

TOWARDS LANGUAGE OF CITIZEN PARTICIPATION AND DIALOGUE
IN ENVIRONMENTAL CONSERVATION DISCOURSE: A CASE OF
MULANJE MOUNTAIN BIODIVERSITY PROGRAMME

M.A. IN APPLIED LINGUISTICS THESIS

BY

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UNIVERSITY OF MALAWI

CHANCELLOR COLLEGE

SEPTEMBER, 2016

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Submitted to the Faculty of Humanities in partial fulfilment of the degree
of Master of Arts in Applied Linguistics

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SEPTEMBER, 2016

DECLARATION

I the undersigned hereby declare that this thesis is my own original work which has not been submitted to any other institution for similar purposes. Where other people's work has been used acknowledgements have been made.

Full Legal Name

Signature

Date

CERTIFICATE OF APPROVAL

The undersigned certify that this thesis represents the student's own work and effort and has been submitted with our approval.

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DEDICATION

I dedicate this thesis to my family and everyone who played a role in my academic journey.

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All praises and honour be to Almighty God for being with me throughout this tedious journey. God, you have seen me through highs and lows, thank you so much. I sincerely thank my supervisor Professor Pascal J. Kishindo for his insights and untiring efforts in directing me order to come up with a worthwhile thesis. May God bless you sir! May I also thank Professor Edrinnie Kayambazinthu for her insights and constructive scrutiny of the thesis and shaping me with the research skills that has enabled this work to come this far. To Dr Edith Shame-Kalilombe for enlightening me on the theories and your comments. A big thank you to all the lecturers who helped me, in particular Mr ANU Mjaya and Dr Stella Kachiwanda.

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ABSTRACT

This study examines the language used in the discourse of environmental conservation in Mulanje Mountain Biodiversity programme in Mulanje district. This is premised on the assumption that environmental communication is technical in nature and is carried out within the domain of local discourse in which the language of engagement is the local communities' everyday language. In Mulanje the value attached to the conservation of Mulanje Mountain Forest Reserve is viewed differently by environmentalists and the local communities which has resulted in friction between the two parties. This has been compounded by miscommunication which is a result of differences in lexical resources used by the two stakeholders. The study used qualitative approach. The study sample was selected using purposive sampling and accidental random sampling techniques. The study also analysed the documents used in environmental communication in order to evaluate the use of language in the environmental conservation process. The study found out that although the documents are presented in Chichewa, there are differences in the conceptualization of some lexical resources by the local communities and environmentalists. This is due to the differentiated social contexts from which the two stakeholders are operating. The study also revealed a variegated stylistic construction of citizen participation and linguistic representation of conservation activities. The study therefore suggests that when framing the messages, language must be reprocessed to meet the expectations of the local communities, who are the end-users, and must be contextually appropriate to the context of situation in which the discourse is taking place.

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ABBREVIATIONS AND ACRONYMS

MMFR	Mulanje Mountain Forest Reserve
MMCT	Mulanje Mountain Conservation Trust
SFG	Systemic Functional Grammar
CBNRM	Community Based Natural Resource Management
DoF	Department of Forestry

CHAPTER 1

1.0.INTRODUCTION

In Malawi and many of the countries in the world, the discourse about the environment has received critical attention. The call for care of the environment has been part of the debates in the media in the recent years after experiencing some changes in weather. The challenge, however, has been the misfit between the technical language used by the environmentalists and that used by the local communities. In Malawi, where environmental issues are novel to the public sphere of engagement, it has resulted in the discourse being for and of the experts. The local communities are left with no space to contribute with their base experience.

The issue of environmentalism is concerned with the movements that were aimed at raising awareness of the damages to the environment. This has been associated with economic development in many countries, which has resulted in exploitation of natural resources (Wapner & Willoughby, 2005). However, in some contexts, especially in developing countries such as Malawi, environmental damage has been associated with population growth which puts pressure on the never-increasing natural resources. As a result of these factors, people have been calling for a change in the consumption of natural resources to keep the environment clean. Hence, Block (1998) defines environmentalism as a philosophy which sees great benefit in clean air and water and to a lowered rate of species extinction. In this sense, environmentalists are concerned with the survival and enhancement of endangered species such as trees,

animals such as elephants, and the lowering of emission of greenhouse gases that dissipate the ozone layer. In Malawi, the major concern is extinction of tree species and animals in our forests and other protected areas. For example, in Mulanje, the Mulanje Mountain Forest Reserve (MMFR) has its natural resource endangered due to the high human activity which has threatened the extinction of the endemic Mulanje Cedar and the flora and fauna found in the mountain reserve. The result has been the birth of organisations that are tasked to enhance the conservation of the MMFR such as Mulanje Mountain Conservation Trust (MMCT). The other areas are Chikangawa Forest Reserve and other National Parks and Game Reserves such as Liwonde National Park and Nkhosha Game Reserve which are facing similar environmental problems. These have resulted in the birth of environmental movements. However, what is at stake is the type of language that these environmentalists use to sensitise people on how to conserve the environment. Given that environmental conservation is a technical discipline, the language used, whether Chichewa or any local language, in environmental documents have shown that there is a gap between the lexical resources used to talk about conservation by the environmentalists and those used by the local people. The reference terms to a particular concept or object vary with the environmentalists using the technical terms and the local people using their everyday terms, thereby resulting in misrepresentation and misinterpretation of the concepts by the local people.

As already pointed out, many environmentalists claim that the environmental problems facing the world are a result of human activity such as industrialisation (for developed countries) which in economic terms is looked at in terms of sustainable development. Many environmentalists point to over-population and over-consumption as the fundamental causes of environmental harm. Environmentalism focuses its

central theme, on that human beings can make a difference ecologically if they curtail the amount of resources they use and the waste they generate (Wapner & Willoughby, 2005). The environmentalists focus on creating a healthy planet for future generations, thus manage biodiversity for the future benefit. However, the challenge this movement is facing is to create synergies with the local communities since most local communities depend on the natural resources surrounding them. This is partly due to differences in language used for talking about the environment. For local communities to be part of the conservation process, lexical resources that are closer to their everyday language use must be used. However, the challenge for the environmentalists is how to process language they use, in this case Chichewa, to the level that all stakeholders involved in conservation must understand, bearing in mind the different socio-cultural backgrounds of the people.

While there are discussions about the environment and conservation, environmental conservation issues may be understood differently depending on the context in which the engagement is taking place. The communicative practices that bring together people to discuss environmental conservation occur between and among people who come from different socio-cultural backgrounds. This communicative engagement is a social practice that breeds different nuances of meaning. However, the desired goal for this social interaction is to equip people with knowledge and skills that will combat undesirable human activity and conditions. The process for achieving this desirable end is of paramount interest to the linguist as well because it involves human interaction which is mediated by communication which heavily relies on language. Language is very central to every communicative practice.

However, one setback has been that language has not featured highly as an important feature in environmental conservation. This is probably due to the age-old tendency of

disregarding language as an important aspect to social change and any development process. Thus, people ignore the role language plays in carrying the information, meanings, communicating feelings and values in environmental conservation. Language is a basic resource needed for negotiating social relationships with others, to construct our sense of our world by shaping values, meanings and understanding (Christie, 2005 in Okech 2006). Language is important in achieving social change since it is the means for carrying information, meanings, and feelings through the exchange of verbal and non-verbal messages. Environmentalism and environmental conservation involves people interacting to create messages and social meaning, and they construct and reconstruct meanings in order to arrive at common understanding, mainly through social interaction. It is language, therefore, which makes this communicative interaction possible.

As the issue of environmental conservation is taking centre stage, it is important for studies on language use to be undertaken. This study sets out to critically examine the language that is used in environmental conservation discourse. It analyses the language that is used to assess how the conservation officials communicate to the local communities in order to see if the language does its intended job. This is done on the understanding that environmental conservation discourse involves human interaction and is a social practice which involves language. Therefore, where people are engaged, construction of meaning takes place. Such study is of great significance as it contributes towards enhancing knowledge of how language use impact social processes such environmental conservation.

1.1. Background of Mulanje Mountain Biodiversity Conservation Project

The Mulanje Mountain Forest Reserve (MMFR) was declared a protected area in 1927 under the British colonial authority and since then it has been managed by the Department of Forestry (DoF) of the Malawi government. According to Bayliss, Makungwa, Hecht, Nangoma and Bruessow (2007) in Thompson (2013), the colonial authorities gazetted the MMFR with the aim of controlling and exploiting profitable timber species, especially *Widdringtonia whytei*, the Mulanje Cedar. Apart from the economic motivations, Wisborg and Jumbe (2010) add that the declaration of MMFR was done to safeguard the water catchment and to control the extraction of Mulanje Cedar. What is clear from the motivations of conserving Mulanje Mountain is mainly the safeguarding of Mulanje cedar species from eminent extinction. After observing that despite the 1927 protection order, exploitation of Mulanje Cedar by local populations continued, attempts were made to replant Cedar but that did not materialise because they were exposed to fire. Because of this problem, *Pinus patula* (Mexican pine) was introduced to Mount Mulanje in 1946 as a nurse crop for Mulanje cedar, used to buffer cedar seedlings from the elements (Binggeli, 2011, in Thompson, 2013). Binggeli further adds that when colonial officials realised that pine was growing more successfully and faster than cedar and having noticed that pine species are economically valuable, they let pine spread on its own. This resulted in the growth of large plantations of pine on Mulanje mountain.

Sensing danger of extinction of natural resources in MMFR, the motivation of establishing a Protected Area changed from commercial exploitation of resources to a concern for protecting unique biodiversity found on the mountain, for the overall forest and its animals but especially for the rare species like the Mulanje cedar

(Thompson, 2013). This meant the adoption of protectionist approach to conservation and this may have been the catalyst of conflicts with the local communities. The understanding and perception towards the mountain reserve differs between the local communities and the conservationists. These differences of understanding and perception have been the recipe for the conflicts that have characterised Mulanje mountain conservation project.

For the local communities, the mountain is a source of their livelihood. It offers them economic benefits through tourism, firewood, and other social livelihood resources such as water. Communities complain that the logging of pine has lowered the number of tourists who they work for as tour guides, and also the water they used to access before is no longer clean and safe. In this case, for communities the mountain is there for their benefit. However, for the conservationists, i.e. the DoF, they are there to manage the natural resources. This is echoed by Balyamajura (2005) who points that conservationists believe that biodiversity should be managed for future benefits. The core task for environmental conservationists is therefore to conserve the environment for the future use to enhance quality of life for the people. This apparent difference in perception and understanding of the mountain has been the reason for the conflict between the local communities and the conservationists. For example, the cutting down of pine by the conservationists, which was considered to be an invasive plant to Mulanje cedar, did not go down well with the communities because to them pine grows faster than cedar, therefore pine was offering them their economic needs through timber, tourist attraction, and provision of safe and clean water.

This social friction between these two groups is a result of their social interaction. The challenge in this social interaction is to find a convergence point for their diverse understanding and perceptions of the mountain. Understanding of the world results in

different worldviews. This is a reflection of cultural and social contexts that people are constructing their reality of the world. Bridging this conceptual gap requires constant interaction and engagement. At the centre of this interaction and engagement is communication whose core and central tool is language. How people who assume the role of experts communicate their expert knowledge to the local communities with indigenous knowledge will determine how the two groups will reach a common understanding. Negotiation of meaning in this case would require the use of mutually intelligible language that will provide a levelled platform for both groups.

1.2. Study Area

The study was carried out in the south-eastern district of Malawi, Mulanje. Below is the map of Mulanje district depicting Mulanje Mountain Forest Reserve.



Figure 1: Map of Mulanje district showing MMFR.

Mount Mulanje is an intrusion of 650 km² rising to 3002m and is possibly the world's largest inselberg (Bruessow, 2012). It is surrounded by villages from two districts, Phalombe and Mulanje, small-scale cultivation, and tea estates. Mulanje Mountain is an important site of biodiversity containing unique Mulanje cedar and other endemic

plant and animal species (MMCT 2006 in Wisborg & Jumbe, 2010). In Mulanje, economic activity is limited to tea estates, but poverty prevails and provides a conservational challenge.

