



COVERAGE OF CLIMATE CHANGE ISSUE BETWEEN PRIVATE AND PUBLIC

ETHIOPIAN MEDIA

THE CASE OF ETHIOPIA RADIO AND FANA FM 98.1

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DECLARATION

I declare that, this thesis (The Coverage of climate change issue between private and public media: in the case of fana FM 98.1 and EBC national radio) is my own work and I have duly acknowledged the sources of materials I have used.

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Abstract

This research examines the practices and challenges of climate change issue coverage in the public media that focuses on the Ethiopian Broadcasting Corporation national radio and private media Fana broadcasting corporate Fana fm 98.1. Specifically, the study explores the extent of coverage on climate change issue in private and public media programs. Agenda setting and framing were employed as theoretical frameworks of the study. The study has employed a qualitative method for data collection and analysis. The practices and challenges of climate change issue coverage in private and public media have been examined through focus group discussion and group discussion, with program producer journalists and in interviews with editors in the studied media. In addition, observation and content analyses of climate change programs were carried out. The study revealed that Public media, Ethiopian Radio, was found having permanent radio program for climate change but the coverage was found inadequate. In the case of private media; Fana fm 98.1 have not permanent program. Most of climate change program of Fana fm 98.1 were event oriented and gave coverage for both domestic and foreign climate change issues. For public media most of the stories were planned and focused on domestic climate change and environmental issues. The findings generally indicate that both private and public media has given inadequate coverage to climate change issues. In both of the studied private and public media environmental and climate change journalists have lacked professional training on climate change related issues and this was a challenge in climate change reporting. In addition, lack of attention for specialization incorrect report which is released from government and non-governmental organizations and lack of valid source and logistic was found to be the challenges to adequately cover climate change. The study concluded that the extent media gives for climate change issue should be strengthened to enhance public awareness about climate change and its impacts.

Key words: - climate change, media, awareness, public, private, coverage

CHAPTER ONE

INTRODUCTION

1. Introduction

This chapter provides information on the background of the study, statement of the problem, objectives of the study. In addition research questions, significance, limitations, scope and organization of the study.

1.1 Background of the Study

These days, environmental problems, such as climate change, are attracting global attention due to recurrent natural disasters causing huge human and material damages in many parts of the world. Ethiopia is also confronted with serious environmental problems such as land degradation, deforestation, soil erosion, loss of biodiversity, desertification, recurrent drought, flood etc. The United Nations Framework Convention on Climate Change, in its article one, defines climate change as a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods (UNFCCC, 1992, 4).

The world has already warmed by 1°C since the middle of the 19th century, and could reach 1.5°C before the middle of this century at the current rate of warming and on the track for 3°C rising. Limiting the rise to 1.5°C will require immediate action, and still create climatic difficulties but will have markedly better results for the planet. The warming effect of increasing carbon dioxide takes decades to influence the planet's temperature. Even if we cut all emissions today, we are still set for a temperature rise, due to the cumulative effect of the climate (IPCC, 2018).

Environmental issues have become important in the world for decades. National governments as well as the United nations have taken steps to increase the level of awareness and attention paid to problems of air and, water pollution, deforestation, desertification, green-house gas emission, global warming, climate change, etc. These problems have necessitated a number of summits,

conferences, conventions and declarations. The Rio declaration on environment is one such example (Selah A & Ashong C, 2013).

Until recently, most assessments of the impact of climate change on food and agriculture sector have focused on the implications for food production and global supply food, with less consideration of other components of the food chain. In recent years, world food prices have skyrocketed, causing severe hardship for poor and vulnerable people throughout the world, and in particular in Africa. Between 2005 and 2008 world prices of rice, wheat and maize doubled, pushing more than 100 million people into poverty, including nearly 30 million people in Africa (Institution for security study [ISS], 2010).

Awojobi (2017) added that climate change has affected the ecosystem, human health, infrastructure, food and water. The author added that, climate change has displaced a lot of people from their homes and they are forced to migrate to other safety parts. The most common types of climate events in Africa are drought, flooding, desertification and soil degradation. He also explained while international and national efforts have been concentrated in the mitigation of the impacts of climate change in Africa, there are still some barriers and limitations to adaptation.

Economic effect of climate change in Ethiopia call for public action for adaptation in agriculture, Its effect on national GDP may add up to -8% with uneven regional effect ranging from -10% in agrarian regions to +2.5% in urbanized regions. Cost-free exogenous structural change scenarios in labor markets and transaction costs may have set about 20-30% of the ripple effect of climate change (*Ibid*).

For the effect of climate change, lack of awareness and information is considered as one of the major factors behind persistent environment problems in Ethiopia. In this regard, media plays paramount role as a tool for disseminating information and knowledge. (EPA, 2007:119; Cited in Gzahegn, 2015)

Awareness is the key role to reduce these impacts of climate change. Media can play a vital role in creating awareness about climate change. Much research has not been conducted into the representation of climate change in the media. Specifically, the communication of climate change from scientists and policy-makers to the public via the mass media has been a subject of major interest because of its implications for creating national variation in public understanding of a global environmental issue (Kakade & Hiremathand 2013).

Despite this Like many sub Saharan countries, Ethiopia suffers from lack of information in order to adapt and mitigate climate change problems. According to Tesema (2012) the media can create awareness about the conditions of environmental resources and the trends in the utilization and management thereof. Strong environmental conscience and sensitivity can be created if the media, broadcast and print, give environmental issues due consideration in their output.

Recent developments in Ethiopia and at a global level show that environmental concerns command greater public interest and require more media attention. Media can play an important role in stimulating discussions on the environment. The media can create awareness about the conditions of environmental resources and the trends in the utilization and management thereof. Strong environmental conscience and sensitivity can be created if the media, broadcast and print, give environmental issues due consideration in their output. Scarcity of environmental information, lack of awareness about the environment, poor cooperation among the different bodies concerning environment, poor information delivery and communication system and lack of the necessary skill and training on the concepts of environment and journalism itself, are major challenges for covering and reporting on environmental issues(*Ibid*).

Therefore the purpose of this study is assessing the extent Ethiopian public and commercial media gives coverage to climate change issue and challenges they face during covering the issue.

1.2 Statement of the problem

Where agriculture is the backbone of the economy, reporting climate change effect in Ethiopia is not secondary issue. So, it is believed that essential to assess the extent Ethiopian broadcast media climate change issues coverage. Especially, studying their role of creating awareness is a major point.

Media have the power to influence public opinion as well as social policy about significant social matters. In a social system, communication channels play a crucial role in creating awareness, learning, sharing and imparting new knowledge among people. In this regard, the Rogers' Diffusion of Innovations model explains how mass media and interpersonal sources constitute two important channels in communicating information in a society Kassa (2017).

Great threat to the environment in Ethiopia due to depletion of natural resources, deforestation, land degradation, burning of fossil fuels and other environmental problem, to react with the problem and protect the environment increased society awareness through media is crucial. In addition it's the time to save the depleting natural resources and discourage the irrational usage of natural resources by focusing on Sustainable Development.

Regardless with this a study conducted on environmental issues coverage in the Ethiopian state media: the case of Ethiopian radio and Addis Zemen newspaper indicated that Environmental issues are relatively given little news coverage rather more attention and news coverage was given to issues such as politics and diplomacy; business and economy; sport and entertainments; and social matters (Gezahegn, 2015). This shows that even though the extent of climate change related problem like drought, flood and unseasonal rainfall increased in Ethiopia media gives inattention related to other issues.

The government's efforts are only one aspect of the process in working toward sustainable development. Meaningful change in sustaining development and protecting the environment, however, needs the entire community to be actively involved. This is where environmental journalists play an essential role, by providing timely information and well-researched perspectives on environmental issues, and creating a green consciousness throughout society (Tadesse, 2015).

Even though, the Ethiopian media are cover climate change issue incidents in giving less attention, it is important to examine climate change issue coverage trends of the country's media. In search of recent studies that particularly focused directly in climate change issue reporting in the Ethiopian media are very few. Only one piece of research was directly related to climate change issue coverage in Ethiopia. That is conducted by Degsew(2015) to examine climate change reporting in the Ethiopian radio and television agency. Degsew in his study attempted to examine the stories of climate change issue in the sampled year July 2009 and June 2010. He concludes that the studied media give less attention in covering climate change issue and stories are lack clarity, proximity and attractiveness.

The above-mentioned one study was focused on public media. On the other hand, it is hard to find the academic research papers that conducted on commercial media in reporting climate change issue in Ethiopia. So, there is a clear gap in the academic research and in the other literature that comprehensively analyses climate change issue coverage trends of Ethiopia Broadcast media.

Therefore, assessing these issues definitely aims to fill some of the gaps in the literature which focusing on the coverage of climate change issues especially in the commercial and public broadcast media. With this point, studying the extent climate change issue reporting takes place in the selected broadcast media may have fundamental and significant contribution for the current discussion on the media.

Finally, this study aims to conduct a careful, systematic, and comprehensive investigation the extent commercial and public radio (Fana FM 98.1 and Ethiopia national radio) were covering climate change issue from January 2015 to January 2019.

Definition of key words

Development: Development refers to: “a comprehensive economic, social, cultural and Political process, which aims at the constant improvement of the wellbeing of the entire population and of all individuals on the basis of their active, free, and meaningful Participation in development and in the fair distribution of benefits resulting there from (Fors and Moreno,2001).

Public and private media

Unlike the commercial sector because, among other aspects, public media does not have a profitable objective, the public sector of communication has been defined according to a principle of universality and of equal access of citizens to media products. On the other hand private media is distinctly *for profit*. Private media is sustained by commercial revenue (Fernando et al., 2017).

1.3. Objectives of the Study

1.3.1. General Objective

The general objective of this study is to assess the extent Ethiopian public and private media gives coverage to climate change issue and challenges they face focusing on Ethiopian National Radio and Fana fm 98.1.

1.3.2. Specific Objectives

The specific objectives of the study include:

- To examine the extent private and public media cover climate change issue stories ;
- To investigate the sources private and public media use to obtain information for their climate change issue program;
- To assess the way private and public Radio frames climate change issues; and
- To investigate the challenges of covering climate change issues in private and public media.

1.4. Research Questions

In consideration of the objectives, the study seeks to provide answers to the following research questions:

1. To what extent did private and public media did prioritize to climate change issues a story have covered in selected time?
2. What sources do private and public media use to obtain climate change issues?
3. How do private and public media frame climate change issues?
4. What are the challenges to cover climate change issues for private and public media?

1.5 Scope of the study

This study focuses only on Fana FM 98.1 and Ethiopia national radio specifically to examine the extent and practices of covering climate change issues in Five years time period (from January 2015 to January 2019) programs run by the studied media. The research limited to only radio program. It is worth mentioning that, in relation to media scope, unless stated media, other commercial and public media are not the focus of this study. Therefore, the findings and conclusions of the study were made depending on data gathered from these sources.

1.6. Significance of the Study

Public education and awareness about climate change is decisive for insuring sustainable socio-economic growth and development in Ethiopia. In this regard, media have a pivotal role in making climate change issues on the top of public agenda. They have also the potential to make a difference in creating a well informed and successful society developing an eco friendly way of life. Hence, making a study that deals with climate change issue coverage of the media was contribute a lot to the available stock of knowledge on media and climate change.

The research is also believed to sensitize to focus on serious climate issues pertinent to Ethiopia and report frequently by giving up-to-date and balanced information to the public. In this regard, not only media practitioners but other concerned government and non-government institutions can also benefit from the findings and recommendations of the study about challenges of media professionals in particular and the media in general in communicating climate change issues.

As a result, they can make informed decisions on remedial actions such as designing training for media professionals as part of their endeavor to tackle climate change problems through effective use media for environmental education and advocacy.

1.7 Limitations of the Study

Even though the study has tried to make the sample representative, the results of the Study might not still represent climate change issue coverage of the whole broadcast media outlets in Ethiopia. By noted the above limitations, the findings of this study would be more applicable to the media institutions under investigation particularly.

Other limitation of this study is scarcity of literature and written work on the coverage of climate change issues in the Ethiopian media. So far little has been known about how the Ethiopia media covers climate change issues. It is therefore the hope of the researcher to contribute with some material within this field by situating the research in the appropriate Ethiopian context.

1.8 Organization of the Paper

The paper has five chapters. Chapter one gives introductory information about background of the study, statement of the problem, objective of the research, basic research questions; and its significance, scope and limitation of the study. Chapter two discusses the review of literature together with theoretical framework use in the study. Chapter three explains the methodological approach the researcher follows to conduct the research. Chapter four presents the research data, interpretation and analysis about them. Finally chapter five is the summary of the findings, recommendation and the conclusion.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1. Overview of climate change

2.1.1. Climate change Defined

Climate change becomes one of the top international agenda's and different organizations and authors give various definitions to climate change while most definitions seem similar to each other. United Nations Framework Convention on Climate Change (UNFCCC) (1992:4), in its Article one, defines climate change as: "a change of climate which is attributed directly or indirectly to human activity. This alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods".

