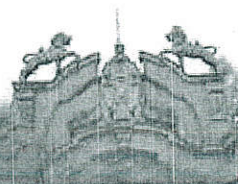


Addis Ababa  
University  
(Since 1950)



# **Impact of *Akebabiychin* (Environmental) Radio Program through the Eyes of the Rural Communities of Arsi Negelle**

**Samrawit Sintayehu**

**A THESIS SUBMITTED TO  
THE GRADUTE SCHOOL OF JOURNALISM AND COMMUNICATION  
PRESENTED IN PARTIAL FULFUILMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF MASTER OF ARTS IN JOURNALISM AND  
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of Master of Arts in Journalism and Communication**

Addis Ababa University

Addis Ababa, Ethiopia

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**ADDIS ABABA UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**

This is to certify that the thesis prepared by Samrawit Sintayehu, entitled, *Impact of Akebabiyachin (Environmental) Radio Program through the Eyes of the Rural Communities of Arsi Negelle* and submitted in partial fulfillment of the requirements for the Degree of Master of Arts in Journalism and Communication complies with the regulations of the University and meets the accepted standards with respect to originality and quality.



**Signed by the examining committee:**

Examiner Negeri Lencho (PhD) Signature [Signature] Date June 2015

Examiner Lenebe Beyene (PhD) Signature [Signature] Date June-2015

Advisor Abdissa Zeia (PhD) Signature [Signature] Date June 2015

Abdissa Zeia (PhD) [Signature]

**Chair of Department or Graduate Program Coordinator**

## ABSTRACT

Impact of *Akebabiyachin* (Environmental) Radio Program through the Eyes of the Rural Communities of Arsi Negelle.

Samrawit Sintayehu

Addis Ababa University, 2015

This study aims at investigating the impact of *Akebabiyachin* (Environmental) radio program on the rural communities of Ethiopia with particular focus on Arsi Negelle communities; and the study has been informed by the Social Cognitive theoretical perspectives.

A qualitative methodological approach was employed for gathering relevant data for the study. Accordingly, Focus Group Discussion and in-depth interview were the main data gathering tools used. Three focus group discussions and in-depth interview were carried out with 30 participants selected purposively from the communities of Arsi Negelle and 2 participants from the radio program producers.

The study reveals that *Akebabiyachin* radio program has brought about considerable positive impact on the communities of Arsi Negelle, particularly in relation to minimizing deforestation and soil erosion. The study also confirms that the participants of the study considered the program as useful and informative and its transmission time to be convenient. However, they complained about the duration of the program being not sufficient considering the importance of the program. Based on the findings, the study has suggested pertinent recommendations for future consideration.



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My sincere thanks go to my advisor, Dr. Abdissa Zerai, whose invaluable comments have helped me reshape my work. He has been willing to dedicate his time for going through the research work regardless of his busy schedule.

Many thanks go to families for believing in me. My dad (Sintu); words couldn't express his efforts, encouragements and supports ever since I started schooling. I am what I am now due to his never-ending dedication to help me. Thank you so much dear Sintu! I couldn't thank enough my dear sister, Lulit Sintayehu, for her magnificent courage and support. I am so grateful to all my friends for always being there for me.

I am indebted to my interviewees in Arsi Negelle, particularly to Ato Dekebo and Mesfin, without whose willing cooperation, this study would have been difficult to realize.

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## LIST OF ACRONYMS

|        |                                                        |
|--------|--------------------------------------------------------|
| CO2    | Carbon di Oxide                                        |
| CRGE   | Climate Resilient Green Economy                        |
| DA's   | Development Agents                                     |
| FBC    | Fana Broadcasting Corporate                            |
| FGD    | Focus Group Discussion                                 |
| GHG    | Green House Gases                                      |
| IPCC   | Intergovernmental Panel for Climate Change             |
| SCT    | Social Cognitive Theory                                |
| SNNP   | Southern Nations Nationalities and People              |
| WBISPP | Woody Biomass Inventory and Strategic Planning Project |



## **CHAPTER ONE: INTRODUCTION**

### **1.1 BACKGROUND OF THE STUDY**

Countries heavily depend on a healthy ecosystem and productive environment to sustain economic growth and improve living standards. Forests, grasslands, rivers, lakes, coral reefs and others in the ecosystem provide essential resources that supply food, water, shelter and energy. But these resources have come under heavy pressure; resulting in significant negative impacts on the environment and creating a major challenge to global communities. Making these serious problems worse is global climate change.

Climate change has been caused by many factors. However, human activities such as industrialization and wide scale deforestation and burning of forests are the dominant causes for the current climate change (Edwards 2012). Climate change has resulted in higher temperature, change of landscape, risk of wildlife, rise of sea level, frequent drought, fire and floods, the creation of strong storms and storm damage, more heat related illness and diseases and economic losses across the globe.

The 2013 Intergovernmental Panel for Climate Change (IPCC) report provided new evident that temperature are increasing in many parts of the world while precipitation trend and amount are changing. The global average temperature showed a warming of 0.78 (0.72 to 0.85) over the period from 1950 to 2012. The global pattern of rainfall are complex but it is expected that dry regions will become drier (IPCC 2013). In particular, the IPCC (2013) projection show that warming in sub-Saharan Africa will increase more than the global average and perception is expected to decrease in parts of the region. Fighting global climate change requires addressing its

causative factor such as deforestation. To fight deforestation and environmental degradation, countries need to educate and inform their citizens about environmental issues.

### *1.1.1 Climate change in the Ethiopian context*

Although Ethiopia is a country with immense natural resources potential, including favorable farming land, various minerals, wild life and huge sources of water, the country is categorized with those countries which are seriously affected by the consequences of environmental incidents.

Ethiopia is experiencing severe climatic anomalies such as erratic rainfall, generally attributed to global climate change. The climate variability map of Africa constructed by Thornton et al (2006) put Ethiopia as one of the countries' most vulnerable to climate change with the least capacity to respond. In the country, climate change is evident through its characteristic expressions such as warming of the temperature, decline in rainfall and extreme events such as floods and droughts. Records of the last six decades also show increase in average annual minimum temperature by about  $0.25^{\circ}\text{C}$  every decade, while average annual maximum temperature increases by about  $0.10^{\circ}\text{C}$  every decade (Edwards 2012).

In addition, precipitation level is also showing spatial and temporal variability. The country is experiencing unusual frequency and extensive droughts in recent decades. Major floods which lead to destruction of many lives and materials occurred in many parts of the country in the past decades (WBISPP 2002). Coupled with non-climatic development challenges such as endemic poverty, complex governance or weak institutions, limited access to capital (including markets), poor infrastructure and technology and continued ecosystem degradation, climate change is, indeed, a significant challenge to Ethiopia (Edwards 2012).

Like other parts of the world, the cause of climate change in Ethiopia is human made. According to the CRGE (Climate Resilient Green Economy) document, in the year 2010, the major sources of GHG Emission from the country listed as follows: Agriculture accounts 50%, Forestry 37%, Buildings 3%, Transport 3 %, Industry 3% and Power accounts 3% (CRGE Document 2011).

As indicated above, Ethiopia's forests are depleted from year to year. This is very much true even in the areas where dense natural forests have existed such as western Oromia, SNNP, Benishangul and Gambella Regions of the country.

Expansion of cultivable land, fire wood, search for timber products and population pressure are listed as the main reasons of deforestation in many parts of the country. To combat deforestation problem and to preserve the country's natural resources as well as to fight the challenges of climate change, Ethiopia has developed Forest Development, Conservation and Utilization policy and proclamation in 2007. Page number one of the proclamation states that:

Deforestation for agricultural land as a result of ever increasing population growth, increase in demand for fuel wood and construction material, illegal settlement within forests, logging and the expansion of illegal trade are at the fore front of the factors contributing to the stated nominal benefits from forest resources. This has resulted in the deterioration of our forest resources, reduction of biodiversity, incidents of soil erosion, land slide, land degradation and desertification, and recurrence of drought and famine. Thus with a view to contributing to the economy development of the country, maintaining the ecological balance and conserving and enhancing our biodiversity through the sustainable utilization and development of forest

resources, it has become necessary to prepare a forest policy and strategy that can bring about sustainable development through community participation.

### ***1.1.2 Akebabiyachin Environmental program of Fana Broadcasting Corporate***

Like many countries in the world, Ethiopia suffers from lack of information in order to adapt and mitigate climate change problems.

For instance, International Food Policy Research Institute survey shows that most Ethiopian farmers lack information to adapt to climate change. About half of a thousand Ethiopian cereal crop farmers say they are not adapting at all to changes in temperature and rainfall. They mainly blame lack of information (Degsew 2009).

The media can contribute to development by bringing about beneficial changes in the behavior of individuals, groups, and organizations. Whether the media bring about change depends on its content, tailoring to target audiences, and, to some degree, its interactivity. There is a large body of evidence on the media's ability—or inability—to change opinions (Locksley 2009). In this decade of knowledge and awareness there is huge and grand role of media. It is all around us when we watch on Television, listen to on the radio, read to the books, magazines and a newspapers, everywhere we want to collect some knowledge and information and a part of this media, people in societies would be isolated, not only from the rest of the world, but also for the total formation of creditable world (Dwivedi 2013).

In poor countries like Ethiopia, Radio in particular tends to be an efficient means of mass communication when compared to other media outlets (Solomon, 2008). In the case of Ethiopia,

where there is rugged topography, high prevalence of illiteracy and poor transport, radio is the preferred means of mass communication.

The Ethiopian environmental policy Article 4:10 (d) emphasizes the need to recognize the important role the mass media play in raising environmental awareness in view of the physical problems of access and communication in Ethiopia. It also underlines the need to effectively use the media to raise awareness on environmental issues (Environmental Policy of Ethiopia 1997).

Fana Broadcasting Corporate (FBC), previously named as Radio Fana, was established in November 1994. It is the first national, commercial private radio station in Ethiopia. The station is broadcasting its programs in five languages; Amharic, Afan Oromo, Afar, Somali and Tigrigna on SW1-6110 KHZ (49MH), SW2-7210 KHZ or (41MH) covering the whole country and on MW1080 KHZ which encompasses 100 KM radius from Addis Ababa as well as its FM stations ([www.fanabroadcasting.com](http://www.fanabroadcasting.com)).

*Akebabiyachin* (Environmental) radio program of Fana Broadcasting Corporate is a 15-minute weekly program which is aired in partnership with an indigenous non-profit and non-political association called, Forum for Environment. The program started in 2012, with the objective of filling the existing knowledge and information gap on climate change of the general public, the rural communities in particular; in order to avoid wrong doings of the community against the environment.

The program is transmitted in three languages; namely, Amharic, Tigrigna and Afan Oromo. The Amharic language program is transmitted every Monday from 5:10pm to 5:25pm; the Tigrigna language program is transmitted every Tuesday from 10:15am to 10:30am and the Afan Oromo language program is transmitted every Wednesday from 8:30pm to 8:45pm.



## 1.2 STATEMENT OF THE PROBLEM

Ethiopia has started to fight climate change and environmental degradation decades back. Various policies and strategies at different time were issued by the government to combat the prevailing problem. The 1997 Forest Development, Conservation and Utilization Policy/proclamation and the 2011 Climate-Resilient Green Economy (CRGE) initiative are major examples to this end. But for the effectiveness of these policies and strategies, awareness of the general public, particularly communities of the country side are absolutely important. However, this has not been the case for the past several years. One show case for this could be, in many parts of the country, the level of deforestation and environmental degradation keeps on deteriorating. The business as usual scenario will result in nine million ha deforestation in the country between 2010 and 2030 (CRGE 2011). Researches indicate that low level of awareness among the rural community is ranked as the main reason for this problem.

In order to fill this existing knowledge gap, Fana Broadcasting Corporate in partnership with an indigenous non-profit and non-political association, called Forum for Environment has aired *Akebabiychin* (Environmental) program for the past few years. *Akababiyachin* (Environmental) Radio program is a 15-minute, weekly program on the national radio service. The main purpose of the radio program is to enhance the awareness of the general public, the rural community in particular, in the fight against environmental degradation and climate change. The program also aims at filling the existing knowledge and information gap on climate change which is observed in the rural community and lower level government executives.

So far, no academic research is conducted on the impact of specific (environmental) radio/television program on a specific target group/community. But few researches have been conducted on audience response for environmental programs. For instance, Eyob (2006) had

conducted study on the effectiveness of 'Awdegeter' (Agricultural) radio program from the point of view of farmers. The study focused on the effectiveness of the radio message in the use of improved agricultural techniques and side by side it tries to see whether the program helped in protecting the environment. The finding of the research indicated that the radio message helped the farmers in enhancing farming but very little was addressed about environment by the radio program.

Another is Solomon's (2008) thesis on Reception study on Ethiopian radio's Akababi ena Limat radio program. The focus of the research was on looking into the reaction of the students of *Ardayeta* Agricultural College on the messages of the program. It also intended to examine the effectiveness of the program. However, to the researcher's knowledge, there is no academic research which deals with the impact of (environmental) radio program on rural communities. Therefore, this study deals with investigating the impact of *Akababyachin* (Environmental) radio program on its specific target audience, i.e., the rural communities' day to day activities.

## **1.3 OBJECTIVES OF THE STUDY**

### ***1.3.1 General Objective***

The general objective of the study is to examine the impact of *Akebabiychin* (Environmental) Radio program through the eyes of the target audience, i.e., the rural communities: communities of Arsi Negelle area of western Oromia region.

### ***1.3.2 Specific objectives***

The study has the following specific objectives:

- Assess the impact of the *Akebabiyachin* radio program in increasing the awareness level of communities in Arsi Negelle area on environment issue.
- To examine measures/actions taken by the community as a result of their exposure to '*Akababiyachin*' Radio program.

## 1.4 RESEARCH QUESTIONS

The study sets out to address the following research questions:

- How impactful is the *Akebabiyachin* radio program in increasing the awareness level of communities in Arsi Negelle area on environment issue?
- How does the *Akababiyachin* radio program help or influence the communities' action in relation to the environment?