In Mulanje, several organisations and government agencies are working to protect the biodiversity and its ecosystem in the Mulanje mountain. In 1984, Malawi government declared Mulanje Cedar (*Widdringtonia whytei*) to be the National Tree of Malawi (Chapman, 1995). This was the case because Mulanje Cedar is endemic to Malawi, it grows nowhere in the world other than Mulanje mountain. As a way of controlling timber production of the Cedar tree, DoF used to issue licences to individuals to produce timbers for commercial purposes. However, it was observed that the population of Mulanje Cedar was being depleted at an alarming rate. As a result different organisations came in to help government in preserving and conserving the cedar. One of those organisations that are in the forefront in the conservation of the mountain is Mulanje Mountain Conservation Trust (MMCT). In addition, a number of measures have been established to make sure that the Mulanje Cedar is protected. This include, among others, instituting forestry co-management, where communities are put in groups (or cooperatives) to take care of the trees as co-owners of the trees who will in turn share the proceeds from the sale of the tree products. It must be mentioned that apart from Mulanje cedar, there are other resources on the mountain but the most valuable to the conservationists seems to be Mulanje Cedar.

1.3. Aim

The study aims to examine the language that environmental agencies use in the conservation discourse of Mulanje Cedar.

1.4. Specific Objectives

In order to achieve the stated aim, the following are the objectives of the research:

- To identify the form in which the conservation information is disseminated.
- To analyse the linguistic adequacy of Chichewa lexical resources used in environmental conservation discourse.
- To identify linguistic devices in Chichewa and evaluate their impact to dissemination of environmental information.
- To examine the discursive construction of citizen participation in environmental discourse.

1.5. Research Questions

In its quest to achieve the objectives, the study was guided by the following questions:

- 1) In what form does the information for conservation come?
- 2) Do the linguistic resources in Chichewa reflect everyday experiences and literacies of the communities?
- 3) How do the linguistic resources in Chichewa portray environmental phenomenon, i.e. logging of trees or depleting of tree population?
- 4) What linguistic devices are used in the dissemination of the environmental messages?
- 5) What effect/impact do the devices have on the dissemination of environmental messages?
- 6) How do the communication texts construct the citizens?
- 7) What roles are assigned to the citizens in the environmental discourse?

1.6. Research Problem

The study intends to examine how the conservational terminologies and the conservation messages are being communicated to the local people. This is the case because the local communities talk about environmental conservation using their everyday language. What is ideal is that the messages are supposed to be communicated in the everyday language of the local communities. However, what is happening on the ground is different, as the technical language is often used.

Researches have been conducted (e.g. Chiotha & Kishindo, 2005; Khryapchekova, 2013; Stibbe, 2008) on how language must be used in scientific communication so that the message reaches its target. However, not much has been done on how language can be used to foster citizens engagement and participation, and how it can promote dialogue between the communities and the environmentalists, with a focus on forestry management. Therefore, the present study seeks to engage in an analysis of the language used by the environmental organisations and examine how it can promote or deter the involvement of citizens in environmental conservation, so that an all-inclusive conservation is achieved, and further determine how to bridge the linguistic gap.

1.7. Significance of the Study

The results of this study are of importance to environmental communicators and policy makers. First, it will enable the environmental communicators to consider the language they use in framing environmental messages. In this regard, they will have to consider the other connotations that some expressions have other than the intended one, that is, being aware that some expressions may have a different meaning from what it initially meant. This therefore, requires that the message be processed in a

form that common people can easily understand. They will also need to understand how technical expertise may well be productively integrated with indigenous knowledge in order to achieve collective action. This means that the scientific knowledge that the environmentalists have can be used together with what the local people know about the issue of conservation. As Depoe and Delicath (2004: 10) rightly put it “we urge participants in environmental controversies to acknowledge the legitimacy of both technical expertise and local knowledge, and seek a more productive dialogue among multiple discourses in which citizens, experts, and other participants articulate, interrogate, and transform each other’s perspectives”. This will help policy makers to come up with inclusive policies that will not face resistance from the citizens because citizens will not feel controlled by the few powerful.

1.8. Definition of Terms Used in the Study

This section defines the terms used in this study. The definitions are as used in this study and thus are adopted as such for the purposes of this study.

Discursive erasure: the use of language to denote the absence of something important – something that is present in reality but is overlooked or deliberately ignored in a particular discourse, (Stibbe, 2014).

Framing: the process by which people develop a particular conceptualisation of an issue or reorient their thinking about an issue, (Chong & Druckman, 2007).

Fear and shock appeal frames: a persuasive message that attempt to arouse the emotion of fear by depicting a personally relevant and significant threat and then follows this description of the threat by outlining recommendations presented as effective and feasible in deterring the threat, (Walton, 2000 in Diedring 2008).

Risky frames: involves problems with two prospects – one that is sure and one that is uncertain and thus risky.

Euphemism: calling unpleasant things by pleasant names, (Schulz, 2001).

Grammatical metaphor: variation in the expression of a given meaning, (Halliday, 1994).

Modality: the area of meaning that lies between yes and no, that is, the intermediate degree of possibilities of choice that show indeterminacy that fall between positive and negative polarity, (Halliday, 1994).

Invasive plants: plants that were planted on the mountain and are said to be disturbing the natural growth of the indigenous plants.

Nurse crop: pine trees that were planted to protect Mulanje Cedar from destructive external elements, such as fire.

Community/Citizen: people living in the areas surrounding Mount Mulanje.

1.9. Structure of Dissertation

Chapter one introduces the background information to the research problem and the geographical area where this study was carried out. It brings to the fore the issues of language use, environmentalism and environmental communication, and the debates about language use in environmental communication. It also outlines the aim and objectives of the study and subsequently presents the research questions that helped to answer the objectives. It also states the significance of this study to the wider society and outlines the theoretical and analytical framework that has informed this study.

Chapter two reviews the literature in order to contextualise the study. It highlights the different experiences and strategies that are used in talking about the environment. It also discusses the language use in environmental communication and the debates about citizen engagement and dialogue in environmental discourse. It further highlights conflicts that exist between the people living within the vicinity of conservation areas in general, and MMFR in particular.

Chapter three explains the approaches and techniques used to gather data for the study. It outlines the sample for the study and the techniques that were used to come up with the sample, data analysis techniques used, ethical issues in the research process and the limitations of this study.

Chapter four presents and discusses the research findings. It answers the research objectives and questions that have been stated in chapter one.

Chapter five presents the summary and conclusion drawn from the research findings. It also highlights the implications of the study that may form the basis for studies that may be done after this.

CHAPTER 2

2.0. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1. Theoretical and Analytical Framework

This section explains the analytical framework that will be used in this study. As already alluded to earlier, this study examines the language used by environmental organisations to measure its ability to foster citizen participation and dialogue in the environmental discourse. The study views communication as an interactive social construct which involves people engaging in the production of texts that are aimed at achieving social action. In this case, communication should be a social process that is aimed at enabling all environmental stakeholders (experts and communities) to take an active role in the conservation as espoused in the National Environmental Policy (Malawi Government, 2004). In this sense, the study explores what people do with the language (both organisations and communities) and how the conceptualisation of the environmental phenomenon creates environmental reality, and in turn foster their participation in conservation discourse.

A closer examination of aspects of context and language such as functional registers, and euphemisms will be analysed with the aim of determining its adequacy to meet people's needs and how these aspects impact on involvement of communities. Content of the environmental documents will also be analysed to evaluate what the messages intend to convey (organisational conceptualisation of the environment) and how the communities, to whom the documents are intended, are discursively constructed in terms of positioning and role assignment in the discourse.

In order to exhaustively analyse the language used in environmental discourse, the study applies the Systemic Functional Grammar (SFG) theory (Halliday, 1994). This theory is ideal to the study because it concentrates on the analysis of authentic products of social interaction (texts), considered in the social and cultural context in which they take place (Lilora, 2005), making it ideal for the analysis of the metafunctions coming out of the interactions between different stakeholders in conservation management. The theory concerns itself with the relationship between language and other elements of social life. The analysis of the theory focuses on social character of the text and why the text means what it does, and why it is valued as it is (Halliday, 1994). This renders the theory relevant to the study as it intends to indulge in linguistic analysis of functional use of language and its implications to the conservation of the MMFR in the study area. As a theory, SFG also handles indeterminacies and alternative interpretations (Halliday, 1994) in what are considered grammatical metaphors.

However, since language use in communication products is meant to influence the understanding of the concepts in the communication materials, SFG is complemented by the Framing Theory (McCombs, 2004). This theory is meant to unravel the underlying assumption that the framers of environmental messages have. It presents the undertones that are projected implicitly to the readers and listeners of the message. The way the message is portrayed to an audience will have a significant influence on how the message will be interpreted (Diedring, 2008). In addition to the two theories, the study also used visual social semiotics (Kress & van Leeuwen, 2006). This was used in the analysis of visual messages that accompany the linguistic messages in the conservation documents. I discuss the three theories in detail below.

2.1.1. Systemic Functional Grammar

The works and insights of Halliday led to the development of Systemic Functional Grammar (hereinafter SFG). The central claim for SFG is that language use must be seen as taking place in social context. Language is not good or bad, it is appropriate or inappropriate to the context of use. Language and social context is seen as being inextricably linked (Thompson, 2004). Therefore, SFG operates on the premise that language structure is integrally related to social function and context. It analyses linguistic resources by looking at discourses we produce (whether spoken or written), and the contexts of the production of these texts. In SFG, functional refers to the work that language does within particular contexts (Halliday, 1994). Systemic then refers to the systems of choices available to language users for the realisation of meaning (Halliday, 1994). Thus, a systemic theory, as Halliday (1994:40) points out that “is a theory of meaning choice, by which language, or any other semiotic system, is interpreted as networks of interlocking options.” Systemic approach allows focusing on meaningful choices in language which are accompanied by the forms through which those meanings are expressed.

2.1.1.1. Metafunctions

SFG claims that all languages have metafunctions that relate to the theory’s principal concern, that of function and that every grammatical organisation of language reflects the functions for which language has evolved in the human species (Oketch, 2006). Halliday has named them metafunctions, that is, functions that extend across any pattern of language use, (Halliday, 1994). These include ideational (or experiential) metafunctions, interpersonal metafunctions, and textual metafunctions.

As stated above, the first metafunction is ideational/experiential metafunctions. This metafunction relates to the way “we use language to talk about our experience of the world, including the worlds in our own minds, to describe events and states and the entities involved in them” (Thompson, 2004:28). This means that these metafunctions are concerned with the aspects of grammar that represent the world and its experiences. The second metafunction, that is, interpersonal, relates to how “we use language to interact with other people, to establish and maintain relationships with them, to influence their behaviour, to express our own viewpoint on things in the world, and to elicit or change theirs” (Thompson, 2004:28). This means that the interpersonal metafunctions are concerned with setting and maintenance of interaction of people using language. The last metafunction is textual which states that “in using language, we organise our messages in ways which indicate how they fit in with the other messages around them and with the wider context in which we are talking or writing” (Thompson, 2004: 28).

2.1.1.2. Context

SFG as a theory of discourse is concerned with analysis of linguistic choices in a text. In Halliday’s own words, SFG focuses on analysing authentic products of social interaction called “texts” considered in the social and cultural contexts in which they are negotiated (Halliday, 1994). This means that a text (written or spoken) is context-based, and therefore, must be regarded from that perspective. This is important in understanding the connection between social contexts and language use, which is also the focus of this study. In analysing the text, grammar is essential in that it offers conventionally accepted wordings to express our meanings, and thus grammar is a set of linguistic resources available to us for making meanings (Thompson, 2004). In

SFG, the appropriateness of the linguistic options is conditioned by the current context of situation, that is, the situation in which language event unfolds. Context of situation shows the systematic co-relationships between the organisation of language and the specific contextual characteristics. The factors that bring out the context of situation are embedded with the notion of register. Halliday & Hasan (1985:41, in Thompson, 2004) defined register as “variation according to use”: meaning that we use certain configurations of linguistic resources in certain contexts. Therefore, register is characterised by three dimensions of variations, namely: field, tenor and mode.