Climate change in IPCC usage refers to a change in the state of the climate that can be identified by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. It refers to any change in climate over time, whether due to natural variability or as a result of human activity.(IPCC, 2011)

The distinction between individual weather events and climate change, the term 'climate change' refers to change in the longer term pattern of behavior of the atmosphere over millennia or, more recently, as a result of natural processes or human activity. Climate is distinguished from weather, which is the specific behavior of the climate at a particular time. Weather is made up of specific events, for example, a particular storm, the rainfall over a particular period, the temperature at a particular time. Climate is about expectations; weather is about events and conditions (Cedep, 2013).

According to Kaspar *et al.* (2013) climate is changing across our planet, largely as a result of human activities. The most compelling evidence of climate change derives from observations of the atmosphere, land, oceans and cry sphere. Unequivocal evidence from in situ observations and ice core records shows that the atmospheric concentrations of important greenhouse gases such as carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) have increased over the last few centuries. In general term climate change refers to a statically variation of temperature

persisting for an extended period of decades or longer. Climate changes happen by fossil fuel in the composition of the atmosphere or in land use.

2.1.2 Impacts of climate change on development process

Climate change and variability affects in detrimental ways some of the most fundamental determinants for good health: clean air and water, sufficient food, adequate shelter and freedom from disease. A warmer and more variable climate increases the transmission of water, vector and food borne diseases, and also threatens to change the prevalence of those associated with air pollutants and aeroallergens. Climate change could alter or disrupt natural systems thereby bringing new challenges to the control of infectious diseases, as a changing climate makes it possible for diseases to spread or emerge in areas where they had been limited or had not even existed before (Nwamarah *et al.*, 2012).

According to a study conducted by Morton (2007) smallholder and subsistence farmers will suffer impacts of climate change that will be locally specific and hard to predict. The variety of crop and livestock species produced by any one household and their interactions, and the importance of non- market relations in production and marketing, will increase the complexity both of the impacts and of subsequent adaptations, relative to commercial farms with more restricted ranges of crops. Small farm sizes, low technology, low capitalization, and diverse non climate stressors will tend to increase vulnerability, but the resilience factors—family labor, existing patterns of diversification away from agriculture, and possession of a store of indigenous knowledge should not be underestimated.

2.1.3 Impacts of climate change on African development

Even though climate change affects economic and social activity of the whole world, African countries are more vulnerable. Africa is already a continent under pressure from climate stresses and is highly vulnerable to the impacts of climate change. Many areas in Africa are recognized as having climates that are among the most variable in the world on seasonal and decadal time scales. Floods and droughts can occur in the same area within months of each other. These events can lead to famine and widespread disruption of socio-economic well-being. For example, estimates reported at the workshop indicate that one third of African people already live in drought- prone areas and 220 million are exposed to drought each year (Dale *et al.*, 2017).

The European Union (EU, 2007) noted that climate change is likely to have a significant impact on the economies of developing countries. Without adaptation and mitigation the losses are estimated to be up to 20% of GDP. To minimize the impacts of climate change, adaptation in developing countries is urgently needed. Reliable estimates of adaptation costs are still unavailable, but they are likely to run into the billions of dollar per year.

A percentage increase in temperature significantly reduces economic performance in sub Saharan Africa by approximately 0.13 %, *ceteris paribus*. While this is in tandem with similar results on the relationship between climate change and growth in other regions, the relationship between real GDP per capita on one hand, and, its determinants on the other hand, and climate change (temperature and precipitation) are intrinsically nonlinear. This suggests that below a certain threshold level of annual mean temperature, increases in temperature boost growth performance in the long-run, all things being equal. After this threshold, increases in mean annual temperature tend to have damaging effect on long-run growth effort of sub Saharan Africa countries (Alagidede *et al.*, 2016).

African countries especially East African countries are highly depend on rainfall and the impact of climate change affect strongly this region. Seitz & Nyangena (2009) support this notion and argue that in East Africa, the link between climate and livelihood is very strong. As East Africa depends heavily on rain-fed agriculture, rural livelihoods are highly vulnerable to climate variability such as shifts in growing season conditions. Furthermore, agriculture contributes 40% of the region's GDP and provides a living for 80% of East Africans. In 2003-2004, all East-African countries suffered from weather-related food emergencies and can therefore be considered as vulnerable to the impact of climate change on their agriculture.

On the other hand Literatures show that the continent's ecosystem are threatened by climate change, the World Wild Fund (WWF, 2006) noted Africa contains about one-fifth of all known species of plants, mammals, and birds, as well as one-sixth of amphibians and reptiles. These species compose some of the world's most diverse and biologically important ecosystems such as savannahs, tropical forests, coral reef marine and freshwater habitats, wetlands and Montana ecosystems. These globally important ecosystems provide the economic foundation that many Africa countries rely on by providing water, food, and shelter. However, because of climate change, these ecosystems and the livelihoods that depend on them are threatened.

According to Zukang (2009) and Sustainable development prospects in developing countries are influenced by the direct impact of climate change, by the spillover effects of climate-related policies in industrialized countries, and by the repercussions of adaptation and mitigation activities in the developing countries themselves. Sustainable development policies in all countries must be formulated with due consideration of this three-dimensional threat and its implications for adaptation, mitigation, and international cooperation and policy coherence the key components of international climate agreements. On the other hand Baarsch *et al.* (2017) argues that this is because of African countries' limited resilience against the negative impacts of today's climate are already resulting in lower growth and development, highlighting the consequences of this lack of resilience and adaptive capacity.

Indicative findings show lower GDP per capita growth ranging, on average, from 10 to 13 per cent (with a 50 per cent confidence interval), with the poorest countries in Africa displaying the highest adaptation deficit. They also indicate African countries are projected to experience clear detrimental macroeconomic consequences from climate change over the coming decades. Across Eastern and Western Africa, climate change in the high-warming scenario would reduce GDP per capita by around 15 per cent by the 2050 (*Ibid*).

In general economic development and, in particular, poverty alleviation is a major issue for many African countries including Ethiopia. But in recent years it has become evident that climate change impacts in developing countries might hinder the achievement of development goals.

2.1.4 Climate change impacts in Ethiopia

Like other African countries Ethiopia is more vulnerable to climate change. According to (Zeray, 2017) Among the hardest hit countries, Ethiopia suffers much from drought and climate change induced impacts in which the vulnerability to climate change impact is a function of several biophysical and socioeconomic factors. The mainstay of the country agriculture, which is affected by climate related hazards mainly recurrent drought and flood. Similarly (Boka, 2017) Over the past decade, disasters have continued to exert a heavy toll and, as a result, the wellbeing and safety of persons, communities, and countries as a whole have been affected. Over 700,000 people have lost their lives, more than 1.4 million have been injured and approximately 23 million have been made homeless as a result of disasters.

Watkiss *et al.* (2009) said that Continuous stable and suitable climate condition of the last 10,000 years of the world for the whole of human development strategies had been changed on a variation from 1degree Celsius to sudden changes of temperature between 2°C and 6°C during 1960 and 2006. It was changed by 1.3°C in Ethiopia, at an average rate of 0.28°C per decade. This change had been most rapid from July to September .Climate change exacerbates the problem for the majority of the world's rural poor who are prone to climate risk. These shocks are a major cause of transient poverty and households had been unable to smooth consumption.

According to Ethiopian Ministry of Water Irrigation and Electricity(2016) assessment climate change is becoming the most common word used these days on media and by policy makers than ever. This is because of its destructive impact on human economy, health and livelihood is very clear and massive. The direct effect of climate change includes increased flood, drought, and increased frequency of intense storms and heat stress, posing great threat to human health and lives.

2.1.5. Impact of Climate change in Ethiopian development

Developing country like Ethiopia's economic growth is highly influenced by climate change. according to (Sørhaug, 2011), the main impact of climate changes in Ethiopia is that crop yield has generally decreased from year to year, and also animal products and animal fertility. Moreover, climate changes to some extent accelerates the process of soil degradation; and heavy rain, hailstorms, strong wind, and flood can in different ways lead to soil erosion. Because of climate changes, farmers get less income from the animals and from the crop fields and they might in drought- or flood periods face extensive shortage of food, water, or other necessities. (Woldeamlak *et al.*,p 47, 2015) argues Ethiopia already suffers from climate variability and extreme events, and future climate change poses a major development challenge.

In order to identify and implement appropriate adaptation strategies at local level, it is important to understand the nature of climate change impacts, key vulnerabilities and indigenous adaptation practices.

Climate change has several impacts on the environment in addition to the disruption to water resources we have just described. Increased heavy rainfall as a result of climate change can cause

soil erosion, crop damage and water logging, which makes the land difficult or impossible to cultivate for agriculture. It is estimated that Ethiopia loses more than 1.5 billion tons of fertile soil each year through heavy rain and flooding; this lost soil could have increased the country's crop production by an estimated 1.5 million tons soil (Works, 2016).

Securing Ethiopia's economic and social well-being in the face of climate change requires that policymakers and stakeholders work together to integrate climate change adaptation into the country's development process. Drought conditions, flooding, and pest outbreaks are some of the stress factors due to climate change that affect agriculture and food production systems. As climate change is the most terrible trend in developing countries like Ethiopia which are highly dependent on agriculture, policy and strategic measures should be taken as approaches to adapt climate change stress factors in the agriculture and food production sector. (Watkiss *et al.*, 2009)

2.2. The role of mass media in creating awareness

One of the most interesting effects of media on society take place because people think media are influential. Some of the most interesting effects of media on society take place because people think media are influential. According to (Boykoff *et al.*, 2007) Mass media have been defined as the publishers, editors, journalists and others who constitute the communications industry and profession, and who disseminate information, largely through newspapers, magazines, television, radio and the internet. The media plays a very constructive role in today's society. Media play an important role in increasing of public awareness and collect the views, information and attitudes toward certain issue. Media is the most powerful tool of communication in emerging world and increased the awareness and presents the real stage of society (Yogi, 2013). It is also believed that mass media channels have the power to reach and inform large audiences, while interpersonal channels have been more influential in motivating attitudinal change (Nelson & Salawu, 2016).

The information that people are given in media accounts can both legitimize the actions of the powerful, and facilitate change at the collective level, but can also limit and shape the behaviors of individuals which are central to wider social change (Happer & Philo, 2013).but awareness creation is not an easy task. Awareness raising campaigns can be defined as organized

communication activities which aim to create awareness on particular topics (health, environment, education), behavioral change among the general population and to improve the focus on better outcomes (better health, greater environmental protection reduced early school leaving).

Messages can be conveyed through many different channels, such as mass media (television, radio), social media, public relations, events, talks, demonstrations, tours and leaflets. Awareness raising campaigns are recognized as the most efficient and effective means of communicating information especially to the general public¹¹. Still, not all of them are effective in terms of influencing people's beliefs and changing their behavior (*Ibid*).

2.2.1 Media and climate change

Global warming, Ozone depletion, Climate change are the current global environment problems the world is facing (Khan, 2016). The topic of climate change communication has recently become more salient in society and among social scientists, resulted in 'the recent explosion of climate change communication from movies to grassroots movements (Nerlich, *et al*, 2010). Climate change has become one of the major Environmental problems facing the world today and the media has been central in making public the distressing evidence of a wide range of its implications on Agriculture, Ecosystems and health (Awusi & Asare, 2016).

To increase the potential for success in mobilizing collective action to address climate change, communication must be targeted on specific audiences and be empirically justifiable. Determining the effectiveness of communication strategies through the development of evaluative measures would progress climate change communication research and significantly increase its applicability. the greater the awareness in the community regarding the effects of climate change, the easier it will be to eliminate risks and improve adaptation(Beard, 2006).

Schäfer (2015) stated that the mass media – means of communication that distribute content such as text, pictures, and sound to an anonymous and spatially diverse public via technical means, such as newspapers, TV, or radio are particularly relevant in this respect. Surveys in the US, the UK, Australia, and Germany show that mass media particularly television, followed by newspapers and, increasingly, the Internet are the most important sources from which people draw information about climate change. However according to Oliver (2013) Global climate

change is not an easy issue to talk about, understand, or explain. It is complex and includes under its umbrella myriad other environmental and behavioral problems. The phenomenon is attached to almost every issue facing the planet.

Similarly, Awusi & Asare (2016) noted that Climate change has become one of the major Environmental problems facing the world today and the media has been central in making public the distressing evidence of a wide range of its implications on Agriculture, Ecosystems and health. Climate change knowledge and awareness creation are essential for successful adaptation and mitigation.