## 1.5 SIGNIFICANCE OF THE STUDY

This study will help identify the level of impact that *Akebabiyachin* (Environmental) radio program has brought in the day to day activities of the rural communalities. In addition, the research will provide valuable information to producers of *Akebabiyachin* and other environmental programs on what rural communities need so that they can produce impact-oriented programs. The study will also provide an opportunity for the audience (the community) to provide their observation in relation to the program, and this will to the producers to evaluate the success of their program in achieving its objective.

## 1.6 SCOPE OF THE STUDY

This study limited to *Akebabiyachin* (Environmental) radio program only; and its impact assessment is mainly based on the views of selected rural communities of Arsi Negelle. Thus, the findings of the study by no means represents the views of the whole audience of *Akebabiyachin*

(Environmental) radio program nor do they reflect the views of all rural communities of Ethiopia.

## **1.7 LIMITATION OF THE STUDY**

This research is a qualitative research project and conducted in one area of the country. Therefore, the results may not be generalized to all rural communities (all audiences of *Akababiyachin* environmental program). However, it provides detailed information about a small group of respondents, and the findings will help raise issues, research questions and agendas for future large-scale quantitative research.

## **CHAPTER TWO: REVIEW OF RELATED LITERATURE**

### **2.1 Introduction**

This chapter provides a literature review pertinent to the issue. The chapter mainly addresses basic notions of Global Climate change, its impact in Africa and Ethiopia. In addition, causes and impacts of Deforestation, Environmental and Land Degradation in the rural parts of Ethiopia are discussed. The chapter also reviews the role of the media in addressing these prevailing problems. Furthermore, it discusses the theoretical framework that informs the study.

### **2.2 Global Climate Change**

After decades of research, scientists are no longer in any doubt that the climate is changing. The earth is getting hotter, and weather patterns are altering. The rapidly increasing levels of greenhouse gases in the atmosphere are causing global temperatures to rise at a rate that is unprecedented in modern human history. They are also causing changes in weather patterns, altering rainfall and the timing of the seasons. The 20th Century was the warmest the world has seen in 1000 years – and average global temperatures are continuing to increase as the level of greenhouse gases in the atmosphere continues to rise (Panos Eastern Africa 2011).

Climate change is caused by human induced emission of green house gases is now recognized as one of the major medium and long term threats to human welfare and development. About 15% of green house gas emission results from deforestation and forest degradation (Overview of REDD+ Process in Ethiopia 2014).

The CO<sub>2</sub> concentration in the atmosphere is 25% higher than what it was at the beginning of the century. Large scale deforestation, burning of chemical and fossil fuel have created this increase.

Climatologists believe that even a small increase atmospheric CO<sub>2</sub> can have major effects on climate. CO<sub>2</sub> is transparent to incoming visible sun energy, but like glass, it absorbs infrared heat reradiated from the Earth's surface. This is called green house effect. The earth planet has already been warmed by 0.8 to 2.5oC and is going to get hotter by 3 to 5oC within the next century. It is feared that even a slight increase in temperature would cause the polar ice caps to melt and rise the sea level, submerging a number of major cities of the world, because many are along the seacoast (Mengesha and Mamo 2006).

Climate change will have wide-ranging effects on the environment, and on socio economic and related sectors, including water resources, agriculture and food security, human health, terrestrial ecosystems and biodiversity and coastal zones. Changes in rainfall pattern are likely to lead to sever water shortage and/ or flooding. Melting of glaciers can cause flooding and soil erosion. Rising temperature will cause shifts in crop growing season which affects food security and changes in the distribution of disease vectors putting more people at risk from disease such as malaria and dengue fever. Temperature increase will potentially severely increase rates of extinction for many habitats and species (up to 30 percent with a 2oC rise in temperature) (UNFCCC, 2007).

Climate change is expected to have very negative effects on many human and natural systems – including increased floods, droughts and extreme weather events, lowered productivity from large areas of existing farmland, migration due to climatic changes and conflict over dwindling resources. Climate change is expected to have very negative effects on many human and natural systems – including increased floods, droughts and extreme weather events, lowered productivity from large areas of existing farmland, migration due to climatic changes and conflict over dwindling resources (Panos Eastern Africa 2011).

### **2.3 Climate change/ Environmental Challenges in Africa**

According to the most recent report of the Intergovernmental Panel on Climate Change (the independent body responsible for providing periodic assessments of climate science to world governments), all of Africa is likely to warm during this century, and at a faster rate than the global average. But Africa is also the continent that is least likely to be able to cope with climate change. Many African nations already have extreme climates, and are highly dependent on climate sensitive industries like farming and food production. As a continent, Africa lacks the financial and technological resources to adapt to a changing climate (Panos Eastern Africa 2011).

The socioeconomic impact of environmental deterioration on Africa continues to pose a major problem to development, stability, and daily lifestyles. Africa has contributed less than any other region to greenhouse gas emissions that are widely held responsible for global warming. But the continent is also the most vulnerable to the consequences. The region is seen as highly vulnerable to climate variability and change, e.g. due to the strong dependence on rainfed agriculture, the limited capacity of people and institutions to adapt to changing circumstances, as well as high poverty levels (Eric 2011).

Climate change poses significant threats on ecology and human life worldwide. According to Eric (2011), Horn of Africa climate has also shown some changes during the past decades. These changes include:

- an accelerating rise in night time temperature; day time temperature seems to remain stable
- an intensifying bipolar rainfall pattern, with increasing rainfall over the northern sector of the Greater Horn of Africa, and declining amounts over the southern sector (large parts of

Kenya, Uganda, as well as Burundi, Rwanda and Tanzania)

- an increase in the frequency of anomalously strong rainfall, causing floods
- large geographical and temporal variation in the observed rainfall trends; this variability can largely be explained by the occurrence of El Nino.

In the continent, environmental challenges are aggravated by population growth. At approximately 2.2% annually, sub-Saharan Africa has one of the world's fastest growing populations. By the year 2025 the population of Africa is estimated to be over a billion. This means that environmental problems could double or triple. Like increased populations, poverty, another major problem on the African continent, also leads to a greater exploitation of natural resources for survival, and this worsens the environmental problems with the degradation of agriculture and arable lands, and mismanagement of available water resources. Energy consumption in sub-Saharan Africa varies dramatically and dominates fuel consumption. The use of wood for fuel is predominant in both rural and urban locations and accounts for approximately 70 percent of total energy use, which ultimately causes another problem of deforestation (Panos Eastern Africa 2011).

Eric (2011) stated that, climate change has caused the following negative consequences in Africa continent:

**Food security:** Large variations in rainfall, through strong floods and prolonged drought periods, can have a destructive effect on crop production. Moreover, rising temperatures are expected to have an adverse effect as well, contributing to food insecurity in the region.

**Health:** Floods increase the risk for spreading diseases. This includes diarrhea, rodent-borne diseases and vector-borne diseases such as malaria and dengue. Along with an increase in



temperature, vector-borne diseases will more easily extend to higher altitudes and higher latitudes. This may further prolong transmission seasons in some endemic locations. Moreover, floods may limit people to reach public health services, and may deteriorate public health infrastructure directly or indirectly. Furthermore, the declining food security situation is anticipated to cause malnutrition and related diseases.

**Ecology:** The changes in local and regional climates may accelerate extinction of endangered species and vulnerable ecosystems. Prolonged drought is causing animal migration and conflict between wild life and people in parts of Ethiopia, Kenya and Sudan. Temperature variations are expected to affect seasonality of the breeding and flowering of fauna and flora. Forest fires are increasing in places where summers become warmer and drier. Prolonged periods of summer drought would transform areas already sensitive to fire into regions of sustained fire hazard.

**Livelihoods and economy** The livelihoods of the people in the Horn of Africa strongly depend on rain fed agriculture, pastoralism and fishery. Agriculture employs about 80% of the population in Ethiopia, Eritrea and Sudan, 75 % of the population in Kenya and 65 % of the population in Somalia. Yet this sector is challenged by many factors, among which climate-related disasters like droughts and floods. The occurrence of more frequent droughts in the Horn of Africa would cause tremendous problems for those depending on agriculture for their livelihoods. As pastoralism is highly vulnerable to drought, the estimated 25 million pastoralists living in the Horn of Africa are expected to be among the major victims of climate change. (Due to severe drought caused by a shortage of rainfall for a prolonged period in 2009, 20 million people in the Horn of Africa were subject to food aid).

According to FAO (2008), the combined effects of below average rainfall, conflict, insecurity and higher than average food price in the Horn of Africa have resulted in more than 17 million

people suffering serious food insecurity. This trend was confirmed by USAID (2009). In Ethiopia, poor seasonal rainfall and poor crop production, coupled with rising cereal prices, has resulted in nearly five million people requiring emergency assistance, over and above the 7.2 million beneficiaries in the Productive Safety Net Program (Cullis, 2009).

Other dire consequences of environmental degradation include: Depletion of farming lands, depletion of natural habitat for aquatic and land animals, decline in biological diversity (the variety of all life on earth, the complex relationships among living things, and the relationships between living things and their environment) (Yared 2009).

In general, many regions in Africa will suffer from more droughts and floods, with greater intensity. Also, temperatures are expected to rise, resulting in a decrease of areas suitable for agriculture, as well as declining yields. Whereas many regions in Africa are expected to become not only hotter but also drier, global climate models indicate that the Horn of Africa will experience wetter conditions in the course of this century, and more extreme weather events. Depending on the model used, climate change may result in increased flooding, but may also result in prolonged droughts – the other extreme (Eric 2011).

## **2.4 Climate change and Environmental problems in Ethiopia context**

According to the most official documents (e.g. INCE, 2001) and scientific studies (e.g. Kinfe Hailemariam 1999), many of the sectors such as agriculture, human health, water, energy and biodiversity (flora and fauna) of the country are sensitive to changes in climate. Agriculture is identified as the most vulnerable sector. In terms of livelihood, small scale rain feed subsistence

farmers and pastoralists are the most vulnerable to the impacts of climate change which is most easily expressed through food insecurity.

Many regions in Ethiopia are affected by deforestation and a high degree of desertification. Greenhouse effect, warming (rising of atmospheric temperature), loss of biodiversity, air, water and soil pollution, soil degradation, reduction of surface water and fresh water problem, an increase number of crop failures, wind and ice damage to crops, erosion, industrial pollution, hazardous chemicals and pesticides, coastal and marine pollution and general climate change etc. are major environmental problems of Ethiopia like most African countries (Yared 2009).

In Ethiopia and elsewhere, the typical community suffering from climate change impact has already been highly vulnerable crises caused by lack of food, extreme weather condition, or susceptibility to disease. Rural population has limited access to information, education, the knowledge of- let alone new technology and funding (Sabine 2011).

## **2.5 Trends, Causes and Impacts of Deforestation and Land degradation in Ethiopia**

Ethiopia is said to have had reasonably good forest cover in the past: it certainly has a rich forest development potential. But it is a country experiencing long years of continued deforestation and forest degradation. In 2004, the high forests of the country were estimated at only 4.07 million hectares covering 3.6 percent of the total landmass. Although considerable areas of woodland and bush land exist in the country, even these are experiencing a high rate of destruction and degradation. National scale deforestation rate is estimated at about one percent per year (Edwards, 2012).

A more recent accounting of available forest cover reveals that the 1990-2000 decade in Ethiopia saw an average yearly deforestation rate of 0.8 percent; among the highest in the world. It is said that, in the year 2000 alone, 87.5 million m of timber were cut down for fuel wood. With an estimated forest-land loss of 150,000-200,000 hectares annually, environmental degradation in Ethiopia has been persistent, widespread, and costly ([www.EthiodemographyAndHealth.Org](http://www.EthiodemographyAndHealth.Org)).

## **2.6 Deforestation and Causes of deforestation in Ethiopia**

### **2.6.1 Definition:**

**Deforestation** is the conversion of forest to another land use or the long-term reduction of the tree canopy cover below the minimum of 10 % (WBISPP 2004). It is permanent removal of forest cover from an area, and the conversion of this previously forested land to other uses (Canadian Forest service science 2008). It can also be defined as the conversion of forest to an alternative permanent non-forested land use such as agriculture, grazing or urban development (van Kooten and Bulte, 2000).

### **2.6.2 Causes of Deforestation**

**Expansion of farming land:** About 60 per cent of the clearing of tropical moist forests is for agricultural settlement with logging and other reasons like roads, urbanization and fuel wood accounting for the rest.

**Logging and Fuel wood:** Logging does not necessarily cause deforestation. However, logging can seriously degrade forests. However, logging provides access roads to follow-on settlers and log scales can help finance the cost of clearing remaining trees and preparing land for planting of crops or pasture. Logging thus catalyzes deforestation (Chomitz *et al.*, 2007).

**Overgrazing:** Overgrazing is more common in drier areas of the tropics where pastures degraded by overgrazing are subject to soil erosion. Stripping trees to provide fodder for grazing animals can also be a problem in some dry areas of the tropics but is probably not a major cause of deforestation.

**Fires:** Fires are a major tool used in clearing the forest for shifting and permanent agriculture and for developing pastures. Fire used responsibly can be a valuable tool in agricultural and forest management but if abused it can be a significant cause of deforestation (Repetto, 1988; Rowe *et al.*, 1992).

**Mining:** Mining is very intensive and very destructive. The area of land involved is quite small and it is not seen as a major cause of primary deforestation. Mining is a lucrative activity promoting development booms which may attract population growth with consequent deforestation.

