



THE IMPORTANCE OF ECO-THEATRE FOR BIODIVERSITY CONSERVATION

(With Special Reference to “Kasso Weserbi Kebele”), Oromia Regional
State, Central Ethiopia

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Addis Ababa, Ethiopia

August, 2018



**College of Natural and Computational Sciences,
School of Graduate Studies Departments of Biology**

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CONSERVATION**

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**A Thesis Submitted to the Department of Biology in partial fulfillments of the
Degree of Masters of Science in Biology (M.Sc.)**

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and

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August, 2018,

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Declaration

I, the undersigned, declare that this thesis is my original work and has not been presented for a in any other University, and that all sources of material used for the thesis have been acknowledged.

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

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Acknowledgement

I would like to thank my advisors Dr. Habte Jebessa Debella and co-advisor Dr. Nebiyu Baye for what they have done to help me in order to do better work by dedicating time, providing required materials and sharing knowledge and experience without hesitation.

I am indebted to forward my heartfelt appreciation and gratitude to Fin fine Forest and Wildlife Enterprise Staffs; Derartu Tulu Preparatory School administration specially Shime, Abdi, Misge, Mimi and Fiseha; AAU Theatrical Art second year students who were involved in participation of eco-Theater; Mr. Ephrem Lemma - AAU Theatrical Arts Department Instructor; Rahwi - Art School Instructor; and Gubae Kin TV show.

It is my pleasure to acknowledge all the respondents (Kasso Weserbi Kebele Communities) who participated in the interview sessions and questionnaire survey; and also to those who were involved directly or indirectly in the completion of this study. Special thanks go to Ato Teferi Kebede, chairman of Kasso Weserebi Kebele, who coordinated the communities to participate in the study and Ato Bedasa from OFWL Entoto district.

My endless gratitude and deepest appreciation goes to my ever beloved Husband Solomon, and all my family for their unfailing support and continuous encouragement throughout my years of study and the process of researching and writing this paper. This thesis would not have been realized without their effort.

Last but not least, to all my Instructors and other individuals from whom I have received a great deal of idea and support while conducting this research as well as studying at AAU, especially Prof. Abebe Getahun – as the gate of his office is always open to me when I faced in trouble and had questions about my research, I am indebted to all of you.

Thank you!

Ageritu Ayalew

August 2010 E.C

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List of Abbreviations and Acronyms

AAU	Addis Ababa University
BC	British Columbia
BDC	Biological Diversity Conservation
CBNRM	Community Based Natural Resource Management
CGIAR	Consultative Group for International Agricultural Research
ETB	Ethiopian Birr
EWCA	Ethiopian Wildlife Conservation Authority
GMP	General Management Plan
IFACCA	International Federation of Art Councils and Cultural Agencies
m.a.s.l	Meter above sea level
NMA	National Metrological Agency
OFWE	Oromia Forest and Wild life Enterprise
UNEP	United Nation Environmental Program
UNESCO	United Nation Educational, Scientific and Cultural Organization

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Abstract

No reasonable doubt that the order of nature's balance has been disrupted by anthropogenic impacts. The purpose of this study is to assess how eco-theatre is used as a tool for biodiversity conservation in Oromia Regional State "Kasso Weserbi kebele". The research was conducted from October 2017 to July 2018. The study is descriptive in its design and employed both qualitative and quantitative research methods. Questionnaires via theatrical performance and interview were the main data collection tools. Through random sampling technique, 200 questionnaires were distributed to Kasso Weserbi communities and purposive sampling was used for concerned Experts and local community representatives. SPSS was used to analyze the data. The data obtained were analyzed in descriptive ways. Before the theatrical performance, more than 59% of the respondents replied that they didn't participate in biodiversity conservation activities. On the other side, 90% of the respondents replied that although they didn't see theatrical performance and didn't get experience, they believe that using theater plays a vital role in creating better performance in the society. After the theatrical performance, 92% of participants responded that, they have got a good experience from the performed eco-theatre and they will participate afterwards in BDC, 99% of the respondents replied eco-theatre is best tool for BDC, 70.9% of respondent replied that the theatrical performance was add value and 93% said eco-theatre have vital role to create awareness. Accordingly, the findings revealed that eco-theatre is important to stimulant creative thought using theatrical performance and to motivate the community members to act on their ecological issue. To clarify and increase the understanding of BDC and the human impact on environment, Eco-theatre is one of the practical tools to solve environmental problems. It gives possibility and increase motivation to actively participate in improving the local neighborhood for biological conservation. Moreover, eco-theatre can reach personal connection with environment through dialogue performance by clarifying the values and feelings of audience related to biodiversity conservation. To realize this, the co-operation and involvement of the community members are the most important to make the adaptation process effective and useful through eco-theatre. Finally, this research recommended that concerned institution is needed mainly to empower the communities through eco-theatre. To realize this, theatre must be integrated with biodiversity conservation programs.

Key words: Biodiversity conservation, Eco-theatre, performance, Kasso Weserbi, Ethiopia

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

In the Earth, Human is served because of many helpful living creatures found in the world which is composed of various types of plant, Animal, Bacteria, viruses etc. These varieties of living organism that surround us can be called in one word biodiversity. Since human being belongs to the biological universe, often in a position to determine its future, they have a special obligation to assure that a proper balance is maintained between environmental health (especially biodiversity) and equitable development (UNEP and UNSECO, 2003).

Cultural factors influence lifestyles, individual behavior, consumption pattern values related to environment stewardship and our interaction with natural environment local and indigenous knowledge system and environmental management practices provide valuable insight and tools for tackling ecological challenges, preventing biodiversity loss, reducing land degradation and mitigating the effects of climate change (UNESCO, 2003)

The finite potential of the earth in the provision of its resources which necessitate in the conservation of the ecosystem (Greene, 1995). This increases nature's endowment in the varieties and amount of resources so that mankind gets safe from different catastrophic problem like famine drought flood and others miseries. Accordingly, eco-theatre allows for exploration in thinking of ways to solve problems. Due to the complexity of environmental problems faced eco-theatre can help those involved to think about how different stake holders may think about the same issue (Wilson, 2009). The field of conservation biology or conservation ecology provides an integrative approach and field of study focusing on the protection of management of biodiversity based on the applied and basic ecology.

Biodiversity conservation is one of the vital subjects in the world. It is extremely important in human and the health of Ecosystem. When we look a particular case to Ethiopia, though there is regulation about biodiversity conservation, there is a big gap in the implantation. Therefore, the government in collaboration with other stakeholders has to give great emphasis on planning and implantation of the regulation. The need to protect and preserve biodiversity is even more urgent than ever. To realize this, art can play a lion's share.

The use of theatrical art's becoming a best strategically approach to practice and build a better society (Monica, 2009). Theatre is a cultural space where society examines itself in a mirror. It has long been looked at as a laboratory in which we can study the problem that confronts society and attempt to solve those problem (Brown, 2014).

Thus, Eco- theatre is increasingly becoming a predominant tool for sensation and mobilization of local communities for environmental protection (Brown, 2014). According to Mayoson (2010), eco-theatre is also called ecological theatre or sustainable theatre or environmental theatre or even recycled theatre. Each term can refer to either the practice of producing plays that educate and promote ecology.

Eco-Theatre is called an ecological theatre or sustainable theatre or environmental theater or even called recycled theatre (Slagle, 2010). It exists upon the philosophy that collaborative, multidisciplinary art allows us to practice building a better society. One of the major challenges in contemporary science is to develop new and innovative ways to engage society in science and scientific topics (Lavery, 2016). Eco-theatre in particular allows the exploration of emotion, and engage people in scientific subjects, the science related (Olaful, 2017).

Preventing destruction, damage or waste of natural resource and sustainable use begins at home. Thus, knowing about environment protection and Biological Diversity Conservation (BDC) is important for everyone. "Across many cultures and traditions over time we can trace patterns and instances of groups of people using the stage as a space and place to tell their stories and their live" (Monica, 2009).

The current state of Ethiopian's biodiversity calls the creation of awareness on benefits of conservation. There is a need for an integrated communication strategy that will enhance public awareness on conservation in both urban and rural areas. Reaka (1997), states that the role of community education in directing the attitude and behaviors of local people towards sustainable use of natural resources long has been recognize as an essential component of any viable conservation in the management of human use of biosphere so that it may yield the greatest sustainable benefit to present generation.

1.2 Statement of the Problem

It is obvious that conservation of biodiversity is significant for our life. In developed countries, it is a serious issue. It is part of literary theory (like eco-criticism). But, in the third world countries like Ethiopia, emphasize is not given for the implementation. In the case of Ethiopia, “Conserving biodiversity” is considered as political motto. The main reasons are limitation on the method of creating awareness and poor understanding to what extent art/ literature can influence the ecology.

Theater art is the most influential part of literature in creating perception and restructuring our mental sentiments. This is because theatre shakes audiences with emotion since it is participatory, and the central theme of the theater is always written in graved in human heart more than any part of literature would influence. Thus, the poor awareness of concerned bodies about conserving biodiversity in our country can be justified that the methods of creating awareness is not sounding. Therefore, this paper is aimed at filling the gap of methods of creating awareness about the impact of conserving biodiversity though theatre.

One of the major problem common as worldwide is related to great imbalance in the use of natural resources. Our day to day interaction, which in turn is caused by the perception, is related to our environment and how we understand our relationship to nature. One of the great challenges today is that we often feel untouched by problem of others and by global issue like climate change. When we could easily do something to help, we do not feel strongly enough that we are part of a global community, part of a larger world (Eliasson, 2016).

To explore these problems Eco-theatre teaches us about ourselves. It helps us to understand how our minds and the minds of other work. It helps us to see how the environment in which we live and how much affects that we are and who will become (Brown, 2014).

1.3 Objective of the Study

1.3.1 General Objective

The main objective of the study is to assess and broaden the understanding of biological diversity conservation through theatrical arts.

1.3.2 Specific Objectives

Specifically, the objectives of the study are:

- To introduce the use of theatrical arts for biodiversity conservation by applying site specific eco-theater performance as a paradigm shift of conservation techniques;
- To link human, nature and art by recognizing the help of eco-theater in creating awareness in conservation of biodiversity;
- To assess the extent of community role as stewardship for biodiversity.
- To test whether theatre can be used as a tool for biodiversity conservation by administrating a questionnaire to different groups included in the study.

1.4 Research Questions

The research is conducted to answer the following research questions:

1. Why practices of the biodiversity conservation are not efficient and effective in our country?
2. How does theatrical art help in creating awareness on biodiversity conservation?
3. What actions should be made in order to mobilize the community in taking action of conservation?
4. What measures should be taken to use eco-theatre in developing better understanding of bio diversity conservation?

1.5 Scope of the Study

The scope of the study is limited to the role of theater for biodiversity conservation in Entoto Forest.

1.6 Significances of the Study

This research will play a significant role in conservation of the biodiversity, through the use of eco-theatre, along with the following issues:-

- Helping the community in conservation of biodiversity by creating awareness.
- Using drama in reaching the community on how to safeguard the ecosystem.

- Supporting as stepping stone for the other related researches in the forthcoming.

Kasso Weserbi Communities, live around Entoto Forest, will be benefited from this research.

1.7 Limitation of the Study

Data gathering instruments are mainly interview and it might have a limitation of bias and subjectivity. Therefore, it is supported with questionnaire, and document analysis.

Since the case study is conducted on a limited amount of households live in Kasso Weserbi Kebele, the findings have no possibilities to be generalized in other areas of the community.

CHAPTER TWO: LITERATURE REVIEW

2.1 What is Biodiversity?

The term Biodiversity was first coined by the entomologist E. O. Wilson in 1986. According to UNCED (1992), “Biological diversity or biodiversity means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystem and the ecological complexes of which they are part; this include diversity within species, between species and ecosystems”. Biological diversity – or biodiversity is the term given to the variety of life on the earth and the natural patterns it forms (Marina and Xiaomeng, 2004).

2.2 The Importance of Biodiversity

The habitats we live on are important to human quality of life directly or indirectly. Losing biodiversity is directly related to instability, it creates unstable conditions in the environment. Biodiversity is vital for supporting all life forms on the earth. Biodiversity provides the different ecological service: soil formation; nutrient, nitrogen, oxygen and carbon cycling; energy production; food and erosion controlled; clean air, clean water, breaking down pollutants; pest and disease control; food and medicine (UNEP, 2013).

According to Reaka (1997), biodiversity is important to most people the existence of many species is important because their physiological differences furnish various sources of food, clothing, shelter and medicine for human. USAID (2005), discussed biodiversity has many non-material values - the spiritual, aesthetic, educational, recreational, historical, and scientific benefits that people derive from the natural world and its resources. The value that people place on conservable biodiversity for future generations is also non-material value (UNEP, 2013).

2.3 Concepts of Biodiversity Conservation

Biodiversity is the extent to which an ecosystem contains different species. Biodiversity refers to the variety of species and ecosystem that have co-evolved over thousands of years and the - complex ecological processes that like them together and sustain to the whole (Biodiversity British Columbia, 2017).