Studies that assess the extent to which messages shaped public opinion go lock- step with studies of media effects in general (Moy & Bosch, 1995). The earliest conceptions of media effects were of powerful media exerting great impact on relatively passive audiences' driven by both scholarship and the applied communication studies from which the communication discipline was born. Communication is one of the most important areas of everyday life not only on individual but on institutional, societal and cultural level as well.

It requires a combination of micro – and macro – perspectives of exploration to understand media communication in the age of late modernity Media (Sedlakova, 2016).

Research noted that in developed country like American disseminate information by using various channel of medium. Ford,(2010) argues now more than ever internet-based social media, television programs, and documentaries with ecological themes are popular among the American people. More and more people are arguably aware of environmental issues; as such information is increasingly available and broadcasted on a daily basis. However, the influence of such media on pro-environmental behaviors remains unclear in response to decreased environmental literacy in America, and growing environmental degradation.

The extent of the coverage of climate change issues as well as its framing can affect the response that the issue should receive from both the public and the authorities (Zhao, *et al.*, 2011) point out Attention to science/environment news was associated with more accurate science-based beliefs and greater perceived risk, whereas attention to political news was associated with less accurate science-based beliefs and lower risk perceptions. These relationships emerged after accounting for the effects of demographics, political ideology, and Journal religiosity as well as

the positive relationship between the two attention variables. Through the mediation of the perception variables, political and science/environment new attention indirectly predicted policy support, with the former associated with lower support and the latter stronger support for a number of emission reduction policies.

Similarly, (Awusi & Asare, 2016) noted that climate change has become one of the major Environmental problems facing the world today and the media has been central in making public the distressing evidence of a wide range of its implications on Agriculture, Ecosystems and health. Climate change knowledge and awareness creation are essential for successful adaptation and mitigation. According to Thakur, (2015), environmental education through the media is believed to play an important or even dominant role in creating environmental awareness. All kinds of media play their respective role in spreading specific awareness. Politicians also recognized the potential of media in creating environmental awareness.

Journalists when writing on environmental issues offer neither scientific explanation nor background information. They represent only environmental issues that are event based or on at the top of the political agenda. Despite all the limitations of media in increasing awareness of environmental problems, and further the role of all kinds of media is needed to be understood. Environmental problems, and further the role of all kinds of media are needed to be understood (*Ibid.*)

The media are the main sources of information for the public to understand and interpret different issues. (Boykoff *et al.*, 2016) Media representations of climate change and global warming are embedded in social, cultural, political, and economic dimensions that influence individual-level processes such as everyday journalistic practices. Media have a strong influence on policy decision-making, attitudes, perspectives, intentions, and behavioral change, but those connections can be challenging to pinpoint; consequently, examinations of elite news coverage of climate change, particularly in recent decades, have sought to gain a stronger understanding of these complex and dynamic webs of interactions.

According to Tagbo, (2010) most journalists in Africa continent are largely under- resourced. Some are not paid for months. In such instances, priorities swing from development issues to those reports that provide immediate rewards for the reporter.

There is also the question of priority given to the subject by editors and owners of newspapers. Climate change stories are considered a hard-sell compared to politics and entertainment even though the concept has so many dimensions that could excite public interest as much as traditional politics and corruption stories. The impact of climate change is a terrorizing reality which affects many lives of human beings all over the world. However, the extent of the coverage of the issue by the media is astonishingly very little. A comparative studies study conducted by Schmidt, *et al.*, (2013) on the media attention for climate change over 15 years in 27 countries, provide developing countries so far neglected as well as concerning a longitudinal and cross-national perspective.

Farther more Nwamarah, *et al.*, (2012) noted, the need for the provision and use of appropriate climate related information in development planning is fundamental to addressing Africa's climate change risks. This situation is compounded by the fact that even the few functional stations are faced with substantial challenges that include limited trained personnel and obsolete equipment, contributing to their inability to report as required. There is a general consensus to strengthen the capacities of Africa's Regional/National Meteorological and Hydrological Services to support development in the continent, while meeting the challenges posed by climate change.

The media take a vital responsibility to inform and educate people about relevant issues in the society (Schmidt *et al.*, 2013) argues that Climate change journalism can protect people and promote sustainable development but only if it is accurate, timely and relevant. Strengthening the media's capacity to cover climate change can help countries to plan and implement domestic policies that work on the ground, while also meeting their international obligations. Policymakers have a huge role to play: by improving the media's access to locally relevant policy information; supporting journalists to report from rural areas and international meetings; engaging the media in policy and planning processes; and working to improve their own media literacy and ability to communicate clearly on climate change.

2.2.2 Media and climate change in Ethiopia

In the media history of Ethiopia the media stayed under the scrutiny and control of the dictatorship governments that ruled the country for many years and there was low experience of media usage to the benefit of communities. A study conducted by (Degsew,2010) on climate change reporting in the Ethiopian radio and television agency shows that most climate change stories of ERTA lack clarity and proximity. English mix and newly coined Amharic words are widely seen in the stories. Too often, journalists do not talk about efforts that are being exerted locally to adapt and mitigate climate change.

In addition, the station does not give the expected priority to climate change stories relative to other programs (Tesema,2012) found that poor information delivery and communication systems are the major challenges for the media to effectively create awareness of the environment. The impact of climate change could either be reduced or enhanced by the interaction of several factors in a given country. In Ethiopia, lack of awareness, lack of information and research are amongst the factors that are believed to complicate the problem of climate change (Alebign, 2015) On environmental issue coverage in the same organization study Findings generally indicated that EBC has given inadequate coverage to environmental issues in its news packages and programmers. Its environmental journalists have also lacked professional training in environmental journalism although they have various levels of journalism training.

This seems to have limited their potential for vibrant engagement in environmental reporting and program production. Moreover, EBC's claim to pursue development journalism 'lacks the incorporation of critical reporting to promote development endeavors in the country. As a result, EBC's news stories and programmers on environmental issues are often put within a positive frame highlighting progress with problems regarding the environment getting an insignificant focus. The limited sources of information to access environmental news, mainly events, meetings, campaigns, etc., appear to have undermined the opportunities for journalists to engage in comprehensive reporting and programming practices through consulting more critical sources

Similarly Engida (2007) study's on environmental issue coverage in Addis zemen Amharic newspaper shows that no permanent section was assigned for environment issues and no reportages, interviews and commentaries were presented on the issue. The limited available

coverage was inconsistent, showing a rising trend in one year and then falling in another. Scarcity of environmental information, poor information delivery system and journalists' lack of the necessary knowledge and training on the concepts of environment are some of the challenges faced in the environmental reporting. From the results it is possible to conclude that given the current trend of environmental reporting, the journalists would remain environmentally illiterate.

The study further concluded that unless environmental awareness is urgently created, public awareness would remain low and there would be further environmental degradation. Therefore, the study recommends that measures such as identification of awareness obstacles, setting environment issues as agenda, training and sensitizing of journalists on environment issues, and enlightened press management should be given due attention.

Numerous studies over the last 40 years from around the world have provided evidence of the catalytic role played by the media in providing information that influences public opinion leading to social change. The impacts can be seen across social issues such as public health (including maternal health and child behavior; gay, lesbian, and bisexual (GLB) identity; and climate change. Targeted, well-executed media campaigns reach audiences via a medium they pay attention to, leading to increased knowledge and changes in behavior 2018).

2.2.3. Challenges of the Media in climate change program production

Media professionals are faced with multiple challenges in covering this complex field and there is an urgent need to uncover the 'behind-the-scenes' factors that shape current representations. So far, the emphasis within news media coverage has tended to be on mitigation rather than adaptation. Some evidence suggests that the growing concentration and globalization of news media ownership has led to an emphasis upon human interest, celebrity-focused entertainment style reporting which discourages headline reporting of complex, multi-faceted issues such as climate change (Anderson, 2009). Environmental journalists also face the challenge of having scientists as primary sources. These two groups sometimes appear at odds, which may help explain some of the confusion and criticism surrounding climate change coverage (Hiles & Hinnant, 2014). On the other hand they added that the challenge of effectively communicating science and climate change information to policy makers has moved to the front page of sustainable development discourse. A key part of the debate focuses on the capacity of the media

and journalists to better influence policy makers to take action on adaptation to climate change one of the foremost development challenges of our time.

2.4 Theoretical Frameworks

The section explains the theoretical framework that is used for this study. The Agenda Setting and Frame theories are examined here.

2.4.1. Agenda Setting

The power of the media to set a nation's agenda, to catch public attention on key public issues, is a vast and well-documented influence. The Agenda Setting theory of mass media communication attempts to determine how the popular agenda of the media affects society and attempts to explain why mass media has gained so much power over the thoughts of people everywhere.

This theory conceptualizes and explains the different forces that dictate how important issues in the media are perceived by people in society. Agenda-setting crept into mass communication literature in 1972 via the publication of the influential findings of Maxwell McCombs and Donald Shaw's Chapel Hill study in the *Public Opinion Quarterly*. McCombs and Shaw proposed agenda setting theory in their 1968 Chapel Hill study, stating that the salience of issues emphasized by the news media can be transferred to the public (McCombs and Shaw, 2017). They described how the media make an issue prominent, and how the issue influences the public perception. They noted, for instance, the extent of the coverage (the frequency), the size of the coverage and the placement.

The power of the news media to set a nation's agenda, to focus public attention on a few key public issues, is an immense and well-documented influence. Not only do people acquire factual information about public affairs from the news media, readers and viewers also learn how much importance to attach to a topic on the basis of the emphasis placed on it in the news. Newspapers provide a host of cues about the salience of the topics in the daily news – lead story on page one, other front page display, large headlines, etc. Television news also offers numerous cues about salience (Ienciu et al., 2011).

The mass media can influence on the opinions of the media audiences or public at large (Mozulčika, 2009). Such can be done through agenda setting of the mass media on a certain particular issue or agenda. The faster the device used in delivery of information, more influential the mass media is. In catering the influences of mass media to the society or media audiences, the society or public should be given proper knowledge, so they can evaluate the overall facts and they can form their opinion correctly to the issue at hand. This is important to avoid the society or media audiences to be dependent in totality on the information delivered by the mass media.

In choosing and displaying news, editors, newsroom staff, and broadcasters play an important part in shaping political reality. Readers learn not only about a given issue, but also how much importance to attach to that issue from the amount of information in a news story and its position, (McCombs & Shaw, 2017).

Thus, this theory is relevant to this study because the agenda setting role of the media plays crucial role in raising awareness about the problems affected society and inform them about the situations. It is also applicable to media to setting agenda on the climate change issues and changes their attitude on its impacts. It helps the researcher in identifying the priority given to the climate change issue in selected time period. Also how the media were working in making climate change issue as an agenda.

2.4.2 Framing Theory

The major premise of framing theory is that an issue can be viewed from a variety of perspectives and be construed as having implications for multiple values or considerations. Framing refers to the process by which people develop a particular conceptualization of an issue or reorient their thinking about an issue (Chong & Druckman, 2007).

Public awareness campaigns are an important element of shaping people's attitudes. They promote environmental actions, positive changes in behavior and general awareness of ecological issues, etc. The costs of campaigns reaching all citizens are huge and their effectiveness and the durability of their effects can sometimes vary. The development of a methodological framework to create measures of such campaigns' effectiveness will facilitate

the creation of the effectiveness measures of individual campaigns, and will allow increasing their social impact (Borawska, 2017).

Depending on our own existing mental models about an issue and more generalizable schema about how the world should work, we are more inclined to pay attention to and accept some of these frames of reference over others, reinforcing and influencing our judgments and opinions. For example, is climate changing a grave environmental risk to animal species and ecosystems that require regulation of industry to solve, or is it a public health threat to children and the elderly that requires government investment in clean energy technology Both frames are essentially equivalent in accurately depicting the nature of the issue, though emphasizing different attributions about what is at stake and the possible courses of action (*Ibid*).

In the first context or “frame,” the emphasis is on the risks to the environment, protecting nature from harm and the need to limit industry. In the second frame, the emphasis is on the risks to humans, protecting vulnerable people from harm, and the need to aid industry through government funding of technological innovation. Depending on our point of view and social outlook, we are likely to be more open to one of these accounts over the other in determining the relevance of climate change and what should be done, (Nisbet & Newman, 2016).

Media framing can strongly influence audience motivations to act or to become fatalistic; the cost of inaction could be severe in the case of climate change. The predicted consequences of inaction include ozone depletion, melting of the polar ice caps, destruction of wildlife habitats, catastrophic sea-level rise, extreme weather patterns, flooding and drought, increase in average temperatures, and other irreversible climatic changes. Even if all greenhouse gas emissions ceased immediately, climate change would continue because of lags in the atmosphere system (Swain,2012).