**Urbanization/industrialization and infra-structure:** Expanding cities and towns require land to establish the infrastructures necessary to support growing population which is done by clearing the forests. Tropical forests are a major target of infrastructure developments for oil exploitation, logging concessions or hydropower dam construction which inevitably conveys the expansion of the road network and the construction of roads in pristine areas (Kaimowitz and Angelsen, 1998). The construction of roads, railways, bridges, and airports opens up the land to development and brings increasing numbers of people to the forest frontier. Whether supported or not by the governmental programs, these settlers have usually colonized the forest by using logging trails or new roads to access the forest for subsistence land. The development of these infrastructure projects are of worldwide concern, since tropical forest clearing accounts for

roughly 20 per cent of anthropogenic carbon emissions destroying globally significant carbon sinks and around 21 per cent of tropical forests have been lost worldwide since 1980 (Bawa *et al.*, 2004).

The decentralization of political administration during the last two decades, although important from the decision making point of view, has contributed to the lack of national forest development. The regions are adopting different strategies and actions, which have resulted in large inter regional differences in forest conservation and development. Whilst a few degraded forests are recovering, e.g. through area exclosures in Tigray, old growth natural forest in the west, southwest and southeast are shrinking showing that the efforts to restore forests in some region are being counterbalanced by the high rate of deforestation in others (Edwards 2012).

## **2.7 Environmental/ Land Degradation in Ethiopia**

### **2.7.1 Definition**

**Land degradation** can be defined as the reduction or loss of biological and /or economic productivity of land. The loss of productivity results from loss of physical, chemical and biological properties of land arising from irresponsible or inappropriate and unsustainable use of its resources such as soil, water and woodlands. Land degradation is particularly problematic for both environmental sustainability and poverty reduction in dry land areas and it requires great human efforts and resources to ameliorate (Eric 2011).

Environmental degradation is a serious threat to the lives of people, animals and plants, making it imperative that we stop further degradation from occurring (Natural Resources and Their Management, 2002). Anand (2013) states that, one of the primary causes of environmental degradation in a country could be attributed to rapid growth of population, which adversely

affects the natural resources and environment. The simultaneous occurrence of rising population and environmental deterioration make sustainable development difficult to materialize. The existence or the absence of favorable natural resources can facilitate or retard the process of socio-economic development. The greater demands placed on the environment by an ever increasing human population is putting a great strain and drain on the earth's limited natural resources (ibid). Environmental degradation is not a new thing, as it has been happening all over the world for centuries. The problem is that it is now occurring at a much faster rate, thereby not leaving enough time for the environment to recover and regenerate (Natural Resources and Their Management 2002).

Land degradation is a common environmental problem in Ethiopia. It is one of the major causes of low and declining agricultural productivity and continuing food insecurity and rural poverty. In addition, land degradation directly affected the type of plant grown on the area, reduced availability of potable water, lessened volumes of surface water, depletion of aquifers and biodiversity loss. The major causes of land degradation are rapid population increase, severe soil loss, deforestation, low vegetative cover and unbalanced crop and livestock production. Topography, soil types and agro-ecological parameters are also additional factors affecting the land degradation processes in Ethiopia influenced by man (Temesgen, Amare and Hagos, 2014). Ethiopia is generally described as a country primarily affected by soil degradation and water shortage without significant pollution of water and soil from industrial, agricultural and other sources (Edwards 2012). The country is ancient country practicing crop cultivation for centuries. As a consequence and because of population growth coupled with changing climate conditions over the past several decades, environmental degradation has drastically affected the natural resources and socioeconomic infrastructure of the country.

The assessments of FAO (2008) indicate that moderate to severe land degradation is taking place in the Horn of Africa which is directly affecting the wealth and economic status of the region. The principal "soil loser" in the region seems to be Ethiopia. Annually, Ethiopia loses over 1.5 billion tons of topsoil from the highlands to erosion.

An Ethiopian Highland Reclamation Study conducted two decades ago revealed a frightening trend in environmental degradation where by "...27 million ha. or almost 50% of the highland area was significantly eroded, 14 million ha. seriously eroded and over 2 million ha beyond reclamation. Erosion rates were estimated at 130 tons/ha/yr for cropland and 35 tons/ha/yr average for all land in the highlands.... Forests in general have shrunk from covering 65% of the country and 90% of the highlands to 2.2% and 5.6% respectively". With the country's population now almost double what it was then, things have, obviously, gotten much worse since ([www.EthiodemographyAndHealth.Org](http://www.EthiodemographyAndHealth.Org)).

## **2.8 Impacts of Environmental/Land degradation**

Land degradation is one of the major causes of low and in many places declining agricultural productivity and continuing food insecurity and rural poverty in Ethiopia (IFPRI 2005). Land degradation can contribute directly to poverty by reducing the availability of other valuable goods and services important to poor households (for example, fuel wood, construction materials, wild foods, and medicinal plants) and by increasing the demands on labor needed to forage for such goods (Temesgen, Amare and Hagos, 2014).

Land degradation reduces livestock productivity as a result of reduced grazing resources, loss of nutritious plants and grass species. Due to land degradation, increased runoff and reduced infiltration contributes to flooding problem. Land degradation threatens food security for many



of the poorest and most food insecure living in Asia, Africa and Latin America. It also contributes to persistent poverty, and results in decreasing ecosystem resilience and provision of environmental services (Bossio *et al.* 2004). In addition, environmental decline due to land degradation adversely affects the health, well-being and livelihood opportunities of the individuals (Temesgen, Amare and Hagos, 2014).

## **2.9 Media and Environment**

Environmental education increases public consciousness and knowledge of environmental issues and challenges. People profit, through environmental education, by gaining an understanding of how their individual actions affect the environment, acquiring skills that they can use to evaluate various sides of issues, and becoming better equipped to make informed decisions. Environmental education also gives people a deeper understanding of the environment, inspiring them to take personal responsibility for its conservation and restoration. Environmental education also helps bring forth the traditional solution to address the modern environmental crisis by discovering the time-honoured connection between nature and culture. This is particularly true in a traditional society where environmental consciousness is the upshot of a culture of associating various aspects of environment to a sacred space. The profundity of such a link, on which people's environmental consciousness is established, stirs tremendous awe and reverence for the environment and hence its preservation (Mukharji, 2004).

Environmental education is one of the tools to help meet the aims of conservation. The media could take up a crucial role by providing technical information about relevant environmental problems and possibilities, and about appropriate innovations (Singhal & Rogers, 1989). In so

doing, it can bring about the desired behavioral change in the target audience. Such an argument is theoretically grounded as the subsequent section affirms.

Society's attitude and values towards nature and conservation have a significant impact on the wellbeing of resources. For example, a lack of recognition of the value and role of forests in supporting life, development and health may lead to misuse and mismanagement of forest. Indigenous knowledge and value systems based on centuries of observation that developed in response to changing social and environmental conditions are crucial ingredients for forest conservation. Hence effective communication is a critical component in the fight against climate change: if the right information gets to the right people at the right time, it facilitates accurate decision making and therefore accurate interventions (Eric 2011).

Historically, the media in most developing countries have not given much priority to climate change although the amount of coverage has slowly increased in recent years. This is despite the fact that many of these countries are considered the most vulnerable to the impacts of global warming (Painter 2010). In many countries there are problems with not only the quantity but also the quality of climate change journalism. Climate change is often restricted to specialist environment pages or programs. It is often reported on inaccurately and presented as international news, without relevance to local people (Shanahan 2011). Lindolf 1995(cited in Roba 2012), notes that environmental reporting or voices have become increasingly marginalized in the news Banterer's (2002) study of the Globe concluded that lip-service was paid to environmental concerns and those environmental issues were never addressed in their full range and seriousness. The lip-service might have served to divert attention from the overall thrust of the reporting, which was one-sided and hardly environmental.

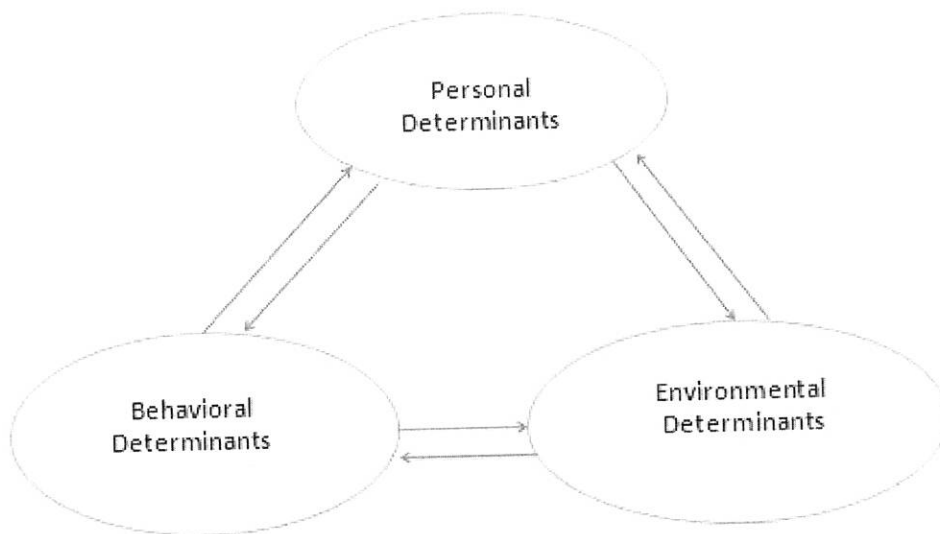
Institutionally the Media and environmentalists see each other in quite different ways. To many editors the environment is one many important and compelling topics the public needs to know about. Although the Earth, the water and the sky have been around far longer than the media, the environment has never been a comfortable arena of coverage for the media to handle. At an abstract level, it cuts across all news beats and topics. The environment may be a political government topic. It may and often does, have a great deal to do with the economy and with commerce. It is also a scientific story. Thus, some aspects of 'the environmental story' may be in the purview of many different reports and editors. While the topic of conservation- what we used to call the environment before 1970 or so- used to get modest coverage, it never had much priority in the media and was often confined to outdoors coverage in the back of sport sections, the stuff that hunters, fisherman and other traditional 'nature loving' readers might care about. The media spends too much time chasing after fires, reacting to daily crises, and not enough time examining long term problems. Community activists protesting the siting of hazardous waste incinerators or nuclear dumps get a lot of coverage because the activists are vocal and have media savvy. But much less coverage is given to long term environmental stories such as the decline in migratory song birds in the United States, the erosion of top soil, and the increasing haziness that blankets large area of the nation during the summer month (Craig and Everetteb 1991).

## **2.10 Social Cognitive Theory and Mass Communication**

Due to the powerful role the mass media play in society, understanding the psychosocial mechanisms through which communication influences human thought, affect, and action is of

considerable import. Social cognitive theory provides an agentic conceptual framework within which to examine the determinants and mechanisms of such effects (Bandura 2001).

Prior to Bandura's Social Cognitive theory, Human behavior has often been explained in terms of unidirectional causation, in which behavior is shaped and controlled either by environmental influences or by internal dispositions. But Social Cognitive Theory explains psychosocial functioning in terms of triadic reciprocal causation (Bandura, 1986). In this transactional view of self and society, personal factors in the form of cognitive, affective, and biological events, behavioral patterns, and environmental events all operate as interacting determinants that influence each other bi-directionally.



*Schematization of triadic reciprocal causation in the causal model of social cognitive theory*

Social cognitive theory favors a model of causation involving triadic reciprocal determinism. In this model of reciprocal causation, behavior, cognition and other personal factors, and environmental influences all operate as interacting determinants that influence each other bidirectional. However, Bandura argue that reciprocal causation does not mean that the different sources of influence are of equal strength. "Some influences may be stronger than others. Nor do

the reciprocal influences all occur simultaneously. It takes time for a causal factor to exert its influence and activate reciprocal influences. For example, segment of reciprocal causation is concerned with the interactive relation between personal characteristics and environmental influences. Human expectations, beliefs, emotional bents and cognitive competencies are developed and modified by social influences that convey information and activate emotional reactions through modeling, instruction and social persuasion”(Bandura, 1986).

Because of the bi-directionality of influence between behavior and environmental circumstances, people are both products and producers of their environment. They affect the nature of their experienced environment through selection and creation of situations. People tend to select activities and associates from the vast range of possibilities in terms of their acquired preferences and competencies. Bandura argue that, people are self-organizing, proactive, self-reflecting, and self-regulating, not just reactive organisms shaped and shepherded by environmental events or inner forces. “Human self-development, adaptation, and change are embedded in social systems. Therefore, personal agency operates within a broad network of socio-structural influences. In these agentic transactions, people are producers as well as products of social systems. Personal agency and social structure operate as co-determinants in an integrated causal structure rather than as a disembodied duality” (Bandura 2001).

Seen from the socio-cognitive perspective, human nature is a vast potentiality that can be fashioned by direct and observational experience into a variety of forms within biological limits. To say that a major distinguishing mark of humans is their endowed plasticity is not to say that they have no nature or that they come structureless (Midgley, 1978). The plasticity, which is intrinsic to the nature of humans, depends upon neuro-physiological mechanisms and structures

that have evolved over time. According to Bandura, these advanced neural systems specialized for processing, retaining, and using coded information provide the capacity for the very capabilities that are distinctly human: generative symbolization, forethought, evaluative self-regulation, reflective self-consciousness, and symbolic communication (Bandura 2001).

### ***2.10.1 Symbolizing Capability***

Social Cognitive Theory accords a central role to cognitive, vicarious, self regulatory and self-reflective processes. An extraordinary capacity for symbolization provides humans with a powerful tool for comprehending their environment and creating and regulating environmental events that touch virtually every aspect of their lives. Most external influences affect behavior through cognitive processes rather than directly. Cognitive factors partly determine which environmental events will be observed, what meaning will be conferred on them, whether they leave any lasting effects, what emotional impact and motivating power they will have, and how the information they convey will be organized for future use (Bandura 2001). It is with symbols that people process and transform transient experiences into cognitive models that serve as guides for judgment and action. Through symbols, people give meaning, form, and continuity to their experiences.