The generally accepted modern definition of the term "conservation" as given by "conservation strategy" is "the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generation and future generations. Conservation is positive, embracing preserving, maintaining, attaining sustainable utilization, and acquiring restoration and enhancement of natural environment" (Hillman, 1993b). Biodiversity is usually seen at the levels of genes, species, ecosystem and culture that describe the different aspects of living systems. The biodiversity can increase when the new genetic variation is produced, a new species is created or a new ecosystem is formed.

The management of human use of organism of ecosystem to ensure such use is sustainable. Besides sustainable use conservation includes protection, maintenance, rehabilitation, restoration and enhancement of population and ecosystem (Hillman, 1993a).

According to (Biodiversity British Columbia, 2017), the following ecosystem management concepts provide a framework for planning biodiversity conservation.

- *Coarse and fine-filter approach* - conserving representative samples of all the ecological communities in a region (course- filters) can facilitate conservation of the majority of species. Species, ecosystems and features that 'fall through' the course- filter (e.g. species that depend on a specific habitat feature) need to be conserved by a fine -filter approach such as protecting wild trees.
- *Adaptive management* - decisions can be improved over time by learning from experience.
- *Ecosystem based management* - An ecosystem based approach, which maintains key characteristics of ecosystems in a way that sustains species and ecological processes but also supports some human intervention for economic or social purposes.
- *Risk-ecosystem management* - decision consider the likelihood of an event occurring and the probable magnitude of consequences if it does occur, weighing the expected risks against the expected benefits of the decision.
- *Protected areas* - areas of land/or water dedicated to the protection and maintenance of biological diversity and of natural and associated cultural resources.

Biodiversity conservation is impossible without participation of every one who impacts the ecosystem from loggers who harvest forest timber, to consumer who buy food at the supermarket, to city governments who put restriction on building in ecologically sensitive areas.

2.4 Biodiversity Conservation in Ethiopia

Ethiopia is an important regional center of biological diversity. The wide range in altitude and climate, the isolation of the highlands of Ethiopia, and the fact that there are so many different biomes present in the country, are some of the reasons for its high biodiversity. One estimate suggests that there are between 6,500 and 6,700 plant species in the country. This represents the fifth most diverse flora in Africa (Fekadu Worku, 2012). By the virtue of its location in the tropical range and because of a wide range of altitude, climate, isolation of the highland and varieties of biomes, Ethiopia is an important regional center of biological diversity.

According to institute of biodiversity conservation at the beginning of the 1970's the consultative group on international Agricultural Research (CGIAR) strongly recommended the formation of a network of plant genetic resource center (or gene banks as they are frequently call) around the world, Ethiopia was given the highest priority because of its tremendous plant diversity and endemism.

Ethiopia's Sustainable Tourism Alliance (2002) noted that, the biodiversity of Ethiopia is extraordinary with many rare and unique species inhabiting its forests. Ethiopia has a rich and diverse spectrum of fauna and flora including a wide variety of endemic species. Within these ecosystems, there are 625 endemic plant species, 16 endemic birds' species and 24 endemic mammal species which are found nowhere else in the world. Globally the importance of this biological diversity is vital and there are many environmental conservation programs worldwide in addition to the international conventions that are signed by our country.

Survival of any society depends directly or indirectly on environmental resources. Our environment is experiencing degradation every day due to clearance of forest, unsustainable use of wet lands and over exploitation of plant and animal species.

2.5 Art and Biodiversity Conservation

Art works for change that addresses social and environmental issues. It applies the transformative power of art to promote awareness, inspire action and provoke dialogue (Gale, 2012).

Environmental or Eco-Art: - is best defined as a roof under which live many different art styles, techniques, and objectives. Environmental art is made up of various artists who share a common belief about the world. Eco-theatre seeks to show how humanity should be grounded and connected to the natural world socially, philosophically, economically, and spiritually this artist's identity the disconnection of humanity from the environment and attempt to rectify it (Dillon, 2013).

Site - specific Theater: - is any type of theatrical production designed to be performed at a unique, specially adapted location other than a standard theater.

This specific site either may be originally built without any intention of serving theatrical purposes (for example, in a hotel, courtyard, or converted building), or may simply be considered an unconventional theater space (for example, in a forest) (Andy, 2008). The performance may also then be called environmental theater.

Many of the problems we face now a day are the result of our incorrect view or perception we have for our nature and misunderstandings of our connection with nature. Art undoubtedly has the awareness about environment but also in challenging our current views and concepts of nature.

“Artistic and creative approaches (e.g. Drama, Storytelling, Music, Dance, Photography, poetry, creative witting, visual art, film) have been shown to be an important way to facilitate and foster affective knowledge and deepen the emotional connections between people and place” (Wilson, 2009).

Arts can help to raise awareness about and catalyze a public response to environmental insecurities and risks, illuminate issues of environmental justice, and imagine more sustainable futures. Art can speak to emotion as well as to reason in finding new ways to articulate the-

richness and diversity of relationship between people and their environment. Together, the art and environmental sciences can help us understand and ascertain our place in the world.

The impact of art for community shown below in Table 2.1.

Table 2.1: Mechanisms of Arts Impact on Individual and Community

	Individual			Community		
	Material/Health	Cognitive/psych	Interpersonal	Economic	Cultural	Social
Direct Involvement	Builds interpersonal ties and promotes volunteering, which improves health Increases opportunities for self-expression and enjoyment Reduces delinquently in high risk youth	Increases sense of individual efficacy and self-esteem Improves individuals sense of belonging or attachment to a community Improves human capital: skills and creative abilities	Builds individual social networks Enhances ability to work with others and communicate ideas	Wages to paid employees	Increases sense of collective identity and efficacy	Builds social capital by getting people involved, by connecting organizations to each other and by giving participants experience by organizing and working with local government and non-profits
Audience Participation	Increases opportunities for enjoyment Relieves Stress	Increases cultural capital Enhances visual-spatial reasoning (Mozart effect) Improves school performance	Increases tolerance of others	People (esp. tourists/visitors) spend money on attending the arts and on local businesses. Further, local spending by these arts venues and patronize businesses has indirect multiplier effects	Builds community identity and pride leads to positive community norms, such as diversity, tolerance and free expansion.	People come together who might not otherwise come in to contact with each other
Presence of Artists and Arts Organization & Institutions	Increases individual opportunity and propensity to be involved in the arts			Increases propensity of community members to participate in the arts Increases attractiveness of area to tourists, businesses, people (esp. high skill workers) and investments Fosters a “creative milieu” that spurs economic growth in creative industries. Greater likelihood of revitalization	Improves community image and status	Promotes neighborhood cultural diversity Reduces neighborhood crime and delinquency

Source: (Guetzkow, 2002).

In general, art, as communication, is indispensable expressing human creativity and ways of life in all perspective (Psychological, economical and physical) sense. Environmental and developmental challenges of these days are related almost with distraction of environment by anthropogenic effect and causes like poverty, health etc.... So, Art is the most crucial way to promote and solve these problems.

a) The role of Theater for Biodiversity Conservation

The purpose of theatre for environmental protection is to entertain, raise awareness and influence attitude change in that should elicit the intended response for the target audiences. According to Cortney (1980), "Human beings create society, the way our inner world dramatizes its relation to the environment will determine the kinds of society we produce". Theater is easy noted that it provides a cohesive look at our fascination, entertaining and engaging the audience along the way.

To achieve this, an environmental play should be realistic enough to reflect the conditions (Situations) include not only ecological but also cultural, political and socio-economic interpretation of the environmental issue raised.

Some uses of theater performance are:

- a) Provide individual and community with a basic knowledge and understanding of the environment: the biodiversity and their-relationship with human.
- b) To provide individuals and communities with opportunities of active participation in solving environmental problem and making educated decisions
- c) To encourage individuals and communities to value the environment and consider its important in order to inspire participation in the process improving and protecting the environment for their own live hoods
- d) To promote awareness and inspiration in individual and communities about the environment, the biodiversity and its problem.
- e) To provide people with skill to identify, predict, prevent and solve environmental problems and to make them capable of utilizing limited resource is in a sustainable way of cop up with unexpected vulnerability (Monica, 2009).

b) Why Theatre is selected for Biological Conservation Awareness?

Theater is a form of knowledge: it can also be a means to look our future and environment. When we thin to do something, we have to plan for future generation. So, we have to set up possibilities that we take in to action internally or externally (Courtney, 1980). It also helps us to build make change about environmental protection. Theatre is an effective means of communicating sensitive issues without attending antagonism that would normally occurred in direct realistic situation. Theatrical approach can stimulate new perceptions and meanings, feeling alternative spaces for co-learning in CBNRM in highly empathic, exploratory and inclusive ways (Heras and Tabara, 2016).

Biodiversity conservation and sustainable economic development are important issues of the century and theatre can play an important role in archiving them. Theaters' potential to mediate the relationship between human beings and natural world .particularly in the context of environmental change (Dillon, 2013). So, it is likely to offer a sustainable alternative approach towards addressing these and other current issues of our country. In addition to these message convey by theatre plays will direct criticism of local activities and customs the incomputable with environmental protections.

2.6 Threat of Biodiversity in Ethiopia

Ethiopia has a high biodiversity at the moment, but the biodiversity is threatened .The followings are some of the threats for Bio diversity in Ethiopia:

Habitat fragmentation

Ecosystem conservation and ecosystem degradation contributes to habitat fragmentation. Habitat loss from exploitation of resources, agricultural conversion and urbanization are the largest factors contributing to the loss of biodiversity.

According to Ethiopia Biodiversity and Forest Assessment (2008), Environmental degradation in Ethiopia ranges from very severe in rural areas to sever in urban area - soil erosion and degradation remains are of the most critical and fair ranging environmental issues affecting the country as the result of increased population, increased crop cultivation in marginal areas and-

increased livestock grazing pressure have also contributed to increase deforestation and soil erosion in the central highlands.

Invasive species introduction

Invasive species are typically introduced in to ecosystems without their co- evolved predators and parasites which enable on an alien invader to, outcompete native species with similar ecological requirements. In Ethiopia, plants such as “Emboch” which is introduced to Lake Tana are rapidly becoming dominant plant species in their respective ecosystem. The interaction between native species are altered or destroyed by these exotic species and can result in the loss of native biodiversity (USAID, 2005).

Pollution

Atmospheric and hydrological pollution have far reaching negative effects on biodiversity. Pollution from burning fossil fuels such as oil, coal and gas remain in the air as particle pollutants which fall to the ground as acidic rain (Buzuayehu Belete, 2015).

Global climate change

Climatic change poses major threats to biodiversity. Although a certain variation of climatic is compatible with the ecosystem survival and its function, the very rapid shift is affects the variety of life. Carbon dioxide released from burning fossil fuels and biomass, deforestation, and agricultural practices contribute to greenhouse gases, which prevent heat from escaping earth’s surface. From the increase in temperature expected from increase greenhouse gases, there will be higher level of air pollution, greater variability in weather patterns and change in the distribution of vegetation in the landscape. Some species will not be able to adapt to these changes in the environment and will become extinct. However, it is expected that many plants and animal species will attempt to disperse to higher latitudes and altitudes as temperature increase (Biodiversity British Columbia, 2017).

Population explosion

Important habitats are being lost and degraded. So, biodiversity conservation is vital to human well-being because it suffers the functioning of ecosystem upon with human life depend on biodiversity (Eugene, 2005).

Lack of awareness

Lack of environmental awareness concerning the gaps as well as constraints that make rapid the problem of environmental degradation and inhibited the implementation of successful practices for environmental management have been identified (Mahmud et. 2005).

Weak coordination of various disciplines

As (Teklu,2016) explained, according to Gete et al.(2005),although the government has invested huge sums of public money in setting up the institutional framework for national agricultural research, education ,and extension system, there seems to no strong functional linkage among them. Poor coordination's between researches. Extension and education has affected formal technology development and education has formal technology development and transfer of technology for researchers to local experts and local communities.

According to USAID (2005) journal, example of specific direct threats to some elements of biological diversity and activities logically designed to address the threats are shown below in Table 2.2.

Table 2.2: Improved Link between Threat and Activity

Threat	Sources of Threat	Effect on Conservation Target	Activity
Conversion-Habitat degradation	Deforestation	Loss of forest habitat for big animals	Forge best-practice agreements between company & government
Species exploration/overharvesting	Local hunters of bush meat for local and urban markets	Loss of mammal aspects	Develop alternative source of protein (e.g., domestic animals)
Invasive-water hyacinth	Historic introduction of alien species	Displacement of native flora and fauna	Apply biological controls
External environmental change-pollution	Polluted water shade from forest degradation	Loss of stream flora & fauna	restore watershed through community forestry

Source: USAID (2005)

CHAPTER THREE: METHODOLOGY

3.1. Description of the Study Area

Location and Area

The study area is located 10 kilo meters away from Addis Ababa in North Shewa Zone, Sululta, under the Regional Government of Oromia. It extends on the mountain slopes of “Entoto”.

According to the recent survey and mapping, the total forest and land area is 2005 ha. The cultivated land accounts 85 %, and the rest 15% of the land use type includes bush land, open area, farm land and settlement (Mistere Teferea, 2014).