According to Alashri et al., (2016), the subliminal impact of framing of social, political and environmental issues such as climate change has been studied for long time in political science and communications research. Media framing offers “interpretative package” for average citizens on how to make sense of climate change and its consequences to their livelihoods, how to deal with its negative impacts, and which mitigation or adaptation policies to support. A line

of related work has used bag of words and word-level features to detect frames automatically in text.

Both frame building and agenda building refer to macroscopic mechanisms that deal with message construction rather than media effects. The activities of interest groups, policymakers, journalists, and other groups interested in shaping media agendas and frames can have an impact on both the volume and character of news messages about a particular issue.

Even though it is difficult to get much research that show the relationship between climate change and media conducted in Ethiopia, researcher was trying to investigate different literatures by using contacts with environment organizations and experts. Therefore this research has its own contribution on the area as source of literature.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

As it has been stated in the introductory section, the objective of this study was to assess the extent of climate change issue coverage by public and commercial media in Ethiopia. To meet these objectives, the study employed qualitative research methodologies. The researcher has found this approach appropriate to collect and analyze major qualitative data from editors and journalists working for the studied media institutions. Therefore, this chapter deals with the techniques have employed in the actual implementation of this study, it comprised qualitative research methodology, qualitative content analysis (audio analysis), in depth interview, focus group discussion, and observation, secondary data source, sampling techniques and sampling size unit of analysis content coding categories.

3.2. Study design

This study is a case study. John (2007), States that, the case study research involves the study of an issue explored through one or more cases with in abounded system. It is not methodology but a choice of what is to be studied. Others present case study as strategy of inquiry, a methodology or a comprehensive research strategy. Kathori (2004) described that, the case study method is a very popular form of qualitative analysis and involves a careful and complete observation of a social unit, be that unit a person, a family, an institution, a cultural group or even the entire community. It is a method of study in depth rather than breadth.

The research took the two media as a case. So, in this case study the selected two broadcast media (fana FM 98.1and Ethiopian national radio) climate change issue trend were investigated. In this regard the case study benefit the researcher by clearly identifying the data analyzed.

3.3. Sampling procedure

As it has been stated in the introductory section, the main aim of this study is to examine to what extent climate change get coverage in Ethiopian public and commercial media. But it is not feasible to cover all Ethiopian public and commercial media in the study due to shortage of time and other resources. Therefore, researcher used purposive sampling in selecting the sampled media (fana FM 98.1 and Ethiopia national radio).

Purposeful sampling is widely used in qualitative research for the identification and selection of information-rich cases related to the phenomenon of interest (Palinkas & Horwitz, 2013). Unlike random studies, which deliberately include a diverse cross section of ages, backgrounds and cultures, the idea behind purposive sampling is to concentrate on people with particular characteristics who will better be able to assist with the relevant research (Etikan, 2016).

Accordingly, five years program coverage from January 2015 to January 2019 of commercial media Fana Fm 98.1 and public Ethiopia national radio were chosen as samples of the study. The time span is purposively selected because sustainable development goal is lunch during this period of the year. Similarly environmental problem become common in Ethiopia. Therefore, media program contents to be selected within this time frame give a better chance to examine media coverage of environmental issues pertinent to Ethiopia. For the sake of technical simplicity and efficiency, only sampled Amharic program stories found in the digital archive or database of the Ethiopian Radio and Fana fm 98.1 was taken for content analysis.

Ethiopian National Radio established in 1935, as national radio broadcaster, whereas fana FM 98.1 in 1978, as the nation commercial radio. The two media are selected purposively because of their relatively large audience reach and wide geographical coverage. A total of 16 persons included in this study, one editor, one chief editor and four journalists from Ethiopia national radio and one editor, one director and eight journalists from Fana fm 98.1.

The reason the number of journalist more from Fana fm is because program producer on climate change and environmental issue are more than public media, in the case of public media, Ethiopia national radio there only four journalists producing program on the issue.

3.4. Methods of data collection

3. 4.1 Data source

The research used both primary and secondary as data sources. Secondary data sources such as research and articles were also used to supplement the primary data. Even though it is difficult to get much research that show the relationship between climate change and media conducted in Ethiopia, researcher was trying to investigate different literatures by using contacts with environment organizations and experts. Besides, credible environment websites were also employed as a source of secondary data to get most up-to-date information and facts about the international scenario of climate change and media.

To achieve the objective of the study, primary data were the major sources. Accordingly in depth interview, focus group discussion and group discussion and observation were conducted. Plus to that contents of five years programs from both organizations is also analyzed.

3. 4. 2 Methods of collection

The study employs qualitative approaches such as focus group discussion, interview, observation content analysis, as a methods of data collection. Each of them is discussed in detail below.

3.4.2.1 in- depth Interview

The interview is one of the main methods through which used for collect data to qualitative research. Interviews can be used in various settings to collect information on a specific theme or topic (Kielmann et al., 2012). Therefore In-depth interviews in this study have helped to probe into the responses and reflections of editors and media managers who were selected to be the respondents for the study. In particular, these interviews have made the researcher able to explore views and perspectives of the interviewees regarding the practice, priority, framing mechanisms and challenges during practicing climate change coverage in commercial and public media.

More importantly informants were selected purposely. Accordingly for the purpose of this study two key informant from each commercial and public media, total participant for in depth interview were four key informants. The need to conduct the in-depth interview as explained above to get intensive individual interviews with a small number of respondents to explore their first hand views and opinions.

3.4.2.2. Focus group discussions

For the purpose of this study FGDs was appropriate method to get different ideas during focus group discussion and group discussion. more simpler and comprehensive definition of focus group is provided by Baggini & Fosl (2010). As the authors put it Focus group discussions (FGDs) facilitate discussions held with a small group of people who have the knowledge or interest in a particular topic.

Therefore it was appropriate for this study; the method was implemented to obtain data from a purposely selected group of individuals rather. Accordingly for the purpose of this study focus group discussion with environment and climate change program producer journalist was conducted. In the case of fana FM 98.1, focus group participant was eight journalists, however because of corona virus pandemic discussion with more than 4 individual in not permitted.

Therefore instead of focus group discussion group discussion was conducted. However in the case of Ethiopian national radio climate change program producer journalist was only four, so it was allowed the researcher to conduct focus group discussion.

3.4.2.3. Content Analysis (audio analysis)

.Content analysis as define by Colorado University, (2004) it is a research tool used to determine the presence of certain words or concepts within texts or sets of texts. Researchers quantify and analyze the presence, meanings and relationships of such words and concepts, then make inferences about the messages within the texts, the writers, the audience, and even the culture and time of which these are a part.

This study mainly looked into the extent of coverage of climate change issue in the public, Ethiopian national radio and commercial fana FM 98.1 radio program packages. It does not include details of the meanings or semantics of the content in the climate change programming exercised by Ethiopian national radio and fana FM 98.1. As a result, coding procedures and meanings audiences make out of these contents are not made part of this research undertaking.

Instead, it approaches the subject of analysis from the perspective of program producers to relate the content analysis to their practical experiences of producing these contents. Accordingly, the researcher has selected program produced during the sample period. By taking into consider their coverage, awareness creation and educational theme advantage radio program was chose.

3.4.2.4. Observation

Observation requires prior preparation and the availability of the researcher to visit the place where the event occurs. Moreover, the method is quite sensitive to the independence of the researcher's analysis, since the interpretation of the data is done exclusively by him/her (Queirós, *et al.*,2017). For this study journalist interaction each other to produce program and working environment was directly observed.

3.5. Time frame

The study intended to find out to what extent climate change issues are covered by commercial and public media with in the period of January 2015 to January 2019. This time frame was deliberately selected. This period was the period when the sustainable development goal was lunch in 2015 by the UN as international agenda. The goal includes climate change action. On the other hand during this period drought, land degradation, unseasonal rainfall and other effects of climate change have become common in Ethiopia. And it is believed that after the goal was lunch and environment problem is increased, public and commercial media started to give more coverage about climate change issues. A rough examination of the programs aired over this period, therefore, enabled the researcher to discuss how different climate change issues were presented on public and commercial media.

3.6. Methods of data presentation

The researcher use narration to present qualitative data. Through narration the researcher describe the responses of people concerning an issue. The findings expressed in organized forms to make readers understand the general picture of climate change issue coverage by private and public media and challenges they faced to cover the issue. According to Sarah and Ann(2008) Narrative analysis has its origins in literary theory and is closely associated with media and cultural studies, social scientists have become interested in using it as a means to gain greater understanding of the social world and the production of data. There for it was appropriate data presentation method for this study.

3.7. Validity and Reliability

The validity and reliability aspect to this study are mentioned and discussed in the sections to follow.

3.7.1 Validity

According to Roberta and Alison (2015) Validity is the extent to which a concept is accurately measured in a quantitative study. For example, a survey designed to explore depression but which actually measures anxiety would not be considered valid. From this validity can be seen as the core of any form of assessment that is trustworthy and accurate.

Accordingly the validity of this study accurately reflects or assesses the specific concept that the researcher is attempting to measure. To establish content validity of radio program which the researcher has selected during the sample period ,in- depth interview, focus group discussion and group discussion were conducted.

3.7.2 Reliability

Reliability relates to the consistency of a measure. A participant completing an instrument meant to measure motivation should have approximately the same responses each time the test is completed. Although it is not possible to give an exact calculation of reliability, an estimate of reliability can be achieved through different measures (Roberta and Alison 2015). reliability is

concerned with the accuracy of the actual measuring instrument or procedure, as stated in the data collection method part this study employed, in depth interview, focus group discussion and group discussion and observation were conducted. Plus to that contents of five years programs from both organizations is also analyzed.

CHAPTER FOUR

RESULTS AND DISCUSSION

This chapter presents the results of the study and discusses the findings. The analysis and discussion is given in accordance with the objectives of the study as well as reviews and theories that are set in the previous chapters.

4.1. Awareness of Journalists and Editors about Climate Change

To be an environmental reporter, it is necessary to have an understanding of the scientific language and practice, knowledge of historical environmental events, the ability to keep abreast (side by side) of environmental policy decisions and the work of environmental organizations, a general understanding of current environmental concerns, and the ability to communicate all of that information to the public in such a way that it can be easily understood, despite its complexity (UNEP, 2006).

Accordingly the researcher first attempted to know how both EBC national radio and Fana FM 98.1 media house journalists and editors understand the concept of climate change. Both in group interview and in-depth interviews all of them explained their own concept about climate change.

Most participants in the group interviews, focus group discussion and in-depth interviews from EBC national radio and fana FM 98.1 defined climate change as a change of the existence climate system into unusual condition and some said it is caused by human interferences. But none of the participants of the group interview and in-depth interviews from EBC national radio and Fana FM 98.1 mentioned “green house gases” which scholars mention as one of the major causes of climate change.

From the (EBC national radio) most program producer journalist related climate change with its impact like drought, flood, land degradation but they did not define exactly what climate change is with relate to the science. One of the respondents from this organization relates climate change with pollution and change of weather condition.

When there is pollution or change of weather from the usual one in to negative condition, unusual effect on animal, human being and environment in general we call it climate change (J-1)

While he was defining climate change and related its effect with animal and human being other focus group discussion participant J-2 from the same media, agrees with the existence of climate change its a change of normal weather condition which gives discomfort for the creature but he argued the impact of climate change is more on biodiversity and water body rather than human being and animal.

Like the previous participant J-3 also have the same understanding about the issue but related Climate change various issues when there is change unlike with the normal condition related with soil, forest, water; we call it climate change happen. Lack of rain fall, drought, flood and other are its consequence.

Somehow definition came from J-4 unlike from other respondent from EBC national radio explain the term climate in advance to give definition to climate change. In addition, he exemplified his definitions in the Ethiopian context.

“Unlike weather the term Climate is stay permanently on earth. When we see climate change it is unpredictable change over the ordinary behavior of whether condition and stay for a long period of time. In many part of our country drought and other problem in the environment are increased year to year”.

Almost all of the respondent give their opinion what they think like any other leman person. Similarly Environment and climate change program editor who have decisive by shaping content of the program, not have different understanding from program producer. During in depth interview EBC national radio editor(Ed-1) define climate change similar with program producer journalist. Defined climate change in related with challenges of climate change.

“On my understanding climate change is one of the major challenges to the world nation, Even though emission contribution from developing countries like Ethiopia is very low they are suffering a lot, by disease, drought, desertification, grasshopper and other effects of climate change.”

However as media professional and working on awareness creation on the issue of environment and climate change they should have scientific ideas related to the issue. According to Thakur (2015), journalists when writing on environmental issues offers

neither scientific explanation nor background information. They represent only environmental issues that are event based or on at the top of the political agenda.

Similarly Fana FM 98.1 both in group discussion and in-depth interviews the entire participant explained their own concept about climate change similar with EBC national radio.