People gain understanding of causal relationships and expand their knowledge by operating symbolically on the wealth of information derived from personal and vicarious experiences. They generate solutions to problems, evaluate their likely outcomes, and pick suitable options without having to go through a laborious behavioral search. Through the medium of symbols people can communicate with others at any distance in time and space. However, in keeping with the interactional perspective, Social Cognitive Theory devotes much attention to the social

origins of thought and the mechanisms through which social factors exert their influence on cognitive functioning (Bandura 2001).

### ***2.10.2 Self Regulatory Capacity***

People are not only knower's and performers. They are also self-reactors with a capacity for self-direction. Effective functioning requires the substitution of self regulation for external sanctions and demands. The self-regulation of motivation, affect, and action operates partly through internal standards and evaluative reactions to one's own behavior (Bandura, 1991a). The anticipated self satisfaction gained from fulfilling valued standards and discontent with substandard performances serve as incentive motivators for action. The motivational effects do not stem from the standards themselves, but from the evaluative self-investment in activities and positive and negative reactions to one's performances.

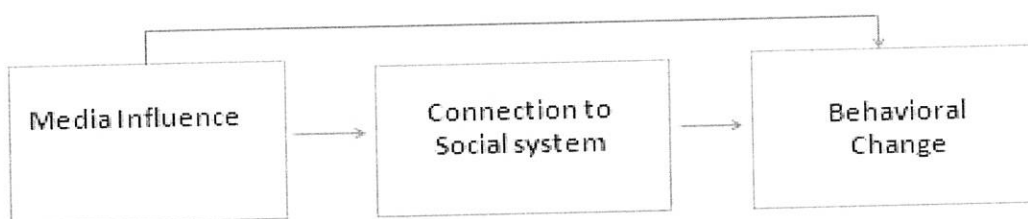
### ***2.10.3 Self Cognitive Capabilities***

The capability to reflect upon oneself and the adequacy of one's thoughts and actions is another distinctly human attribute that figures prominently in social cognitive theory. People are not only agents of action but self-examiners of their functioning. Effective cognitive functioning requires reliable ways of distinguishing between accurate and faulty thinking. In verifying thought by self reflective means, people generate ideas, act on them, or predict occurrences from them. They then judge from the results the adequacy of their thoughts and change them accordingly. The validity and functional value of one's thoughts are evaluated by comparing how well thoughts match some indicant of reality.

#### 2.10.4 Dual-link versus Multi-pattern flow of influence

It has been commonly assumed in theories of mass communication that modeling influences operate through a two-step diffusion process. Influential persons pick up new ideas from the media and pass them on to their followers through personal influence. Some communication researchers have claimed that the media can only reinforce pre-existing styles of behavior but cannot create new ones (Klapper, 1960). But for Social Cognitive Theory such a view is at variance with a vast body of evidence. Social Cognitive Theory believes that, Media influences create personal attributes as well as alter pre-existing ones (Bandura, 1986; Williams, 1986).

Social Cognitive Theory contends that in effecting large-scale changes, communications systems operate through two pathways; i.e. Direct pathway and Socially mediated pathway (Bandura 2001). In the direct pathway communications, media promote changes by informing, enabling, motivating, and guiding participants. In the socially mediated pathway, media influences are used to link participants to social networks and community settings. These places provide continued personalized guidance, as well as natural incentives and social supports for desired changes (Bandura, 1997, 2001a).



*Dual path of communication influences operating on behavior both directly and mediational through connection to influential social systems.*

People are socially situated in interpersonal networks. When media influences lead viewers to discuss and negotiate matters of import with others in their lives, the media set in motion



transactional experiences that further shape the course of change. This is another socially mediated process through which symbolic communications exert their effect. The absence of individualized guidance limits the power of one-way mass communications. The revolutionary advances in interactive technologies provide the means to expand the reach and impact of communications media. On the input side, communications can now be personally tailored to factors that are causally related to the behavior of interest. Tailored communications are viewed as more relevant and credible, are better remembered, and are more effective in influencing behavior than general messages (Kreuter, Strecher, & Glassman, 1999). On the behavioral guidance side, interactive technologies provide a convenient means of individualizing the type and level of behavioral guidance needed to bring desired changes to fruition (Bandura, 2000b). In the population based approaches the communications are designed to inform, enable, motivate, and guide people to effect personal and social changes. In implementing the social linking function, communications media can connect people to interactive online self-management programs that provide intensive individualized guidance in their homes when they want it (Bandura, 2001a; Taylor, Winzelberg, & Celio, in press).

In short, there is no single pattern of social influence. The media can implant ideas either directly or through adopters. Analyses of the role of mass media in social diffusion must distinguish between their effect on learning modeled activities and on their adoptive use, and examine how media and interpersonal influences affect these separable processes. In some instances the media both teach new forms of behavior and create motivators for action by altering people's value preferences, efficacy beliefs, outcome expectations, and perception of opportunity structures. In other instances, the media teach, but other adopters provide the incentive motivation to perform what has been learned observationally. In still other instances, the effect of the media may be

entirely socially mediated. That is, people who have had no exposure to the media are influenced by adopters who have had the exposure and then, themselves, become the transmitters of the new ways. Within these different patterns of social influence, the media can serve as originating, as well as reinforcing, influences.

#### ***2.10.5 Social Diffusion through Symbolic Modeling***

Social Cognitive Theory analyzes social diffusion of new behavior patterns in terms of three constituent processes and the psychosocial factors that govern them. These include the acquisition of knowledge about innovative behaviors, the adoption of these behaviors in practice, and the social networks through which they spread and are supported. Diffusion of innovation follows a common pattern (Robertson, 1971; Rogers, 1995). New ideas and social practices are introduced by notable example. Initially, the rate of adoption is slow because new ways are unfamiliar, customs resist change, and results are uncertain. As early adopters convey more information about how to apply the new practices and their potential benefits, the innovation is adopted at an accelerating rate. After a period in which the new practices spread rapidly, the rate of diffusion slows down. The use of the innovation then either stabilizes or declines, depending upon its relative functional value.

**The acquisition of knowledge:** Differences in the knowledge, skills, and resources particular innovations require produce variations in rate of acquisition. Innovations that are difficult to understand and use receive more reluctant consideration than simpler ones (Tornatzky & Klein, 1982). When television models new practices on the screens in virtually every household, people in widely dispersed locales can learn them. However, not all innovations are promoted through

the mass media. Some rely on informal personal channels. In such instances, physical proximity determines which innovations will be repeatedly observed and thoroughly learned.

**Adoption Determinants:** The acquisition of knowledge and skills regarding innovations is necessary, but not sufficient for their adoption in practice. A number of factors determine whether people will act on what they have learned. Environmental inducements serve as one set of regulators. Adoptive behavior is also highly susceptible to incentive influences, which may take the form of material, social, or self evaluative outcomes. Some of the motivating incentives derive from the utility of the adoptive behavior. The greater the relative benefit provided by an innovation, the higher the incentive is to adopt it (Ostlund, 1974; Rogers & Shoemaker, 1971). However, benefits cannot be experienced until the new practices are tried. Promoters, therefore, strive to get people to adopt new practices by altering their preferences and beliefs about likely outcomes, mainly by enlisting vicarious incentives. Advocates of new technologies and ideologies create expectations that they offer better solutions than do established ways. Adoptive behavior is also partly governed by self-evaluative reactions to one's own behavior. People adopt what they value but resist innovations that violate their social and moral standards or that conflict with their self-conception. The more compatible an innovation is with prevailing social norms and value systems, the greater its adoptability (Rogers & Shoemaker, 1971). People will not adopt innovations even though they are favorably disposed toward them if they lack the money, the skills, or the accessory resources that may be needed. The more resources innovations require, the lower their adoptability.

**Social Networks and Flow of Diffusion:** They are linked not only directly by personal relationships; because acquaintanceships overlap different network clusters, many people

become linked to each other indirectly by interconnected ties. Social structures comprise clustered networks of people with various ties among them, as well as persons who provide connections to other clusters through joint membership or a liaison role. Clusters vary in their internal structure, ranging from loosely knit ones to those that are densely interconnected. Networks also differ in the number and pattern of structural linkages between clusters. They may have many common ties or function with a high degree of separateness. In addition to their degree of interconnectedness, people vary in the positions and status they occupy in particular social networks, which can affect their impact on what spreads through their network. One is more apt to learn about new ideas and practices from brief contacts with casual acquaintances than from intensive contact in the same circle of close associates. This path of influence creates the seemingly paradoxical effect that innovations are extensively diffused to cohesive groups through weak social ties (Granovetter, 1983).

Traditionally, the communication process has been conceptualized as one of unidirectional persuasion flowing from a source to a recipient. Rogers emphasized the mutuality of influence in interpersonal communication. People share information, give meaning by mutual feedback to the information they exchange, gain understanding of each other's views, and influence each other. Specifying the channels of influence through which innovations are dispersed provides greater understanding of the diffusion process than simply plotting the rate of adoptions over time. There is no single social network in a community that serves all purposes. Different innovations engage different networks. For example, agricultural innovations diffuse through quite different networks within the same community (Marshall, 1971).

Adoption rates increase as more and more people in one's personal network adopt an innovation. The effects of social connectedness on adoptive behavior may be mediated through several processes. Multilinked relations can foster adoption of innovations because they convey more factual information, they mobilize stronger social influences, or it may be that people with close ties are more receptive to new ideas than those who are socially estranged. Moreover, in social transactions, people see their associates adopt innovations as well as talk about them. Multiple modeling alone can increase adoptive behavior (Bandura, 1986; Perry & Bussey, 1979).

## **CHAPTER THREE: RESEARCH METHDOLOGY**

### **3.1 Introduction**

This chapter deals with a discussion of the methodology and the different techniques that are supposed to support the objective of the study.

### **3.2 Research Location**

This study has taken place in one location, namely Arsi Negelle town of Oromia region. Arsi Negele is a town located in southeastern Ethiopia, in the Mirab Arsi Zone of the Oromia Region on the paved highway north of Shashamane. Arsi Negele has a longitude and latitude of 7°21'N 38°42'E and an elevation of 2043 meters above sea level.

The 2014 Academia Journal of Environmental Sciences states that, Arsi Negele is featured by visible socio-economic and environmental problem including; rapid population growth, agricultural expansion, environmental fluctuations which includes, degradation of natural resources, loss of biodiversity and environmental deterioration.

The same journal affirmed that in 1973 most areas of Arsi Negele had been covered by dense acacia woodland and shrub/bush land. In the period between 1973 to 1986, cultivated grazing/grass land and bare/open land showed an incremental change by 8.98, 33.9, and 36.5 ha respectively. While, shrub/bush land and acacia woodland decreased by 6.17 and 73.21 ha, respectively. Between 1986 and 2010 cultivated land, acacia woodland and shrub/bush land increased by 15.38, 4.63, and 38.52 ha. However, bare/open land, and grazing/grass land showed a decreasing trend 19.23 and 39.3 ha, respectively. Furthermore, the trend and magnitude of land use in the year between 1973 to 2010 acacia woodland decreased by 22.72 ha, and grazing/grass land by 13.58 ha, but in the same year difference shrub/bush land increased by 22.82 ha and

cultivated land 13.14 ha (Academia Journal of Environmental Sciences, 2014). Expansion of agricultural land, population growth and the associated demand for land were the major driving forces for the observed changes in the area. In general from the document, it is realized that the area is characterized by loss of biodiversity, soil degradation, and environmental deterioration.

### **3.3 Research Method**

This study adopts a qualitative approach. Qualitative research takes place in the natural setting. The qualitative researcher often goes to the site (home, office) of the participant to conduct the research. This enables the researcher to develop a level of detail about the individual or place and to be highly involved in actual experiences of the participants (John 2003).

In a move to show how qualitative methodologies are crucial in communication studies and best equipped to uncover the meaning making process, Lindlof (1995: 22) writes, “If communication is primarily a matter of signifying meanings and purposes, then qualitative inquiry is interested in how signifying occurs and what it means for those who engage in it.”

Qualitative methods are typically more flexible – that is, they allow greater spontaneity and adaptation of the interaction between the researcher and the study participant. For example, qualitative methods ask mostly “open-ended” questions that are not necessarily worded in exactly the same way with each participant. With open-ended questions, participants are free to respond in their own words, and these responses tend to be more complex than simply ‘yes or no’. In addition, with qualitative methods, the relationship between the researcher and the participant is often less formal than in quantitative research. Participants have the opportunity to respond more elaborately and in greater detail than is typically the case with quantitative methods (Degsew 2010).

However, the most important limitation of qualitative research is that the findings cannot be directly generalized to the larger population being studied. Qualitative research is not representative of large population because participants are not selected randomly and the number of participants is too small to be representative of the population. It aims primarily at understanding particulars rather than generalizing to universals (Strelitz, 2003). The main objective of this study is not reaching to generalization. Rather, it is finding out how *Akebabiachin* (environmental) radio program has impacted the rural communities of Ethiopia, by taking the case of communities of Arsi Negele, in their day to day activities. To attain this purpose, the following data collection methods were used.

### **3.4 Data Collection Tools**

The methods of data collection employed in this study were focus group discussion and in-depth interview. In media and communications research, it is often the researcher who acts as the moderator so that he/she could be fully aware of the nature of the research (Hansen *et al.*, 1998 cited in Hungwe, 2006). The researcher acted as the moderator and interviewer in the focus group discussion and interview. The interview conducted with the respondents was a semi-structured interview. An interview guide, which consists of a set of open-ended questions, was used both for the focus group discussion and the in-depth interview (see Appendix).

#### **3.4.1 Focus Group Discussion**

A more descriptive, simpler and comprehensive definition of focus group discussion is provided by Degsew (2010). As he put it ‘briefly, the focus group method involves bringing together a group or, more often, a series of groups, of subjects to discuss an issue in the presence of a moderator’.