As a factor of register, field is concerned with what is being talked about and what the text is about. This current study engages the text within the field of environment. This suggests that the field determines the type of register that is functional for that particular field. Lilora (2005:25) argues that “what we understand by ‘subject matter’ can be interpreted as an element inside the field structure in those contexts where the social action has symbolic and verbal nature.” The notion of field concentrates on the physical aspects of communication: the place and the moment in which discourse takes place (setting), the topic of the linguistic interchange (subject matter), the objective of the message (purpose) and the speaker’s intention and attitude (key), (Lilora, 2005). The second factor is tenor, which is concerned with the people involved in the communication and the relationship between them (Thomson, 2004). Tenor makes reference to the participants that take place in the communication, to the roles and social positions that participants have. The roles and the relationships between participants carry with them social interests. This puts this study into perspective as it informs how the language used in talking about environmental conservation positions that language in fostering citizen participation in terms of role

assignment and how the experts and the communities interact. The last factor is mode which refers to the role that language plays, to what participants expect language to do for them in that situation: the symbolic organisation of text, its function in context, including the channel (if it is written or oral or a combination of both) and also its rhetorical component, such as, if we are able to persuade, teach, state through the text. These three concepts together constitute the situation, or the context of situation of a text, (Lilora, 2005).

2.1.1.3. Grammatical Metaphor

In SFG approach, grammar transforms human experience into meaning. In encoding human experiences, lexicogrammatical choices made are dependent on the context. However, what is important is how the meaning is expressed not how the word is being used. This variation of how meaning is being expressed is metaphor (Halliday, 1994). Metaphorical variation is lexicogrammatical because it involves both lexical selection and grammatical variation that accompany it. According to Halliday, (1994:342), “If something is said to be metaphorical, it must be metaphorical by reference to something else.” The variation in expression of a given meaning constitute a metaphor which is in reference to non-metaphorical meaning called “congruent” (Halliday, 1994). In Halliday’s own words, he points that “for any given semantic configuration there will be some realisation in the lexicogrammar – some wording – that can be considered congruent; there may also be various others that are in some respect ‘transferred’ or metaphorical” (p 342). Therefore, Thompson, (2004:165) defines grammatical metaphor as “the expression of a meaning through lexicogrammatical form which originally evolved to express a different kind of meaning.” The expression of meaning is metaphorical in relation to a different way of

expressing the same meaning which would be more congruent. This kind of expression is typical of specialised disciplines such as science, of which environment, the focus of this study, falls. There is usually high use of specialised registers that vary how the meaning is expressed in texts. This is what the study intends to do in order to see how the language is being used and how such metaphorical expressions vary the meaning in regard to the differing social contexts and social roles of stakeholders involved in the conservation of Mulanje Cedar.

Communication for environmental conservation is not limited to linguistic signs but also uses visual signs. This is due to the fact that “readers/users no longer rely solely on written text for comprehension; they absorb and process all that they see within a document to create meaning for themselves” (Harrison, 2003:46). This entails that meaning making is a complex process that involves all the elements present in the text. Horn (1999, in Harrison 2003) calls visual language “...the tight coupling of words, images, and shapes into a unified communication unit. ‘Tight coupling’ means that you cannot remove the words or the images or the shapes from a piece of a visual language without destroying or radically diminishing the meaning a reader can obtain from it.” I discuss this visual communication/visual language in detail below.

2.1.2. Visual Semiotic Theory

Over the past thirty years, a range of methods have been developed for analysing and interpreting other communication modes besides language (van Leeuwen, 2006). One of the methodological theory of analysis is Kress and van Leeuwen’s (2006) visual semiotic theory which looks at language as a socially-based semiotic system. The visual social semiotics draws its inspiration from Halliday’s SFG in recognising three

main kinds of semiotic work, which are always performed simultaneously (Jewitt & Oyama, 2001). These are called metafunctions.

As a methodological analytical framework, Jewitt & Oyama (2001:134) define visual social semiotics as involving “the description of semiotic resources, what can be said and done with images (and other visual means of communication) and how the things people say and do with images can be interpreted.” This recognises that visual social semiotics take a functional approach as it sees visual resources as having been developed to do specific kinds of semiotic work (ibid, 140). In multimodal text analysis, an image is not a merely “result of a singular, isolated, creative activity, but itself a social process” (Harrison, 2003:47). This means that the creation of an image is a social process which entails interaction and negotiation of meaning between the producer and the viewer. Their socio-cultural context and beliefs are reflected in the image. In environmental conservation discourse, this may affect the interpretation of the text (i.e. posters) that usually contains the written text and the image. This is of significance to this study considering that the communication tools contain both the written text and the visual communication complementing each other.

Kress and van Leeuwen (2006) have extended Halliday’s metafunctions to images, using a different terminology. Instead of ‘ideational’ it is called ‘representational’; ‘interactive’ instead of ‘interpersonal’; and ‘compositional’ instead of ‘textual’. They argue that any image not only represents the world (whether in abstract or concrete ways), but also plays a part in some interaction and, with or without accompanying text, constitutes a recognisable kind of text (ibid, 140).

2.1.2.1. Representational Meaning

The representational meaning is about the people, places and objects within an image (the represented participants) who are either abstract or concrete participants, (Harrison, 2003; Jewitt & Oyama, 2001). It emphasises on the syntax of the images as sources of representational meaning. The syntactic pattern functions to relate visual participants in a meaningful way, in terms of where things are in the semiotic space and whether they are connected. This is achieved using two patterns: narrative representations and conceptual representations.

Narrative representations relate participants in terms of ‘doings’ and happenings’, of the unfolding actions, events, or processes of change, (Jewitt & Oyama, 2001). The pictures in the narrative pattern are recognised by vectors, which are lines (often diagonal) connecting the participants expressing ‘doing’ or ‘happening’. The kind of interaction taking place in the picture reveals the ‘doing’ or ‘happening’ (Halliday’s process) and it is recognised by the vectors between the actor participant(s) and the acted participant(s) – Goal (Kress & van Leeuwen, 2006). Actors are participants from whom or which the vector emanates, or who themselves form the vector, whereas ‘goals’ are participants at whom the vector is directed, (Kress & van Leeuwen, 2006). Jewitt & Oyama (2001) add that when a picture or scene within a picture has both an actor and a goal it is transactive, representing an action taking place between two parties. This helps to question the visual text on who is playing the active role of doing and who is being acted upon, thus playing a passive role.

Conceptual images do not contain vectors. They tend to be grouped together to present viewers with the “concept” of who or what they represent, (Harrison, 2003). They do not involve action or reaction on the part of the participants but represent

“participants in terms of their more generalised and more/less stable and timeless essence, in terms of class, or structure, or meaning” (Kress & van Leeuwen, 1996: 79 in Harrison, 2003: 52). This helps the viewer to think in abstract or concrete terms by identifying with the pictures.

This representation helped in the analysis of the pictures in the posters in order to determine their interaction and the kind of processes that are depicted by the vectors and the concepts. This helped in understanding how the different participants are represented and what roles are assigned to them, and what the conceptual visual images mean to the text.

2.1.2.2. Interactive Meaning

This metafunction is about the actions among all the participants involved in the production and viewing of an image, and answers the question “how does the picture engage the viewer? (Harrison, 2003). The way pictures are framed create a particular relation between viewers and the picture inside the frame (Jewitt & Oyama, 2001). The interaction between the picture and the viewers is meant to suggest the attitudes viewers should take towards the represented participants. This is done through contact, where pictures show how people look directly at the viewer or indirectly; distance, in which images can bring people, places, and things close to the viewer or keep at a distance; and point of view, in which the angle of the picture encodes whether or not the image-producer and the viewer are involved with the represented participants, (Harrison, 2003; Jewitt & Oyama, 2001).

2.1.2.3. Compositional Meaning

The compositional metafunction answers the question “how do the representational and interactive meanings relate to each other and integrate into a meaningful whole?” (Harrison, 2003: 55). It involves the lay-out of the print and how the pictures bring unity of meaning to the visual text. This is achieved through the following resources of compositional meaning: information value; framing; and salience and modality.

Information value is realised by the placement of the elements in the picture. Jewitt & Oyama (2001) argue that the role of any particular element depends on whether it is placed on the left or on the right, in the centre or margin, or in the upper or the lower part of the picture space. The left placement of an element means the ‘given’, that is, something the viewer already knows and is familiar with and is the departure point of information. Right placement is the ‘new’ which means that it is something not yet known to the viewer, and therefore the viewer or reader must pay attention.

Salience, according to Kress & van Leeuwen (2006), is used to indicate that some elements can be made more eye-catching than others. This can be made in different ways such as use of size, colour and foreground/background. Framing indicates that the elements of a composition can either be given separate identities, or represented as belonging together. Framing connects or disconnects elements through colour contrasts and framelines. In terms of modality, photographs suggest a reality that is far stronger than that of drawing, illustrations, and paintings (Harrison, 2003). Image producers may present pictures with high modality so that the ideal is depicted as real.

Environmental conservation messages use pictures that depict some elements as being more salient than the others. This metafunction was used for analysing the placement of the pictures and the salience of the represented elements. This helped to understand the direction of the message and the discursive control of knowledge of conservation, which breeds asymmetrical power relations. It also helped to underscore why some elements in the picture are given more prominence over the other, and what that means to the whole message on the poster.

2.1.3. Framing Theory

McCombs (2004:87) points that “to frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem, definition, causal interpretation, moral evaluation and/or treatment recommendation for the item described.” In essence, framing theory suggests that how something is presented to the audience influences the choices people make about how to process that information. The major premise of framing theory is that an issue can be viewed from a variety of perspectives and be construed as having implications for multiple values or consideration, (Chong & Druckman, 2007). Therefore, framing refers to the process by which people develop a particular conceptualisation of an issue or reorient their thinking about an issue, (ibid). The messages have salient communicative aspects that influence the way people understand the text.

The term “frame” has been used in various ways in communication studies. Gamson and Modigliani (1989 in Chong & Druckman, 2007) identified frame in communication to refer to the words, images, phrases, and presentation styles that a speaker uses when relaying information about an issue or event to an audience. The

chosen frame reveals what the speaker thinks is relevant to the topic. Goffman (1974 in Chong & Druckman, 2007) identifies a second frame, a frame in thought or an individual frame, which refers to an individual's cognitive understanding of a given situation. In this type of frame, what is reflected is what the audience member believes to be the most significant aspect of an issue. In view of this difference, the frames compete in that the frames in communication influences the frame in thought, in a process called "frame setting" (Scheufele, 1999). In relation to environmental communication, what the environmentalists produce may have an influence on how the audience interpret and understand the issues. Sometimes these competing frames may result in friction which is premised on differing conceptualisation of issues. Chong and Druckman (2007) have pointed out that there are no straightforward guidelines on how to identify or define a frame in communication. However, some scholars have identified a number of categories for frames in communication, which include, among others, fear and shock appeal frames, emotional appeal frames, and risky frames.

2.1.3.1. Fear and shock appeal frames

Walton (2000:1 in Diedring, 2008) defines fear appeal as "a persuasive message that attempt to arouse the emotion of fear by depicting a personally relevant and significant threat and then follows this description of the threat by outlining recommendations presented as effective and feasible in deterring the threat." This is meant to present a shocking picture of the environmental phenomena that he/she is witnessing so that something must be done about it. Walton (2000) adds that the desired emotion is that the receiver of the message must feel the terrible consequence that may befall him/her if something that has been recommended is not done. This has

an effect of making people believe what they otherwise could not accept in their normal being, but it is accepted due to the amount of fear that has been aroused. In this case, language is used to portray a desperate picture of the environmental situation and present an imminent threat that may befall the people if they do not follow the instructions.

2.1.3.2. Emotional Appeal frame

Diedring (2008) argues that emotional appeal when communicating environmental messages is a specific type of appeal that targets a broad range of positive and negative sensing emotions including compassion, guilt, hope, empathy, and anger. This is meant to appeal to the different senses of the audience in order for them to act on an environmental issue. Tan (1995 in Diedring, 2008) states that emotional appeal argues for a given belief by pointing out the desirability of consequents that would follow from holding a given belief. The messages present what would follow a given belief that people hold in relation to environmental phenomena. This entails enticing people to consider changing their belief towards what is considered to be the right option.

2.1.3.3. Risky Frames

Levin, Schneider & Gaeth (1998) discuss risky framing as involving problems with two prospects – one that is sure and one that is uncertain and thus risky. The framing effects point to the potential outcomes as being perceived as losses or gains. The attributes of an environmental phenomenon are either presented as losses or gains and this is meant to project a particular attribute as risky to be pursued if presented as losses. In environmental messaging, environmentalists may explicitly or implicitly

portray an attribute as a loss in order to influence the decisions that the local people/non-experts should follow.

