining from agriculture activities.					
12	Bako agricultural research center have played significant role in the kebele's on agriculture activities.					
13	Bako agricultural research center has played significant role in my kebele's through integrative activities.					
Questions regarding factor affecting role of Bako agricultural research center.						
14	The local farmers have a skill gap of using the local resources before the intervention by Bako agricultural research center.					
15	What kinds of mechanism have used to improve the skill to use forest products more efficiently?					
16	Bako agricultural research center has helped the local farmers to improve their skill gap of using resources.					
17	The local farmers Don't have a skill gap after intervention by the Bako agricultural research center.					
18	The local farmers have a market chain for their forest products.					

19	The local farmers are in charge searching for a market chain.				
20	Bako agricultural research center is charge of searching for a market chain.				
21	My market chain is				
A	Local				
B	Regional				
C	National				
D	International				
22	There is Deforestation in the kebele's.				
23	Deforestation reduces the income the local farmers generate from the forest products.				
24	There is a measure taken to reduce deforestation.				
25	Though there is measure taken to reduce deforestation and the problem is still existed.				
26	Bako agricultural research center has made an effort to reduce deforestation.				
27	The production of forest products of the local farmers is				
A	High				
B	Medium				
C	Low				
D	None				
28	The local farmers production has made increasing after they intervention by Bako agricultural research center.				
29	The local farmer's educational level affects the income they generate from local resources.				
Questions regarding major challenges facing Bako agricultural research center.					
30	There is ethnicity problem around the kebele's.				
31	The local or regional government has made an intervention to reduce the ethnicity problems so that the community uses the local resources in equitable manner.				
32	There is an ethnicity problem in using the local resources.				
33	ethnicity problem has been reduced by major effort of				
A	Government.				
B	Bako agricultural research center.				
C	Elders of kebele.				
D	Others.				
34	The ethnicity problem has not been reduced yet.				
35	The local farmers used their local resources effectively.				
36	The local farmers had an increasing income from selling of forest products before the intervention by Bako agricultural research center.				

CLOSE ENDED QUESTIONS FOR STAFF MEMBERS

37. What type of role do you think the Bako agricultural research center plays to increase the living conditions of the smallholder farmers? -----  
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38. What challenges do you face in utilizing the local resources efficiently? -----  
-----  
-----
39. How do you think the living condition of the local household has been changed after the intervention by Bako agricultural research center? -----  
-----  
-----
40. What measures taken to address challenges that hamper the implementation policy of BARC?-----  
-----  
-----
44. Is there effectiveness and efficiency of measures taken to address challenges that hamper the implementation policy of BARC?-----  
-----  
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**Thank you very much!!!**

**APPENDIX D: Focus Group Discussion(FGD) for local household farmers.**

- 1) What do you feel about the overall of BARC?
- 2) How do you evaluate the commitment of the BARC organization regarding their kebele's to secured agriculture and food security.

- 3) Does the BARC provide training to the local farmers regarding modern agriculture method, certified seeds, fertilizers, coffee and mango production, irrigation, animal husbandry, environment and forest protection and how to use local resources and forest(vegetation) production.
- 4) Does the organization provide new technology to the local household farmers?
- 5) Do you affect lack of your education or skill gap regarding agriculture method and how to use local resources?
- 6) Does the organization searching market chain regarding crop production your kebele.s?
- 7) Is there conflicts your kebele,s regarding the use of local natural resources and any others?
- 8) What are the major factors problems of BARC to implementing the program your kebele's?
- 9) What are the major challenges of BARC to contributing local household farmers regarding agriculture system?
- 10) Do you have skill gap regarding the agriculture activities?
- 11) What kinds of measurement are taken to address the challenges of BARC in implementing program?
- 12) As you know, there are many challenges your kebele so that is any measures taken to address those challenges by BARC and if you take measurement, is that reduces effectively and efficiently those challenges?

**Thank You Very Much!!!**

**Appendix E: Checklist interview for staff member of Bako agriculture research center.**

**Please speak out your ideas and comments clearly and openly without any fear!**

1. Would you tell us the general overview of your organization?
2. How do you describe your roles on your kebele's of Bako-Tibe woreda's?

3. What type of program and services does your organization currently offering for the local household farmers of Bako-Tibe woreda's?
4. Do you think the local farmers have technical skill that helps them harvest forest products effectively and efficiently?
5. Does the local household farmer use new technology?
6. Does your organization provide new technology for the local farmer's household?
7. What types of training do you provide for the local farmers community?
8. How is your organization doing in relation with the local government?
9. Does your organization searches a market link for the farmer's forest products?
10. What are your strong points achieved since your intervention?
11. What types of factors do you think the Bako agricultural research?
12. How your organizations cop up with these factors?
13. What types if limitations do you observe while you are conducting your activities in the kebele's of Bako –Tibe woreda's?
14. Do you get support from the region and local governments?
15. What kind of benefits the project participant in particular and the region in general have been acquired through the Bako agricultural research?
16. What kinds of challenges existed that hamper implementation policy of BARC?
17. What are the major challenges did you face while implementing your program?
18. Is there taken measures to address those challenges by your organization? If you take any measures, is that reduces those challenges. And how was examine the effective and efficiently to address those challenges by your organization.

**Thank you very much!!!**

**Appendix 6: Document and Observation Guidelines for the researcher.**

- 1) The polices and strategies that are used by the organizations.
- 2) Local household farmers in BARC activities.
- 3) Geographical features of selected kebele's as well as their agriculture practice system.

- 4) The role of BARC in awareness creation to the local household farmers about rules and regulation of the BARC and its implementation.
- 5) The contribution of BARC to the household farmer's as well as their community.

**Thank You Very Much!!**

**Sample taken from local smallholder farmers in selected kebele of Bako-Tibe woreda during fulfilled questionnaires' and group discussion.**

**Sample taken from Staff members during fulfilled questionnaires' and interview and observation**

**Sample taken from selected kebele's on irrigation activities**

**Sample taken from selected kebele's on Green pepper, mango and coffee activities.**

**Sample taken from in selected kebele on modern livestock production activities**

**Sample taken from selected kebele on conserving/protecting local resources or environmental from damage.**

**Sample taken from farmers during data collection and field observations**

### **Declaration**

I, the undersigned, declare that this thesis is my original work and hasn't been submitted for A degree in this or any other university and that all the sources used in this study has been Properly acknowledged.

Researcher Name Efreem Kebede Kitata

Signature\_\_\_\_\_

Date\_\_\_\_\_

This thesis has been submitted for examination with my approval as a university advisor.

Advisory Name Abiot Desta

Signature\_\_\_\_\_

Date\_\_\_\_\_

Co- advisory Name Kaso Taha

Signature\_\_\_\_\_

Date\_\_\_\_\_