Focus group discussions were first used in the 1940s. At that time, military psychologists and civilian consultants used group interviews to determine the effectiveness of radio programs designed to boost army morale. They were largely eschewed by academic media researchers, but became established as a marketing research tool used by commercial research agencies during the 1950s and beyond. During the 1980s, however, with the emergence of critical and interpretive media research perspectives, focus groups were adopted by academic researchers within these traditions as an audience research tool which was believed to be better able than more quantitative methodologies to represent their theoretical views about the ways audiences respond to the mass media (Lunt and Livingstone, 1996).

Mytton (1999:128) further elaborates that as “As opposed to the face-to-face interview, focus group does not follow a designed conversation between the researcher and the respondent. The existence of this ‘unstructured dialogue’ is considered as the ‘strength’ of focus group. This is because the interaction among group members in the focus group produces information and insights in to the behavior and attitudes of people that would not be likely to emerge from a straight one to one interview”

Focus group discussion involves bringing together a group or series of groups of individuals to discuss an issue in the presence of a moderator. The moderator ensures that the discussion remains on the issue at hand, while eliciting a wide range of opinions on that issue. Lunt and Livingstone (1996) argue that there are many different conditions under which group discussions can be held. The decisions taken by researchers concerning the size and composition of the group, form of questions asked, setting and in-built checks for consistency and honesty or accuracy of responses can all affect the nature and quality of the data. There is potentially much diversity in the way focus groups can be employed. For that reason, my position as a moderator

would not go beyond inspiring and helping the discussions run efficiently. I was also attentive to ensure that the discussion was progressing as per the topics listed in the interview guide and whether all members of the focus group have got fair chances in forwarding their views.

Selecting participants for this study was basically conducted by searching for those who listen to the radio in general and *Akebabiyachin (environmental)* radio program in particular. This method is supported by Mytton (1999: 130) who says “one very commonly used way of organizing groups is to divide them by whether they use the product or service being researched.” The sampling procedures I applied in the study include convenience and snowball sampling which according to Deacon et al. (1999: 54) are frequent in focus group studies. However, my sampling techniques basically are non-random.

When it comes to deciding the number of focus groups one has to employ in a research process, many scholars take the objectives of the research and availability of resources as decisive factors. In cases where focus group discussions serve as the main instruments of data gathering, (which also works for this study), “...it would generally be difficult to justify fewer than six groups” (Hedges, 1985 and Morgan, 1988 cited in Hansen et al., 1998: 268). As to the number of participants in each group, I took Mytton’s (1999:130) suggestion which takes six to ten as an ideal one though he finally settles for eight saying that “eight seems to be the ideal number in most current practice.” For this study, the researcher has conducted three FGDs. The number of respondents in each focus group discussion was between eight to nine people.

In focus group discussion, setting should be as informal as possible. The moderator usually has a discussion schedule or list of key points to check off. The discussion can be videotaped or audio taped. Resulting tapes are transcribed. This can be difficult, however, if the conversation is

flowing and different respondents talk across one another. Careful note-taking by the moderator is therefore also needed to keep track of who is speaking (Bertrand et al., 1992). Throughout each focus group session in this study, the researcher started by asking participants if it was all right for them to record the discussions and explained why she wanted it on the tape. Then, the researcher requested each of them to introduce themselves, which helped her identify their names against their voices while transcribing and writing the analysis.

### ***3.4.2 Individual In-depth Interview***

Interviewing is one of the most widely used data collection methods in media and communication research. A commonsensical justification for this fact is that ‘the best way to find out what the people think about something is to ask them’ (Bower 1973: vi). Particularly in-depth interviewing, with its affinities to conversation, may be well suited to tap social agents’ perspective on the media, since spoken language remains a primary and familiar mode of social interaction, and one that people habitually relate to the technological media. The difficulty, of course, is that people do not always say what they think, or mean what they say. In research as in other social practice, communication has its purposes and contexts, which must be teased out by researchers, as by other communicators (Klaus 2002).

Individual in-depth interview method is supposed to give way different kinds of information from focus group. As Schroder et al. quoted in Mabweazara (2006: 12) explains, individual in-depth interview is important as it avoids the fear and shyness of participants in expressing their typical views and experiences in a group discussion. For this reason, individual in-depth interview can be taken as best method to explore “an issue that is felt by the individual to be too sensitive to talk about in the presence of others, other than a researcher who grants the informant full anonymity” (Schroder et. al. cited in Mabweazara, 2006: 12).

To sum up, focus group discussions and in-depth interviews were the major gears of data collection in this study. This is because the set objectives and purposes of the research project that in a way determines the research method which in this case is using qualitative methods of investigation.

### **3.5 Research Participants**

The interviews, which were conducted from April 13 to April 25, 2015, constituted a total of 32 interviewees from two Kebeles of Arsi Negele woreda. The communities who were involved in the FGD and in the in-depth interviews were in the age range of 28 to 60. Of the 32 interviewees, 25 were involved in focus group discussion. Five farmers (based on their participation and understanding of the subject matter) were selected for in-depth interview in Arsi Negele. The remaining two who were involved in the in-depth interview were the producer of *Akebabyachin* (environmental) Radio program at Forum for Environment and a co-producer journalist at Fana Broadcasting Corporate.

Here the entire participants who were taking part in the focus group discussion were small holder farmers and forest dwellers of Arsi Negele, who have been living in the area for more than 25 years. Although it is hardly possible to conclude that the study was gender sensitive, efforts were made to include more women. In this there were 10 women head farmers out of the total of 32 participants. In the study, the interpretation and discussion of the findings were based on the objectives of the study and the theoretical contemplations in chapter two and three.

### **3.6 Sampling of research participants**

As Deacon et al., (1999:54) stated, “the selection of research participants for qualitative study was made purposefully and based on the research agenda”. When it comes to the nature and

composition of focus groups, the researcher has used 'relatively homogenous groups' which has been proved effective in getting their own experiences concerning media content. The research participants in the three groups were grouped based on their proximity within their locality and their current engagement situation.

The researcher has also arranged respondents by considering those who listen *Akebabyachin* (environmental) radio program in particular and those who listen to radio programs in general. This technique of selecting research participants is based on whether they commonly use the subject under examination (Mytoon, 1999:130).

### **3.7 Interview location**

The two Focus Group Discussions took place in Gubeta Arjo kebele meeting hall and the remaining one FGD took place in Keraro kebele meeting hall. The five in-depth interviews with the communities took place in their farming yards and in their house compound. The sitting with the producers of the *Akebabyachin* (environmental) Radio was conducted in their own offices, i.e. Forum for Environment and Fana Broadcasting Corporate.

The researcher roughly examined the *Akebabyachin* (environmental) radio programs transmitted over a six-month period, i.e., from November 1, 2014 to April 20, 2015. The results from these were as follows:

Out of the total 24 programs, 13 programs were relevant to forests (particularly deals with Participatory Forest Management, tree plantation and environmental protection), 8 programs were about environment rehabilitation, irrigation development, terrace farming and soil conservation. The rest four programs dealt with renewable energies. In all programs, except four, there were segments of beneficiaries and experts.

## CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

### 4.1 Introduction

This chapter presents and discusses the findings of the qualitative research whose main objective is to look into the impacts of *Akebabyachin* (environmental) radio program through the eyes of the rural communities of Arsi Negele. The study has tried to assess whether the communities listen to the radio program or not, and to what extent the program was relevant in the communities' day to day life and how much of it is applicable in their real life. The analysis and discussions under this chapter are believed to be in compliance with the objectives of the research and the set of assumptions discussed in all the previous chapters of this study.

### 4.2 Knowledge of the participants about the current environmental situation

While conducting this study, understanding the status of the respondents' knowledge about the current environmental problem is very crucial. This could give a clear picture about the community's awareness level of environmental degradation and how much the research area is affected by environmental degradation and its impact. Moreover, by doing this, the researcher want to examine how much the research participants were affected by environmental problems, how these problems affect/help their perception of the radio programs and how the radio program has impacted their attitude. The researcher also wanted to know the status of the participants' knowledge of environmental issues and whether this knowledge was acquired from *Akebabyachin* (environmental) radio program or not.

At the end of the FGD and in-depth interview, results reveal that the following parts of Arsi Negele's environment were highly damaged in terms of forest resource and Soil/farm land. This

concern was marked mostly from older people who have been living in the area for a longer period of time.

#### ***4.2.1 Forest Resource***

Almost all participants of the interview and the focus group discussion agreed that, from time to time, there is a dramatic decline of forests resources in Arsi Negele. In the past time, the area was used to be densely covered by various indigenous species of trees. The farming land was fertile and the farmers (communities) were able to harvest surplus products. Respondents on the FGD, who have lived in the area for a longer period of time, said that from time to time, they are witnessing a diminishing size of forest in their area. They said that forests were cut for various purposes and currently they were facing the effects of it. Edasso Hanotta is 52. He is a farmer and he shares his experience by comparing the current environment situation with the past in the following words:

I came to this place with my family when I was around four years old. From that time onwards, I have been living in this place and I know it very well. In the previous time, the area was covered by dense forest. There were a lot of trees species from which most are eliminated now. The denseness of the forest used to give us a difficult time to graze our cattle. The weather condition was moderate. The land was fertile and suitable for farming. But now a lot has been changed. From time to time, the size and types of forests were declining dramatically. The weather condition has changed. It becomes hot and sometimes very dry. The farming lands were no more fertile and productivity has declined considerably (Personal interview, April 23, 2015).

Another respondent, Aman Hussien, who is 40, said that the forest size has diminished dramatically because the local people's awareness about the forest is little and we care less about it.

In the previous time, this place had various tree species and most places were covered by green plants. The farming lands were so productive without using any kinds of compost. The weather condition was suitable for agriculture and the rain was abundant and regular. However, as times pass by, the population number in the area increased at an alarming rate. Due to this reason, the forests were cut down (destroyed) by the people in order to build new houses, to expand farm lands and to use it for fuel wood and charcoal production. Not only that, the forest became a means of income for many households. By cutting down these precious trees, production of charcoal and selling of fire wood became very common. People in the area started to export these products even to neighboring cities and towns. While doing these, no concerned body stopped or prohibited the action. These activities of the community have become the main drivers of forest degradation in the area. Due to these, today, soil erosion; reduction of the productivity of our farm land and dryness and hot weather have become very common. To conclude, it is us, the community, who have done these damages to our locality (Personal interview, April 23, 2015).

From Edasso and Aman's response, it can be understood that the area has faced serious environmental degradation caused by deforestation, and the area is experiencing the effects and consequences of that degradation. In addition, from his response, it can be discerned that the main actors of deforestation and environmental degradation in that particular area are the people themselves. The 2002 Woody Biomass Inventory and Strategic Planning Project (WBISPP 2002) concludes that the rapid population increase in Oromia region has resulted for agricultural expansion and encroachment into forest land and it is the primary driver of deforestation in the



region. The regional state is losing the highest area of forest annually with an annual rate of deforestation estimated at 1.16 percent.

Almost all participants of the FGD consider forests are the most degraded part of the environment in their locality. Respondents were also asked about what they think are the main causes of forest degradation besides the economic and social drives. Most research participants mentioned lack of proper protection and management of the environment by the government as the main cause. According to the participants, since the last three to five years, the government laws and regulations regulating the environment has not been serious. It was not uncommon to see those who have brought serious damage to the environment easily getting away with it without being held accountable. Moreover, the respondents noted low level of awareness by the public concerning environmental issues as another reason for forest degradation. Tamiru Bassore is a 60-year old guy. He is a farmer and has lived in the area since birth. He believes that lack of serious measures by the government against the offenders in the past few years has aggravated deforestation.

I have lived in this area since birth. I have seen three regimes in my life time. During the previous two regimes, deforestation in this area was not common. During the imperial regime, though I do not remember the regulation, everything was in surplus, no one cut tree to generate income. During the military regime, no one dares to cut forest and expand farm land. If one did that, he/she would end up in prison. The forests were relatively protected. In the current regime, prior to three to four years, there were no serious measures against those who destroy forest for various purposes. The forests were used to be slashed not only by the local people but by the outsiders as well. There were people who came to this place to cut trees and produce charcoal. No one stopped them from their action. If the law had been strict as it has been now, the forests in this area would have more chance of surviving (Personal interview, April 24, 2015).

From this response of the research participant, a serious gap is observed in the government's various environmental policies and its actual implementation. It was in 1995 that the Constitution of the Federal Democratic Republic of Ethiopia and the National Economic Policy and Strategy have recognized and given due attention to environmental protection. However, in many parts of the country, a serious challenge is observed in enforcing these policies and strategies. As a result, the practice of deforestation and well being of the environment is kept on deteriorating. Yared (2009) states that: "...these positive Constitutional and policy concepts however, have not been matched by appropriate institutions to give them life, as it were. Federal as well as Regional agencies are not able to fulfill these objectives. Institutional capacity building in the field of environmental protection is the major problem. The relation of Federal agencies with that of Regions and Region to Region relation need more clarity and harmony. Regional level institutions in particular do not have; trained/ skilled manpower and adequate financial resources to realize their environmental objectives. Regional institutions are also expected to follow the federal environmental policy and strategy".

Besides to these, even though the decentralization of political administration during the last two decades was important from the decision making point of view, it has also contributed to the lack of national forest development. Regions are adopting different strategies and actions, which have resulted in large inter regional differences in forest conservation and development. "...Whilst a few degraded forests are recovering, e.g. through area exclosures in Tigray, old growth natural forest in the west, southwest and southeast are shrinking showing that the efforts to restore forests in some region are being counterbalanced by the high rate of deforestation in others" (Edwards 2012).

Fatuma Jemal, 39, argues that in addition to the weaknesses of the laws and regulations, low level of awareness by the community towards environmental protection was a major factor for the current deforestation and environmental degradation.

Previously, we hardly knew about the consequence of deforestation and environmental degradation. We never thought that we would be affected with its current consequences. The media has given little coverage/attention in raising the communities knowledge towards it. In addition, in our locality, there was no organization which works against environmental degradation as it does today. No one teaches us about environmental protection like the current time. Hence, when things with the environment were getting worse, we used to believe that it had happened due to the will of God/Allah. We never thought it was/is happening because of our wrong doings (Personal interview, April 24, 2015).