2.2. Literature Review

2.3. Introduction

This section reviews the literature that informed this study. It also focuses on the debates relating to citizen participation in the conservation exercise. The language factor in the conservation discourse has also been reviewed in order to see how previous studies position language in the environmental conservation. The chapter also reviews what has been observed about local community participation in the environmental conservation. Lastly, it reviews what other scholars say about the conflicts that ensue between people and natural resources.

2.4. Talking about Environment

The discourse about environment has focused much on the efforts to find solutions to environmental problems facing the planet. Thakadu, Irani and Telg (2011) have argued that an effective response to global environmental challenges requires analysis of communication patterns, processes and approaches. Questions must be asked on the patterns of language use and the approaches that are taken to reach out the environmental message to people. Message framing must include language that is adequate to talk about environment without obfuscating the themes and meet the society's needs. In this case, communication in environmental discourse must aim at contributing "to human understanding and decency" (Docherty, Morrison & Tracey, 1993 in Penman, 2001), not just a way of passing on the message.

Commenting on the way of talking about environment, Mühlhäusler and Harré (1994 in Penman, 2001) have suggested that environmental talk must be looked at in two ways: first is the way of the language planner/linguist is to ask how adequate the language is to do the job the community of speakers' needs. The other way is to ask how our way of talking constructs our environmental reality (Penman, 2001). This suggests the role of language as being representative. This is in sync with the Whorfian view of language, which says that one's language determines and shapes one's conception of the world. It represents the world view of people and when talking about environment, the members of the society use language chosen from the words available in their linguistic repertoire, and in some cases create words to describe new things or situations. Penman (2001) further points that people often find words and concepts confusing when they are not words or concepts that they have generated out of their own contexts to serve their own needs. This illustrates the challenge in communicating environment. Many of the environmental communications that face resistance and lack of commitment from communities can arise due to the use of language that is not localised. This may be the case with Mulanje where there is constant engagement between organisations and people yet conflicts are rampant. Mühlhäusler (2001: 38) reviewing the Environmental Impact Statement Glossary (EIS) quotes the editors note that:

Environmental impact statements have developed a rich but sometimes confusing vocabulary. The confusion originates from two principal sources, the diversity of professional vocabularies necessary to describe the wide range of EIS subject matter, and multiple interpretations of federal regulations.

What this means is that environmental impact statements or indeed environmental communications have tended to use some vocabulary that are confusing to the ordinary citizens because they are more technical and less context-based. The challenge has been compounded because “very little, if any, attention has been given to the need for a bridge between speakers of technical language and the common standard... that is, information must be made available in understandable language for those for whom it is relevant” (Rubin, 1979 in Mühlhäusler, 2001: 31). In trying to alleviate this challenge in the USA, Rubin (1978 cited in Mühlhäusler 2001) cites an example of the executive order that was issued by the American president Carter in March 1978, that federal regulations are to be written in ‘simple and clear’ language. This necessitates the inclusion and involvement of citizens as the language is easy to comprehend and interpret.

Mühlhäusler (2001: 31) has pointed that the “language for talking about environmental issues appears to be deficient in the following areas”:

- a. Referential adequacy, i.e. the capacity of the language to meet the needs of its users as an instrument of referential meaning.
- b. Systematic adequacy, i.e. being structured so as to approach maximum rule economy and efficiency, and having a clear and uniform semantic structure with a terminology that is unambiguously translatable.
- c. Social adequacy, i.e. language should be acceptable to a maximum number of speakers in the target community, promote social unity and intercommunication and cater for present as well as anticipated future social needs.

He further points out that these language deficiencies are as a result of the fact that topics of environment have not been an issue until recently. This has resulted in lexical gaps. To end that lexical gap, there have been ad hoc linguistic solutions by a large number of agencies and organisations, for example, borrowing, and coinage of words to explain environmental phenomena, (Mühlhäusler, 2001). Mühlhäusler (2001) reveals that most of these solutions are manifested in lengthy circumlocutions, observations in brackets, and outright attacks on existing words. This means that communities are likely to have numerous problems on interpretation of statements of environmental matters. This calls for a considerable planning effort to ensure referential and social adequacy of environmental terminology so that those concerned or affected should be able to interpret statements and meaningfully discuss the environmental issues. Bolinger (1980 in Mühlhäusler, 2001) made two observations:

- a. The mere presence of a word is of little use if communication channels distort and obfuscate meaning. It should also be noted that the presence of a word in whatever glossary or dictionary does not mean that a significant number of speakers handle this word;
- b. Communication on many matters [...] tends to flow in one direction only, i.e. from government to the population. If there are no effective communication channels and no *effective language* (emphasis mine), people affected by environmental issues are likely to resort to non-linguistic reactions in an uncontrolled and ad hoc manner.

Bolinger further argues that given equal access to make the contest fair, the public can make informed and rational choices. Language was not meant for talking with people more than for talking to. This means that a well defined communication flow has to be

identified that should give people equal opportunity to engage in a debate about environmental conservation issues.

2.5. Citizen Engagement and Dialogue

As Thakadu, Irani and Telg (2011) put it, the complexities of ever-increasing global environmental problems, coupled with the growing outcry for environmental stewardship, underscore the need for all sectors and citizenry to demonstrate environmental responsibility. To promote this responsible environmental behaviour, Thakadu, Irani and Telg (2011) suggest that there is need to explore effective environmental communication strategies that will contribute to the sustainable adoption of environmental conservation innovations. Communication strategies must acknowledge the complexities that come with the people's experiences in interpreting the world. In her study of media's role in shaping citizen's understanding of climate change, Olausson (2011: 294), concluded that "we need to acknowledge to a greater extent the power of people's experiences in the process of making sense of the world". She further argues that citizen's meaning-making about climate change is a complex blend of their own experiences, mass communication in which the news media have a pivotal role, and various forms of communication.

What this suggests is that when engaging in environmental discourse, we should be aware of people's experiences with the world which consequently shape their worldview. Most importantly, it should be known that these experiences are mirrored in the language that the citizens use. Therefore, engaging citizens would provide opportunity for the environmental communicators to understand people's experiences and how those experiences help to construct environmental reality and how language is being used as a tool of expressing those experiences.

Brulle (2010) has observed that to mobilise broad-based support for social change, citizens cannot be treated as objects for manipulation. He points that citizens must be treated as those involved in a mutual dialogue. Citizens must be part of the process of communication not just as the recipients of the message. Luke (2005) has argued that the core problem with the current environmental movement is the narrowing of the public sphere and a restricted understanding of the public interest. As a result, citizens are left out in the efforts to rebalance the economic and natural needs. There is a need to engage citizens to act collectively in order to achieve social change that is instrumental in conserving the environment. The public sphere must be broadened through the use of holistic approaches that would help environmentalists to understand the interests of people. This is in line with the provisions of the National Environmental Policy (Malawi Government, 2004) which provides for the enhancement of “public education and awareness of various environmental issues and public participation in addressing them” and the promotion of the “use and application of local knowledge and norms that facilitate sustainable environment and natural resources management” (p. 4).

Jasanoff and Wynne (1998 as cited in Brulle, 2010) add that when individuals are provided with full information regarding a particular risk, and are then included in the development of responses to it, they are much more likely to engage in taking action than if given only limited information or responsibility. This is also echoed by Brulle (2010) that rather than just informing the public of and eliciting support for various elite policy positions, environmental communication needs to aim at developing messaging procedures that involve citizens directly in the policy development process.

However, in trying to engage citizens in environmental discourse, the biggest challenge is whether the citizens have influence on technical and scientific issues. Parks (1993 in Simmons, 2007: 6) points that “those who command expert knowledge dominate any debate concerning issues of public interest because the non-initiated are unable to enter the scientised universe of discourse, as they lack the technical terminology and specialised language of argumentation”. This exposes the unequal distribution of power relations in debates of technical and scientific policy issues. This means that the local communities that have no technical knowledge of the environment find it problematic to take part in the discourse because the environmental language is full of technical words that are difficult for non-environmentalists to understand. As a result, the environmental discourse is dominated by those who command the language of environment, hence power imbalances.

Simmons (2007) contends that encouraging citizens to contribute knowledge about how a policy will affect their community at the onset of a decision-making process is quite different from allowing citizens to respond to policies already determined. In this case, the former sees policies as socially constructed by groups and the latter represents the approach that sees the public as an entity to be managed and educated by the experts, not capable of contributing significantly to the policy (Simmons, 2007). The latter view is the most used approach in environmental discourse because the experts view citizens as ignorant beings on environment as such their efforts are placed on educating the people to achieve environmental literacy. This is what has resulted in some cases to resistance by some pockets of the communities as they are not involved in owning the environmental conservation projects. Such control over information renders them (environmental experts) powerful. Therefore, language as a symbol of power can be used to reduce the power differences. The environmental

knowledge can be loaded in simple and clear language that can foster dialogue between citizens and environmental experts. The involvement of citizens still depicts the power imbalance as the environmental experts control knowledge through the use of technical language. As Fairclough (1995) puts it, the relations of power are asymmetrical, and unequal that belongs to a special class or group. In this case, to gain social power one has to acquire expert language of environment.

Citizen participation and engagement in dialogue can also be a factor of people being presented with information that is in a language that meets their social representation of the issue. If the environmental message is concretised and fits their frame of reference, the ambiguity and ambivalence that may be contained in the messages may be reduced because the information relates to their background experiences. Okech (2006) points out that communication involves inferences where meaning is produced by placing new information in the context of existing background knowledge and established frameworks for interpretation. However, that can only be achieved if it is carried out in a mutually understandable language. The differences in conceptualisation of environmental issues and the power disparities affect the framing of the environmental messages by the powerful social group (environmental organisations).

Stibbe (2014) contends that involvement of citizens can only be achieved if the environmental messages are presented in a concrete way that people can easily relate with their prior experiences. He argues that most environmental and conservational messages erase the most important part of the message resulting in ambiguity. According to Stibbe (2014), erasure denotes the absence of something important - something that is present in reality but is overlooked or deliberately ignored in a particular discourse. He adds that the importance of something depends on the goals

of the group. In such instances, there is a need to “re-minding” the text so that it is made clear to those it is intended. According to Stibbe (2014), re-minding is a linguistic act where an actor surveys the universe of elements that have been excluded from a particular discourse, declares that one of these elements is important, that the discourse is ‘erasing’ it from consciousness, and demands that the discourse brings it back to mind. In his study of erasure in environmental reports documents, he uses the following examples of quotations from the documents to illustrate how environmental discourse achieves erasure:

- 1) birds of all kinds, butterflies, trees such as oak, beech and birch, mammals such as badgers, otters and seals...are of great cultural significance and...undoubtedly have a huge hold over the popular imagination (NEA:19)
- 2) Recognising value in ecosystems, landscapes, species and other aspects of biodiversity...is sometimes sufficient to ensure conservation and sustainable use. (TEEB:11)
- 3) Ultimately, the level of biodiversity that survives on Earth will be determined not just by utilitarian considerations but to a significant extent by ethical concerns, including considerations of the intrinsic values of species. (MEA1 : 58)

From the above quotations, Stibbe (2014) argues that the last two quotations (2 & 3) imply that people are more likely to respect the natural world and work towards preserving it if they value it deeply for its own sake at an ethical level, and they feel strongly about things they can concretely imagine such as butterflies, oak, badgers, and seals. Despite the explicit mention of biodiversity and ecosystem in 2 and 3, the discourse of the reports quoted above erases animals and plants and the natural world, turning them into a faint trace that is unlikely to arouse people’s imagination or care

(Stibbe, 2014). Ecosystem and biodiversity are abstract environmental terms that do not give a clear picture of what these creatures are that people can easily relate to the species they already know. The natural world is left in abstraction without giving the vivid picture of the suffering species, as is in (1) where there is a mention of actual species. If the suffering species are made vivid, people will relate that to what they already know, therefore arousing their interest to take part in the conservation process. In this case, despite the power relations that may cripple the community participation, people may feel obliged to intervene, and also be able to understand the messages because it has been presented in a way that they are able to make sense of it.