Most of the participant expressed their general understanding about the issue related with the cause and effect not related with what scientists says about climate change. Even though they are working to produce programs related with environment, agriculture, natural resource, wildlife protection and climate change related issues, most of the participant's response focused on impact climate change. They related current affairs like grasshopper insect which is happened in the horn of Africa. Especially agrarian countries like Ethiopia are more likely vulnerable by climate change.

Despite journalists are experienced by producing media program for awareness creation to the general public and policy maker, on rules and regulations, policy and other climate change related issues, but they did not explain what climate change mean, they go around the bush.

On the other hand, one respondent among the group interview participants J-6 realized the effect of climate change for the last ten years. For environmental protection has to be implemented in action to eliminate the effect. He realized the effect of climate change for the last 10 years in practice, when he travel to different part of the country for environmental program production there is rapid change in the environment. Deforestation, desertification, overland use, land degradation, water prolusion and other environmental problem are related with climate change. To eliminate the effect environmental protection has to be inaction in sustainable manner.

Another participant from the same media explains climate change related with urban weather condition and populated areas suffocation. On the other hand incidents happening in the world related with environmental change, migration of people from their village. They agree even though the effect is knocked developing and developed countries and people loss their life because of climate change impact, it did not get much coverage from the media sector including Fana fm 98.1.

Program producer focusing on natural resource and agriculture on the other hand explained climate change by exemplified fire incident in natural resource and ignorance of concerned body

“Fire indecent in austral at the binging of 2020 is a good example of climate change impact; in our country Ethiopia also there are many implications for the change. For instance unseasonal rainfall and pollution, but media and society are not giving attention.” (J-7)

Like the previous interviewee other group interviewees from commercial media explain their understanding about climate change in various words but almost similar. Among them J-8 worried the current stage of climate change.

“The stage of climate change bothers me. I believe climate change reaches alarming stage. We can saving the future. If we ignore the issue climate change kill us silently and slowly. We have to be conscious for natural resource and ecosystem as a whole to sustain human being and animals.”

Amazingly from Fana broadcasting corporate radio chief editor(Ed-2) argues that in the current situation climate change is not real in Ethiopia. He stated the current situation in Ethiopia related with flood, drought and other incidents are not effects of climate change it related with variability.

He argued that, cause of climate change is industries; so in country like Ethiopia which not industrialized climate change is not still happened.

Climate change becomes one of the top international agenda's and different organizations and authors give various definitions to climate change while most definitions seem similar to each other. Nearly all of them agree that climate change happened in long-term period by substantially raised emission of so called “green house gases” predominantly in industrialized part of the world. For instance according to Kakade et al. (2013) climate change is a long-term change in the statistical distribution of weather patterns over periods ranging from decades to millions of years. It may be a change in average weather conditions or the distribution of events around that average (e.g., more or fewer extreme weather events)

Even if all of the reactions from journalists and editors from the studied Medias give some highlights about the meaning of climate change, they get this information or knowledge from what they have read and what they hear from experts and professionals when they interview to their stories. However, as far as the researcher's observation is concerned, both journalists and editors have been striving by themselves to advance their skill on climate change using different sources like journals, books, foreign media and internet.

But as media professional and producing on educational program both sample commercial and public media journalist does not have concrete idea about the issue which they are working on to create awareness for the general public.

4.2. Idea for Climate Change program for Fana FM 98.1 and EBC national radio Stories

An idea for news and program production gets from different sources. To this end, the researcher attempted to explore where EBC national radio and Fana FM 98.1 journalists get ideas to their climate change programs. For fana FM 98.1 events, which are organized by different bodies, international events, and report are used for source of idea. In the case of Ethiopia national radio most of the time ideas for climate change issues are planned by journalist and the organization, most of the stories are focused on domestic issues.

The participants of group interview, in Fana FM 98.1 added that, most of the time ideas for climate change came from outsider, reports released by different organizations and national and international events. According to (J-10, J-7, J- 6 and J-8) beside with the sponsored organization Fana uses government reports as a source of idea to planning and produce stories at different levels.

In addition, they argue that most of the programs produced on environment issue depend on the interest of sponsor bodies. Issues related to climate changes are event based. When prime minister or other organization gives attention for climate change the media organization follows them. Agenda about climate change is set by other body not by the media. Some participant agreed that, the programs are event driven not planed, other journalist agrees almost the entire environmental program produced by Fana fm 98.1 dealing with both domestic and foreign environmental issues.

However on the side of EBC national radios environmental programs almost focused on domestic environmental issues which are planned by program producer and the organization annually. Almost all of the environmental programs stories produced were dealing with various domestic environmental issues. The share of foreign environmental program stories is limited; In this regard participant argued that program coverage which is given by EBC national radio for foreign environmental stories is recommendable. Most of the program stories dealing with issues such as the release of green-house gases to the atmosphere, global warming/ climate change and its causative effects on planet Earth's eco-systems, the melting of polar ice burgs, the increase of sea levels etc.

In this regard, J-3 argues that all most, all of EBC radio climate change programs are dealing with domestic ones. Most of these domestic stories found to be dealing with environmental conservation activities such as soil and water conservation, tree seedling, watershed management and tree planting activities. As a matter of fact, those domestic environmental stories were also found to be dealing with same environmental issues covered.

Program editor (Ed-1) responded that on the production of investigative stories related to environmental pollution there is a gap and he added some stories are not cache, only the voice of governmental official or expert are included.

Therefore, we can deduce from this EBC national radio origin of idea for climate change is planned by program producer journalist and the organization itself. But it gives more coverage to domestic environmental stories than those foreign ones and most of these domestic stories found to be dealing with environmental conservation activities such as soil and water conservation, tree seedling and planting activities. Findings from in-depth interviews are indicators of confirmation for what focus group discussions participants responded.

However for the case of Fana fm 98.1 ideas for climate change programs came both from national and international events of climate change issues. Generally program ideas for Fana fm 98.1 generated from report, sponsor, press conference and other which is planned by neither journalist nor the media itself and dealing with both domestic and foreign climate change issues. But in the case of public even if most of the ideas dealing with domestic environment and climate change issues ideas are planned by journalist and Medias.

4.3 Sources of Information for Climate Change program for EBC radio and Fana FM 98.1

Using proper and appropriate source of information is critical for program production; it's becoming more critical when the program is educational. Degsew(2010) argues that Journalists who work on climate change faces source problem to alleviate this problem; reporters should stretch their hands to different sources. Especially, reporters who work for broadcast media need variety of voices in order to appeal audiences and to forward the intended message easily. This notion is supported by Lyytimäki & Tapio (2009) indicating that various factors affect climate change issue coverage by media, including activity of news sources, journalistic practices and norms, media ownership and the phase of the discussion.

During the focus group discussion in EBC national radio the participant listed the main source for environment and climate change programs which includes farmer, urban community, experts, and government officials.

According to J-2 *sinehizbna akababiy* (population and environment) and *arengude dimts*(the voice of environment) which are programs dealing with environment and climate change, problem included.

“In our program we included the voice of victims who are affecting by drought, flood, environmental degradation as experience for other areas and also positive experiences also included in our program. He also raised there is a gap to reach the whole country because of lack of logistics. So it needs attention for the future.”

Before three years population and Environment (*sinehizbna akababiy*) are merged as a single program and only 20 minutes are given to these two biggest issues of the day. Later which changes into the program name of *arengude dimts* which deals with climate change and environment issues are programs of EBC national radio biweekly programs that entertain agricultural and environment issues including climate change.

According to the fact researcher obtained from editor (Ed-1) and long year producer of *arengude dimts* dimt, 90 percent of the program focuses on climate change. Like most other environment programs of the station, both (*sinehizbna akababiy* and *arengade dimt*, highly use voices of officials, farmer and experts. But a study conducted by Degsew (2010) on climate change reporting on EBC shows that even if there are stories which include voices of farmers,

pastoralists and other community members, a large amount of EBC journalists use higher officials and environmental experts in their stories frequently. Moreover, they highly rely on government officials instead of people at the grassroots level. This makes the stories an incomprehensible and less attractive.

Program editor (Ed-1) admits the program has problem in terms of attractiveness and sours use but he argues the program shows improvement especially when it changes in to *arengude dimts*.

“The program has national coverage, so program producer travels all over the country; farmers and other communities are the main source of the program, programs which focus urban areas, communities, nongovernmental organization, government officials and research sources of the program.”

On the other hand in the case of Fana fm 98.1 government officials are the dominant sources of environment related programs. From the group and in-depth interview made with editors and program producers, it could be detected that in most of their environmental stories, especially those event oriented ones, are dominated by keynote messages of political figures. During interviews made, they were complaining about the challenge they face to find cooperative government officials and up to date research information of the sector. They further mentioned that things get better when they work on sponsored environment related programs.

Based on data obtained from group and in-depth interviews with editor and program producers, the sources of information for FANA's environmental and programs can be categorized into two. The first and major sources are events including conferences, meetings, training arrangements, grassroots level environmental campaigns, etc. that are often organized by relevant organizations such as the Ministry of Agriculture, Environmental Protection Authority, NGOs, Universities, research institutes and other development actors. The second sources are sponsored organizations

According to J-10 victim's voice of climate change is mostly excluded, the dominate source is government report. She questioned whether the report is true or not. She mentioned as example planting trees. Investigative programs are untouched related to climate change. Issues related to climate changes are event based.

Most of the group interview participant agrees when there is no sponsored program; stories are depending on news information gathered attending environmental consultation meetings, workshops, events. The news stories lack depth, clarity and explanation on the environmental issue they dealt with. Since they were not properly sourced, they lack substance and credibility.

If they were well researched and equipped with proper information from relevant sources, they could have the quality to be critical, trustworthy as well as appealing to audience.

Generally, the responses from focus group discussions, in-depth interviews and qualitative content analysis showed that a large amount of EBC national radio climate change programs use officials, farmers and experts as major sources since most stories are planned. Journalists use the voices of farmers and other community members when they go to rural areas.

But for Fana fm 98.1 climate change programs sources use officials, report and experts as a major source since most stories are sponsored and event based. While some journalists use the voices of farmers and other community members when they go to rural areas by chance, very few stories include variety of sources at a time. On the other hand, according to the findings, there are many occasions that journalists make use of single source.

4.4. Coverage of Climate Change issue in EBC national radio and Fana FM 98.1 program

Mass media help in forming suitable habit for different programs and they utilize their leisure time in a productive way. It also influences the behavior of the people through different programs (Saikia, 2017). However focus group interview and focus group discussion participant in both private and public media assuring that program coverage for climate change issue is not taken seriously comparing with other national and international issues.

In EBC's national Radio channels run one environmental programs for 20 minutes once a week, and re-run once a week as well. *sinehizbna akababiy* (Population and the Environment), the radio program on the environment, is aired at 12:20 pm on Tuesdays and re-run at 7:20 am every Thursday before three years. While *oranguade dimts* (green voice) plays in at 1:30 am on Saturday and is re-run every Sunday at 7:00 pm in midnight.

Accordingly Program producers that attended the focus group discussions on behalf of EBC national radio educational program department stated that even if there is permanent program

focused on climate change, the issue does not get as priorities as other programs are given. All of them agreed that the national radio doesn't give priority and much attention to climate change stories and environment at large.

Even if recently, climate change has been getting attention by the radio program the time given to climate change program is inappropriate. According to the respondents who argued for the inattention of climate change issues, the time when climate change stories are transmitted and the amount of airtime which is given to these programs are not as of expected.

"Climate change becomes the main challenge for sustainable development, as Ethiopia is one of the developing countries facing the challenge" J-3 said, but EBC environmental issues including climate change did not get that much priority. Furthermore, he argues that the media house is not giving priority for environment and climate change program like TV news coverage.

"To save the world and sustain ecosystem the society must protect their environment and mitigate climate change effects. On this regard EBC national radio try to give coverage for climate change but a lot is remain to do. When we compare with other program including TV news, in terms of depth, quality, coverage there is remaining a lot to do."

Another journalist from the same media highlighted that including him journalists who produce program on climate change they want to reach the whole part of the country by their program, but the EBC does not give equal attention for climate change radio program;

"We are producing programs by our own efforts. Even though the effect of climate change become real in Ethiopia the attention given to the issue is not enough .Both program sinehizbna akababiy and arenguade dims have only 20 minute program which is weekly program. But like other programs the organization have treat by live program, discussions. Even though there was an event drought 2007 the media produces as usual, Arenguade dims program transmission time also not appropriate." (J-1)

Another experienced program producer on *sinehizbna akababiy* and *Arenguade dims* J-4, supports J-3 point, he said that in terms of coverage EBC national radio reaches the whole parts

of the country including societies who have no chance access to television. Even if radio programs have the power to create awareness, the organization gives priority for news coverage on the radio transmission too.