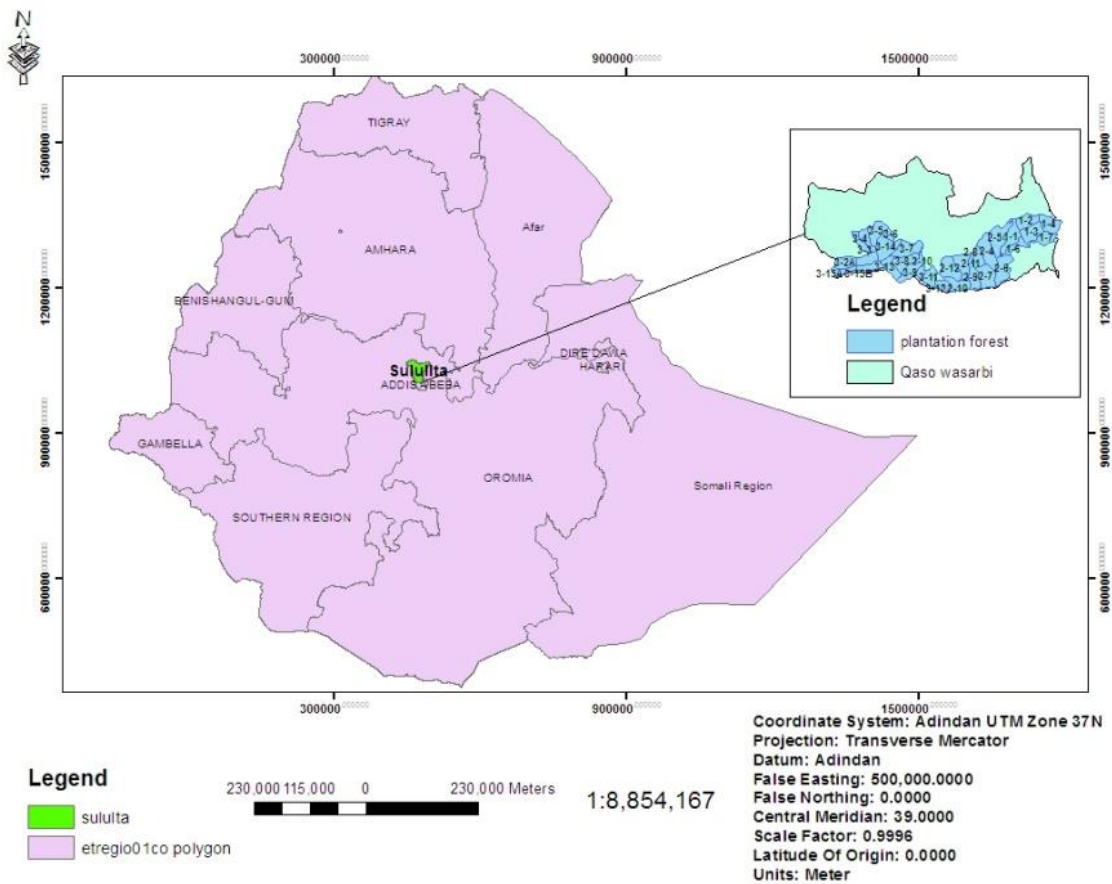


Fig. 3.1: Map of Ethiopia showing the location of the study area (OFWE, 2015).

The main reasons this area selected are: it is suitable to meet the research objective, proximity to perform the research by saving time and money; and easily availability of actors involved in the performance.

Climate

Climate information is generated from the nearest meteorological stations in Addis Ababa. Rainfall and temperature information is obtained from data collected and processed by the National Meteorological Agency (NMA), from the year 2003 to 2013 G.C. From the analysis of the data the mean annual temperature of the area is 16.3°C. The range of mean monthly temperature is between 9.8°C and 23.6°C respectively. The hottest month is May with a maximum temperature of 26.1°C, and the coldest month is December with a minimum temperature of 7.3°C. The mean annual rainfall is 984 mm. mainly with rain falling from June to September, and the heaviest rain time is July and August. The wet season lasts from July to September, and dry season from November to March (Mistere Tefera, 2014).

Topography

The area contains an interesting range of landscapes gentle slope grounds and hills separated by river valleys. Altitude ranges from about 2500 meter above sea level to about 3000 meter above sea level. Soil of the area is reddish brown, deep and less gravelly. Texture varies from silt clay loams in the surface soils to clay or silt clay loams in the B horizon.

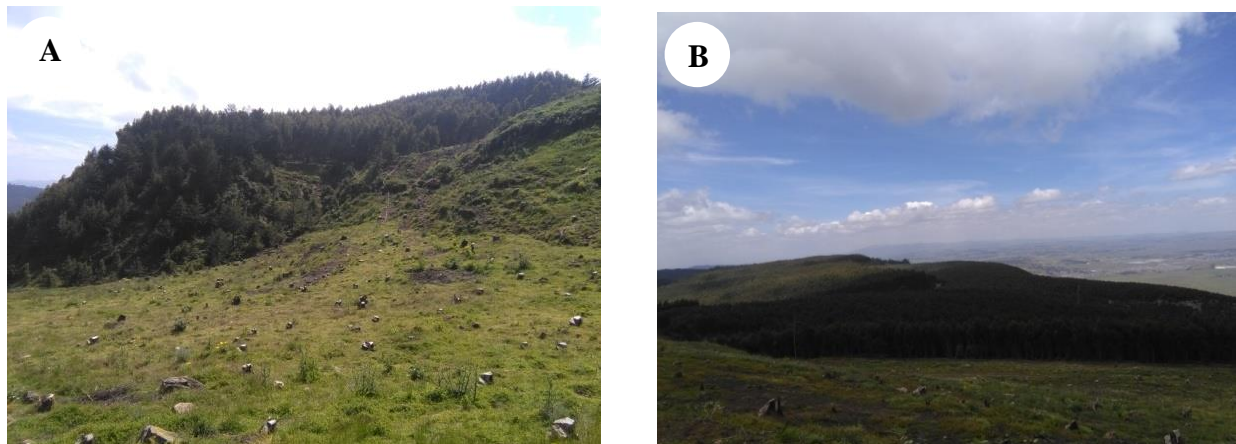


Fig. 3.2: Partial Topography of Kasso Weserbi Kebele. “A” *Cupressus lusitanica*; whereas “B” *Eucalyptus globules* (picture by Ageritu A.)

Watershed and Drainage

The forest area and the surrounding environs are important water catchment areas for rural household and industrial uses. The area is famous in its all year-round rivers and it is an important water catchment for Muger and Abay River.

The rivers from this forest also contribute large volume of water for rivers on Sululta plains that are used for household uses, traditional small-scale irrigation schemes and watering grounds for domestic animals. Bottled water producing industries are also dependent on water from this area.

Vegetation

Since the area is situated within the central high lands natural vegetation is composed of semi humid land vegetation type modified by the unique local environment. The vegetation is composed of manmade and remnant native species. The natural vegetation in the past has suffered from the hands of humans due to illegal and consumptive utilization. Among the native tree species *Juniperus Procera* is the only dominant tree species. The forest plantation is dominated primarily by *Eucalyptus globules*.

Animal distribution

The main wild animals found within Kasso Weserbi Kebele, specifically, in “Entoto” Forest are: Minlik Bush buck, Common Bush buck; Serval Cat; Spotted hyena; Black backed Jackal; Silver backed Jackal (OFWE, 2015).

Socio-economic environment:

The total number of households in the study area is 1,350 with an estimated population of 11,700 of which 6,013 male and 5,687 females (OFWE, 2015).

The average land holding of the households is 0.17 ha. of land. The main economic activity is agriculture dominated by crop production and livestock rearing. The major crop types are annual crops dependent on seasonal rain fall. Livestock rearing is confined to sheep, cow and ox. No cash crops are grown in the area. On the other hand, the communities living in and around the forest are highly dependent on the forest for collecting wood for fuel and construction needs.

Charcoal production which is highly destructive form of use is another form of income generating activity by some households. In addition income from employment in the private firms is an important source to support livelihood (OFWE, 2015).

3.2. Research Design

This study is descriptive in its design. The design is chosen due to the rationale that it describes and interprets existing conditions, opinions held, process that are going on and effects that are evident. The script was written which shows ecological problems and its solution (Appendix 1). The performers were trained, for 1 month at “Sidist killo” cultural center hall after attending workshop related to profile of concerned wild animals (Appendix 5), using different theatrical techniques. During the performance, the following dramatic techniques were applied:

Improvisation: to uses the point of concentration and actors decide on the what, where and who to improvise a drama and the story unfolds the way surfaces.

Song: the song was simple, popular and catchy tunes are effective for getting messages across the community.

Dialogue: the issue of actors lies in the fact that that those who want to conveys, arouses, involve and engage the audience in scientific issues should be sensitive to the scientific discourse and language, along with theatre discourse and language.



Fig. 3.3: Photo taken during work shop (Picture by Ageritu A.)

The workshop contains as a main content the natural location, morphological appearance, ecological importance and economic importance of characters of animals (Appendix.4) with relation to their environment and human activities.

This helped them to know about the characters background, and to understand the biological diversity conservation issue specially their characters. In the third stage it was the rehearsal time they rehearsed in group until the final stage which was performance day.

Table 3.1: The general feature of theatrical performance goal and theme

<i>Theme</i>	Migration of wild animals because of deforestation.
<i>Target Group</i>	Kasso Weserbi Kebele Adult and Youth to conserve the biological diversity.
<i>Goal</i>	<ul style="list-style-type: none"> • To create awareness about biodiversity conservation; • To show the effect of deforestation and wild animals migration; and • To motivate participants through eco-theatre.
<i>Sample size</i>	200 peoples
<i>Duration</i>	About 3 hours



Fig. 3.4: Picture Taken during Rehearsal (picture by Ageritu A.)

In line with this, both qualitative and quantitative research methods were employed to describe the objectives of the study. These research methods are chosen because: Data is collected in the field at the site where participants experience the issue or the problem under study; it is relied on interviews and questionnaires; the research was built up on patterns, categories and themes by observing the data into increasingly more abstract units of information. Moreover, the study is a form of inquiry in which the research made an interpretation of what have been seen or observed.

3.3. Target Population

The purpose of this study was to explore how theatrical performance was used as a tool for biodiversity conservation and sustainable development in “Entoto” Forest. Therefore, the population of this study is the stakeholder of “Entoto” Forest and includes local communities living around the forest - Kasso Weserbi Kebele community, “Finfine” forest management, and Oromia Forest and Wild life Enterprise.

In light of this, the AAU theatrical art students were invited to perform the theatrical performance aimed at biodiversity conservation so as to bring the necessary awareness.

Generally, the research considers a population of “Kasso Weserbi” kebele people’s mentioned in the following table:

Table 3.2: Target Population Specification

No.	Description		Quantity
1	No. of Household		1,350
2	Total population:		11,700
	Male - 6,000	Female - 5,700	
	<u>Adult</u> Male: 2,015 Female: 1,735	<u>Youth</u> Male: 2,503 Female: 2,472	<u>Children</u> Male: 1,495 Female: 1,480

Source: OFWE, Fin fine Branch (2015).

3.4. Instrument, Sample Size and Sampling Technique

Different instruments have been used in the study. Questionnaires (Appendix 2a and 2b), interviews (Appendix 3), and document analysis were the key gathering tools. The main data gathering instruments were face to face interview with higher officials and key informant interview with carefully selected local communities. These instruments were highly supported by questionnaires distributed to local communities and observation checklist. Secondary sources of information were also used in this study. Face to face interview was undertaken with higher officials from different governmental and non-governmental conservancy organizations working for the betterment of the kebele. These include:

- Community around “Entoto” area - Kasso Weserbi Kebele
- “Entoto” Forest management

- Oromia Forest and Wild life Enterprise, Fin fine Branch
- Ethiopia biodiversity institute.

a) Characteristics of Sample Respondents

As shown in Table 3.2, there are 8,750 populations living around “Entoto” Forest, i.e., in “Kasso Weserbi” kebele and 200 were taken as a sample.

According to Buzuayehu Belete (2015), the formula $n= N/[1+N (e)^2]$ can be used to draw a sample size where “n” is to refer number of sampled house hold, “N” is number of target population and “e” is margin of error i.e., 0.05 (at 95% confidence level).

Accordingly, the number of sampled households was 382. But due to some factors like time and inaccessibility of the area, 200 samples were taken.

Cluster sampling method is used in the study. For this reason, the population was classified in to three clusters depending up on age categories to get un-biased result. Of the three clusters, two namely; Adult and Youth were chosen for sampling. These are chosen because:

- They are expected to understand the role of Theater in conserving biodiversity;
- The adult and youth groups play an important role in educating people on many environmental and social issue including biodiversity conservation and
- Most of the deforestation activities are performed by these age groups. Relatively stating, peoples in these age categories were also beneficiaries from the Theater conducted around the forest. Therefore, from these chosen clusters, 86 (46 Male & 40 Female) and 114 (57 Male & 57 Female) samples were taken from adult and youth respectively based on the number of population with in each age group.