Mekuria Assefa, a Project Officer of Knowledge Enhancement for Climate Changes at Forum for Environment agreed with these views of the communities. He said his organization had made a preliminary survey about the status of the environment in the rural parts of the community before the organization started the radio program. The process helped the management get a good understanding of the community's attitude towards environment protection and environmental degradation. He said that the result of the survey revealed that the rural communities living in most parts of the country had limited knowledge about the environment protection/environmental degradation.

Four years back, Forum for Environment has undertaken a preliminary survey on the rural communities of the country to assess the knowledge/awareness level of the rural communities towards environmental degradation and climate change. The findings of the assessment demonstrated that there was a serious knowledge gap among the communities and lower level government officials with respect to

environmental degradation, the existing policies and regulations towards environmental protection and above all little was known about the consequences of the current climate change. Because of these, the rate of deforestation in many parts of the country was alarming. Hence, in order to combat this, the organization has designed *Akebabyachin* (environmental) radio program with the objectives of fulfilling these existing information and knowledge gap among the rural communities in view of attempting to decrease the rate of deforestation and environmental degradation (Personal interview, April 28, 2015).

#### **4.2.2 Soil/Farm land**

With respect to the current state of farm land, participants of the FGD and the in-depth interview agreed that the productivity of farm land is deteriorating from time to time. Tesho Mustefa is 40. Farming is a means of livelihood for his family. He said the productivity of his farm land has changed significantly in the following words:

I was born and grew up in this area. I have been engaged in farming since my childhood. Farming is a source of income for my family and it is from it that I feed my family. But currently, things are not the same compared to previous years. I am unable to get sufficient harvest for the household consumption let alone taking it to the market. This is due to soil erosion and degradation of farming land. The farming land was exposed to erosion since there is no forest or tree cover which protects the top soil. In addition to this, the loom soil is washed out by rain and flood. Hence, our farming land is not productive as it used to be in the past time (Personal interview, April 24, 2015).

Medina Abdella is 38 and she is a farmer. She has got a small plot of land and cultivates maize and barley. Due to her active participation in the FGD, she was chosen to be an interviewee and the researcher also visited her farm land. Like the other farmers in the FGD, she strongly agrees with the decrease in farm land productivity.

In the previous time, every farmer, whether economically good or not, would get a surplus product if they made the basic efforts while they plough. But today, that is not the case. Those farmers who are economically good and afford to buy and put extra fertilizers on the soil would get a better harvest. Those who can't afford are exposed to severe drought and various challenges. This occurs in a bigger part, due to prolonged deforestation in the area that has exposed our farm land to erosion and flooding. All the valuable ingredients/minerals were washed out from the soil. Sometimes, even if we apply fertilizer which we can get by borrowing from the government, would be washed away by the flood or rain. Due to these problems, we (the localities) were government's PSNP (Productive seftNet Programme) beneficiaries for a brief period of time (Personal interview, April 24, 2015).

Soil degradation is the most immediate environmental problem facing Ethiopia. The loss of soil and the deterioration in fertility, moisture storage capacity and structure of the remaining soils all reduce the country's agricultural productivity. Soil erosion is greatest on cultivated land where the average annual loss is 42 tons/ha. compared with five tons/ha from pasture. As a result, nearly half the soil loss comes from land under cultivation, even though these land cover only 13 percent of the country. Not surprisingly the highest average rates of soil loss are from formerly cultivated lands that are currently unproductive because of degradation and little protective vegetative cover (Hurni 1990).

Soil and land degradation in Arsi Negelle area become one of a serious challenge which is caused by high level of deforestation. These problems results for deteriorating agricultural productivity which in turn led to sever food insecurity for the localities.

The major physical agent in environmental degradation in the settled highlands of the Oromiya region is soil erosion. Topography, rainfall, wind, lack of vegetation cover, soil

properties, and land use and management practices are the immediate causes of soil erosion (Barber 1984).

#### **4.3 Accessing Radio Fana and other Radio programs**

Almost all respondents have got their own radio. They said they could access both national and FM radio transmission of Fana Broadcasting Corporate. From the total of 30 respondents from the communities of Arsi Negelle, around 21 were regular followers of the weekly *Akebabyachin* (environmental) radio program, which is transmitted every Wednesday from 8:30 to 8:45pm local time. Five of the respondents said that they follow the program occasionally if they happen to be in their home. The remaining four participants never heard about the radio program. While describing about its accessibility, the respondents said that *Akebabyachin* (environmental) radio program is accessible very easily with a clear and good quality of transmission. Currently, Fana broadcasting Corporate has an estimated reach of more than 65 million people and more than 36 million audiences ([www.fanabroadcasting.com](http://www.fanabroadcasting.com))

The respondents also accessed other radio transmissions like that of Ethiopian Radio, FM 97.1, Sheger 102.1 and Debub FM. Almost all respondents noted that they follow Ethiopian Radio and Radio Fana. Sheger 102.1 is also becoming popular among them. The researcher was also able to listen to Sheger 102.1 program on one of the respondents' mobile phone radio while waiting for the other respondents to gather in Gubeta Arjo Kebele.

The majority of the respondents said that current affairs, environmental programs, sports and entertainment (Ye Chaweta programme) of the Ethiopian Radio, Radio Fana and Sheger 102.1 were their favorite ones. The older respondents said that they hardly miss Ye Chaweta Program which is transmitted every Saturday afternoon on Sheger 102.1. Whereas, relatively younger

respondents said that they never missed sports programs transmitted on FM 97.1 and Sheger 102.1. Most participants in the FGD also said that they could listen to any program at any time since their mobile phone has got a radio.

#### **4.4 *Akebabyachin* (environmental) Radio program**

As described above, from the total of thirty respondents who took part in the FGD and in-depth interview, around twenty one of them were regular followers of the weekly *Akebabyachin* (environmental) radio program transmitted in three languages. The radio program is transmitted in Amharic, Oromifa and Tigrigna languages on three different days but with similar content. In the area chosen for the study, the Oromifa and the Amharic language programs have a lot of listeners. The Oromifa and Amharic programs are transmitted every Wednesday (from 8:30 - 8:45 pm local time) and every Monday (from 5:00 - 5:15 pm local time), respectively. Although the content of the programs transmitted through the three languages is similar, this study mainly focused on the Oromifa language transmission since it is listened by the majority of the population in the research location.

The educational background of the twenty one regular listeners is grade two and above. All were able to read and write. The highest educational level among them was grade 10. Among the participants, two were in their late twenties, eleven were in their mid and late thirties, four were in their mid-forties and the remaining four were in their late fifties.

With regards to the time of *Akebabyachin* radio program transmission, almost all participants said that the transmission time of the program was convenient. They said that the program is transmitted during evening time, which is suitable for anyone who is interested to listen up. Aman Hussien is 40 and Merga Deyassa is 41. They are from the attentive listeners of

*Akebabyachin* (environmental) radio program. They both said that the program was transmitted in a convenient time. According to Aman,

*Akebabyachin* radio program is transmitted at a suitable time. That is the main reason that I did not miss any of the programs. Every Wednesday starting from 8:30 pm, I will get back home and listen to the program (Personal interview, April 23, 2015).

Merga shares Aman's comments, and reiterated that,

The radio program is aired when I get back home from my farming business. Usually, in the evenings, my wife prepares coffee and we listen to the radio programme together while drinking coffee (Personal interview, April 23, 2015).

Kedija Ali is another regular follower of *Akebabyachin* (environmental) radio program. She said that she did not want to go to bed before the program ended.

I do not want to miss any of *Akebabyachin* radio program. When I have got appointments or any social responsibility, I usually perform that before the program starts. So far the time for the program transmission is very convenient to me (Personal interview, April 24, 2015).

Two of the participants, Likassa Lulu 43 and Bedasso Ketem 44, who have never heard of the radio program, said that the transmission time was not convenient for all farmers. They felt that the program must be transmitted in the morning, preferably just after the morning news. Here are Likassa and Bedasso's comments in that order:

I have never listened to the radio in the evening after 8.00pm. I work hard all daylong and I feel tired by the time I get home. So I do not have time to listen to the radio program (Personal interview, April 24, 2015).

My farm is a bit far from my house. I usually perform very tiresome activities on my farm land. Then by the time I get home, the program is usually over. So, if the



time is changed to morning, I would have the opportunity to follow it. But 8.30pm is not convenient to me (Personal interview, April 23, 2015).

#### **4.5 Language Usage of *Akebabyachin* (environmental) Radio program**

When conducting a research about impacts of a radio program, it is crucial to understand whether the target group could easily comprehend and speak the language used on the radio program. As it was discussed in the previous chapters, *Akebabyachin* (environmental) radio program is a weekly program transmitted in three languages (Amharic, Oromifa and Tigrigna) by targeting the rural communities of Ethiopia. In the research location, i.e. Arsi Negele, the radio program is transmitted in Oromifa and Amharic languages. Almost all participants speak and understand Oromifa very well. It is a mother tongue for about twenty four of the participants and the remaining six understand and speak the language very well.

In the focus group discussion, the researcher was able to learn from the participants that the radio program producers use clear, audible and understandable words and phrases while airing the program. Mekuria Assefa, who is the producer of the program at Forum for Environment said that his organization had strong reasons when it decided to transmit the program in three languages:

Principally, the program targets the whole rural communities of Ethiopia (farmers, forest dwellers and pastoralists). Nevertheless, the country has diverse languages; so we just picked up those languages which are spoken by a vast majority of the general population. Hence we had chosen Amharic, Oromifa and Tigrigna languages. By doing that, we are expecting that the program would reach for about 40 million people. With regards to new technical words and new concepts, what we usually do is that before airing that word or a concept, our journalists discuss the new word and concept with the communities and they make sure that the new concept is clearly understood by communities before it is used on the radio program (Personal interview, April 13, 2015).

#### 4.6 Impacts of *Akebabyachin* (environmental) Radio on the communities

Most participants of the FGD and the in-depth interview believe that *Akebabyachin* (environmental) radio program has changed the communities' attitude towards environment protection and avoiding destructive practices against the environment. They said that initially, when the program started, no one gave serious attention to it since it was continuously talking about avoidance of deforestation and environmental degradation. But through time, when the program aired various good practices of other regions particularly that of Tigray and Amhara regions, they began to be attentive. Besides, most of the issues that were raised on the programs had direct link with their particular context and challenges. Hence, they said that they started to give due attention for it.

The participants noted that the radio program has introduced a lot of new and useful techniques and approaches to safeguard the environment as well as to strengthen their farming business. Anisho Gelgelo is 55 and Zemenu Hasebo is 39. Both are regular followers of *Akebabyachin* (environmental) radio program. They said they have benefited and brought a lot of changes in their way of doing things thanks to the program. Here are their comments in that order:

I am an attentive listener of *Akebabyachin* radio program. I have been following the program for the past two years. Through this time, I have learned a lot. Firstly, my past perception and experience towards the environment has changed. Previously, I used to cut a lot of trees in order to produce charcoal and to make money out of it. I did a lot of damage by doing this business. But at present, I cannot do that and I feel guilty for what I did in the past. Even though there is a decree by the government towards charcoal production, *Akebabyachin* radio program has persuaded my attitude. Currently, let alone cutting trees, I stood against those who tried to cut off trees. I started to believe that forests are the sources of my life (Personal interview, April 25, 2015).

Previously I was involved in the production and selling of charcoal to the local market. By doing so, I used to make a lot of money. But I never realized that I was destroying my environment. But from the radio program, I have realized that all the environmental challenges that we (the communities) are facing currently are the outcomes of our past experience. Following the program, I have started to plant tree seedlings in my house compound. The radio program has also taught me how to take care of my tree seedlings till it grows big and I am applying that (Personal interview, April 25, 2015).

From the participants' responses, it could be observed how the radio program (for this case the external environment) has changed the behavior and attitude of the communities of Arsi Negele in protecting their environment. As Bandura (1986) rightly argues, human behavior is a triadic, dynamic and reciprocal interaction of personal factors, behavior and external environment. He contends that people are both products and producers of their environment. A person's behavior will determine the aspects of his/her environment to which he/she is exposed, and behavior is, in turn, modified by the environment.

Many of the participants in the FGD also witnessed that after following the radio program for the past two years, the localities are now in their early stage of exercising terrace farming which was not the case to the area in past. Aman Hussein is 40, Dekebo Bensa is 51 and Wude Ediso is 39. They confessed that when *Akebabyachin* radio program aired programs on the advantages of terrace farming along with interviews of farmers who benefited from implementing the technique, their interest for applying similar techniques on their farm lands grew substantially.

**Aman:** As you can see, our farm land is exposed to soil erosion and flooding which have become serious challenges in my locality. *Akebabyachin* radio program has promoted terrace farming for consecutive weeks by inviting farmers who have practical experience in its implementation. After the program was aired,

I was very much interested to know more about it. And with support I got from the development agents in my locality, I have managed to do terrace farming on my farm land (Personal interview, April 23, 2015).

**Dekebo:** *Akebabyachin* (environmental) radio program has encouraged us to practice terrace farming. We, as a community, were never acquainted with the technique earlier. The program was instrumental in introducing us to the methods and it also invited farmers who already benefited from it. After listening to this practical experience of the farmers, I was encouraged and wanted to use it on my farm land. It has been one year since I began applying this technique on my farm land and I am so thrilled by the results (Personal interview, April 25, 2015).

**Wude:** we have got practical lessons from the radio program. It has taught us about terrace farming, irrigation development and soil conservation. At present in my locality, about 42 hectares of land is used by terrace farming and so far we are happy with it (Personal interview, April 24, 2015).

According to Bandura (1994), experiences of the people in their environments (in this case the experience with the mass media) can affect their behaviors radically; and that effect is manifested in a number of ways including but impact on cognition. Impact on cognition is crucial because the mind is an active force that constructs one's reality, selectively encodes information, performs behavior on the basis of values and expectations, and imposes structure on its own actions.