But the above ideas of inattention for climate change by EBC is not acceptable for Ed-1, according to him recently there is an improvement in covering climate change issues and EBC gives equal attention like other programs environment protection, watershed management, planting seed environmental pollution and other environmental related programs are gives equal attention by the station.

Despite the above fact, J-2 argues comparing with the impact climate change on development, health and generally on the system of ecosystem the extent EBC national radio gives for the problem is low. Related to the priority given to other programs like politics, business and economics is not given to climate change programs.

He also added compared with other program in terms of depth, quality, and coverage there is remaining a lot to do. Environmental programs produced by EBC often lack depth and width due mainly shortage of appropriate human and material resources. Similarly J-3 stated that because of lack of logistic and man power climate change issues did not get much attention.

“There is lack of logistic, manpower and other equipments for climate change. We want cover the whole part of the country but the organization does not give equal attention for climate change radio program; we are producing programs by our own efforts.”

Regarding with time allocation the focus group discussion participant rose time allocated weekly for *awude geter* who focuses on agriculture productivity 50 minute weekly but for *Arenguade dims* which is focus on climate change issues only 20 minute weekly, so the radio program gives priority for agriculture, the

Even if Ethiopian constitution (1995) article 44 says all persons have the right to a clean and healthy environment, on the editorial policy of EBC how to report business and economics, politics, social, good governance and others are represented but not climate change. On the environment issue also the media gives priority for agriculture productivity including

environmental protection. But it misses how to handle and react for climate change effects. It simply says State media shall give coverage to the national social development strategies and policies (EBC, 2006).

In this regard the case in Fana FM 98.1, is different, the media does not have permanent program for environment and climate change. The issue gets coverage when there is sponsor. The majority of group interview participant agrees Fana FM 98.1 does not give attention for one of the national and international issues for climate change.

Unless there is big national agenda like tree seedling Fana FM 98.1 ignore the issue of environment According to J-10, J-7 and J-13, such news Fana FM 98.1 does not give that much coverage to climate changes. It gives coverage for climate change by sponsor when the sponsor time is phase out it stops there is no permanent program like other political, economy and social issues. But it gives when there is an event related with climate change like planting trees.

J-7 also remarked similar comment on the extent Fana FM 98.1 gives for climate change program.

“When the prime minister or other organization gives attention for climate change the media organization follows them. Agenda about climate change is set by other body not by the media. Programs are event driven not planned.”

Other interviewee indicates the amount of environmental news transmitted per day may increase in the summer time (rainy season). This is because, in the summer, there are more campaigns of reforestation, afforesting and other environmental conservation activities

Unlike to the above respondent J-9 argues that Fana fm 98.1 give equal coverage for environmental and climate change issues with the other national issues. As a developing country Ethiopia has many issues which have to get media coverage; in this regard Fana fm 98.1 tries to give coverage for climate change equally with other issues. She estimates like other issues climate change got coverage more than 50 percent.

Even though she said so other group interview participant argues that, climate issue is not got attention permanently like other political and economical issue. The participant strongly believes

that the nexus between climate change and economic growth is strong; both of them should treat equality.

As the editor-in-chief (Ed-2) stated climate change and environment issues recently gave special attention.

According to the respondents who argued for the inattention of climate change issues, the time when climate change stories are transmitted and the amount of airtime which is given to these programs are not as of expected. Both EBC national radio and Fana FM 98.1 program producers believes that if the issue got more attention like other issues the society become familiar with climate change effect and they give response by protecting their environment.

Interviewee in Fana FM 98.1 believes Media has the power for development and destruction, but sponsored program only does not influence large audience. They felt that the scheduled airtime by the station has its own impact to address the issue to larger audience. The sponsored program for three years was broadcasted around 7.00 pm; this is difficult to address larger audiences.

Other group interview participant J- 8 who concludes Fana fm 98.1 does not give priority to climate change issues and environment at large agree if the media gives attention awareness on climate change will increase for this government and media should work together. She explains the level of attention in relation with the current epidemic corona virus (covid-19).

She added that programs that craft by the organization and editorial policy are not allow the journalist to work specifically on climate change, “so its better we say we are not work on the issue”.

Similarly J-10 argues Fana FM 98.1 is not informing the public adequately. Despite their high level of seriousness, issues such as deforestation, soil erosion, and land degradation, and air pollutions are not covered sufficiently. Therefore, Fana FM 98.1 has not become the dependable source of information for the public to raise awareness on climate change.

The idea raised by the journalist is not acceptable for Ed-2 who says “Fana fm 98.1 is in the front line covering climate and environment issues” According to him the media institution is working hard in collaboration with other organizations. With its 11 regional fm and national fm radio the range of coverage is high so in collaboration with other organizations for the last 5 years we had

more than three permanent programs which focus on environment and climate change. “So I can confidently speak whether there is sponsor or not Fana FM 98.1 gives coverage for the issues.”

In general in both media houses respondent raises climate change and environment issues does not got priority like other programs.

Director of FANA radio program Said the major issues of national impact the media usually give coverage in their radio program is divided in to three politics: economy and social. Under these programs there are other sub programs, climate change and environment program included here.

“We had permanent program which is sponsored by different organizations that is focused on climate change but now the media organization does not have permanent program on climate change. Even if it’s has not its own permanent program the issue of climate change raised every day.”

On the other hand EBC’s national Amharic radio on education, entertainment and sport programs, manager argues EBC national radio program focuses mostly on education.

“We give national coverage for rural, urban, urban rural by different programs. Most of the time agriculture, business and economics, good governance and democracy and social are the major issues the radio program usually give coverage. Under the above major category there are other sub programs and climate change is one of them.”

These programs are entertained live, production and discussions. EBC national radio has one weekly climate change permanent educational program, but he believes comparing with the extent of the problem one radio program is not bringing the desirer awareness change on the societies awareness.

For the last five years the influence of climate change become real in Ethiopia, during this time EBC national radio permanent programs which is related with climate change. *Sinehizbna akababi* is one of the programs which were run before 3 years; starting from that *arenguadew dimts* is on air.

“In addition when there is national and international event related to climate change and environment, like planting trees we held discussions. But when we see the national and international impact of climate change on development process EBC national radio program on environmental degradation, desertification, and soil erosion in general coverage on climate change issue is not enough.”

It can be concluded from the above assertions that program producers unanimously agree that climate change issues is not given priority comparing with the other. For the fact that the effect of climate change become increasing, it needs wider and in-depth coverage EBC national radio have permanent program with limited time and inappropriate transmission time, however for Fana fm 98.1 the issue of climate change does not have permanent program, its out sourcing issue, unlike with political, economy, good governance, it will get coverage if there is sponsor. Tadese (2015) indicated that EBC national radio has given inadequate coverage to environmental issues both in terms of the level of significance it attaches with environmental news and also in terms of treating a range of pressing environmental issues even within already existing environmental TV and radio programs. Budding environmental journalists with EBC national radio has also lacked aspects are just mentioned and it makes difficult it for the reader to perceive them.

4.5. Framing of climate change Programs by EBC national radio and FANA FM 98.1

The aims of framing in programs on the environmental and climate change issues are multi directional. Firstly, they strive to relate with development. Second, they encourage industrial owners to participate on reduction of environmental pollution activities. Thirdly, they aim to enable people to engage in environmental conservation activities. Even more, they familiarize people with environmental policies, strategies and laws of the country.

As indicated by (Swain, 2012) in literature review, media framing can strongly influence audience motivations to act or to become fatalistic; the cost of inaction could be severe in the case of climate change.

It is interesting to note that while the respondents enlisted a range of environmental issues as important, they, however, largely differ in their view of how climate change issues and stories are framed in EBC national radio and Fana FM 98.1 programming.

According to the focus group discussion for the public media all program on the environment has environmental protection and then reforestation as its main themes to get across to target audiences'. Ecosystem, environmental protection, waste management; soil degradation, river pollution, and agriculture also included the program frames.

J- 1 and J-4 explained in Ethiopia environment and river pollution has become critical problem. Therefore, EBC national radio is working towards creating public awareness on overall environmental protection and waste management to achieve the green economy development and to create sustainable environment.

Another focus group discussion participant J-3 argues the framing of environmental issues in EBC national radio relates in line with the sustainable development Ethiopia is practicing. He further argued that the environmental issues, like other topics, are framed in a manner that they enable people to acquire developmental thinking.

Group interview participant in Fana FM 98.1 agrees framing climate change issue in Fana FM 98.1 on the other hand related with reforestation, wild life and environmental protection, rules and regulations for climate change resilience economy and industry pollution. But mostly framing is depending on the interest of sponsored organization.

According to J-12 framing in relation to practices of environmental coverage within Fana FM 98.1 varied from considering soil conservation and reforestation as major frames to various identifying general topics designed to various segments of audience such as environmental policies and strategies, green economy objectives, and so on.

However, they mostly agreed that environment programs including climate change are largely sponsored event and campaign oriented. In other words, workshops, conferences and summits, at global, regional, national and local levels and grass roots developmental campaigns such as reforestation, and other environment conservation activities initiated most environmental programs in Fana fm 98.1. According to Alashri et al., (2016). Media framing offers “interpretative package” for average citizens on how to make sense of climate change and its consequences to their livelihoods, how to deal with its negative impacts, and which mitigation or adaptation policies to support.

According to both public and private media program producer, there is limitation on climate changes issue framing on program related to development.

4.6. Nexus between climate change and development program coverage by private and public media

Based on data obtained from group interview and focus group discussion and in -depth interview in editors and program producers, the nexus between development and climate change entertain with their program but it's not enough. (Winkler et al., 2016) In terms of political economy, the challenge is to consider levers of change that solve a range of developmental problems such as public debt, growing inequality, resource depletion, climate change impacts, and adaptation, in such a way that fossil dependency is rapidly eradicated from the economy, driven by the redesigned development pathway. The challenge is how to actually achieve shifts as in the example above. Before turning to levers of such change, we consider what drives development.

Respondent from commercial and public media agrees with despite the effect of climate change on all over the world, developing country like Ethiopia is more vulnerable. In this regard EBC national radio program producer argues that environment and climate change programs are specifically focused on environmental protection and generally on ecosystem. Climate change affects every creature; no one skips from climate change effect, but it strongly influence development process. On this regard media has big role to create awareness and mitigate the effect for sustainable development.

Apparently respondent highlighted development is highly affected by climate change especially agriculture is the most affected sector in countries like Ethiopia. One of the focus group discussion participant from the public media J-3 explained the effect of climate change is become increased for the past 10 years. He also added even if flood, drought disorder of rainfall season, disease and other effect of climate become increased, program produced on climate change and environment are not seen their impact on development. According to him all of the above effects are directly influenced development in general and agriculture in particular.

The participant also list more vulnerable sectors, other respondent from the same media J-4 argues climate change has all rounded effect on development, like agriculture, industry, infrastructure, economic growth are more vulnerable. He relates media, climate change and development as follow.

“Media serves as a tool to sustain development by eliminating climate change influence on it. Society engagement is very important to eliminate the effect. Therefore, the nexus between development, climate change and media is strongly correlated. Media change the perception of society about climate change by helping them to have a common understanding how to protect their environment and react to the effect and eliminate the impact on development activity and economic growth.”

On the other hand J-1 argues that the extent of climate change effect is goes to productive man power, diseases like cancer are affecting the productive man power and EBC radio does not see broadly to that extent. The media gives due emphasis for environmental concerns as land degradation, deforestation.

Climate change, development and media are interrelated issues, media uses as a bridged to address the issue of climate change and eliminate its effect on development. But respondent agreed, EBC national radio educational program did not give that much attention, its producing program s usual.

Opposing to the above ideas J-4 said that:-

“The aim of media is to educate, empower, and create awareness and show challenge and opportunities. Now a day our country Ethiopia is highly affected by flood, and environmental degradation. This has influence on the development process. Therefore EBC educate and empower society through its program.”

Similarly he added, to show the negative impact of climate change on development programs on environment included experience of affected areas by drought, environment degradation, soil pollution. He exemplified drought which was happened in the year 1999 and 2009, it affect millions of Ethiopians and displaced from their environment. Ethiopian national radio did cover the event in various programs.

On the other hand group interview participant from Fana FM 98.1 when asked about nexus between climate change and development they regard as very important in the Ethiopian context, most respondents came up with similar concern.

A program producer, J- 10 on her part, notices the relationship between climate change and development in the negative way, “it’s clear that climate change influence development” she said. To reduce this influence creating positive and smooth relation between them media used as mediator. It used as abridged to create awareness for the society, government officials and other to react with the effect but she duets Fana FM 98.1 see this argument on its program.

The answers given by J-12 and J-9 from the same media confirm that issues related with agricultural development are given more attention but it’s not correlated with climate change.