In designing the questionnaire, concepts have been adapted from different scholars to measure respondents’ level of awareness, capacity and level of participation and benefit sharing from biodiversity conservation. It consists 17 items on a five point Likert scale rating from 1 (strongly disagree) to 5 (strongly agree). The questionnaire had also three open-ended items.

b) Characteristics of Interviewed respondents

Respondents from the Federal Institute of Biodiversity constitute 25%. This is due to their affiliation with the subject. Community members who lived longer in Kasso Weserbi and who have historical connection to this geographical area constitute 25%. Instructors of theatrical arts of the Addis Ababa University constituted 25% owing to their importance in performing and influence due to their profession. The remaining 25% is are from Oromia Forest and Wild Life Enterprise.

Table 3.3: Characteristics of Interviewed Respondents

No.	Respondent Character	Categories	No. of Interviewed Individuals=8
1	Local Community	Kasso Weserbi Community Council	2
2	Institution of Ethiopia Biodiversity Conservation Office	Animal Department	1
		Plant Department	1
3	Oromia Forest and Wild Life Enterprise	Fin fine Branch	1
		Entoto Branch	1
4	AAU Theatrical Arts Department	Instructors	2
Total			8

3.5. Data Gathering Procedure

Quantitative data was gathered from primary and secondary data sources. Primary data was collected from exploratory performance observation and through survey questioners. Secondary data was gathered from available documents describing and noting relevant information that are directly linked to this particular research.

First, participants came sponsoring themselves. This shows that how they are committed to change their life in an environment friendly manner.

The administration of questionnaires to evaluate the experience of the community was conducted 15 minute before theatrical performance. Every participant has experience and knowledge about Kasso Weserbi kebele biodiversity and place. It is always good to start with what participants already know and build on this knowledge. The first step was inviting the community participant to answer the questioner before performance (Appendix 2a). In addition, another questionnaire was given to expertise's of Entoto District.

Eco-theatre script (Appendix 1) was written and discussed with selected second year theatrical art students before training started. Performers were trained at Addis Ababa University Cultural Center Hall, “Sidist Killo” campus for several rounds before the final performance conducted in front of the community. A day of performance was scheduled with Kasso Weserbi Kebele Administration, the media and advisors. On site eco-theatre was performed in front of invited community elders, youth, women and all sectors of stakeholders.

The message conveyed by play was a direct criticism of human in relation to distraction of the environment that was incompatible with development and conservation goals.

The questions asked by the community members at the end of the performance about biodiversity conservation show clearly demonstrated how active and enthusiastic. They were plentiful, intelligent and interesting answer all related to biodiversity loss.

Interviewed for representatives of the community found in Kasso Weserbi and different concerned expertise are undertaken, summarized and analyzed to triangulate the questionnaires submitted.

Most participants raised at least one issue. Finally, as per their promise, 200 endogenous seedling was planted.

3.6. Data Analysis Technique

Qualitative data were analyzed and interpreted to get the realized and detailed pictures of the problem on the study area. In analyzing quantitative data, descriptive statistic is employed. Frequency and percentage were used to describe respondents’ awareness level, capacity and level of participation.

3.7. Ethical Considerations

Individual willingness to respond was confirmed before any interview was conducted. Personal information were kept confidential.

CHAPTER FOUR: RESULT AND DISCUSSION

4.1 Result

4.1.1 Respondents' Opinion before Performance

Out of the distributed 200 questionnaires, all are returned from these valid analyses were 189.

The clear picture of the respondents' data before performance show below: Table 4.1.

Table 4.1: Percentage of respondent's opinion before Performance

No.	Variables	SD		D		N		A		SA	
		Qty.	%	Qty.	%	Qty.	%	Qty.	%	Qty.	%
1	I participated in conservation of biodiversity	15	7.9%	97	51.3%	43	22.8%	34	18.0%	0	0.0%
2	I saw theatrical performance which shows about biological diversity conservation	32	16.8%	146	76.4%	7	3.7%	4	2.1%	2	1.0%
3	I have got an experience of observing theatrical performance about biodiversity conservation.	117	61.6%	65	34.2%	2	1.1%	5	2.6%	1	0.5%
4	The performance, which I saw before, added value in conservation of biodiversity.	-	-	-	-	-	-	-	-	-	-
5	Using theatre plays a vital role in creating better awareness in the society	2	0.7%	1	0.4%	22	8.2%	164	61.4%	78	29.2%
6	The theatrical performance, which I saw, raised the actual ecological problems of the environment.	-	-	-	-	-	-	-	-	-	-

Key: SD= Strongly Disagree; D=Disagree; N= Neutral; A= Agree; and SA= Strongly Agree

The result showed that more than 59% of the respondents replied “They didn’t participate in biodiversity conservation activities. On the other side, 90% of the respondents replied that although they didn’t saw theatrical performance and didn’t get experience, they believe that using theater plays a vital role in creating better performance in the society.

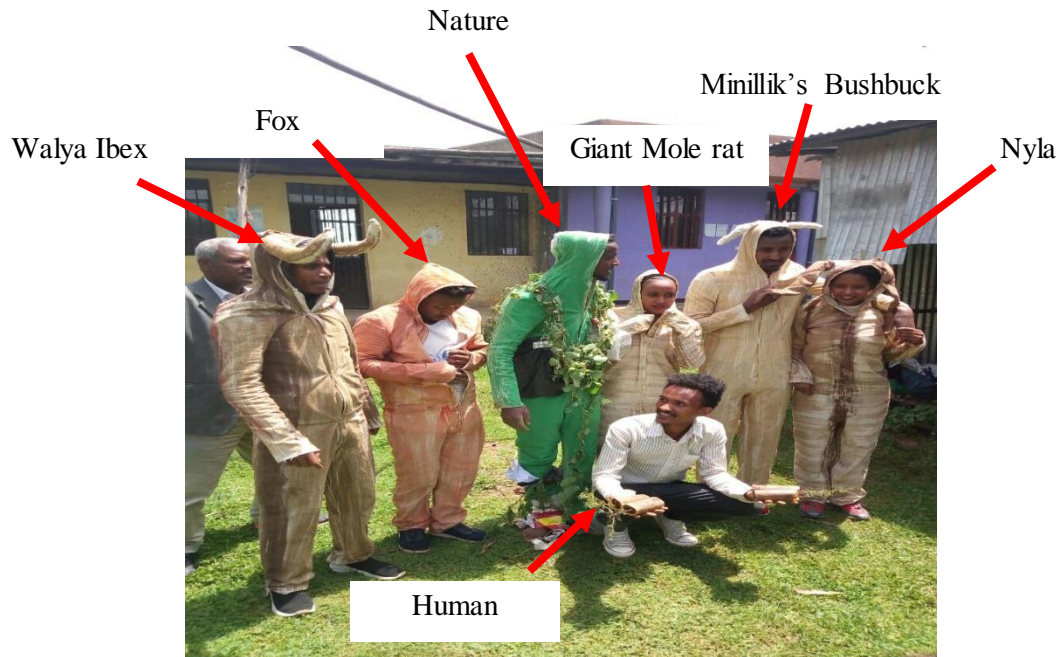


Fig. 4.1: Image taken before- performance (Picture by Ageritu A.)

4.1.2 Respondent's opinion after performance

In order to evaluate the effectiveness of the performance with respect to the objective of the research; another questionnaire was given to suggest the differences pre- and post-performance activities.

At the end of the performance, the following data were collected and analyzed as follow. Table 4.2 shows the analysis of responses of respondents after performance.

Table 4.2: Percentage of respondent's opinion after performance

No.	Variables	SD		D		N		A		SA	
		Qty.	%	Qty.	%	Qty.	%	Qty.	%	Qty.	%
1	I will participate in conservation of biodiversity afterwards	0	0%	2	1%	7	4%	79	42%	101	53%
2	There is a situation which obscures me to understand the play.	105	55%	58	31%	6	3%	11	6%	9	5%
3	Theater is an edutainment tool to understand about biodiversity conservation.	0	0%	0	0%	2	1%	5	3%	182	96%
4	The performance really reflects the conservation of biodiversity.	0	0%	2	1%	1	1%	8	4%	178	94%
5	I have got an experience of from this theatrical performance.	0	0%	4	2%	10	5%	16	9%	159	84%
6	The performance adds value in the conservation of biodiversity.	0	0%	2	1%	1	0%	52	28%	134	71%
7	Using theatre plays a vital role in creating better awareness in the society.	0	0%	0	0%	3	2%	10	5%	176	93%
8	The drama raised the actual ecological problems of the environment (i.e. Kasso Weserbi kebele)	0	0.0%	0	0.0%	10	5%	72	38 %	107	57%

Key: SD= Strongly Disagree; D=Disagree; N= Neutral; A= Agree; and SA= Strongly Agree

More than 92% of the respondents replied that, as they have got a good experience from the performance, they will participate in biodiversity conservation activities.

Almost all respondents agreed that the argument that theatre is one of an infotainment tools to create awareness and understand about biodiversity conservation.

The other result showed that the message of the play is understood by more than 86% of the participants in the performance.

4.1.3 Expertise Response through Questionnaire

Table 4.3: Percentage of Expertise Opinion through Questionnaire

No.	Variables	SD		D		N		A		SA	
		Qty.	%	Qty.	%	Qty.	%	Qty.	%	Qty.	%
1	The society actively participates in the conservation of biodiversity.	2	10%	10	50%	4	20%	4	20%	0	0%
2	The government plays a significant role in keeping the biodiversity	5	25%	6	30%	0	0%	8	40%	1	5%
3	NGOs have contribution in keeping the balance of the environment	0	0%	0	0%	4	20%	11	55%	5	25%
4	The local investors have got a sound action for the betterment of the ecosystem.	9	45%	10	50%	0	0%	0	0%	1	5%
5	The society is benefited from the existence of the ecosystem	0	0%	0	0%	3	15%	10	50%	7	35%
6	The economic advantage of the biodiversity is high	0	0%	0	0.0%	0	0%	10	50%	10	50%

Key: SD= Strongly Disagree; D=Disagree; N= Neutral; A= Agree; and SA= Strongly Agree

The results showed that 50% of expertise's agreed that society participation, government and local investors' role are limited in biodiversity conservation campaign. On the other side, more than 80% of expertise said NGO's have a vital role in it; where as local investors don't work for the betterment of the community.

The other thing is even though all expertise believes in the economic advantage of conserving biodiversity, around 15 % of the expertise disagree on the benefit of the society from biodiversity conservation.

4.1.4 Result of Expertise Respond from the Interview

Results of interviewed candidates are summarized as follow:

From the interviewed expertise and representative of local community, most of them confirmed that they have better understanding about biodiversity and biodiversity conservation.

When we look the attitude of the society on biodiversity conservation: In the expert level, they have positive attitude on biodiversity conservation. The attitudes from the communities are different. Those live around forestry area have good understanding and view; where as those who live around downtown do not have a clear picture about conserving biodiversity.

The other result was that, even though all the interviewed participants agreed about the role of theatre in biodiversity conservation, most replied that the method of drama that should be implemented has to be selected by biodiversity conservation institute in collaboration with theatrical art professionals.

When we look the practices of biodiversity conservation between different stakeholders, most replied that government institution and local communities are still doing so many activities; whereas most local investors are destructors of biodiversity.

Another findings observed during interview was that all interviewed expertise confirmed that they have adequate understanding about wise- and unwise use of natural resources and biodiversity. In the other side, this is limited in local communities.

Finally, all interviewed expertise agreed on the availability of regulation related to biodiversity conservation in Ethiopia. But they replied that there is a gap in the application. On the other side more than half of interviewed local communities replied that they have doubt about the availability of regulation.



Fig. 4.2: Pictures taken during performance (Picture by Gubae Kin TV show)



Fig. 4.3: Communities Participation during Performance

4.2 Discussion

It is important to recognize the use of theatre. The objective of this research is to provide a clear picture how and when theatre has to be used to transfer knowledge about biodiversity conservation in Kasso Weserbi kebele. Cortney (1980) confirmed that human being create society. The way our inner world dramatize its relation to the environment will determine the kind of society we produce.

The exploration of the eco-theater was based on theatrical techniques which provide better understanding coupled with issues in practice which creates interpersonal emotion. In accordance with study Guetzkow (2002), art builds individual social network and enhances ability to work-

with other and communicate ideas. The way that eco-theatre has been used is to address ideas about biodiversity conservation.

Eco-theater is used as an effective tool for biodiversity conservation. In this study, it is important to note that the performance conducted was a means to create awareness with different instrumental goals. The main point was to create awareness through a strict adherence for the purpose of biodiversity conservation.

This study use eco-theater to meet its objective aiming to address the concept by teaching starting from emotions, instead of concepts and fascination instead of just listening. Brown (2004) explains that eco-theatre is increasingly becoming a predominant tool for sensation and mobilization of local communities for environmental protection.

Furthermore, the evaluation concentrated on participants understanding about the theme of the performance and create attitude change. Dillon (2013) reinforced this concept as message conveyed by theater play will direct the criticism of local activities and customs the incompatible with environmental protection. The results of this study was positive. Gaps in the assessment process were noticed and raised questions how best to appraise the impact of deforestation and migration of wild animals.

This study explore the efficiency of using eco-theatre for the purpose of data analysis and knowledge transfer and critically examine potential approaches to the evaluation of such activities. Monica (2009) confirms that theatre provide individual and community with basic knowledge and understanding of environment, biodiversity and their relationship with human.