Studies into the use of specialised language, such as scientific language has been conducted by several scholars. Chiotha and Kishindo (1995) conducted a survey to examine the use language in communicating scientific information to rural farmers. In their analysis of agricultural Chichewa newsletters *Za A Chikumbi* and agricultural radio programmes, *O Phiri* (Mr. Phiri) and *Bwalo la Alimi* (farmers forum), they found out that 78% of the translations were not understood by the farmers. This suggests that there is a problem of communicating scientific information. The survey also revealed that the less educated one is, the more difficult it is for one to understand scientific information presented in the sources cited (Chiotha & Kishindo, 1995). This means that the rural communities are disadvantaged since most of them are not educated to the level that they can understand scientific information. They suggest that, as a remedy, extension workers need to learn what words and expressions farmers use when discussing farming activities and also be trained in communication skills specifically targeted at furnishing them with techniques of adapting scientific language to ordinary use (Chiotha & Kishindo, 1995).

In addition to this, Bob, Swart, Maharaj and Louw (2008) point that in developing strategies for resource conservation, it is important to understand and recognise indigenous people's local knowledge of the natural resource base. Warren, Slikkerveer, and Broker (1995 cited in Bob et al., 2008:33) define indigenous knowledge as "the local knowledge that is unique to a given culture or society." In his mini-survey testing the environmental awareness of English and German bilinguals and its dependence on the two languages, Khryapchekova (2013) found out that language influences the answer to the questions in the environmental context. He further points that language participates in constructing our behaviour patterns. This means that language is a crucial tool for understanding the world, including environmental issues. In asserting this point, he adds that "As the environmental competence of an individual is built in the general context of his/her social life, we can say that it is affected by our mother tongue; the environmental awareness level of society is made up of those of its members" (Khryapchekova, 2013: 8). Therefore, environmental messaging must take into account that people's understanding of environmental issues are shaped by the language. The use of the mother tongue must also take into account the socio-cultural context of the language, thus incorporate the people's views and how they talk about environment.

Given the above information, a lot has been written on the interface of language and environment. Researches have been conducted (e.g. Chiotha & Kishindo, 1995; Khryapchekova, 2013; Stibbe, 2008) on how language must be used in environmental communication so that the message reaches its target. However, not much has been done on how language can be used to foster citizens engagement and participation, and how it can promote dialogue between the communities and the environmentalists, with a focus on forestry management. Therefore, the present study seeks to engage in

an analysis of the language used by the environmental organisations and examine how it can promote or deter the involvement of citizens in environmental conservation, so that an all-inclusive conservation is achieved.

2.6. Language Factor in Environmental Discourse

Human societies rely much on communication and language. In every communicative endeavour, language is core. This gels the societies together, people building relationships and communities maintained. Communication and language can be of great assistance to people involved in the social process of changing the quality of lives (Okech, 2006).

In any communication activity, language plays an important role in building and maintaining personal and social relationships. According to Gudykunst (2003), people use language strategically to achieve or maintain a positive personal and social identity. This illustrates the complexity of the nature of conservation discourse. The environmental officials and the communities negotiate their position in the discourse and in the course of the discourse construct their own and others' identities in the course of the communicative events where they meet. Considering how crucial language is in conservation discourse, Curtayne (2011) cites the case of Kruger National Park officials in South Africa who involved intermediaries to engage with the communities on their behalf to educate the communities on conservational issues around Kruger National Park. This was meant to create a link between the officials, whose language is highly technical, and the communities whose socio-cultural contexts provide them with a different understanding of conservation issues. However, she noted that this could result in miscommunication of the issues as they try to

structure their discourse differently to express their association with both the conservation officials and the communities.

In addressing the use of language of sustainability, Stibbe (2008:1) argues that “our failure in reaching people is not because there is something wrong with the language we are using, but because our words engage only a narrow audience.” This means that language use depends much on the words used to penetrate to all people. The technical language in itself is not wrong but it addresses a small audience. For environmentalists this technical language offers a rational, systematic, evidence-based approach that is our best path to solving environmental problems, (Stibbe, 2008). Stibbe, however, calls for the use of words that match with the worldview, the ideology, the passions, of those who hear them. This is meant to achieve effective communication.

2.7. Local Community Participation

Different scholars have defined local community participation differently. Segar (1999:12 cited in Curtayne, 2011) describes it as “the ability of local communities to influence the outcome of development projects such as ecotourism that have impact on them.” Theron (1995:44 as cited in Curtayne, 2011) states that it involves “empowering people to mobilise their own capacities, be social actors rather than passive subjects, manage their resources, make decisions and control their lives.” Finally, Balyamajura (1995:99) defines local participation as “a situation whereby people act in groups to influence the direction and outcome of development programmes that affect them. Despite differences in definitions, one striking similarity of the definitions is the recognition of the need to empower the local communities to be active players in the management of resources and development projects. One of the most notable ways of involving people in management of resources in Malawi is

through Community Based Natural Resource Management (CBNRM). This refers to local and collective resource governance arrangements and practices (Roe, Nelson & Sandbrook, 2009). This is a shift away from the protectionist approach which left the role of managing resources in the hands of government. This approach undermined the roles of local communities, their traditional institutions and knowledge in forest management practices, and considered local communities as enemies (destroyers) of forests (Gobeze, Bekele, Lemenih & Kassa, 2009). However, the new paradigm aims at giving access to proactive involvement of local people in management of natural resources and promotes sustainable livelihoods.

Oakley (1997, cited in Okech, 2006) has argued that the success or failure of development initiatives has been closely linked to how actively the targeted community participates in the initiatives. For development initiatives, such as environmental conservation to be effective requires genuine community involvement from the onset of the initiatives to avoid conditions that may be undesirable to the beneficiaries. As Okech (2006) points out, if people are left out from the crucial stages of planning the activities or the initiative, they are less likely to appreciate the initiatives. Participation therefore, offers the community a strong means of legitimately articulating their needs and satisfying these needs through self-reliance and mass mobilisation (Ghai et al, 1977, cited in Okech, 2006).

In Malawi, policy shift has also been embraced. For instance, Thompson (2013) has pointed that any project implemented at MMFR needed to adhere to certain standards and policies which include 1996 Forestry Policy and the Forestry Act of 1997, all of which included further goals focused on community engagement. These documents provide for the inclusion of local communities in the management of forests. However, the main goal for the National Forest Plan in advocating for the involvement

of local people was to eradicate national poverty (Mayers et al, 2001 in Kayambazinthu & Locke, 2002) as they own and co-manage the forest resources. Despite this focus on local people, input from local communities living near MMFR was not actively pursued during the design stages (Thompson, 2013). However, the challenge with this arrangement is to engage in a discourse that empowers the local communities to take responsibility of the natural resources. This is partly due to the medium of transferring the information to the local people which, in some way, is highly specialised. How the conservation messages are relayed to the people, i.e. the language that they use when communicating to the local communities, is crucial to the involvement of local communities considering that some terminologies representing the conservation activities may be misleading to a lay person.

2.8. People – Natural Resource Conflicts

The relationships between the people living next to conserved areas and the managers of those areas are more often than not characterised by conflicts and animosity (Vining & Ebreo, 1991 as cited in Butteriss et al, 2000). This has been observed in different sites in Africa. Curtayne (2011) reports the case of Kruger National Park in South Africa where there is animosity between the management and the people around. She cites a possible reason as being lack of basic amenities or resources for the people living next to the park that account for the negative perceptions of conservation efforts which in turn could hinder their willingness to participate in conservation projects initiated by conservation agents. This has also been the case in Malawi where conflicts have been observed in areas near national parks and forest reserves such as Mulanje Mountain Forest Reserve.

The problems mentioned above are mostly compounded in Africa and Malawi in particular because, as Curtayne (2011) puts it, most communities are subsistence farmers that are facing population boom and land pressure which has resulted in low harvests. This means that people turn their attention for survival to the nearby forests and other protected areas. Balyamajura (1995:95) argues that “conservationists believe that biodiversity should be managed for future benefit, where wildlife is promoted for the good of people and wildlife species enhance people’s quality of life in a sustainable manner.” However, the challenge this purpose is facing is that in reality, according to Balyamajura (1995), people solve the most pressing problems before considering the future problems. They spend a lot of time finding ways to provide for themselves and their families, thus making it hard for them to think about conserving for the future when they are struggling to meet the needs of the present. This is one of the contributing factors to the decline of forest resources in MMFR and consequent conflict between the local people and the conservationists. This is why language used in communicating with these communities needs to help local people make informed choices to enhance conservation.

CHAPTER 3

3.0. METHODOLOGY

3.1. Overview

The study employed qualitative study design. According to Dawson (2002), qualitative research explores attitudes, behaviour and experiences. It attempts to get an in-depth opinion from participants. The qualitative approach's task consists of describing and understanding people and groups' particular situations, situations, experiences, and meanings before developing and/or testing more general theories and explanations (Frankel & Devers, 2000).

In order to capture the linguistic behaviour and discursive construction of social phenomena in relation to the conservation discourse, the researcher needed to be with the people involved in the conservation on the ground to understand and study them in their naturalistic environment. The researcher also needed to analyse the materials for social engagement, that is, the communication documents that are used in disseminating conservation information. The study was concerned with developing explanations of the social phenomena involving the construction of the conservation discourse. The design that enhances our understanding of the social world "in which we live and why things are the way they are" (Hancock, Ockleford & Windridge, 2007: 4) is the qualitative study which employed a case study design. Yin (2003) points out that case study design is a preferred strategy when 'how' and 'why' questions are being posed, when the investigator has little control over events and when the focus is on a contemporary phenomenon within some real-life context. In

view of this, the study dealt with a specific case in a real-life social context of environmental conservation in which the phenomenon of language use is very crucial.

The researcher believes that a better understanding of this language phenomenon would allow environmentalists to proceed from a more participatory and constitutive programming and policy making as citizens would be highly engaged in conservation discourse. Focus was placed on the project being carried out in Mulanje on Mulanje Mountain Forest Reserve (MMFR), with emphasis on the conservation projects of Mulanje Cedar, which is endemic to mount Mulanje.

Since this study engaged in a discourse analysis of the documents used in disseminating conservational messages, it involved the researcher collecting the authentic products of social interaction (texts), considered in the social and cultural context in which they take place (Lilora, 2005). This approach would help in explaining the situation with which language is used. It would also help to understand the level of engagement, as discursively constructed in the discourse, that the language of environmental communication that some organisations in Mulanje use. However, due to the fact that there are many people concerned with and/or involved in the conservation process, the researcher could not have managed to meet all stakeholders due to limited time and resources. Therefore, a certain proportion of people and organisations were chosen for the study.

3.2. Sampling Area

As already alluded to, the study drew its sample from Mulanje district where the conservation projects are being carried out. The study was done at Mulanje Mountain Conservation Trust (MMCT) and the Forestry department of the Malawi government, Mulanje district office. These organisations were chosen on the basis that they are

directly involved in the conservation of the Mulanje Cedar, as part of the ecosystem of Mulanje mountain biodiversity. These are information-rich institutions that would help the study yield insight and understanding of the phenomenon under investigation.

The Mulanje Mountain Conservation Trust (MMCT) is an environmental endowment trust based in Mulanje with the mission of facilitating responsible management of the mountain's resources by involving communities around the Reserve (MMCT, 2012/13). It works in collaboration with the Department of Forestry in the district and other stakeholders in facilitating people's awareness, involvement and understanding of the importance of the conservation and responsible management of Mount Mulanje's natural resources and biodiversity. The Department of Forestry, is mandated by law to manage forests and trees in Malawi and the Mulanje Mountain Forest Reserve (MMFR) is under the direct supervision and management of Forestry Department in Mulanje. The two organisations work hand in hand to help in the management of MMFR. However, MMCT's role is mostly the provision of technical and financial support to the Department of Forestry, which implements the strategic plans for conservation and management of MMFR. Therefore, the choice of these organisations as research institutions was appropriate because they are directly involved in the management of MMFR, hence information-rich institutions.

Apart from the two institutions, the study also involved people from the villages around MMFR, namely Nakhonyo, Mbewa and Mandanda villages. These villages were selected on the basis of their proximity to the forest reserve and also being the villages that one institution claimed it involves in its initiatives. The purpose for interviewing the local communities was to get their understanding of the conservation messages, that is, whether or not they interpret the expressions used in the same way as environmentalists do. This was meant to help the researcher determine whether or

not there is a gap between the local communities and the environmentalists on the interpretation and understanding of the expressions used in conservation information. The subjects interviewed were sampled using convenience sampling method so that every member of the population who was easily accessible could participate in the study. Given the limitation in resources and availability of people in their homes, ten people were eventually interviewed in each village, totalling to thirty participants.