According to the result data gathered about nexus between climate change and development program coverage media is serving as a tool to implement rules and regulations which is crafted on climate change and development. Media shows the way what the government does in order to create climate resilience economy and how society mitigate and adapt climate change, but in practice there is remain a lot to do.

A senior program producer for Fana FM 98.1, J-11 argues even though media is one of the institutions for development private media including Fana FM 98.1 are not surmounting their responsibility. He added that “Media is one of the important development institutions but I observe in the case of Ethiopia it’s in the infant stage”.

All respondents of this research agreed that, on average Fana FM 98.1, gives priory income generating issues, so doing as the main agenda issues related to climate change and environmental protection has its own gap. Program relates with environment and climate change is not framed climate change’s influence in development.

However, J-9 argued that Fana FM 98.1 entertain environmental problems like climate change, soil erosion, land degradation and deforestation are all interrelated and get equal emphasis to eliminate its effect on development.

Starting from resent year, each year million trees planting in Ethiopia, in this regard J-6 and J-8 argued that stories produced during the campaign of planting trees are not framed trees advantage for development and eco system sustainability. They added, environment protection, soil and water protection, water shaped management and over all the issue of natural resource and sustainable development is every once business. Media whether it is entertainment or not it

has the responsibility to make creating agenda about climate change. On this regard including their media it did not give that much coverage.

However the program director of Fana FM 98.1 did not admit the point raise by program producer journalist. He argued development in general depends on the protection of environment. Ethiopia is an agrarian economy; the production of agriculture will be effective if and only protecting the environment and create awareness about the effect of climate change for the society. So Fana FM 98.1 did give priority issues for climate change and development.

According to Awusi & Asare (2016), climate change has become one of the major Environmental problems facing the world today and the media has been central in making public the distressing evidence of a wide range of its implications on Agriculture, Ecosystems and health. Climate change knowledge and awareness creation are essential for successful adaptation and mitigation.

according to (Sørhaug, 2011), the main impact of climate changes in Ethiopia is that crop yield has generally decreased from year to year, and also animal products and animal fertility. However both private and public media program producer greed, climate change programs produced by their media did not show the effect of climate change clearly by connecting with development. Content analysis (audio analysis) supports this fact. From audio analysis the researcher understand that both in public and private media climate change program lacks coherence with development.

4.7. Major environmental issues covered by private and public media

Through focus group discussion and group interviews held with journalists, it was attempted to explore what particular issues are often emphasized in EBC national radio and Fana FM 98.1 program coverage. Accordingly, respondents identified environmental protection, water shed management, forest management, tree seedling and mitigation efforts that they significantly cover in their program stories. Accordingly public media environmental program producer made program on soil and water conservation in general environment protection frequently covered.

In this regard EBC national radio journalist (J-2 J-3and J-4) confirmed that reforestation, soil and water conservations in Oromiya, Amahara, south people nation and nationalities Regional States and other parts of the country are major environmental issue covered by the media. They further

explain river and environmental pollution, waste management, industry waste management and other factors related to pollution are among the major issues covered by their program.

Another program producer J-1 however, insist that “environmental problems such as soil erosion, land degradation and deforestation are all interrelated entertain in the program and I give equal emphasis to them in my reporting”

The editor answered also to the question raised about the most frequently issues they cover. Ed-1 pointed out that issues concerning with agriculture, environment and soil conservation, climate change given more attention and coverage in public national radio. He further explain EBC national radio also gives more attention for land management, deforestation, waste management, sustainable forest management and protection are some of the issues get coverage all over the country.

“Industry and hotel waste management is, for instance, severe in some zones of the Oromiya Regional State such as Jima, as well Ziway area and othe part of the country. Global warming is affecting places like Somali, Amhara, and Oromiya region recent year. Deforestation has greatly affected underground water and others. Therefore all these problems are the major challenges that the country has faced and EBC national radio on its permanent program and each transmission gives attention to them equally.”

In the case of Fana fm 98.1 When asked about what environmental issues they regard as very important in the Ethiopian context, except one respondent most came up with similar lists of environmental and climate change concerns. These include soil erosion, deforestation, land degradation, climate change, chemical waste and air pollution and other. While these concerns are greatly relevant to Ethiopia’s environmental situation as much as they are to the world at large, the respondents, however, have found it difficult to provide study-based assertions on the most prevalent environmental problems in Ethiopia.

On the other hand the answers given by J-11, he produces programs related with rule and regulations. He added when there was program sponsored by forest, environment and climate change commission, he was produced program related to forest rules and regulations and he is interested more on it.

With regard to this same question, Ed-2 responded that like any issue of political, economic and social, environmental issues including climate change they get coverage. In collaboration with minister of agriculture, REED+ program, forest, environment and climate change commission and other NGOs the media working a lot of programs related with forest coverage in Oromia, Tigray, Amhara, South People Nation Nationalities(SPNN) and other parts of the country.

Similarly program director of Fana FM 98.1 argues to create awareness about climate change for the community so as to react to the effect the media address climate change issues through live program, production and discussion. Fana FM 98.1 has the principle rising climate change issue through other program, news hour and program hosting. “So I can confidently speak that Fana FM 98.1 gives priority for climate change but we have not permanent program. We produce program by the sponsor of governmental and nongovernmental organizations.”

climate changes to some extent accelerates the process of soil degradation; and heavy rain, hailstorms, strong wind, and flood can in different ways lead to soil erosion. Because of climate changes, farmers get less income from the animals and from the crop fields and they might in drought- or flood periods face extensive shortage of food, water, or other necessities (Sørhaug, 2011). Even though the impact of climate change in Ethiopia increased time to time, most of the respondent from EBC national radio and Fana FM 98.1 did not include among the major environment issue coverage. The audio analysis strong this idea, most of the program focuses on environmental protection and planting trees.

4.8. Challenges of Reporting on Environmental Issues

According to Tesema(2012) challenges to deliver information regarding with climate change are Scarcity of environmental information, lack of awareness about the environment, poor cooperation among the different bodies concerning environment, poor information delivery and communication system and lack of the necessary skill and training on the concepts of environment and journalism itself, are major challenges for covering and reporting on environmental issues

Similarly all respondents from both media complain about Lack of training, specialization, false reports, and lack of logistic, lack source and inattention for the issue are the main challenges to cover climate change issue.

4.8.1. Lack of Training

Both Medias which the study focuses, most journalists who report on climate change have different educational background which is not related with environment, development or climate change. Thus, to feel this knowledge gap, journalists must get continuous on job trainings.

However, the result of this study shows that most journalists who report on climate change never get trainings on climate change reporting and environment at large. Only two among participants of focus group discussions from EBC national radio attended trainings related on environment and climate change reporting. None of the interviewees get formal trainings regarding with climate change reporting and editing. Lack of continuous on job trainings makes their work difficult.

According to (Jari Lyytimäki, 2011) If climate issues are connected with a variety of topics – sometimes unexpected ones – the likelihood of the emergence of hidden opportunities, as well as hidden controversies, will increase. For example, if most stories mentioning climate change are written by other than science journalists, the dangers of misinterpretation and errors related to this complicated issue increase.

In EBC national radio, focus group participant confirmed that, the media did not facilitate trainings for environment and climate change program producer journalists. Mostly trainings are given by other outsider organizations. J-4 and J-2 did get the chance to receive training which is facilitated by other organizations. Other program producer J-1, he works for the last 10 years on the area of environment but he never took any training on climate change or environment reporting.

Like his colleagues, J-3 did not obtained any training about the subject. He empower himself by reading and listening national and international publications about the issue, but he argued that training is important to produce effective program.

Unlike his colleagues J-2 receives various training which is facilitated by other organizations related with climate change and environment and .those trainings are added value on his work. For J-1 and J-3 lack of awareness about the detail science of climate change and words of makes their work complex and difficult.

EBC's national Amharic radio on education, entertainment and sport programs, chief editor admitted that the organization is giving priority to basic journalism trainings. The organization does not have formal training system which leads to climate change specialization.

The same is true on Fana FM 98.1, most journalists who produce environmental and climate change program did not get the chance to receive trainings. Even though they have been working in Fana for more than 7 years J-8 and J-5 also have not attended a single training about climate change or environment reporting.

Similar with the public media environment and climate change program producer journalist commercial media journalist faces problem to produce program on climate change because of lack of training. According to J-8 Words on climate change make her confused, but she tries to simplify by asking experts and using from the internet.

Relatively to other journalists (J-6, J-9, J-12) have got better chances to attend workshops arranged by ministry of agriculture, forest, and climate change commission and other organizations that work with the organization. Those training are helpful to their work and makes them more interested on climate change issues. The director admits regarding with the profession of journalists they are not specialized on environment or climate change. Trainings related with climate change are provided by other organizations but the media by itself does not give specifically on climate change.

Like the problem journalists list above, Indian journalist who works on environment and climate change they are incapable to produce program. (Saikia, 2017) media professionals assigned to do programs or reports on the environment have several other responsibilities which demand their attention and time. It is not common for journalists to specialize in more than one area or topic. The capacities of journalists are not strong enough to produce and present programs using creative techniques. The role of the media to raise the community concerns and commitment for social and environmental issue is a very critical one. Therefore regular capacity building for

environmental and climate change journalist needs concern of international institution including Ethiopia.

4.8.2 Lack of logistics

The respondent from both sample media in particular, maintained that some remote rural areas have hardly functional roads and it is so troublesome for them to go to such locations to access environmental news and to produce programs. For reporters who want to cover important events and situations particularly in rural Ethiopia is not always an easy process.

4.8.3. Source problem

Other important challenges while producing environmental and climate change issues include lack of sources such as research findings, books, etc. Similarly national radio mentioned information or reports released by government officials are opposed each other, Source problem, lack of update training are other challenges listed by journalist. Another respondent from the same media J-3 also agrees that EBC gives priority for TV news coverage and current affairs for this lack of logistic is critical problem for environmental and climate change program production.

Group discussion participant from FANA FM 98.1 argues some officials and experts are not willing to provide sufficient information. According to radio program chief editor of fana FM 98.1 (Ed-2) there is big challenge to cover investigative program related to environmental pollution, government official are not willing to give information.

4.8.4. Lack of specialization

Regarding to specialization both media did not give much attention like other subjects. Journalist who works on climate change issue educational background not related with climate change. Lack of specialization is one of the challenge rose by FANA FM 98.1 group discussion participant. Journalists does not have focused area, they assigned on various issues. This experience does not lead specialization. To create journalist who specialized on climate change issue, organizations that focus on climate change should work on these issues to empowering journalists who work on climate change and environment.

Despite the facts that the aforementioned challenges take their share in minimizing the quality of stories, environment programs current format has also its own impact. In addition participants of

focus group discussion do not think that the existence format of most environment programs attract the attention of target audiences. If it were magazine format it would give the chance to audiences to hear variety of voices. Accordingly, change on the formats into a magazine format that incorporates short and simple but different stories in a single package.

Respondents quoted specialization as a solution to have attractive climate change stories; the station (EBC) has not given attention to specialization. In addition, instead of giving priority to journalists who are interested in environment reporting and closer to the subject, the station assigned journalists randomly

Lacks of resource, man power in the case of EBC national radio, and lack of specialization is researcher observed as barriers to produce interesting stories. On the other hand the program formats are the same which is boring and outdate, some programs are not relate with climate change. Most stories are focused on domestic issue like, agriculture, water shade and other environment protection.

Chief Editor for EBC radio program admits some of the challenges listed by journalists.

“There is logistic problem, and there are other problems which faces program producers. Current active program related to climate change issue is Arengade demits, as the program producer raised above the transmission time is not appropriate for rural and urban target audiences”.

He added the program is produced in collaboration with forest, air and climate change commission so it's on the interest of the commission, but Ethiopia national radio working to give appropriate time.

Regarding with the limited number of journalist on climate change issue program the chief editor stated journalists assigned on climate change and environment assigned by their interest, he admitted EBC have limitation to provide training to lead the journalist specialization. But in the future the station will be thinking of specialization because of several reasons.

In both sample media the researcher observed that many journalists are assigned regardless of their educational background on the subject in both public and commercial media. None of the focus group participants have environment related educational background. All of them have

very different educational background from environment like mathematics, adult education and language. In terms of number and gender also they are limited.

In general, environmental journalists in both Fana FM 98.1 and EBC national radio do not seem to be practicing critical and substantial programming because of lack of specialization. Inability to address issues of high social significance such environmental challenges entail does not give permanent coverage in the case of Fana FM 98.1 for this it lacks attention and its journalists to fulfill social responsibility.

Even if EBC national radio has permanent program related to environment and climate change, it did not give attention like current affairs and news, for training related with the subject. It may, however, be important to quickly mention here that in both media although most respondents seemed to be more interested in talking about the challenges of environmental and climate changes.