Feedback from the community was assessed by survey aimed to investigate the extent at which the community familiarized with the complexity characterized about biodiversity conservation within the show. Similarly, Olaful (2017) confirmed that eco-theatre allows the exploration of emotion and engage people in scientific subjects.

The questionnaire was focused on biodiversity conservation and the value of theatre on it. The interesting aspects of this assessment was to observe the emotional attitudes of the community towards biodiversity conservation using theatrical performance.

This effective atmosphere was reproduced as well by doing the performance providing a temporary public space of non-conventional interaction. Such kind of space allows empathic dialogue to be emerged. The dialogue will base intentional listening and mutual understanding where multiple voices could openly interacted by participants.

The theatre has a provocative stage in which the community stopped the theatre and intervened with several questions. The community asked, criticized and answered several questions. Wildlife habitat degradation, poaching of wildlife, and population growth were raised. Nature as a judge, human being as a perpetrator and other wildlife as plaintiffs were involved in the theatre in different costumes. The issue of indigenous trees versus exotic trees got a wide controversy whether some exotic trees such as eucalyptus are avoided or not.

The community reacted by opposing against stopping eucalyptus tree as the tree became one of the economic sources of the community. However, the community also was reacted that eucalyptus trees and other exotic trees must be planted on marginal lands rather than replacing indigenous forests or planting on main crop land. The eco-theater was adjourned by distributing 200 indigenous plants to the community to plant them on their family plots and “kebele’s” compound.

The theatrical performance was contained how the biodiversity should be conserved. This form of theatre enables the attendants to participate in the performance. During the Eco-theater performance, attendants shared their experience to each other about biodiversity conservation what are found in kasso Weserbi kebele. Furthermore, they tried to show the result of deforestation of kasso weserbi forests for fossil, fuel use, construction, agricultural activities and for settlement.

In the other side, the following ideas were pointed by performers: Is human responsible for the distraction of the environment? Does deforestation affects biodiversity? How deforestation affect biodiversity? What are the roles of community in biodiversity conservation?

The discussion was attractive and hot. The audiences participated actively and positively during the question and answer session that were followed by each theatrical performance gap.

They concluded that human being is responsible for the reduction of species and degradation of natural resources or biological diversity.

At the time of performance participants were more aware of the main cause for loss of biological diversity that threatens the sustainability of their district's biodiversity. These coupled with actors' presentation enable the community to pick key messages on which to create awareness through theatrical performance and basis for planning their actions to reduce deforestation.

The analysis is based on written and oral feedback from participants attending the performance; whereas interview was analyzed before and after performance.

Some general steps to address loss of biological diversity at community level were the following: awareness of problems caused due to deforestation; look in more detail how loss of biological diversity is likely to affect Kasso Weserbi community; identify the main threats to be addressed for them; and the options to solve the problems they faced because of deforestation.

Finally, after performance almost all participants were delighted by the eco-theatre that was performed to address the message along with entertaining the audience.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATION

5.1. Conclusion

The experience of Eco-Theater we shared with community members of Kasso Weserbi was definitely positive. As we have seen in earlier chapter, human are not only closely linked, it is also part of biodiversity, throughout uses of biological resources and our impact on the natural world.

The eco-theater represents a valid tool to transmit information involving both knowing-how-to do and how to be. Information about biodiversity and biodiversity conservation is fundamental everywhere participating individual with respect to suffer of the planet. In particular, the experience of Kasso Weserbi community allowed us to evaluate the knowledge about biological diversity, their awareness about biological diversity conservation before and after theatrical performance and their ability to cooperate. Preliminary results indicate that eco-theater is a good way to Biodiversity conservation. In wider view, this study showed that eco-theater should be incorporated in structure of biological diversity conservation methods and approaches.

Theatre is also a powerful way of putting across messages with the aim of stimulating community actions to address identified problems and issues. Eco-theatre activity helped to generate positive conservation action in the Kasso Weserbi communities.

Conservation of biodiversity is a development issue, so that Biodiversity conservation will be best and meaningful to the community if it should be adapting it to the theatrical performance. One of the main strategic plans is making conservation of biodiversity theme to make the abstract concept tangible. This means that conservation information will make more sense to rural people through theatre that the communities identify with.

Lastly, Eco-theatre is an effective way of transmitting sensitive issues like biodiversity conservation without the attending of antagonistic ideas that would have normally occurred in direct realistic situation. This study convinced that eco-theater was the best way to prevent deforestation, migration and death of wild animals and reduction of risk in loss of biodiversity.

5.2. Recommendation

Based on the findings of this research report there are a number of initiatives that could be taken. The following recommendation can be forwarded:

- Encourage inter-departmental groups for development, design and implementation policies on theatre arts and biodiversity conservation.
- Continue to promote the value of eco-theatre in achieving the biodiversity conservation.
- The people who have lived on the specific place for many generations hold invaluable storehouses of information about native varieties of plant and animals, micro climates for growing specific crops and things related to biological diversity. It is recommended that knowledge of a communities plays a great role in conservation of biodiversity but now a days degraded with biodiversity there is a need for exploring the indigenous knowledge during planning, implementation and evaluation of the success or failure of conservation programs.
- The established and developed on tree planting via eco-theatre on communities should encourage and develop to alleviate the shortage of fire wood and construction.
- Investigate the potential to develop a shared understanding of basis for measuring environmental impacts there by allowing those environmental problems for theatrical performance.
- Stake holders like Government and NGOs who work on biodiversity conservation need to add Eco-theatre, as one of edutainment tools, in their strategy to increase awareness on the societies effectively.

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APPENDICES

Appendix 1: Drama on Biodiversity Conservation

Play on biodiversity anthropogenic effect

This play is written for research purpose

Title - Say Sorry!!

Script by: Ageritu Ayalew

Date 07/12/17

Scene – 1

Title: Say Sorry!!

Location: open space

Judge: Situated in front of the audience

[**The first animal enters**]

Minlik bushbuck [Surprisingly] Where have you come from?
Fox Because of mankind, our houses have been demolished, our food is not only reduced but also vanished. This place where you are in is better than ours, please let us settle with you.

Minlik bushbuck Surprising! I have also accused mankind, and today is the day that I expect justice; and surely we will get it. Come and follow me. They avoid themselves together in front of the judge.

Judge (Nature)Who are you?
Ethiopian wolfYour honor, I'm an Ethiopian wolf endemic to Ethiopia and I'm
(Walia Ibex) critically endangered because of humans being.
Judgecall the human!
Walia Ibex[Walia Ibex call the man & the Man enters]
Manyes your honor is there any problem?
Walia Ibexas we know! You are our problem.
Man[Turn his face to animals] In what case? What is your reason to say this!!
Walia IbexYour honor, Judge, there are also others who victimized like me.
Judgecall them & let us take their words.
Walia Ibex[call turn by turn] Mountain Nyla, Bailey shrew, Semine Fox, Minillik's Bush Buck.....
.....[Animals enter turn by turn]
Man[stare at animals surprisingly]
Mountain Nyalayour honor, I'm also endangered even though not found everywhere.
Manhuman is not responsible for this.
Mountain NyalaSo, who is responsible for this? Tell me!!

Manall living world we see around us.

Mountain NyalaThis is biodiversity.

[Getting the 3rd animals]

Bailey's shrewyour honor, I'm also vulnerable to human influence like my partners like Backed Mouse .please judge! Say something about us.

Man[Amazing] judge, it's amazing!

Semine FoxWhat have you said?

Man [By boasting] don't you know? I am the greatest, I am the strongest, Owner of Ocean to forest. Have you got me, now? Oh! No..... let me tell you more; I'm, Man, owner of all [big laugh]; I am the most advanced belonging to nature; having the most superior brain moving any event; I am Man mighty of creatures, I am Man owner of Supremacy. [big laugh]

.....[sad background music is heard!]

Minlik bushbuck[long sighing] your honor, judge; ladies and gentlemen; listen to our story [showing resentment]; Do you know you will wipe out us from our living home forever?it doesn't felt sorry for its action. So! You had better listen to our story, Alas! Can you guess who performs such a stupid action? Try if you can.

Man[looking surprisingly all animals!]

Come forward, who are you? I believe in new innovations; I believe in true creations. Blaming me without clue who are you, who are you? Turn his face to tell everyone who you are yes of course. Reveal by hand to all of them.

Semine FoxI am representing critically endangered species, so I object the deeds of man come without against, Shame on Man, shame on you ask me now who were you? Who are you?

ManWhat! So are you coming from the forest? Are you critically endangered?

Semine FoxYes, I am not the only onethere are a lot who are like me
.....and, Please think about my companions who are now a history of one time.only existed on books not on this earth.

[A voice collage of voice of different animalsfade out]

extinction, so should feel sorry

Judge Keep quit! [Looking left & right] When forest exist, animals also exist.
Humans should utilize his consumption wisely. Now, continue your speech.

[Man's voice in frightened voice]

ManWho are you?so many in numberhey!stop!
don't approach me!after all, who are you? Who let you to come here?.....how do you come?

Mountain Nylalike you, earths is ours too, but you are committee to erode us. So, you have to feel responsible.

Manoh!you- endemic animals [raised his voices]
.....stop this ---- you all are-----liars.

Shrewliars!no ...do you say..... we are liars and do you think you are an Innocent one.....you are a greedy dishonest creature.

Mansee what they said!, do many species have become extinct now because of us - the humans?

Shrewyes and it is true!

Mannon-sense! ---everyone knows that many species become extinct naturally and new species evolved at their place, this is a natural phenomenon, how I am taken as the culprit.

Minlik bushbuckyes.....the time in which one species evolved about 10,000 species become extinct.

Manso what? How am I responsible for these extinctions? I am representing an Animal species.

Walia Ibexyou are the most important factor for our life.

Manhow? Tell me!

Walia Ibexyou demolished the land we use you destroyed our habitat, you destroyed forests, you cleared the land, established industries and created cities

Manok.....ok..... [Lough] what do you want to say.....shall I live in the forests Hunting animals, eating non-cooked meatforever?

Walia IbexI don't mean to say thatoh

ManThen, what do you think? Is making progress a crime? Are living in cities and Establishing industries wrong?

Semine Foxno....no....no...but excess of everything is wrong ...you over exploited every natural resource, like forest, ocean and minerals.

Manthat is determined depend on my need

Minlik bushbuckyour need ...your need will be curtailed. ...there should be a limit for your need, dream and Luxuries.

Judge Al right. This area – Kasso Weserbi - a mountain land escape having adequate water in it. So, we should keep the water & the forest keep the balance. Now, continue your speech!

Manok-----

Shrewand the population has increased tremendously ...you know... your growth rate is above the standard! .

Manso, how does this affect you?

Minlik bushbuckyes.....the time in which one species evolved about 10,000 species become extinct.

Manso what? How am I responsible for these extinctions? I am representing an Animal species.

Walia Ibexyou are the most important factor for our life.

Manhow? Tell me!

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Judge Al right. This area – Kasso Weserbi - a mountain land escape having adequate water in it. So, we should keep the water & the forest keep the balance. Now, continue your speech!

Manok-----

Shrewand the population has increased tremendously ...you know... your growth rate is above the standard! .

Manso, how does this affect you?

Shrewthe more your population grows, the more you exploit nature. This is because of acquiring a great plot of land by clearing forest and abandoning wild animals for your survival. You do this for the satisfaction of your need only.

Manso.....

Semine Foxhave you ever thought when you destroy a forest, you not only destroy large plants, you destroy thousand types of smaller plant, shrubs, fungi, Bactria, unicellular organism too?

Manthen.....what?

Semine Foxwhen habitat is destroyed ...-and climate conditions is changed only few species withstand these hostile situations and survived but, other die later and even become extinct

Man [Man panicked!] But, what I should do is to survive

Mountain Nylado you mean over hunting, deforesting and extinction the wild life
What do you need? Oh my GOD!you have never been ashamed of it. Regretted.
For the reduction of the Ethiopian Wolf and Cheetah as well as pushing the Dora's gazelle Extinction. Thus you are the major reason to let the Wild life be destructed.

Manbut

Mountain NylaListen man, bear in mind to live with nature, friendly; you are just part of Biodiversity, not over it.....otherwise

Manotherwiseotherwise what?

Mountain Nyladon't forget that you are part of animals which you put burden on us.
You made to extinct yourself by a more advanced species evolvement.

All Animalyes he is right.....

Manno...

[With sad background music]

All Animalsyou force us to extinction, feel yourself sorry.
.....it is important to save the biodiversityutilizing biodiversity by guarantying our existence is acceptable!

Manhow can we stop the deterioration of biodiversity?

Semine Foxthe loss of biodiversity is natural; however, we can maintain the rate of its loss by minimizing unwise use and unnecessary damages.

Manhow?

Semine Foxfirst of all, you should control your population, optimizing the population growth should be the primary action to be taken.

Manyes. Is it realized by preventing sexual intercourse? do you mean “don’t do sexual intercourse?”

Semine Foxno, by using family planning method and

Manand what

Semine Foxavoid over exploitation of natural resources.

Manthere is no natural resources now oh! My GODis there sufficient natural resources these days? I don’t think.