The media can implant ideas either directly or through adopters. Analyses of the role of mass media in social diffusion must distinguish between their effect on learning modeled activities and on their adoptive use, and examine how media and interpersonal influences affect these separable processes. In some instances the media both teach new forms of behavior and create motivators for action by altering people's value preferences, efficacy beliefs, outcome expectations, and

perception of opportunity structures. In other instances, the media teach, but other adopters provide the incentive motivation to perform what has been learned observationally. In still other instances, the effect of the media may be entirely socially mediated. That is, people who have had no exposure to the media are influenced by adopters who have had the exposure and then, themselves, become the transmitters of the new ways. Within these different patterns of social influence, the media can serve as originating, as well as reinforcing, influences (Bandura, 2001a).

The participants also added that the radio program has given them a valuable lesson on forest protection, renewable energy and soil conservation. Daba Megerssa is 39 and Bayissa Tafa is 40. These participants noted that at present, they clearly understand the need to protect forest areas and environment.

**Daba:** before the radio program, I considered the forests as something that did not belong to me. I did not feel any ownership for it. I never thought cutting or clearing forest land would bring severe consequences in my life. But now, from the program, I understand that the forests are our treasure given to us by nature for our betterment. I am now a guardian of the forest resources of my locality (Personal interview, April 25, 2015).

**Bayissa:** some years back, when my area was severely affected by soil erosion, I didn't know what to apply in order to mitigate the problem. But the radio program has given me a lesson on tree planting and terrace farming as options in order to protect my farming land. I did apply those and the problem has minimized (Personal interview, April 24, 2015).

Moreover, the participants also expressed that the radio programs provided useful information about weather conditions. From the responses collected from the FGD and the in-depth

interview, the main reasons behind the radio program's 'efficiency' in winning the communities' acceptance in two-year time were learned.

**Mekuria:** before airing the radio program, Forum for Environment has undertaken a preliminary survey in some selected areas of the country which are vulnerable due to climate changes. Arsi Negele was one of these areas. While doing that, we have managed to get valuable inputs in order to combat the existing environmental degradation and what the community lacks. So, when we started the radio program, we already knew what to deliver to the community (Personal interview, April 13, 2015).

#### **4.7 The Need for qualified and informed producers**

At the time of this study was conducted, there were three journalists (each for Amahric, Oromifa and Tigrigna languages) and one producer, who was working on *Akebabyachin* Radio program. The producer was from Forum for Environment and the journalists were employees of Fana Broadcasting Corporate. The producer had a sole right to decide on the content and direction/angle of the program. The three journalists had the responsibility of interviewing the communities and others (as required), record and narrate the program.

The producer of the radio program, Mekuria, was the Project Officer of Knowledge Enhancement for Climate Changes of Forum for Environment. He has got a BA Degree in History and MA Degree in Geography and Environment Education. He never took any formal training in relation to Media and Communication. Prior to joining Forum for Environment, he has been working in agricultural bureau in Gonder town. The researcher asked him how he managed to produce a radio program without having any media related training in the past. Below is his response:

Although I never took any formal training in relation to media, I have read a lot of books and manuals to help me discharge my responsibilities properly. In addition, I have got a lot of friends who are working in the media and we usually share experiences 'on how to do' things. I am also attentive follower of Media (TV, Radio and Print) for a very long period of time. So, these experiences have helped me a lot for my current job. With regards to *Akebabyachin* radio program, I usually decide on and manage the content. The rest of the technical details are performed by the journalists of Fana Broadcasting Corporate (Personal interview, April 28, 201).

The three journalists were assigned randomly by the radio station. Forum for Environment has given them a brief training on the environment situation of the country. The researcher has talked with one of the journalists (co-producer), Temesgen Alebachew, who was working for the Oromifa language of *Akebabyachin* radio program.

Prior to my engagement with Forum for Environment, I never took training on Ethiopia's environmental situation. The training has given me a good lesson for the production of *Akebabyachin* programs. But I cannot be certain for how long I am going to stay on this program, because usually, journalists rotate from one program to another based on the interest of the media house (Personal interview, April 28, 2015).

#### **4.8 Relation with the broadcaster**

The broadcaster, Fana Broadcasting Corporate, has the mandate of suspending programs whose content is against its Editorial policy. For the past two and a half years, Forum for Environment did not face any challenges from the broadcaster. Mekuria noted.

So far we have a smooth relationship with Fana Broadcasting Corporate. The Corporate is a long time partner and we have worked on a number of environmental programs in the past. So far the Corporate is supportive of our

programs. For example, most of the time, we exceed the given time and the Corporate tolerates us up to ten minutes broadcasting time for free (Personal interview, April 28, 2015).

When asked if there has been any occasion where the already produced programs were suspended due to its sensitivity (political or against the editorial policy), Mekuria responded the following:

No we did not face these suspensions. We clearly know what to produce and air. Most of our radio programs are supportive of the government environmental and agricultural policy. So we didn't face any problem on this regard (Personal interview, April 28, 2015).

#### **4.9 General Evaluation of the program by Research participants**

Before the researcher concluded her discussion with the participants of FGD and in-depth interview, she asked them how they would evaluate *Akebabyachin* (environmental) Radio program and why.

Almost all participants, both those who listened to the program regularly and those who listened to it occasionally, said that the radio program was very useful not only to the farmers and forest dwellers but for all communities who are interested to protect the environment. They noted that currently, deforestation for production of charcoal is not an issue in their area due to the impact of the radio program. However, they all complained about the duration of the program. They complained that a 15-minute is very short taking into consideration the importance of the content and the significance of the information and updates they receive from it. They reiterated that it would be hugely beneficial to them if more time could be allocated.



## CHAPTER FIVE: CONCLUSION AND RECOMMENATIONS

### 5.1 Conclusion

This study aimed at examining the impact of *Akebabyachin* (environmental) radio program on its target audience, i.e., the rural communities of Ethiopia with particular focus on Arsi Negele. Although, the radio program has been airing for only three years, the finding of the study reveals that it has been popular among the listeners in Arsi Negele communities. From 30 participants chosen for the study, 21 were regular listeners whereas six were occasional listeners.

From the research participants' perspectives, Arsi Negele is one the places in the country severely affected by many drawbacks associated with climate change precipitated by deforestation and environmental degradations. In the study area, the effects of climate change were characterized by soil erosion, drought caused by low productivity of farm lands, flood, and dry and hot weather. As is the case with many parts of the country, the main reason for deforestation and environmental degradation in Arsi Negelle was manmade. Production of charcoal, expansion of farming land, population pressure and firewood were the dominant reasons.

In the FGD and in-depth interview discussion, participants reflected that weak regulatory and enforcement measures exercised by the government against those who damage the forest resources and the environment have aggravated the problem of deforestation and environmental degradation. It was only from four to five years back that the government started taking strict measures against those who are acting against the natural resources.

The participants of the study affirmed that *Akebabychin* (environmental) radio program has played a significant role in changing their attitude towards environmental protection and the practice of new techniques to preserve the natural resources that they had not used in the past. Terrace farming, avoidance of deforestation, tree plantation and soil conservation were some of the activities that were adopted by the communities after their exposure to the radio program.

In the study area, the transmission of FBC was found to be clear; the station was also one of the most listened radio stations. In addition to that, transmission from the Ethiopian Radio, FM 97.1, Sheger 102.1 and Debub FM were listened to by the communities. Most research participants concurred that the time of transmission of *Akebabychin* (environmental) radio program was convenient a few of them proposed for change of the transmission time into the morning. It's transmission in Oromifa language and the use of sound bites (including farmers and experts) were considered as assets of the program. However, the duration of the radio program was identified as a serious problem by the participants.

With regards to the producers, the main producer of the program was not a trained journalist or producer. In addition to that, the journalists who were assigned by the FBC to co-produce the program were not well informed about environmental issues. To fill this gap, Forum for Environment gives brief training for the journalists at the beginning. However, the journalists who take the training would not necessarily stay there for long. He/she would be assigned to another place and replaced by a new one before the project ends.

## 5.2 Recommendations

Ethiopia has issued various measures, laws and regulations to combat the effects of climate change. But the problem is still persistent and affecting thousands and millions of citizens in the country. Lack of awareness about environmental protection and lack of appropriate measures against the existing problems coupled with inefficient governments' rules and regulations execution towards environmental protection are still the major causes of environmental degradation in the country. *Akebabychin* (environmental) radio program aimed at filling up this existing knowledge gap of the rural communities in order to fight climate change; and it has brought significant impacts in the communities of Arsi Negelle. Hence, in order to combat the sever problem of deforestation and environmental degradation which featured the country, there must be a lot of radio programs which aimed at targeting in the raising of the awareness of the rural communities.

The findings of this study confirm that *Akebabyachin* (environmental) radio program has brought significant impacts, particularly towards minimizing the rate of deforestation in the localities of Arsi Negele. In order to sustain and maximize such impact making mission, the radio program might consider strengthening its capacity to reach thousands and millions of rural communities of Ethiopia to combat the existing climate change. In addition to that, although the program bears fruit in winning the heart and minds of the Arsi Negele communities, the producer organization need to give due attention to having well trained and qualified professional radio producers. Not only that, the broadcaster also needs to consider assigning permanent journalists till the project is finalized. By doing this, it would ensure continuity and predictability in addition to boosting the quality of the radio program, which in turn, more dividends in terms of listenership.

As is stipulated in the memorandum of understanding signed between Forum for Environment and Fana Broadcasting Corporate, *Akebabyachin* radio program will come to an end in a few months' time, i.e., in November 2015. Hence, the organizations in question need to consider an exit strategy that would ensure the sustainability of the current achievements, particularly with regards to deforestation and environmental protection.

The experience of *Akebabyachin* radio program, especially its experience of undertaking a preliminary research (assessment) of the communities before commencing the radio program need to be scaled up by others in order to meet/win the designed objectives.

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## Appendix 1: List of Research Participants

### Communities of Gubeta Arjo kebele who involved in production of charcoal

| No | Name           | Sex | Age | Place of Residence | Mother tongue | Second language | <i>Akebabyachin</i><br>Radio program |
|----|----------------|-----|-----|--------------------|---------------|-----------------|--------------------------------------|
| 1  | Anisho Gelgelo | M   | 45  | Gubeta Arjo Kebele | Oromifa       | Amharic         | Regular                              |
| 2  | Tesho Mustefa  | M   | 40  | Gubeta Arjo Kebele | Oromifa       | Amharic         | Regular                              |
| 3  | Aman Hussen    | M   | 40  | Gubeta Arjo Kebele | Amharic       | Oromifa         | Regular                              |
| 4  | Fatuma Burka   | F   | 35  | Gubeta Arjo Kebele | Oromifa       | Amharic         | Regular                              |
| 5  | Medina Abdella | F   | 38  | Gubeta Arjo Kebele | Oromifa       | Amharic         | Occasional                           |
| 6  | Nassir Hissien | M   | 29  | Gubeta Arjo Kebele | Oromifa       | Amharic         | Regular                              |
| 7  | Ediso Hanota   | M   | 52  | Gubeta Arjo Kebele | Oromifa       | Halaba          | Occasional                           |
| 8  | Tamiru Bassore | M   | 60  | Gubeta Arjo Kebele | Amharic       | Oromifa         | Regular                              |

**Communities of Gubeta Arjo Kebele who involved in production of charcoal**

| No | Name            | Sex | Age | Place of Residence | Mother tongue | Second language | <i>Akebabyachin</i> Radio program |
|----|-----------------|-----|-----|--------------------|---------------|-----------------|-----------------------------------|
| 1  | Merga Deyassa   | M   | 41  | Gubeta Arjo Kebele | Oromifa       | Amharic         | Regular                           |
| 2  | Zemenu Hassebo  | M   | 39  | Gubeta Arjo Kebele | Halaba        | Oromifa         | Occasional                        |
| 3  | Aysha Nassir    | F   | 34  | Gubeta Arjo Kebele | Oromifa       | Amharic         | Regular                           |
| 4  | Kedija Abdella  | F   | 30  | Gubeta Arjo Kebele | Oromifa       | Amharic         | Occasional                        |
| 5  | Likassa Lulu    | M   | 43  | Gubeta Arjo Kebele | Oromifa       | Amharic         | Occasional                        |
| 6  | Mohamed Nur     | M   | 40  | Gubeta Arjo Kebele | Oromifa       | Amharic         | Regular                           |
| 7  | Zemizem Mudesir | F   | 36  | Gubeta Arjo Kebele | Oromifa       | Amharic         | Occasional                        |
| 8  | Fate Sherifo    | F   | 35  | Gubeta Arjo Kebele | Oromifa       | Amharic         | Regular                           |

**Communities of Gubeta Arjo Kebele who are affected by soil erosion**

| No | Name           | Sex | Age | Place of Residence | Mother tongue | Second language | 'Akebabyachin' Radio programme |
|----|----------------|-----|-----|--------------------|---------------|-----------------|--------------------------------|
| 1  | Dekebo Bensa   | M   | 38  | Keraro             | Oromifa       | Amharic         | Regular                        |
| 2  | Bedasoo Ketema | M   | 44  | Keraro             | Oromifa       | Amharic         | Occasional                     |
| 3  | Wude Ediso     | F   | 39  | Keraro             | Amharic       | Oromifa         | Regular                        |
| 4  | Almaz Dechassa | F   | 29  | Keraro             | Amharic       | Oromifa         | Regular                        |
| 5  | Daba Megersa   | M   | 39  | Keraro             | Oromifa       | Amharic         | Occasional                     |
| 6  | Negash Nana    | M   | 48  | Keraro             | Amharic       | Oromifa         | Regular                        |
| 7  | Bayisa Tafa    | M   | 40  | Keraro             | Oromifa       | Amharic         | Occasional                     |
| 8  | Fatuma Jemal   | F   | 39  | Keraro             | Oromifa       | -               | Occasional                     |
| 9  | Halima Abdella | F   | 33  | Keraro             | Oromifa       | Amharic         | Regular                        |