On the other hand the program formats are the same which is boring and outdate, some programs are not relate with climate change. Most stories are focused on domestic issue like, agriculture, water shade and other environment protection. However, the researcher also understood that there are some stories that are produced based on plan and research, and in the way audiences can understand easily and ready to take action against climate change.

The researcher also observed that many journalists are assigned regardless of their educational background on the subject in both public and commercial media. None of the focus group participants have environment related educational background. All of them have very different educational background from environment like mathematics, adult education and language. In terms of number and gender also they are limited. The respondent agreed strongly the above challenge need attention by the media organization and other concerning bodies on climate change issues.

CHAPTER FIVE

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Summary

As study the titled the coverage of climate change issue between private and public Ethiopian media., the case of fana FM 98.1 and Ethiopian national radio. Study was specifically to examine the extent of climate change issue coverage in the two media by employing four major research questions. These are;

1. To what extent did private and public media did prioritize to climate change issues a story have covered in selected time?
2. What sources do private and public media use to obtain climate change issues?
3. How do private and public media frame climate change issues?
4. What are the challenges to cover climate change issues for private and public media?

In addition, two major media theories were used. These are agenda setting and framing, theory were used as theoretical frameworks. It was used to answer the abovementioned research questions, guide the methods, and helps to present the discussion and interpretation of the data clearly.

The study conducted by using qualitative research approaches. Qualitative In-depth interview with editors and focus group discussion, group discussion with program producer journalist of the media were carried out to collect data needed for the study Content analysis (audio analysis) was also employed.

The data collected through Focus group discussion, group discussion, content analysis and interview then analyzed qualitatively. By using supporting literature, the overall coverage of climate change in the program was discussed and interpreted.

5.2. Major Findings

This study was an attempt to examine climate change issues coverage of public and private through the Ethiopian Radio of Ethiopia Broadcasting Corporation (EBC) and Fana FM 98.1. The finding of the study indicated that:

- The result of qualitative data shows that the two private and public media gives less priority in covering climate change issue.
- The media did not play its roles in informing the general public about Climate change issues.
- Both in public and private media outlets. More attention and coverage was found to be given issues such as politics and diplomacy; business and economy; sport and entertainments; and social matters news.
- Most of environment program produced by public, Ethiopian Radio were permanent, found to be dealing with environment conservation activities such as soil and water conservation, water shades development, tree seedling and planting, proper solid waste disposal and management and environmental pollution.
- In the case of private media, Fana FM 98.1 has not permanent program which deals with climate change and environment. Over its entire environmental program is out sourcing and most of them dealing with environmental conservation activities and tree seedling.
- Climate change stories were not given priority in the daily news agenda of both media studied.
- Ethiopian Radio was found give more coverage to domestic environmental program stories than foreign ones. In this regard, private media, environment stories found dealing with both domestic and foreign almost equally.
- Government officials, community and report were found to be the dominant source of climate change stories of the media studied.
- Most of climate change stories of Fana FM 98.1 were event oriented. And in the case of Ethiopia radio there is planed program but the coverage is inadequate.
- Most of climate change programs of studied media were not related with development.
- As far as the responses of the research participants and researcher's observation are concerned, public media, Ethiopia national radio usually gives priority to current affair.

- The finding of the study also identified that the way climate change stories are being presented missed attractiveness and understandability.
- In both private and public studied media journalists and editors who produce climate change stories did not get formal trainings about the subject.

5.3. Conclusion

The findings of the study shows that the selected media did give less attention for climate change incidents, during the sampled time period. This is the overall reflection of Ethiopia private and public broadcast media landscape (the sampled) in covering climate change issues. There need to a shift of trends by giving special attention in relation to climate change issues coverage.

The result of the study also shows that how the Ethiopian media, especially the sample one climate change issue program did not clearly show its impact on development.

The media and professional should use the power of media to aware the public about the serious state of climate change and its impact on the economy and sustainable development. It is the supposition of this study that media have a great role and impact by providing the public with sufficient, accessible, well framed environmental information.

5.4. Recommendations

Based on the findings of this study, the following recommendations are in order.

- The data gathered and analyzed regarding the coverage of nexus between climate change and development have indicated that no linkage between them. This infers while the impact of climate change grabs global attention everywhere, the media, especially the sampled one have not prioritized the issues. This implies that, there is an urgent need for various stakeholders such as institutions of higher learning and others to prepare program producers and editors on issues of climate change reporting.
- To create meaningful public awareness on climate change Fana fm 98.1 have to design broader and comprehensive projects so as to engage in more vigorous coverage of the environment.
- In EBC national radio existing platforms of climate change program needs to gain more frequency, and at least one important news story on the environment needs to be aired every day.
- Findings indicated that environmental news stories are often aired at 1pm. in the afternoon. EBC may find it more effective to air them at 8 pm in the evening so that they are attended to by a larger mass of audience.
- Most fana FM 98.1's climate change program in the study found event oriented and well researched and in-depth stories are lacking in. fana FM 98.1 may be more influential institution to effect change if it involves featuring deeper and pressing climate change stories.
- In programs, there is only one climate change program in EBC, national radio. This is not adequate in terms of the magnitude of the issue in the country. Therefore EBC national radio should give attention on the number.

- Apart from using source from government officials, report, expert, and events, the programs should also entertain other sources like: non-government institutions and international organization that work on climate change.
- Both fana FM 98.1 and EBC national radio Journalists should get persistent trainings and workshops in order to have a wide understanding of climate change issues.
- Along with providing the public with more information about climate change issue, both private and public media (fana FM 98.1 and EBC national radio) need frame and present the information using diversified news sources and frames.

5.5. Future Studies

From the study it would expect to initiate many research ideas to be studied on the Ethiopian media land scape. Especially, it paved the way in relation to climate change issue and media reporting. Future studies may be focus on covering trends of climate change issue by social media.

It also seems important if the future studies will focuses on the audience reception of the climate change impact on development and on assessing the impacts of climate change on the public. Additionally, it is good if the future studies assess why Ethiopian media focuses on events in reporting climate change issue in general and why the private owned media in particular.

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Appendixes

Appendix A: Guideline Questions for Focus Group Discussion

Dear Journalists,

My name is Tiruwork Ayalew. Currently, I am attending postgraduate program in regional and local development at Addis Ababa University College of development study. For the partial fulfillment of the aforementioned program, I am conducting a research under the title of “assessment of climate change issue coverage by Ethiopian commercial and public media in the case of Ethiopia radio and FANA fm 98.1”. Focus group discussion and group interview is one of the methods that I have planned to employ in the study in order to achieve its objectives. I, therefore, would like to request your cooperation to respond to and discuss the following questions. Since your hot discussion on the issue helps me to have good findings, please take few minutes and share your ideas and experiences each other. I was also played my role as a moderator by raising questions. Thank you very much for your cooperation in advance.

I. PART ONE

1. Name _____ 2. Position _____ 3. Educational background _____

II. PART TWO

1. What is your understanding of Climate change?
2. Do you think climate change have effect to development? If so explain?
3. How do you explain the relationship between climate change, development and media?
4. *Do you think your media contributed in creating awareness about climate change?*
5. Do you believe that your organization gives priority to climate change program? If so, how is the priority given?
6. How often do you cover issues related to climate change? And what topic is you interested to produce story?
7. What do you realize the effect of climate change in the globe? How do you explain the effect of climate change in Ethiopia?
8. What is your reflection on your and fellow journalists professional status with regard to environmental reporting?

9. Have you ever received climate change related trainings? And if you are trained in particular on climate change reporting, please tell me about it.
10. If you are one who is not trained in the fields of environment/ climate change or related areas, what challenges are you facing in doing programs on climate change issues?
11. Do you think the stories are in clear language so that the majority can easily understand?
12. What are the dominant program sources and frames the media use while covering climate?
13. Do you make efforts to include the voice of climate change victims? How do you balance their voice with that of professionals?
14. In which part of the country do you have more listeners? Who are included mostly in your stories?
15. What are the challenges in your institution with regard to covering climate change issues?

Appendix B: Guide for In-Depth Interview with Editors

Dear Editor,

My name is Tiruwork Ayalew. Currently, I am attending postgraduate program in regional and local development at Addis Ababa University College of development study. For the partial fulfillment of the aforementioned program, I am conducting a research under the title of I am conducting a research under the title of “assessment of climate change issue coverage by Ethiopian commercial and public media in the case of Ethiopia radio and FANA fm 98.1”. To achieve the objectives of the study, I intend to use in-depth interview method as one of data collecting mechanism. Thus, I very much need your support to attain good findings. Please, take few minutes from your precious time and kindly answer the following questions.

I am very grateful for your cooperation in advance.

I. PART ONE

1. Name _____ 2.Position _____ 3.Educational background _____

II. PART TWO

1. For how long have you been involved in the production of climate change related programs?
2. What are the major issues of national impact you usually give coverage in your radio program?
3. What is your understanding of Climate change? (on the Causes and impacts).
5. How do you treat climate change related stories in your program stories in comparison with other program stories dealing with issues other than climate change ones? Do you have permanent program for climate change issues?
6. Do you believe that your organization gives priority to climate change programs over other environmental programs? If so, how is the priority given?
7. How do you explain the representation of climate change issues on the editorial policy of your media institution?

8. To what extent climate change related issue is your media agenda? Which of the environmental issues do you give more coverage? Why?
10. Do you think the time coverage for climate change issues is adequate? If not, why?
10. How often do you edit climate related stories? And what are your basic criteria when you edit climate change stories?
12. How you observe the stories? Do they appeal your attention?
13. Who sets the direction about the priority issues to cover?
15. How do you explain the effect of climate change in Ethiopia? And how do you understand the effect of climate change on development process?
16. Do you think the stories are in clear language so that the majority can easily understand? Do you encounter problems translating climate change terminologies into local languages?
18. What are the limitations that you observe from the stories? Why this limitations?
19. What is your suggestion to make climate change stories attractive and clear?

Lists of coverage given to various themes/issues by commercial media/FANA fm 98.1

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Appendix- D: Coverage given to various themes/issues by public media

Name of programs	Minutes/ hour	Frequency transmission per week
Ethiopian enkagnat	20 minute	1
Awude geter	20 minute	1
Arengade dimti	20 minute	1
Ke lijoch alem	20 minute	1
Yegna jegina	30 minute	1
Yelibona wukir	45 minute	1
Hilim alegn	20 minute	1
EBC medirek	1:30	1
Enderase	30 minute	1
Ayinachin	30 minute	1
Yehig neger	1:00	1
Likenile	1:00	1
Tenawo bebetiwo	1:00	1
Yebeteseb wog	1:00	1

Appendix- E: Background details of respondents

ID /Code No	Name	Media	Position	Academic background	Service years in media institution
J-1	Ababu Shimelis	Public/EBC national radio	Program producer	BA degree in language and literature -MA degree in education	More than 10 years.
J-2	Beyene Engidaw	Public/EBC national radio	Program producer	Diploma in adult education	15 years
J-3	Baye Gulte	Public/EBC national radio	Program producer	BA degree in journalism and communication	12 years
J-4	Takele Ayele,			Diploma in mathematics	more than 13 years
J-5	Sisay Gebremariam	Commercial media/ FANA fm 98.1	Program producer	who have BA and MA degree in journalism and communication	more than 8 years
J-6	wubalem Tesfaye	Commercial media/ FANA fm 98.1	Program producer	BA degree in language and literature	10 years
J-7	Adane Befekadu	Commercial media/ FANA fm 98.1	Program producer	BA degree in journalism and communication	3 years
J-8	Meseret	Commercial	Program	BA and MA	3 years

	Asefa,	media/ FANA fm 98.1	producer	degree in journalism and communication	
J-9	Bersabet Gete	Commercial media/FANA fm 98.1	Program producer	BA degree in language and literature	8 years
J-10	Emirt Asfaw	Commercial media/FANA fm 98.1	Program producer	BA degree in language and literature	7 years
J-11	Daniel Amare	Commercial media/FANA fm 98.1	Program producer	BA and MA degree in journalism and communication	17 years
J-13	Nishan Chibisa	Commercial media/FANA fm 98.1	Program producer	BA degree in journalism and communication	More than 10 years
ED-1	Asegid Kebede	Public/EBC national radio	Editor	BA and MA degree in journalism and communication	7 years
ED-2	Yimer Dawud	Commercial media/FANA fm 98.1	chief editor	BA degree in journalism and communication	More than 10 years

Appendix-F: Pictures of focus group discussion, group interview and in-depth interview

Focus group discussion with journalist of public media/ Ethiopia radio



In depth interveiw with Key informant of public media/ Ethiopia radio



Group interview and indepth interwith with journalist nad key informant in FANA fm 98.1

Group interview with Journalist of commercial media/FANA fm 98.1



In depth interview with Key informant of commercial media/FANA fm 98.1