Minellik’s Bushoh.... also deforestation should be avoided and protected well.

Buck Areas should be declared to represent maximum number in the Ecosystems. Yes indeed, Due to deforestation and other factors, the natural resources are greatly affected: Hence we should protect the ecosystem by building up more protected Zones.

Manyou may be correct.

Mountain Nylanot may be. We are really correct.

ManAgreed! Really.

Mountain NylaThanks mighty God! At last our collaborative effort is going to make meaning and save the ecosystem.

[Man agreed with the animals and began planting trees]

Judgewhimpering...hey there (screaming)...what are you doing now?

Man[start planting eucalypts] Oh! Brother, I'm trying to keep the ecosystem.

JudgeBut... (Silence for a while)

ManBut, what?

Mountain Nylayou've got a notable idea; however, you are planting exotic trees.

ManSo what is the problem with that? Every tree is all the same.

Semine Fox(Sighing)...you've been using indigenous trees for furniture and house making for a long period of time.

ManYes of course, but I don't have any option.

JudgeThis is what I'm talking about that our community is reduced and even liable to extinction.

ManWhat shall I do, sir?

JudgeThat's a good idea; instead of planting these invasive trees which consumes Nutrients and corrupts the ecosystem, you had better maintain our Community by planting indigenous trees.

Man [nodding]for your surprise, I know nothing about these.

JudgeThese aren't the only factors, because the indigenous trees share our burden.
The microorganisms attacking our population .Amazingly, these microorganisms affect the exotic trees so that planting indigenous trees have got multiple benefit to the ecosystem.

ManOh! Nature is full of mystery...

Semine FoxYou're right. Do you know our life which is nature friendly?

ManHow is it?

JudgeWe don't have self-based life so that we're giving credit for the existence of others'
Wild Life; for instance, under plant shed, lots of animals are living so that their remains can advance the fertility level of the soil.

Man Amazing!

Minellik's Bushfor example, when you see an exotic tree (eucalyptus), its egocentric
Buck that it over uses the soils nutrient and underground water regardless of
other community.

ManI thank you for all! I should come back some other time owing
Indigenous trees. Alright! See you then.

JudgeWell, We heard good things and we've thoroughly understood it. As
we heard, humans are guilty. Though you are guilty, accepting it is
good. Therefore, as the case should not be late, let's start our job by
planting indigenous trees. Thank you for your promise of developing
me.

Song (By animals)

Protect the environment
Interwoven with each other
We can live without you
But you cannot without us
You are nothing without us
Human do not extinct, do not
Extinct
Protect the earth protect your life.
Human return
Human understand
The scene is end by showing their delight!!
♣ ♣ ♣ ♣ ♣ ♣ End ♣ ♣ ♣ ♣ ♣ ♣

Appendix 2: Data Collection Instrument - Questionnaire

Appendix 2a: Questionnaire before Performance

ADDIS ABABA UNIVERSITY

Department of Biology

Dear respondent,

The objective of this Questionnaire is to gather firsthand information that will help the researcher to assess the impact of Theater in conservation of Biodiversity in the light of the compound around “Entoto” Forest. This study is undertaken as a partial requirement for the completion of MA degree in Biology.

These Questionnaire is developed for Kaso weserbi Kebele sample populations which helps to assess “The impact of theatre for biodiversity conservation”, before the performance is conducted.

All data and information that will be gathered through these Questionnaires will be used for the sole purpose of the research and remains confidential.

Therefore, you are kindly requested to respond to the questions with utmost good faith, freely and to the best of your knowledge. There is no need to write your name on the Questionnaires.

Section I - General Profile

General Instruction: Please indicate your choice by putting “√” mark in the blank space.

1. **Sex/Gender:** Male _____ Female _____
2. **Age (in year):** 25 to 30 _____ 31 to 35 _____ 36 to 40 _____ above 40 years _____
Level of Illiterate ____ Elementary ____ High school ____ Diploma ____
3. **Education:** Bachelor's Degree _____ Master's Degree _____

Section II - The Questionnaires items (questions)

Please indicate your degree of agreement or disagreement with the following statements putting “√” mark in the in the box under the appropriate number.

1. Strongly Disagree (SD);
2. Disagree (D);
3. Neutral (N);
4. Agree (A);
5. Strongly Agree (SA).

Part I. Drama and Biodiversity

No.	Variables	1	2	3	4	5
1	I participated in conservation of biodiversity					
2	I saw theatrical performance which shows about biological diversity conservation					
3	I have got an experience of observing theatrical performance before about biodiversity conservation & related issues.					
4	The performance, which I saw before, added value in conservation of biodiversity.					
5	Using theatre plays a vital role in creating better awareness in the society					
6	The theatrical performance, which I saw, raised the actual ecological problems of the environment.					

Key: SD= Strongly Disagree; D=Disagree; N= Neutral; A= Agree; SA= Strongly Agree

Part II. The impacts of stakeholders in Conservation of biodiversity

No.	Variables	1	2	3	4	5
1	The society was actively participated in the conservation of biodiversity.					
2	The government is still playing a significant role in keeping biodiversity conservation.					
3	NGOs have contribution in keeping the balance of the environment					
4	The local investors have got a sound action for the betterment of the ecosystem					
5	The society is benefited from the existence of the ecosystem					
6	The economic advantage of the biodiversity is high					

Section III: **Write your experience along with the given questions on the space given below**

1. *What was the role of the government in conservation of biodiversity?*

2. *What was the role of the society in keeping the ecosystem safely?*

3. *What measures were taken for the betterment of the ecosystem?*

Appendix 2b: Questionnaire after Performance

ADDIS ABABA UNIVERSITY

Department of Biology

Dear respondent,

The objective of this Questionnaire is to gather firsthand information that will help the researcher to assess the impact of Theater in conservation of Biodiversity in the light of the compound around “Entoto” Forest. This study is undertaken as a partial requirement for the completion of MA degree in Biology.

This Questionnaire is developed for Kaso weserbi Kebele sample populations which helps to assess “The impact of theatre for biodiversity conservation”, after the performance is conducted.

All data and information that will be gathered through these Questionnaires will be used for the sole purpose of the research and remains confidential. Therefore, you are kindly requested to respond to the questions with utmost good faith, freely and to the best of your knowledge. There is no need to write your name on the Questionnaires.

Section I - General Profile

General Instruction: Please indicate your choice by putting “√” mark in the blank space.

1. **Sex/Gender:** Male _____ Female _____
2. **Age (in year):** 25 to 30 _____ 31 to 35 _____ 36 to 40 _____ above 40 years _____
3. **Level of Education:** Illiterate ____ Elementary ____ High school ____ Diploma ____
Bachelor's Degree ____ Master's Degree ____

Section II - The Questionnaires items (questions)

Please indicate your degree of agreement or disagreement with the following statements putting “√” mark in the in the box under the appropriate number.

1. Strongly Disagree (SD);
2. Disagree (D);
3. Neutral (N);

- 4. Agree (A);
- 5. Strongly Agree (SA).

Part I. Drama and Biodiversity

No.	Variables	1	2	3	4	5
1	I will participate in conservation of biodiversity afterwards					
2	There is a situation which obscure me to understand					
3	Theater is an edutainment tool to understand about biodiversity conservation.					
4	The performance really reflects the conservation of biodiversity					
5	I have got an experience of from this theatrical performance.					
6	The performance adds value in the conservation of biodiversity					
7	Using theatre plays a vital role in creating better awareness in the society					
8	The drama raised the actual ecological problems of the environment (Kasso Weserbi kebele).					

Key: SD= Strongly Disagree; D=Disagree; N= Neutral; A= Agree; SA= Strongly Agree

Section II: Write your experience along with the given questions on the space given below

1. *What will be the role of the government in conservation of biodiversity?*

2. *What will be the role of the society in keeping the ecosystem safely?*

3. *What measures should be taken for the betterment of the ecosystem?*

Appendix 3: Questionnaire for Concerned Expertise

ADDIS ABABA UNIVERSITY

Department of Biology

Dear respondent,

The objective of this Questionnaire is to gather firsthand information that will help the researcher to assess the impact of Theater in conservation of Biodiversity in the light of the compound around “Entoto” Forest. This study is undertaken as a partial requirement for the completion of MA degree in Biology.

This Questionnaire is developed for sample concerned Experts in the field which helps to assess “The impact of theatre for biodiversity conservation”, about Entoto Forest specifically, Kasso Weserbi community.

All data and information that will be gathered through these Questionnaires will be used for the sole purpose of the research and remains confidential. Therefore, you are kindly requested to respond to the questions with utmost good faith, freely and to the best of your knowledge. There is no need to write your name on the Questionnaires.

Section I - General Profile

General Instruction: Please indicate your choice by putting “√” mark in the blank space.

1. **Sex/Gender:** Male _____ Female _____
2. **Age (in year):** 25 to 30 _____ 31 to 35 _____ 36 to 40 _____ above 40 years _____
3. **Level of Education:** High school _____ Diploma _____
Bachelor's Degree _____ Master's Degree _____

Section II - The Questionnaires items (questions)

Please indicate your degree of agreement or disagreement with the following statements putting “√” mark in the in the box under the appropriate number.

1. Strongly Disagree (SD);
2. Disagree (D);

- 3. Neutral (N);
- 4. Agree (A);
- 5. Strongly Agree (SA).

Part I. Drama and Biodiversity

No.	Variables	1	2	3	4	5
1	The society actively participates in the conservation of biodiversity.					
2	The government plays a significant role in keeping the biodiversity					
3	NGOs have contribution in keeping the balance of the environment					
4	The local investors have got a sound action for the betterment of the ecosystem.					
5	The society is benefited from the existence of the ecosystem					
6	The economic advantage of the biodiversity is high					

Key: SD= Strongly Disagree; D=Disagree; N= Neutral; A= Agree; SA= Strongly Agree

Section III: **Write your experience along with the given questions on the space given below**

1. *What shall be the role of the government in conservation of biodiversity?*

2. *What shall be the role of the society in keeping the ecosystem safely?*

3. *What measures should be taken for the betterment of the ecosystem?*

Appendix 4: Data Collection Instrument -Interview

These questions for interview purpose are developed for Kasso wesserbi Kebele community leader and different organization experts which helps to assess “The impact of theatre for biodiversity conservation”, before the performance is conducted.

General instruction: -

- This interview is developed by second degree student, to assess “The impact of theatre for biodiversity conservation”.
- Besides, the interview is used only to generate potential solutions for the effectiveness of theater on biodiversity conservation. So, I am kindly requesting you to give your opinion genuinely.
- The interview is generated to interview kasso Weserbi sample population.

1. **Sex/Gender:** Male _____ Female _____
2. **Age (in year):** 25 to 30 _____ 31 to 35 _____ 36 to 40 _____ above 40 years _____
3. **Level of Education:** Illiterate ____ Elementary ____ High school ____ Diploma ____
Bachelor's Degree ____ Master's Degree ____

Instructions: - Please give me short and precise answer for the following questions.

- 1) Do you have understanding about biodiversity? If so, what does that mean to you?
- 2) Do you have understanding about biodiversity conservation? If so, explain.
- 3) How do you suggest about your attitude in the conservation of biodiversity?
- 4) Do you accept the argument that theater has a role for biodiversity conservation? If so, explain.
- 5) What methods should be created to use drama in developing better biodiversity conservation?
- 6) Do you take action in conserving biodiversity? If your answer is “yes”, explain it?
- 7) How do you think about your commitment on conserving biodiversity?
- 8) What is the difference between wise use and unwise use of natural resources and biodiversity?
- 9) Do you think that the regulation of Ethiopia related to biodiversity conservation is applicable? If no, what are the reasons?

Appendix 5: Profile of Concerned Wild Animals

1. Ethiopian Wolf/ Semine fox/ *Canis semiensis*

Introduction:

- The Ethiopian wolf is the only wolf species found in Africa
- Endemic for Ethiopia
- It is an endangered species



Distribution:

- Confined to a very few areas of the country. Semine and, Bale mountains, Menze guasa, and wello Abune yoseph High Mountain plateau.

Habitat:

- Inhabits afro alpine open moorland above 3,000 to 4,377 m.a.s.l dominated with grass and shrubs

Habit/ Behavior:

- Feeding
 - Rodent species (rats and mole rats)
- Social behavior
 - They live in packs a family party of 3 to 13 adults
- Reproduction
 - Polygamous Male mating with multiple females
 - Females are more responsible to take care of their off springs

Activity pattern:

- Daily rhythm diurnal / day active/

Values:

- **Economic:** Value measured in terms of money through Eco-tourism or wildlife safari
 - Bale and Semine mountain national parks and Guasa community based eco-tourism areas generates revenue that support the community and the nation at large
- **Ecological / Conservation:** Plays significant role in maintaining eco-system functions
- **Social:** associated with traditional believes bad and good fate to its condition of occurrence

Threats:

- A combination of human and natural pressure including habitat destruction by humans and climate change irregularities that reduces the population of their food items

2. Mountain Nyla

Introduction:

- Endemic antelope for Ethiopia
- Huge difference in the size between male and female
- Horn in females is absent



Distribution:

- Locally extinct from former ranges of Asebe Teferi and Cherecher
- Currently found in Bale and Arsi high lands

Habitat:

- Likes to stay in *Juniperus procera* stands

Habit/ Behavior:

- Activity pattern
 - Daily rhythm especially active in early & late hours of the day /crepuscular animal/
- Feeding:
 - Herbivore. Grazing grass and browsing leaves of stemmed plants. Females are mainly grazers when grass is available in the wet season and become browsers in the dry season. Males are mostly browsers throughout the year.
- Social
 - Animal that lives in a family party. Usually seen in small family groups of females with calves.
- Reproduction
 - Polygamous
 - Calves can be born throughout the year but there is a peak in births between December and March.