The three villages fall under Traditional Authority (TA) Mkanda. Nakhonyo and Mbewa villages are in the boarderlines of the Mulanje mountain. The three villages are surrounded by tea estates which have resulted in the scarcity of land resource. This has resulted in high poverty rate in the area as many people have little land for cultivation which is estimated at less than a hectare per household (Mulanje District Council, 2013). Most of the people in the villages (96%) are subsistence farmers who cultivate on small plots of land. The major economic activities are tea which provides employment; small-scale businesses such as charcoal production and timber production which are considered illegal; and tour guiding. However, on tourism the Mulanje District Council (2013) has reported that it is on the downward trend which has resulted in high unemployment rate in the research area. As a result environmental problems are rampant due to over-population which leads to deforestation and extinction of some tree species like Mulanje Cedar (Mulanje District Council, 2013).

3.3. Sampling Techniques

The study used purposive sampling. The sample was drawn from the organisations and agencies that are directly involved in the conservation of the Mulanje Cedar. According to Cohen, Manion & Morrison (2000), researchers hand-pick the cases to be included in the sample on the basis of their judgement of their typicality. Dawson

(2002) adds that purposive sampling is used if description rather than generalisation is the goal. The organisations where this research was done were selected on the basis of their direct involvement in the conservation of Mulanje Cedar, and therefore hold the information relevant to this study. In this case, purposive sampling was appropriate to the study because the goal for the study was to engage in a descriptive analysis of language of environmental conservation as used by the organisations involved in conservation of Mulanje mountain biodiversity, especially Mulanje Cedar.

Having been involved in a research project that aimed at investigating the livelihood of people vis-à-vis the conservation of Mulanje Cedar in Mulanje, the researcher found this technique appropriate and convenient in selecting informants. This is the case because the researcher had some prior knowledge of those who hold the key to the information. However, it should be mentioned that the researcher did not have the knowledge of every participant before going to the field or that he only selected those he knew because that would be unscientific and unethical, and therefore, a second technique, convenient/accidental sampling was used.

3.4. Sampling Procedure

The study also engaged the communities around MMFR as part of the sample. In coming up with the sample, the researcher used convenience/accidental sampling. Convenience sampling involves choosing the nearest individuals to serve as respondents and continuing that process until the required sample size has been obtained, (Cohen et al, 2000). The researcher chose the sample from those whom he had easy access to. This was the case because people were hardly available in their homes due to the period that the researcher conducted his field work. It was the time of harvesting as such many people were busy in their gardens. Another reason was that

many people in the research area access and utilise the mountain, therefore interviewing every member available at the moment of research still enabled the researcher to get the desired information. Ten participants from each village were interviewed in order to find out their understanding of the language used in communicating environmental conservation messages in the area, totalling to thirty for the three villages. The communities were engaged in order to get their understanding on the communicative aspect of the conservation process and whether meaningful involvement is done by the communities in the conservation initiatives. The focus on the sampled communities was to test their understanding of the information that is relayed to them by the environmental organisations. The researcher wanted to see how people interpret the expressions about conservation of Mulanje Cedar against the way the agents interpret the same expressions to determine whether there is a gap in understanding of the same concept. This would also help the researcher to know whether the gap creating the conflict is the materials used in information dissemination or it is the language that the agents use which is not easily adaptable.

3.5. Data Collection Procedure

The researcher used information dissemination documents that are used by the two institutions. These were meant to be analysed in terms of the lexical resources they use in communicating to communities to see if they meet their everyday literacies; to identify the linguistic devices that they use when creating the messages; and to examine how the citizens are constructed in the messages in relation to conservation. This was done bearing in mind that in Mulanje the predominant language used is Chichewa because the ethnic language Ellomwe is not commonly used among the communities (see Matiki, 1996/97), therefore the dissemination materials, in

whichever form they come, are mostly written in Chichewa. Cognizant of the fact that the institutions work with people from the surrounding villages, the researcher also engaged the local communities in order to learn how they understand the conservation issues.

3.6. Data Collection Tools

The use of multiple methods/tools and triangulation is critical in attempting to obtain an in-depth understanding of the phenomenon under study. This is the case because besides adding breadth and depth to the study, it also provides corroborative evidence of the data obtained (Denzin & Lincoln, 2003). Therefore, this study used two data collection tools, namely document analysis and interview schedule. The use of these two tools helped to get an in-depth understanding of the language phenomenon under investigation. The results were then triangulated.

3.6.1. Document Analysis

This study got direction on language use in the conservation discourse of Mulanje Cedar from document analysis that were obtained from the communication and extension departments of the MMCT and DoF. Documents, in this case refers to a wide range of written, physical, and visual materials (Ary, Jacobs & Sorensen, 2010). However, this study focused on the written and visual materials because it is concerned with the language and the discursive construction of citizens in relation to the context of situation. The researcher intended to understand a wide array of citizen engagement and how they are constructed in conservation practice through the analysis of documents that are used in the information dissemination of conservation. Interestingly, access to the documents was granted without any restrictions, as such, in contrast with Hall's (1997 cited in Oketch, 2006) claim that documentation on project

failure is hard to find, the researcher had access to annual reports which outlined the project's success and challenges.

However, the analysis of the documents revealed a hegemonic practice in discourse construction where the documents mostly present a power asymmetry in the project implementation. As Oketch (2006:160) observes, "In the social, political and cultural organisation of dominance, it is the powerful elites who dictate events and make decision regarding order of discourses." What this entails is that the documents presents a hierarchy which demarcates the powerful/expert and the powerless/non-expert and that some people are not allowed to think, but follow the dictates of those above them by simply fitting within the frame of order of discourse and social behaviour (see van Dijk, 1993).

For this to be possible, different texts that are used in disseminating environmental conservation messages were analysed in order to understand how the language that is used promotes or prevents citizen participation and dialoguing. The study analysed newsletters, fliers, and posters. These were used to describe and analyse lexical resources of environmental conservation that are used by MMCT and DoF when talking about conservation of Mulanje Cedar, in relation to the context of situation bearing in mind that the discourse exist in the differing social contexts. The study also analysed the pictures that were accompanying the written texts on the posters. How citizens were constructed and positioned, in terms of their assigned roles in complex clauses, was understood from the statements on posters, fliers and newsletters. This was meant to establish whether or not the citizens are given and/or assigned the active participant roles to the conservation process. Operational terms/statements, that is, statements that discussed or described the actual activities of conservation were

extracted and analysed. These were analysed in relation to their ability to engage citizens in debates and dialogue in environmental discourse.

In addition to establishing the ability of language in engaging citizens in its context of use, the documents were also analysed in terms of how they were framed. How messages were constructed and structured has an influence on how readers or listeners interpret and understand the message. The frames are the organising principle in the designing and composition of messages (Schlichting, 2013). In this study, this was done to understand the salient meanings that are buried in the messages. This could come out explicitly or implicitly.

3.6.2. Interview Schedule

Cohen, Manion & Morrison (2000) comment that using interview marks a move away from seeing humans as manipulatable towards regarding knowledge as generated between humans, often through conversations. Kvale (1996 in Cohen et al 2000) views an interview as an interchange of views between two or more people on a topic of mutual interest. He further describes the qualitative research interview as an attempt to understand the world from the subject's point of view, to unfold the meaning of people's experiences, to uncover their lived world. In this regard, this study used interview to elicit information from the officials of MMCT and DoF, and the people from the villages around the forest reserve on the use of language and what they think of the effect such language used may have on the citizens.

In order to gather the opinions, beliefs and feelings about the situations in their own words, the study used semi-structured interviews. With this kind of interview, "the area of interest is chosen and questions are formulated but the interviewer may modify the format or questions during the interview process" (Ary, Jacobs & Sorensen, 2010).

The researcher asks the same questions in order to compare the experiences but he/she has to remain flexible to allow emergence of new information relevant to the topic under study. An interview schedule (Dawson, 2002) was produced to ensure uniformity of questions and continuity. The interview schedule comprised of open questions that were meant to allow the respondents to freely express their views and thoughts on the topics. Before interviewing the respondents, the researcher explained to them what the study was about, its purpose and assured them of their confidentiality of identity (Dawson, 2002; Ary et al, 2010). This was meant to let them make a choice and contribute to the study out of their free will because matters of informed consent and acceptance are human rights issues that need to be safeguarded and respected (Cohen, Manion & Morrison, 2000).

3.7. Data Analysis

Scholars in qualitative research have pointed that there are no set rules for interpreting the data (Dawson, 2002; Ary et al, 2010) and that it all depends on the background, perspective, knowledge, and theoretical orientation of the researcher and the intellectual skills he or she brings to the task (Ary et al, 2010). In analysing qualitative data, “you confirm what you already know is supported by the data, you question what you think you know and eliminate misconceptions, and you illuminate new insights and important things that you did not know but should be known” (Ary et al, 2010:490). This creates controversy over the validity of the qualitative data as being intuitive because there is no clear method of analysing qualitative data.

However, despite such controversies over qualitative data analysis, it is a general understanding that methods for qualitative data should be systematic, disciplined and able to be seen and described (Punch, 1998 in Oketch, 2006). In addition, qualitative

research has an analytical process of analysis that follows a particular pattern that can easily be followed. Creswell (1998 in Ary et al, 2010) describes the “data analysis spiral” on how data is organised and managed, which include reading, reflecting, organising, familiarising, reducing and interpreting.

The study further analysed data using content analysis. This is the technique for making inferences by systematically and objectively identifying special characteristics of messages (Holsti, 1968). This was used to analyse interview data as well as it was collated with document messages in order to understand the patterns of messages that were being put forward.

Data analysis for this study started in the field after observing that some patterns of data were emerging. Since the study focused much on document analysis, it required the researcher to engage in a rigorous task of reading and re-reading in order to understand and capture key concepts that described the process of conservation. The data was then analysed in line with the literature reviewed in chapter two, the theoretical and analytical framework discussed in chapter one.

3.8. Ethical Considerations

The research adhered to ethical considerations. Before carrying out the study, the researcher sought consent from the organisations, Group Village Heads, and the interviewees. The information that was gathered was treated with confidentiality and names of the interviewees in the organisations were not disclosed unless given consent to do so. The researcher requested from the organisations if they could grant him an opportunity to have access to their information dissemination materials.

Before embarking on the actual exercise of data collection, the researcher formally approached the organisations to seek access to the institutions and acceptance by those whose permission was needed before embarking on the task (Cohen et al, 2000). This enabled the researcher to introduce himself and establish “ethical position with respect to the proposed research” (Cohen et al., 2000: 53). It was easy for the organisations to accept the researcher because the researcher was already involved in another research project which had the blessing of these two institutions. The researcher was assigned officers from the two institutions that were responsible for communication and extension services because these were the ones who directly deal with the communities around MMFR.

In addition, the researcher sought permission from the chiefs of the villages. The chiefs granted the permission for the researcher to conduct the study. Before interviewing the local communities, the researcher had to request permission from each respondent if they would be willing to take part in the research. The researcher would introduce himself, and the issue under investigation so that the respondent was well informed on the issues and that they should make an informed choice on whether they should take part in the research or not. Eventually, the respondents were assured of confidentiality of their identity and the information they were providing. They were assured that the information was meant for academic use not any other ways.

3.9. Limitation of the Study

One of the data collection tools that was planned to be used in this study was observation. It is one of the reliable data collection tools because it allows “the researcher to determine whether what is said actually matches actions or may illuminate subtleties that may be outside the consciousness of the person or that the

person cannot articulate” (Ary et al, 2010:432). Realising this advantage, the researcher booked appointment with the responsible officer at MMCT to take part in their outreach activities. Unfortunately before the agreed date, the officer resigned from MMCT and it was difficult for the researcher to re-arrange with other officers because they were not cooperative arguing that that was not their responsibility. However, although this posed a challenge to the study, the available tools managed to capture the data that was needed and the researcher managed to achieve the set objectives of the study.