**Communities of Keraro Kebele who were affected by environmental degradation**

| No | Name            | Sex | Age | Place of Residence | Mother tongue | Second language | <i>Akebabyachin</i> Radio program |
|----|-----------------|-----|-----|--------------------|---------------|-----------------|-----------------------------------|
| 1  | Chemdesa Tuffa  | M   | 58  | Gubeta Arjo Kebele | Oromifa       | Amharic         | Regular                           |
| 2  | Ayele Bayissa   | M   | 55  | Gubeta Arjo Kebele | Oromifa       | Amharic         | Regular                           |
| 3  | Negash Disasa   | M   | 40  | Gubeta Arjo Kebele | Oromifa       | Amharic         | Regular                           |
| 4  | Assefa Demekisa | M   | 48  | Keraro             | Oromifa       | Amharic         | Regular                           |
| 5  | Kassa Guder     | M   | 43  | Keraro             | Oromifa       | Amharic         | Regular                           |

**Communities who participated for the in-depth interview**

| No | Sex | Name             | Responsibility                                                                     | Educational Status                                                               |
|----|-----|------------------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| 1  | M   | Mekuria Assefa   | Project Officer of Knowledge Enhancement for Climate change, Forum for Environment | -BA Degree in History<br><br>-MA Degree in Geography and Environmental Education |
| 2  | M   | Temsgen Albachew | Reporter at Fana Broadcasting Corporate                                            | BA Degree in Sociology and Social Anthropology                                   |

**Producer and co-producer: involved for in-depth interview**



## Appendix 2a: Interview guide for FGD and in-depth interview with the communities

Region: \_\_\_\_\_ Zone: \_\_\_\_\_ Woreda: \_\_\_\_\_ Kebele: \_\_\_\_\_  
Respondent Location: a) Near to the town \_\_\_\_\_ b) Far from the town \_\_\_\_\_

### Part 1: Personal Information

1. Name/Code: \_\_\_\_\_
2. Age: \_\_\_\_\_
3. Gender \_\_\_\_\_
4. Educational status : a) illiterate b) 1-4<sup>th</sup> grade c) 5<sup>th</sup>- 8<sup>th</sup> grade d) 8<sup>th</sup>-10<sup>th</sup> grade e) certificate and above
5. Status of Amharic: a) mother tongue b) 2<sup>nd</sup> language c) 3<sup>rd</sup> language

### Part 2: Knowledge of Local Environmental Issues

1. Among the following, which component of the environment is most affected in your locality?  
(put them in sequence) a) forest \_\_\_\_\_ b) soil \_\_\_\_\_ c) water \_\_\_\_\_ d) air \_\_\_\_\_
2. To what extent forests in your locality are depleted?
3. In your locality, which are the driving factors for forest depletion? (put them in sequence) a) expansion of farm land \_\_\_\_\_ b) population increase \_\_\_\_\_ c) forest fire \_\_\_\_\_
4. How do you describe the productivity of your farm land? a) in good condition \_\_\_\_\_ b) similar with previous situation \_\_\_\_\_ c) deteriorating \_\_\_\_\_
5. If your farm land is deteriorating, what are the main reasons?
6. How much the water resources (rivers, streams, lakes) in your locality have been affected?
7. Why do you think water resources are shrinking from time to time?
8. What is the impact of soil degradation on your yield or household economy? (yield decline, crop failure, reduction of effective farm size?)
9. What is the impact of forest depletion on your yield or household economy? (shortage of construction and fuel wood, soil erosion?)
10. What will be the future of the environment in your locality? Will it improve or get worse?
11. What solutions do you suggest to environmental degradation? (E.g. Prayers, better management, policy, more media work...)

### Part 3: Fana Broadcasting Corporate and *Akebabyachin (environmental) Radio program*

1. Which radio station do you commonly listen to?
2. For how long have you been listening to Fana Broadcasting Corporate?
3. How frequently do you listen to the radio? a) almost daily b) about 2 to 3 days in a week c) once in a week d) other \_\_\_\_\_
4. Which radio programs are your favorites? (*put them in sequence*) a) environment and agriculture \_\_\_\_\_ b) sport \_\_\_\_\_ c) health \_\_\_\_\_ d) news \_\_\_\_\_ e) other \_\_\_\_\_
5. What are your major reasons for the above answer?
6. Do you listen to the *Akebabyachin (environmental) Radio program*? a) yes b) no
7. If you are listening to *Akebabyachin (environmental) Radio program*, when did you start listening?
8. If you are listening to *Akebabyachin (environmental) Radio program*, how often do you listen? a) regularly b) irregularly
9. Why are you listening to *Akababyachin (environmental) program*?
10. How do you use *Akababyachin (Environmental) Radio program*? a) as a source of entertainment b) as a source of information and news c) as any other radio program d) don't know
11. What features of the program interest you most and make the program particularly relevant to you? Why? (*Could be more than one answer*)
12. How are your needs met in the radio program (refers to the issues you think were made particularly for you)?
13. Does the message of *Akebabyachin (environmental) Radio program* is helpful for your day to day activities?
14. Does the Radio program bring any change in your day to day activities? If yes please list down.
15. Have you ever put into practice the information you have got from the radio program? (e.g. plant trees/stop cutting trees, dug soil for rain water harvesting)
16. Do you discuss the issues raised by the Radio programs with your friends, relatives and neighbors? If so, how frequent do you discuss?
17. Which issues do you think have got more coverage on *Akababyachin (environmental) Radio program*? (*List in your own sequence*) a) water & irrigation b) soil degradation c) agriculture d) forest e) other \_\_\_\_\_

18. Are there any programs that inspired you? Can you try to remember one or more programs?
19. How relevant are the above issues to the environmental realities of your locality?
20. What is your reaction to the duration of *Akababyachin (environmental) Radio program*? Should it be extended (longer than the current) or reduced (shorter than its current duration)?
21. To what degree do you think has the *Akababyachin (environmental) Radio program* helped you know the causes and solutions for some of your environmental issues?
22. What changes does *Akebabyachin (environmental) Radio program* have brought to your community?
23. Are the program topics presented to you on their right time (compatible to the farming and tree planting calendar?)
24. How clearly do you understand the language/words used by the Radio program?
25. How do you generally evaluate *Akebabyachin (environmental) Radio program*? a) Excellent b) very good c) good d) not bad e) poor

## Appendix 2b: Interview guide for producers of the radio program

### I. PART ONE

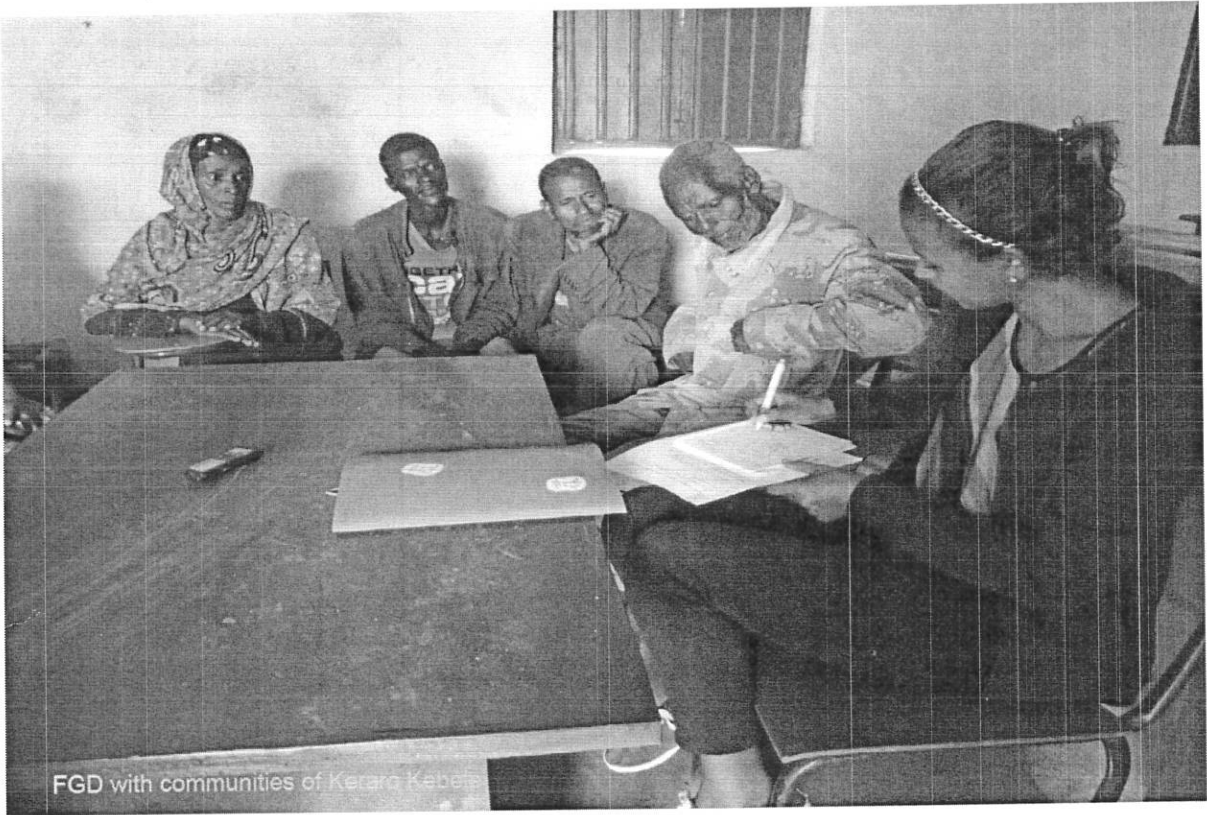
1. Name \_\_\_\_\_
2. Position \_\_\_\_\_
3. Responsibility in the production of *Akebabyachin* (environmental) Radio program \_\_\_\_\_
4. Educational background \_\_\_\_

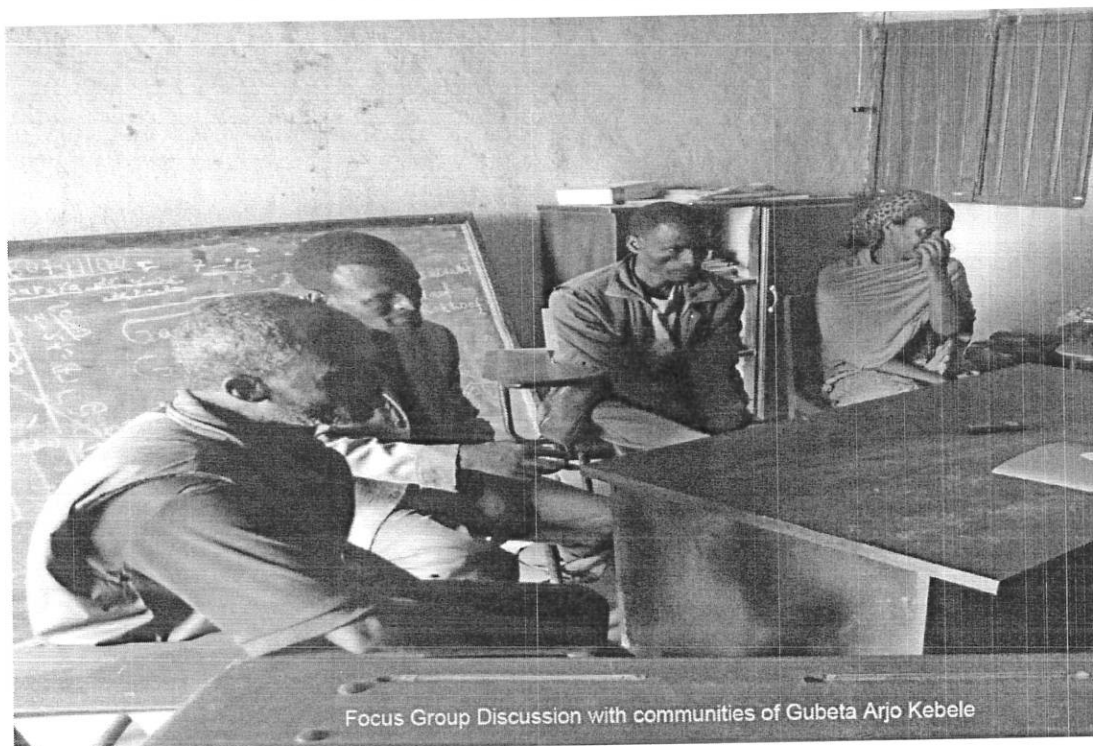
### II. PART TWO

1. For how long have you been involved in the production of *Akebabyachin* (environmental) Radio program?
2. How do you get program ideas? What is the main objective of the program?
3. Are the issues nationwide or do you focus on specific areas of the nation?
4. What are the sources of for your program?
5. Do you edit scripts/stories you take from other sources (newspapers, magazines, websites...) so that they can appeal to radio audience?
6. Do you use newly coined *Amharic* words/terms?
7. Do you make efforts to have sound bites of farmers? How do you balance farmers' voice with that of professionals?
8. How do you get feedback about the programs you produce from the targeted communities?
9. What kind of comments do you mostly get?
10. In which part of the country do you have more listeners?
11. If you are one who is not trained in the fields of environment/ agriculture or related areas, what challenges are you facing in doing programs on environmental issues?
12. Have you ever received media related trainings? And in particular on environmental reporting? (Please specify)

**Annex 3: Focus Group Discussion**

**FGD with communities of Keraro kebele**





**FGD with communities of Gubeta Arjo Kebele**



**Communities planting tree seedlings in Gubeta Arjo Kebele**

**Declaration**

I, the undersigned, declare that this thesis is my original work and all sources of materials used for this study have been appropriately acknowledged.

Name: Samrawit Sintayehu Haile

Signature: -----

Date of Submission: -----

Place of submission: Addis Ababa University, Ethiopia