Values:

- **Economic:** Value measured in terms of money through Eco-tourism and sport hunting.
 - The sales price of a single old male Mountain Nyla in Sport hunting is 15,000 USD
 - Hunting safari 21 days each day the hunter pays 2000 USD
 - Therefore it has an estimated value of 15,000 USD+2000USD*21 days= 57,000 USD which is about 1.7 million Ethiopian birr.
- **Ecological / Conservation:** Plays significant role in maintaining eco-system functions
- **Social:** Prestige to the society

Threats:

- Human encroachment of its habitat for farming, settlement, and investment
- Illegal hunting for different purposes
- Grazing competition with domestic animals.

3. Walia ibex

Introduction:

- Endemic for Ethiopia
- Found in small area confined at the “Simien” Mountains National Park,
- Critically endangered



Habitat:

- Lives in higher elevation at Afro-alpine meadow. Capable to roam around on escarpments and sloppy grounds

Habit/ Behavior:

- Activity pattern
 - Daily rhythm mostly active early morning and late afternoon of the day
- Feeding habit
 - They are both grazers and browsers feeding from the ground level and the branches of bushes, shrubs and trees. However chances are high to see it grazing in the Afro-alpine meadows

Social behavior:

- They are social animals who lives in a form of a group where males form bachelor party and females & their young stay together

Reproduction behavior:

- They are polygamous

Threats:

- Habitat destruction and encroachment
- Less reproductive potential and limited gene pool due to small number of animals

4. Giant Mole rat

Introduction:

- Living in extremely high altitudes of the Afro alpine ecosystem,
- The giant mole rat is endemic to the Bale Mountains.
- They reach staggering densities on the Sanetti plateau of as many as 5,000 mole rats in 1km²



Giant Molerat. Photo by Delphin Ruche.

Habitat:

- Wet afro alpine grass covered habitat.
- They dig and live in the burrow

Habit:

- They are most frequently spotted either foraging surreptitiously around the entrances of their burrows, or shoveling soil from a newly excavated hole.
- Giant mole rats are solitary, but their wide-ranging burrow systems overlap with other individuals.

- Each burrow system includes tunnels of over 90m, covering an area of up to 400m².
- There is one functional nest per system, one entrance per nest.
- In the burrow system, several dead end tunnels are filled with foodstuffs and feces.
- They spend just over an hour a day on the surface, mostly foraging on shoots of plants.
- They extend are an important part of the diet of the Ethiopian wolf.
- The giant mole rats are the architects of the Afro alpine region, building rounded domes and continually turning over the soil as they forage.
- These practices result in more grass growth, increasing suitable habitats for grass rats, mice and shrews, which provide food for the birds of prey and Ethiopian wolves.

5. Minillik's Bushbuck



- Is hunted for food and sport within assessment region.

Threats

- Globally, the bushbuck has disappeared from some areas in the drier part of its former range because of habitat destruction and increasing aridity.

Appendix 6: Different Photographs during the study





Appendix 7: በብዝሃ ህይዎት ጥበቃ ላይ በአማርኛ የተዘጋጀ ድራማ የእንግሊዘኛ ትርጉም

ርዕስ: - ይቅርታ!

ቦታ: - የተጋለጠ ጫዳ

ዳኛው: ከተመልካች ፊት ለፊት ይታያሉ

[የመጀመሪያው እንስሳ ይገባል]

- የሚኒልክ ድኩላ [በመገረም] እናንተ ደግሞ ከየት ነው የምትመጡት?
- ቀበሮ በሰው ምክንያት ቤታችን ፈረሰ፤ ምግባችን ቀነሰ ብቻ ሳይሆን ጠፋ፤ መጠለያ አጣን፤ ይህ አንተ ያለህበት ቦታ ከኛ የተሻለ ስለሆነ እባክህ አስጠጋን።
- የሚኒልክ ድኩላ ይገርማል! እኔ ሰውን ከሰሸ እነሆ ዛሬ የፍርድ ቀን ነው፤ ሁላችንም ፍትህ እናገኛለን። ኑ ተከተሉኝ። [ተያይዘው ወደ ዳኛው ፊት ይቀርባሉ]
- ዳኛው: አንተ ማነህ ተናገር።
- ዋልያ: ክብርነትዎ፣ እኔ በኢትዮጵያ ብቻ የምገኝ አሁን በከፍተኛ ሁኔታ በሰው ልጅ ምክንያት በመጥፋት አደጋ ላይ የምገኝ ነኝ።
- ዳኛው: ሰውን ጥራው!
- ዋልያ: ሰውየውን ይጠራል
- [ሰው ይገባል]
- ሰው: አቤት ክብርነትዎ፤ ቸግር አለ?
- ዋልያ: እንደሚታወቀው ሰው የእኛ ቸግር ነው።
- ሰው: [ወደ እንስሳው እየተመለከተ] በምን ምክንያት? ይህን ለማለት ምክንያትህ ምንድን ነው?
- ዋልያ: ክብር ዳኛ: እንደኔ በደል የተፈፀመባቸው ሌሎች ጓደኞችም አሉኝ።
- ዳኛው: ጥራቸው ቃላቸውን እንቀበል።
- ዋልያ: [ተራ በተራ መጥራት ጀምሯል] ኒያላ ፍልፈል
- [እንስሳት ተራ በተራ ይገባሉ]
- ሰው: [እንስሳቱን አትኩሮ በመገረም ይመለከታል]
- ኒያላ: ክብርነትዎ: እኔም አደጋ ላይ ነኝ፤ ነገርግን ካለኢትዮጵያ የትም ቦታ አልገኝም።
- ሰው: ለዚህ ሁሉ ተጠያቂ የሰው ልጅ አይደለም!
- ኒያላ: እሺ ንገረን። ለዚህ ተጠያቂው ማነው? ንገረን!!
- ሰው: በአካባቢው የሚገኝ በአጠቃላይ ህይዎት ያለው ሁሉ።
- ኒያላ: እሱማ ብዝህ-ህይዎት ነው።

[ሦስተኛው እንስሳ ይገባል]

ፍልፈል፡ ክብርነትዎ እኔንም ሊጎዱኝ የሚችሉ ተፅዕኖዎች በሰው እየተደረጉብኝ ነው። እኔን ብቻ አይደለም፤ ሌሎች ጓደኞቼንም እንደዚሁ። ለምሳሌ፡ - አይጠች።

ክብር ዳኛ የሆነ ነገር ያድርጉልን።

ሰው፡ [በመገረም] ዳኛ በጣም የሚገርም ነው!

ቀበሮ፡ ምንድን ነው ያልከው?

ሰው፡ [በመጽሐፍ አይነት] አታውቁም? እኔ ካሉት ሁሉ ታላቅ ነኝ፤ እኔ ጠንካራ ነኝ፤ ከምድር እስከባህር የሁሉም ባለቤት እኔ ነኝ፤ አሁን ገባችሁ? አህ! አይደለም እንዴ?

እኔ የሁሉም ባለቤት ነኝ። [በጣም ይሰቃል] እኔ ከምድር ላይ ካሉ ፍጡራን ሁሉ የተሻለኩና ተፈጥሮ በጣም የላቀ አዕምሮ የለገሰኝኝ ነኝ። እኔ ሰው ነኝ፤ ግዙፍ ግርማ ሞገስ ያለኝ፤ ከፍጥረት ሁሉ የተሻለኩ። እኔ ሰው ነኝ፤ የሁሉም የበላይና ባለቤት። [ከፍተኛ ሳቅ ያሰማል]

[በሚያሳዝን የሙዚቃ ድምፅ ይሰማል]

የምኒሊክ ድኩላ፡ [በረጅሙ በመተንፈስ] ክብር ዳኛ፤ እናንተ ሴቶችና ወንዶች ታሪካችንን ስሙ [በብስጭት ስሜት] ታውቃለህ እኛን ከምድር አውድመህ ጠርገህ ከምንኖርበት ምድር እስከመጨረሻው ልታጠፉን ነው? ለድርጊትህ ፀፀት የማይሰማህ። ስለዚህ ታሪካችንን ብትሰማ የተሻለ ነው። ታሪካችንን አድምጥ። ወይኔ! ይህንን የደደብ ድርጊት ማን እንደሚያደርገው ልትገምት ትችላለህ? ከቻልክ ሞክር።

[ሰው በመገረም እንስሳቶቹን ተራ በተራ ይመለከታቸዋል]

ሰው፡ ወደፊት ተጠጉ፤ እናንተ ለመሆኑ እነማን ናችሁ? እኔ በአዳዲስ ፈጠራዎች አምናለሁ፤ እንደዚሁም በእውነተኛ ፍጥረት። ያለምንም ፍንጭ እኔን የምትወቅሱ እናንተ እነማን ናችሁ? እናንተ እነማን ናችሁ? [ፊቱን ወደተመልካች አዙሮ] ንገሯቸው እናንተን እየከሰሱ ነው።

ቀበሮ፡ እኔ በአሳሳቢና ሊጠፉ የተቃረቡ ዝርያዎችን እወክላለሁ። እኔ የመጣሁት ሰውን በመቃወም ነው። ሰው ማፈር ይገባዋል! በራሱም እፈር! የት ነበርክ ብለህ እኔን ጠይቀኝ! ማነህ አትበለኝ!

ሰው፡ ምን? እናንተ የመጣችሁት ከጫካ ነው። አንተ በአሳሳቢ ሁኔታ ላይ ነው ያለኸው?

ቀበሮ፡ አዎ። እኔ ብቻ አይደለሁም ልክ እንደኔ ሌሎችም ብዙ አሉ እባካችሁ ስለሌሎች ጓደኞቻችን አስቡና እኛን ጠብቁን። አሁን በታሪክ ያሉ ወገኖቻችን በምድር ላይ የሌሉ ስማቸው በመፅሃፍ ላይ ብቻ ላይ ያለ ነው።

[እንስሳት ያጉረመርማሉ፤ ይንጫጫሉ]

ዳኛው (ተፈጥሮ)፡ ዝም በሉ! ግራና ቀኙን ተመልከቱ፤ ደን ሲኖር እንስሳ ይኖራል። ሰው የመሬት ፍጆታውን በአግባቡ መጠቀም አለበት። በል አሁን ቀጥል።

ሰው፡ [የመርበትበትና የመፍራት ድምጽ ይሰማል]
እናንተ እነማን ናችሁ? ቁጥራችሁ ብዛት አለው ዝምበሉ! አቁሙ! አትጠጉኝ! ቁሙ! ለመሆኑ እነማን ናችሁ? ማነው እዚህ እንድትመጡ ያዘዛችሁ? እንዴት መጣችሁ?

ኒያላ፡ ልክ እንዳንተ መሬት የኛም ነች። አንተ ግን እኛን ለማጥፋት ታጥቀህ ተነስተሃል። ስለዚህ የጥፋተኝነት ስሜት ሊሰማህ ይገባል።

ሰው: እህ..... እናንተ የኢትዮጵያ እንስሳት [ድምፁን ይጨምራል] ይህን አቁሙ! ሁላችሁም ውሸታም ናችሁ።

ፍልፍል: ውሸታሞች? ውሸታሞች ነው ያልከው? እኛ ውሸታሞች፤ አንተ ግን ንፁህ..... አንተ የማትታመን ስግብግብ ፍጡር ነህ!

ሰው: ምን እንደሚሉ ተመልከቷቸው..... በሰው ምክንያት ብዙ ዝርያዎች እየጠፉ ነው?

ፍልፍል: [ፈጠን ብላ] ልክ ነው። ይህ እውነት ነው።

ሰው: የማትረባ! ማንኛውም ሰው ያውቃል። ብዙ ዝርያዎች በተፈጥሮ ሂደት ይጠፋሉ፤ እንደዚሁም ይፈጠራሉ። ባሉበት ቦታ ይህ ተለምዶ ከስተት ነው። ታዲያ እንዴት እኔ ወንጀለኛ እባላለሁ።

የሚኒሊክ ድኩላ: አዎ አንድ ዝርያ በሚፈጠርበት ጊዜ 10,000 ዝርያዎች ይጠፋታል።

ሰው: ስለዚህ እንዴት ለዚህ ሁሉ ጥፋት እኔ ሃላፊነቱን እወስደለሁ? እኔም ብሆን አንድ የእንስሳት ዝርያ የምወክል ነኝ።

ዋልያ: አሁን ላለንበት ህይወት ዋነኛው ምክንያት ሰው ነው።

ሰው: እንዴት? ንገረኝ?