CHAPTER 4

4.0. RESULTS AND DISCUSSIONS

4.1. Introduction

The chapter discusses the findings from the field by analysing and explaining the data from interviews and document analysis. The chapter will examine the products of social interaction in order to examine the social effects of discursal interaction in environmental conservation. The chapter further analyses texts as “written and printed texts but also transcripts of spoken conversation ...” (Fairclough, 2004:3) and it also extends to the visual images that accompany the written texts. This analysis, therefore, aims at showing how discourse functions as a social practice. The analysis will be guided by the research objectives, the theories and the literature outlined in chapter two. The results have been presented according to the theme depending on the issue in question. The themes include: forms in which conservation information is disseminated; linguistic adequacy of the Chichewa lexical resources used in environmental conservation discourse; linguistic devices used in communication documents; and construction of citizen participation in communication documents.

4.2. Demographic Information of the Respondents

The study engaged both males and females in order to understand the gender dynamics of conservation and utilisation of the mountain resources. The researcher interviewed 13 women and 17 men. The difference in proportion of the respondents

was due to availability of the respondents on the time of field work. What came out from the study was that men are the ones who utilise the mountain resources more than women. In terms of charcoal and timber production, it is men who engage in such activities. It was reported that women usually use the mountain resources for firewood energy and piece works, especially that which involves carrying timbers and timber-making logs from the mountain. Some men argued that the involvement of women in these piece works has resulted in the depletion of trees in the mountain because previously women were not allowed to climb the mountain, as a result trees were conserved.

In terms of age, the respondents' age range was 20 to 60. This was the age range that was actively involved in the activities of either conservation or utilisation of the mountain resources. This age range provided the researcher with rich information as regards the understanding of the terms and expressions used in the conservation documents as well as the conservation and utilisation of the mountain. The study found out that the people within the age range of 20 to 50 are the ones who often use the mountain resources either for wood energy, tour guiding, timber production or charcoal production. This was not surprising to the researcher because this is the most active and productive age group.

The researcher also wanted to find out the education levels of the respondents and also get the picture of the levels of literacy in the area. It was found out that 18 of 30 respondents (60 %) attended formal education up to primary level. The study also found out that 5 out of 30 respondents (17%) did not attend formal education and 23% had gone up to secondary school. These percentages were confirmed by the environmental officials who claimed that literacy levels in the area are very low. This has an impact on the pressure exerted on the mountain resources. It was observed that

due to low literacy levels, many people in the area resort to the mountain for their everyday livelihood. Some are engaged in tea estates while others are engaged in tour guiding and other small-scale business.

4.3. Forms in which Conservation Information is Disseminated

The study sought to find out the means through which the information about the conservation of Mulanje Cedar is disseminated. It was found out that the information comes in the form of posters, fliers, and newsletters. These documents are usually distributed to the people for them to read themselves. However, this is done to complement the face to face meetings that the organisations have periodically with the communities.

The messages on the documents are presented in Chichewa which is the predominant language spoken in Mulanje. For the newsletter, it is bilingual because the messages are in both English and Chichewa. The name of the newsletter is *Sapitwa*, which is a biannual production. It carries news stories, progress reports of different environmental projects and creative stories such as poems that address environmental issues.

In order to achieve their communicative functions, the texts contain the interaction and integration of two or more semiotic resources. The written text is usually accompanied by pictures which illustrate the message that is presented on the document. This is crucial to the messages being presented because the pictures create a concrete situation and enhances people's perception of the phenomena at hand.

4.4. Linguistic Adequacy of Chichewa Lexical Resources Used in Environmental Conservation Discourse

The communicative aspect of environmental conservation initiatives poses a challenging question of language use which, despite being not considered by many, forms the nucleus of the messages. As Sapir-Whorf linguistic relativity theory suggests, language reflects the worldview of its speakers. In relation to the environment, Penman (2001) has argued that the way in which we talk about environmental matters has a direct bearing on what those environmental matters may and may not be. This reflects the everyday use of language as being that of construction of social reality. However, in talking about the environmental matters, attention has been paid to which language should be used in communicating the environmental message. This is mostly based on the sociolinguistic situation in the project area. Not much attention has been placed on the potent messages that the language and the lexical resources being used have on the behaviour of people. The analysis of language in this study considers the language that is used in the conservation initiatives of Mulanje Mountain Forest Reserve (MMFR), specifically Mulanje Cedar and whether the language is adaptable and easily understood by local communities, thus performing its intended job.

4.4.1. Language Used in Environmental Programmes

The officials were asked on the language that they use when communicating conservation messages. This was meant to establish the language that is predominant in the discourse of conservation between the environmentalists and the communities, bearing in mind that Mulanje is dominated by the Lomwe people who many of them do not speak the language. For example, Mulanje District Council (2013) reported

that 52.64% speak Chichewa, 33.62% speak Nyanja, 10.26% speak Ellomwe, and 2.34 % speak Yao. What this means is that since Chichewa and Chinyanja are varieties of the same language officially known as Chichewa, 86.26% of people in Mulanje speak Chichewa. This was also done in order to compare the views of both parties as regards the use of language and whether the language used is well understood by the communities. In response to this question, both officials said that they use and prefer Chichewa because despite the district being predominantly Lomwe ethnically, many people speak Chichewa. One official said:

“It is our mother language in Malawi; and it is understood easily by everyone even the most disadvantaged local communities”

Another official said *“everybody in Mulanje speaks Chichewa”*.

The response that Chichewa is the language commonly used was also corroborated by the local communities.

The officials were also asked on whether they think language is important and that it really matters in environmental conservation. This was meant to find out if they mind the language they use and whether they are aware that language is critical in communication of any project. In responding to this question, they both acknowledged the importance of language and one official further highlighted the significance of using a common intelligible language so that their agenda is easily understood, thus:

“It matters because it enables local communities to understand the message delivered to them and able to implement (sic)” while the other one clearly underscored the

significance of using a common language by saying *“there is no way we can communicate in our work if we do not have a common language to use.”*

The researcher also asked if the officials have ever encountered any difficulties in explaining some terms or concepts in the course of communicating with the local communities. This question was asked bearing in mind that environmental discourse is technical, therefore, there may be some terms or concepts that may be remote to the local communities, thus posing a challenge to the environmental agents in explaining those concepts to communities. However, they responded that they have never had any challenges explaining any term or concept during their job.

The responses above show that despite the area being predominantly Lomwe, the organisations use Chichewa in their programmes. The reason given was that many people speak and understand Chichewa as compared to Ellomwe. This confirms Matiki’s (1996/7) argument that the use of Ellomwe as a mother tongue or second language is decreasing considerably. Environmental issues, being critical to Malawi, have been predominantly presented in English. This begs a question as to whether the organisations face problems in explaining some concepts to the people. In their response, they both said that they do not face any challenges when explaining the concepts. Mostly, they argued that they use what they learnt in their respective training institutions on what and how to communicate to people.

4.4.2. Local Communities’ Understanding of Messages on Documents

Before asking the communities on their understanding on the messages presented on the communication documents, the researcher engaged the officials to find out if there are possible differences or misunderstandings that might have arisen in the understanding and conceptualisation of the environmental terms, concepts and

expressions in the course of their job. On this question, the officials gave different responses. One official said that they do not have difficulties. The other official acknowledged facing some differences in understanding. She said that:

“Yes in very few cases. This happens due to differences in districts of origin, i.e. I am from Chikwawa district. Hence some terms used differ from Mulanje in meaning.”

When she was asked to explain how she overcomes such problems, she said that *“By borrowing terms used by communities I am dealing with.”*

4.4.3. Terms and Expressions Used in Environmental Communication

The local communities were presented with the texts that are contained in the communication documents in order to determine their understanding. Depending on the message, the communities gave varying responses. There were some messages which all the respondents said they understand without any problems because what is conveyed in the message is what they already know as the best practice to conserve their environment. Examples of these texts are as follows:

Moto olusa mu nkhalango umaononga chilengedwe. Ndi udindo wa tonse kupewa moto. Tizimitse moto nthawi zonse tikauona (Wild forest fire destroys biodiversity. It is the responsibility of everyone to avoid fire. Let us put out fire every time we see it.) (From poster Appendix 3)

Chonde makala ayi. Kuotcha makala kukuononga chilengedwe, kukubweretsa umphawi ndi njala. Tikane kugwiritsa ntchito makala (Please stop charcoal production. Charcoal production is destroying

biodiversity, bringing poverty and hunger. Let us reject using charcoal)

(From poster Appendix 4)

16 (80%) out of 20 respondents from the villages that are involved in the co-management system such as Nakhonyo and Mbewa, pointed that they do understand the messages in the overall. What that means is that when they are told of what is expected of them to do in the conservation of the forest, they easily take part in the exercise. This is due to the fact that forest co-management system gives power to the local communities to take care of the woodlots in their communities, therefore more effort is put by the environmental organisation for the communities to understand their role in conservation exercise. However, 69% of the respondents expressed disagreement on some terms or concepts used by the environmental organisations related to the conservation of Mulanje Cedar. They said that their understanding of the concepts is remote from the understanding of the framers of the messages. For example, when they were given a flier (see Appendix 1A) which talks about “*kololani nkhuini zanu mosamala*”, they said that their understanding of “*kukolola*” entails gathering as much and enough mature crops as possible which is different from what it means in the way it has been used in the flier. One respondent said “*ifeyo kukolola chilichonse ndekuti ukuyenela upeze zambili zoti zikukwane popanda choletsa chilichonse chifukwa wagwilapo ntchito, kaya ndi zam’nkhalango kaya zakumunda* (For us harvesting means getting enough for you without any limitations because you have put your effort, be it forest resources or garden crops).” This reveals the different understandings that may have the potential of creating friction between the environmentalists and the local communities. This could be a result of literal translation by the environmentalists in which the original English messages are

simply translated without being reprocessed to meet the level of understanding and the socio-cultural background of the communities.

Responding on how they understand the expressions used in the documents and what the officials say about Cedar, 70% of the respondents from the village that is not involved in co-management pointed that they have problems with the terms in some messages. However, they said that there are some messages that are straightforward and they are easy for them to understand because the messages talk about things that they already know can help to conserve the mountain. They gave example of document on charcoal (Appendix 3) and the one that deals with wild fire (Appendix 4) as the ones that are easy to understand. However, they said in most cases they do not agree with what the posters and fliers say because what is said in the posters and fliers is different from the way they view the trees. As pointed out by Harré, et al (1999: 21) “talking and writing about environmental matters involves the use of lexical, grammatical and pragmatic resources as well as of fragments of partially determinate knowledge of the material and social world.” Therefore, taking into consideration the responses by the communities, it becomes clear that the environmental matters in Mulanje are not entirely presented using lexical resources that represent the knowledge of the material and the social world which the local communities are based. This is resulting in misrepresentation and misinterpretation of the messages, thereby having a different meaning to the communities.

Table 1: Terms and Expressions as Conceptualised by the Local Communities.

TERMS/EXPRESSIONS	COMMUNITIES' VIEWS
Kukolola zam'khalango (harvesting forest resources)	-the term does not agree with what they are saying. For us, harvesting is for crops

	while mountain resources we don't harvest because we don't collect everything we have gathered as we do with crops. -the way the term has been used differs from what we know. If we are to do the way we know the meaning of the term, they say we are wrong. - for us harvesting means getting enough for you without any limitations because you have put your effort, be it forest resources or garden crops. -I have no problem with the term because I know they are talking about cutting trees in the mountain.
Kuthana ndi zomela zachilendo (eradication/clearing of invasive plants)	-in the mountain there is no plant that they should call invasive because what they are calling invasive plants are what help us and again they strengthen the mountain, and make the mountain beautiful. -any tree found in the mountain is important only that Cedar is only found in our mountain that's why we take great care of it but that does not mean that the

	other trees/plants are not important. That's why we are not agreeing with the Trust (MMCT) people. -the issue is not about invasive. These people had an agreement with mining company so that after cutting the entire pine plantation, they paved way for the mining company to start their work. To us the pine they are calling invasive is the one that saves Cedar from depletion. What you should know is that Cedar is very far and to reach there it takes you 12 hours while pine was near. So no one would go far where there is Cedar leaving pine near. -I agree that some plants are invasive. For example, pine deters the growth of Cedar. I've been to the mountain and if you go you will see that where there is pine and Cedar, Cedar doesn't grow well. Therefore, I understand what this means.
Pine ngati mtengo wotetezera Cedar (pine as nurse tree)	-we heard that but that does not mean that pine is not important. What we're against is that they had cut all pine trees

	because it was just planted as a nurse tree to Cedar. These are simply their excuses to destroy the mountain. -that pine was just planted, I heard that but it is not true that Cedar is failing to grow because of pine. Cedar is a spiritual tree, it grows on its own and it doesn't need to be planted and monitor its growth. If you go today and see where MMCT planted Cedar 15 years ago, you will see that it is failing to grow yet there is no pine. You can't plant Cedar. -I know it was just planted as a nurse tree. *probing question: so do you think it is important to cut down all those trees that were planted simply to conserve Cedar? -no, it's not like that but pine needs to be cleared especially the one near Cedar which is deterring the growth of Cedar. (3 people said this)
Cedar as a national tree	-For us Cedar is a precious tree and very important because it is only found in Mulanje therefore it is important to take

	care of it.
Clearing weeds	-For us when we say weeds, we mean unwanted plants in the garden. So if we relate with the mountain, which is not true because every plant in the mountain has its function and is important therefore there is need to take care of them.