ዋልያ: የምንኖርበትን አካባቢ ታወድማለህ! መሬታችንን ትቦጠቡጣለህ! ጫካ ትምነጥራለህ! ከዛም ፋብሪካዎችን ትገነባለህ!..... ከተማ ትመሰርታለህ!

ሰው: አሃ አሃ [ይስቃል] ምን ለማለት እየፈለክ ነው? እኔም እንደናንተ ጫካ ተቀምጬ እያደንኩና ያልበሰሰ ስጋ እየበላሁ ለዘላለም ልኑር?

ዋሊያ: እንደዛ ማለቴ አይደለም። እ

ሰው: እንግዲህ ምን ታስባለህ? እድገት ማምጣት ወንጀል ነው? ፋብሪካንስ መገንባት ጥፋት ነው? ስህተት ነው!

ቀበሮ: አይ አይ አይ ግን ሁሉም ነገር ከመጠን በላይ ሲሆን ስህተት ነው።

ሰው: ያ በእኔ ፍላጎት የሚወሰን ነው።

የሚኒሊክ ድኩላ: ያንተ ፍላጎት ያንተ ፍላጎት ይቋረጣል። ፍላጎትህ፣ ምኞትህና ቅንጦትህ የግድ ገደብ ሊኖረው ይገባዋል።

ዳኛው (ተፈትሮ): ልክ ነው። ይህ አካባቢያችን ቃሶ ወሰርቢ ተራራማ በመሆኑ የውሃ ጋን ነው። ተፋሰሳችንን መተበቅ አለብን። ደንም የመሬትን ሚዛን ይጠብቃል። በል አሁን ቀትል።

ሰው: እሺ

ፍልፍል: የሰው ዘር በሚገርምና በሚያስፈራ ሁኔታ እያደገ ነው። ታውቃለህ የእድገት መጠናችሁ ከመጠን በላይ ሄዷል።

ሰው: ግን ይህ እናንተን እንዴት ይነካችኋል ?

ፍልፍል: ቁጥራችሁ በበዛ ቁጥር ተፈጥሮን ትበዙበዛላችሁ። ይህ ማለት ደግሞ ሰፋፊ የእርሻ መሬት ለማግኘት ጫካ ይመነጠራል። ከዚህ በተጨማሪ የእንስሳት መኖሪያ ማጣትና ስደትን ያስከትላል። ይህን የምታደርጉት የእናንተን ፍላጎት ለማሟላት ነው።

ኒያላ: ስለዚህ
 ቀበሮ: አስበኸው ታውቃለህ? ጫካ ስትመነጥር የምታጠፋው ብዙ ዛፎችን ብቻ አይደለም። ብዙ ትናንሽና በሺህ የሚቆጠሩ የተለያዩ ተክሎችን፣ ቁጥቋጦችን፣ እንጉዳዮችን፣ ባክቴሪያዎችን፣ በአይን የማይታዩ ጥቃቅን ፍጥረታትን ጨምሮ ነው።
 ሰው: ስለዚህ ምንድን ነው?
 ቀበሮ: የመኖሪያ አካባቢ ሲበላሸና የአየር ሁኔታው ሲለወጥ ይህንን አስቸጋሪ ሁኔታ የሚቋቋሙት ጥቂት ዝርያዎች ናቸው። ሌሎች ይሞታሉ እናም ከምድረ-ገፅ ይጠፋሉ።
 ሰው: [እንደመደንገጥ ብሎ] ግን እኔ ይህን የማደርገው ለመኖር ነው።
 ኒያላ: ተገቢ ያልሆነ አደን፣ ደን ምንጠራና የዱር እንስሳትን ማጥፋት ነው የምትፈልገው? ወይ አምላክ! ትንሽ እንኳን አታፍርም? አትፀፀትም?
 ለኢትዮጵያ ቀይ ቀበሮና ብርቅ እንስሳት መቀነስ፣ ከኢትዮጵያ መጥፋት፣ በተጨማሪም ለደን መቀነስ፣ በአጠቃላይ ለዚህ ሁሉ ጥፋት ዋና ምክንያት አንተ ሰው ነህ።
 ሰው: ግን
 ኒያላ: ስማ ሰው። ከተፈጥሮ ጋር ተግባብተህ ለመኖር ስርዓተ-ቢስ አትሁን። ተግባብተህ ኑር! አንተም በቃ የብዝሃ-ህይወት አንዱ አካል ነህ እንጅ ከብዝሃ-ህይወቱ በላይ አይደለህም ካልሆነ ግን
 ሰው: ካልሆነ ግን ምን?
 ኒያላ: አትርሳ አንተም አንዱ እንስሳ ነህ። ነገር ግን በእኛ ላይ ጫና አብዝተሃል፤ በዋናነት እራስህን ለጥፋት እየዳረክ ነው። ይህ የሚሆነው በተሻሉ ዝርዎች መምጣት ነው።
 እንስሳት: [አንድ ላይ] ልክ ነው አዎ!
 [የሚያሳዝን ድምፅ ይሰማል]
 ሰው: አይሆንም
 እንስሳት: በጭካኔና በግፍ እያጠፋኸን ነው። ተፀፀት! ብዝሃ-ህይወትን መጠበቅና መንከባከብ የእኛን ዋስትናና እድገት በጠበቀ መልኩ መጠቀም ተገቢ ነው።
 ሰው: እንዴት ነው የብዝሃ-ህይወትን መራቆት የምናቆመው?
 ቀበሮ: የብዝሃ-ህይወት ለውጥ ተፈጥሯዊ ነው። ይሁን እንጅ የለውጡን ፍጥነት መቀነስና ያላግባብ በመጠቀም ተገቢ ያልሆነ ጉዳትና ጥፋት መቀነስ ይቻላል።
 ሰው: እንዴት?
 ቀበሮ: በመጀመሪያ ደረጃ የዝርያ ቁጥርህን መቀነስና የህዝብ ቁጥርን ማመጣጠን የመጀመሪያ እርምጃ ሊሆን ይገባል።
 ሰው: እሽ ይህ የሚሆነው የግብረሰጋ ግንኙነት በማቆም ነው? ይህንን አታድርጉ ነው የምትሉት? ከግብረሰጋ ግኑኝነት ?
 ቀበሮ: እንደሱ ሳይሆን የቤተሰብ ምጣኔን በመጠቀምና
 ሰው: እና ምን?
 ቀበሮ: ከመጠን በላይ የተፈጥሮ ሀብትን መበዘበዝ በማስወገድ።

ሰው: አሁን ምን የተፈትሮ ሀብት አለ? ወይ አምላኬ! አሁን በዚህ ጊዜ በቂ የተፈጥሮ ሀብት አለ? አይመስለኝም!

ፍልፈል: አ ደን ጭፍጨፋ ግድ መቆም አለበት። እናም ጥብቅ ቦታዎችን መንከባከብ ከተቻለ፤ በህግና በደንብ ለመምራት ዝግጁ ከሆንና የተለያዩ አካባቢዎችን ከጠበቅን በሚገባ ይሆናል። በደን ጭፍጨፋና በሌሎች ምክንያቶች አካባቢያችንና ምድራችን ተጎድታለች። ይህንን የተለያዩ ቦታዎችን መጠበቅና መንከባከብ ተገቢ ነው።

ሰው: ምናልባት ልክ ልትሆኑ ትችላላችሁ።

ኒያላ: ምናልባት አትበል!

ሰው: ተቀብያለሁ፤ አዝናለሁ፤ ተፀፅቻለሁ።

ኒያላ: ሀያል አምላክ እናመሰግናለን! መተባበራችን በስተመጨረሻ አካባቢችንን ለመጠበቅ ትርጉም ያለው ለውጥ አመጣ።

[ሰው ከእንስሳት ጋር በመተባበር ዛፍ ለመትከል ይዘጋጃል]

ዳኛው (ተፈጥሮ): [በማጉረምረም] እናንተ [ይጮሃል] አሁን ምን እያደረክ ነው?

ሰው: [ባህርዛፍ አንስቶ መትከል ይጀምራል] አ ወንድሞቼ አካባቢዬን ለመጠበቅ እየሞከርኩ ነው።

ዳኛ: ግን [ለአንድአፍታ ዝምታ]

ሰው: ግን ምን?

ኒያላ: ሀሳብህ በጣም የሚደገፍና ድንቅ ነው። ነገርግን እየተከልክ ያለኸው የውጭ ቸግኝ ነው።

ሰው: እና ምንድን ነው ቸግሩ? ሁሉም ዛፍ አንድ አይነት ነው።

ቀበሮ: [በረጅሙ ይተነፍሳል] አንተ እስካሁን የተጠከምከው ለተለያዩ ቁሳቁስ መስሪያዎችና ለቤት መስሪያ ሀገር በቀል ዛፎችን ነው።

ሰው: እሱማ ልክ ነው፤ ግን ሌላ አማራጭ የለኝም።

ዳኛ: ይህን ነው እየተናገርኩ ያለሁት። የእኛ ማህበረሰብ ተወቃሽ የሚሆነው ለጠፋት (ለሀገር በቀል ዛፎች ጥፋት ነው)

ሰው: ምን ማድረግ አለብኝ የተከበሩ ዳኛ?

ዳኛ: እሱ በጣም ጥሩ ሀሳብ ነው። ይህንን ወራሪ፤ ውሃና ንጥረ ምግብ ጨራሽ እንዲሁም ፀረ-አካባቢ የሆነ ዛፍ ከምትከል የሀገር በቀል ዛፎችን በመትከል አካባቢያችንን መንከባከብ አለብህ።

ሰው: [በመስማማት ራሱን እያወዛወዘ] በሚገርም ሁኔታ ስለዚህ ነገር ፈፅሞ ሃሳብም ሆነ እውቀቱ የለኝም።

ዳኛ: ይህ ብቻ አይደለም። ሌላው ሀገር በቀል ዛፎችን መትከል ሽክማችንን ይጋራልናል። በአይን የማይታዩ ፍጥረታት ላይ ጫናና ጉዳት ይቀንሳሉ። ስለዚህ ሀገር በቀል ዛፎችን መትከል ለአካባቢ ጥበቃ የተሻለ ጥቅም አለው።

ሰው: አ ተፈጥሮ ሚስጥሯ ብዙ ነው።

ቀበሮ: ልክ ነህ። ታውቃለህ የእኛ ህይወት ከተፈጥሮ ጋር መግባባት አለበት።

ሰው: እንዴት ነው ይህ ማለት?

- ዳኛ: እኛ ሁላችንም የግል የሚባል ህይወት የለንም። የግድ ለሌላው መኖር ዋጋ መክፈል አለብን። ለምሳሌ የጫካ ህይወት በዛሬች ጥላ ስር ብዙ ቁጥር ያላቸው እንስሳት ይኖራሉ። የእንስሳቶቹ ቅሪት ደግሞ የአፈሩን ለምነት ከፍ ያደርጉታል።
- ሰው: ይደንቃል!
- የሚኒሊክ ድኩላ: ለምሳሌ ሀገር በቀል ያልሆነውን የባህር ዛፍ ብትመለከቱት ለእራሱ ብቻ የሚያስብ፤ በአፈር ውስጥ የሚገኙ አልሚ ምግቦችንና የክርስ ምድር ውሃን ከመጠን በላይ በመጠቀም በአካባቢው ለሚገኙ ሌሎች ህይወት ላላቸው ነገሮች የማያስብ ነው።
- ሰው: ሁላችሁንም አመሰግናለሁ። በሌላ ጊዜ ሀገር በቀል ዛፎችን ይገቡ በመምጣት አካባቢዬን አለማለሁ። ፡ እስከዚያው ሰላም ሁኑ።
- የሚኒሊክ ድኩላ: እኛ እኮ ቤት አልባ ነን እያልንህ ነው፤ ሌላ ጊዜ ሚለውን ተወውና አሁኑኑ ወደ እርምጃ እንግባ። ዛፍ መተከል ለበት በቀጠሮ አይደለም፤ ጊዜው አሁን ነው።
- ሰው: እውነት ነው ተቀብለሁ።
- ዳኛው: መልካም ነገሩን ሰምተናል በደንብም አጠናናል፤ እንደሰማነው ከሆነ ሰው ጥፋተኛ ነህ። ጥፋትህንም ማንኛ ፅሩ ነው። ቢሆንም የያዘነው ጉዳይ መዋል ማደር ስለሌለበት ሀገር በቀል ዛፎችን በመትከል ስራችንን መጀመር አለብን። እኔን ላማልማት ቃል ስለገባችሁ አመሰግናለሁ።
- [ሀገር በቀል ዛፎች እየተተከሉ ያበቃል፤ እንሳትም ደስታቸውን ገልጻሉ]

መዝሙር

አካባቢን እንጠብቅ እንተሳሰብ፤
 እንተሳሰር፤
 እኛ ካለሰው እንኖራለን፤
 ሰው ግን ልብ በል አንተ ካለኛ፤
 ነህ መናኝ፤
 ሰው አትጥፋ ሰው ተመለስ፤
 ምድርን ጠብቃት ለነፍስህ ድረስ፤
 ሰው ተመለስ፤
 ሰው አስተውል፤
 አትሰቃይ በምግብ እጦት፤
 በአየር ብክለት።
 ያበቃል