As it can be seen from the above table, (90%) of the respondents showed resistance to agree with the environmentalists on what those terms mean. It has to be pointed that those that indicated that they have no problems with the terms, after further probing, were discovered to be members of the co-management committees who are in constant interaction with the organisations and are said to be beneficiaries of the organisations. What is clear from the responses is that the respondents agreed that Mulanje Cedar is a precious and a valuable tree to them and they understand that it has to be protected. However, what they do not agree with is the meaning that is attached to pine. They argued that considering pine as an invasive plant is not correct because the presence of pine in the mountain helps to protect Cedar in the sense that instead of harvesting Cedar which they acknowledge takes long to mature, they use pine for their social and economic activities, hence pine cannot be invasive. Some respondents went further to accuse the environmentalists that the use of such terms is simply a guise for them to clear the mountain. The respondents also echoed the same sentiments on pine being a nurse tree. They pointed that much as pine was initially

meant to protect Mulanje Cedar, they still find it necessary as a tree that protects Cedar from wanton logging.

4.4.4. Linguistic Adequacy of Language

In order to understand the language used by the environmental organisations, the study analysed the discourse in the newsletter, posters and fliers that are used in disseminating messages on conservation. Some information was extracted from the texts mentioned to assess the linguistic adequacy to see if the language performs its job of delivering the intended messages without vagueness and ambiguity. The lexical resources were analysed to determine their referential adequacy, and semantic adequacy.

4.4.4.1. Referential Adequacy

According to Haugen (1966:62 as cited in Harré, Brockmeier & Mühlhäusler, 1999), referential adequacy means “the capacity of the language to meet the needs of its users as an instrument of referential meaning.” Harré et al (1999) further comment that a language is referentially adequate if it has the lexical resources to discuss a given topic in sufficient detail, ‘sufficiency’ being relative to the task at hand. Chichewa, which is the mostly used language in the conservation projects in Mulanje, as will be observed from the texts to be analysed has shown that in some cases it fails to sufficiently provide the lexical resources that could spur dialogue among stakeholders because it has some terms that are open to numerous interpretations. This in some way impacts on the meaning-making of the task at hand.

Below are some examples of extracts culled from the texts to see how adequate the language is in advancing conservation of Mulanje Cedar:

1. *Kololani* nkhuni zanu mosamala (*Harvest* your firewood carefully) (Appendix 1A).
2. *Dulani* mitengo yanu kupititsa patsogolo mphukila (Cut your trees to allow the tree to sprout) (Appendix 2A).

From the above data (1) & (2), it looks to be quite easy and straight forward but the connotations and the referential ability of some words presents a vague picture. For instance, in using *kukolola* (harvesting) whatever is in the mountain, people get the impression that one must get enough of the harvest. When asked on what they understand by the term harvesting, 75 percent of the respondents said that to them it means gathering as much as one would be satisfied with. One respondent actually said “*ifeyo kukolola chilichonse ndekuti ukuyenela upeze zambili zoti zikukwane popanda choletsa chilichonse chifukwa wagwilapo ntchito, kaya ndi zam’nkhalango kaya zakumunda* (For us harvesting means getting enough for you without any limitations because you have put your effort, be it forest resources or garden crops).” This ambiguity stems from the literal translation of the word as used in agricultural realms in which one harvests mature crops from the garden. In addition, the way the second extract has been syntactically constructed presents some semantic problems. The phrase “*Dulani mitengo yanu kupititsa patsogolo mphukila*” does not make much sense because that is not a correct expression in Chichewa. This may result in misinterpretation and misunderstanding. Instead it would have been better if it was phrased as “*Dulani mitengo moyenera kuti ithe kuphukira*” and even though with this alternative expression, the non-specification of the types of trees to cut down, provides a challenge. Not every tree sprouts, therefore specification of the trees that sprout would guide the local communities on which trees to cut.

In environmental discourse, harvesting is qualified, that is, it may be legal and illegal as illustrated in the extract below:

3. Ngakhale tachita bwino mu zinthu zambiri, tidakakumanabe ndi zovuta zina zomwe zikuononga chilengedwe mu phiri la Mulanje, zina mwa izo ndi monga *kukolola zachilengedwe munkhalango popanda chilolezo* komanso kuzembetsa nkhuni kupita nazo kumadera ammatauni (In spite of many successes registered, there remains challenges that have great potential for continued loss of the Mulanje Mountain biodiversity such as *illegal forest resource harvesting*, which include *logging and trafficking of firewood* into the urban centres).
4. Ngakhale pali kusintha kwakukulu pothana ndi *kukolola zachilengedwe mosalodwa, kagwiritsidwe ntchito ka zachilengedwe kakunka kakukulirakulirabe* (Although significant impact had been registered in the reduction of *illegal resource harvesting, resource extraction* from MMFR reached unprecedented proportions)

From the extracts (3) and (4) above, legal harvesting entails having permission to reap from the mountain resources. This somehow contradicts the essence of ‘harvesting’ the mountain resource considering that the authorities encourage co-ownership of the mountain. Relating what the extract stipulates about illegal harvesting and what the respondents said about their conception of harvesting, one gets the impression that there is a likely misunderstanding due to different conceptions of the concept of harvesting. What this suggests is that the respondents question the illegality of

harvesting because to them it is deserved harvest. This is why Halliday (1994) considers context as an important communicative aspect in every discourse. Halliday (1994) suggests that when producing discourses, we must consider the context of production of the texts produced. Therefore, the different conceptualisation of the term “harvesting” may result from different contextual underpinnings of the interlocutors in the discourse. However, to some respondents they said they do understand what it means when the message is presented in that way.

What may be challenging again in the other extract (2) given above is that by just saying “dulani mitengo yanu kupititsa patsogolo mphukira” without specifying what type of trees in terms of age, and also how many trees to be cut creates a fuzzy picture of what constitutes legal “harvesting” and illegal “harvesting”. But again there are some trees that do not sprout once they are cut down, for example pine. They simply die. The document (see Appendix 2) does not acknowledge that not all trees have “mphukira” in order to advise the local communities on what they should do when they are dealing with such trees. That kind of erasure gives leeway to the villager to cut as much as he/she can, especially for those who believe that harvesting must be gathering enough for oneself. In extract 3 above which is talking about “...*kukolola zachilengedwe munkhalango popanda chilolezo* komanso kuzembetsa nkhuni kupita nazo kumadera ammatauni”, there are two co-hyponyms of tree cutting, “... harvesting logging...” which does not underline the differences in using the two terms. The extract shows that harvesting presupposes logging but in a negative sense.

On the aspect of maintaining and making sure that Cedar is growing uninterrupted, the lexical resources that depict other plants as destructive to the growth of Cedar are used. As part of the exercise to create a growing space for Cedar, the environmental organisations removed all the plants in the areas where Cedar was growing. The

expressions that have been continuously used in the conservation of Mulanje Cedar to explain the actions taken on removing the other plants are given below:

5. Ngakhale kafukufuku waonetsa kuti pakutha pa zaka khumi zoteteza chilengedwe ntchito yaikulu yagwirika *pothana ndi zomera zachilendo monga pine zomwe zimatha kuononga zomera zinzake*, ntchito yaikulu yothana ndi zomerazi idakalipo yochuluka pa Chambe komanso pa Sombani (Although it was recorded that great achievement was made in the *eradication of the invasive Pinus patula* on the Chambe and Sombani basins at the end of ten years of conservation activity; still, there remains more work to be done on yet more difficult *invasive plants*).
6. *Kuchotsa zomera za chilendo zomwe zimalpheletsa zomera za chilengedwe kuti zimere (Clearing of invasive alien plant species)*
7. Kulimira mmalo momwe mu mamera cedar (Clearing weeds in areas where cedar is growing)

The term “kuthana (eradication)” as they use it in extract (5), connotes complete removal of any such type of “unwanted” plant (unwanted being any plant other than Cedar). However, as it is used in relation to Cedar, Pine and any other plants, it eludes the essence of promoting biodiversity. When the communities were asked on what they make of such expressions mentioned above, most of them (90%) said that that is the whole reason they have been in conflict with the organisations because to them everything in the mountain is important, especially Pine. They said Pine grows faster than Cedar and it was being used as a way of conserving Cedar because many people used to cut Pine more than Cedar. Again to the people, Pine help with the weather conditions such as rain and preserving the general ecosystem. This shows that the use

of these lexical resources gives a different connotation to the people. For example, Pine to the people can never be “weed” as it is important to them. Such terms as “invasive” and “alien” alienate people, therefore creating a negative relationship between those controlling the discourse and those it is intended for. The term “invasive” to the environmentalists means anything that is encroaching and/or growing where they believe it is not supposed to grow in relation to the tree species they want to preserve and, therefore, causing uneasiness in the growth of the needed plant. However, to the communities, the word carries a different connotation as it implies other plants, including Pine and M’bawa which they value as important species of plants.

In addition to the above terms, the documents have some expression such as “*Kutentha tchire moteteza kunachitika mu mwezi wa July chaka chino* (*Controlled burning was carried out in July*), which functionally means setting fire in the prescribed areas in order to get rid of unwanted plants. “Burning” (kutentha) in itself carries negative connotation regardless of what has been set on fire. The addition of the modifier “controlled” is meant to give a positive connotation of prescription. Mühlhäusler (2001) has argued that sometimes the “controlled or prescribed” fire gets out of control and disturbs the ecosystem. Even if the burning remains controlled, the process of burning and its by-products may be destructive to the adjacent environment.

4.4.4.2. Social Adequacy

According to Harré et al (1999), social adequacy means that language should be accepted to a maximum number of speakers in the target community, promote social unity and intercommunication and cater for present as well as anticipated future social

needs. What this means is that language used in conservation discourse must bring unity of purpose among all the stakeholders, and must present similar semantic undertones to all the people as they engage in communication. The challenge with environmental discourse is its nature being a discourse that is technical. The expression of meaning is done using terms that may sometimes misrepresent the information and can easily be misinterpreted, thereby creating disunity. This is due to the different contexts from which the stakeholders are operating. Mostly, the technical language is functional to that discipline and therefore, it is easily understood by those who share the discipline. However, Halliday (1994) advocates the use of context appropriate language so that all stakeholders involved do understand the discourse.

Looking at the above extracts (5), (6) & (7), some expressions such as “harvesting”, “clearing of invasive alien plants” clearly have not been accepted by many speakers considering differentiated meanings that are derived from the expressions. Apparently, the differences in meaning have resulted in conflicts that erupted in the area over what was needed to be done to conserve Cedar. What the expressions mean to the communities is different from what they mean to the environmentalists. In that case, the language does not promote social unity. For example, the word “zomera zachilendo (invasive plants)” referring to any plant other than Cedar has been a contentious issue between the Forestry Department and MMCT officials on one hand, and the communities on the other. This is due to the fact that when the Forestry Department and MMCT “cleared and/or eradicated” Pine as an “invasive (alien) plant” conflicts erupted as people demanded the replanting of Pine. They claimed that Pine grows faster thus substitutes Cedar which takes years to mature. They also claimed that the Pine plantations provided employment to the communities as it used to attract tourists, and was also a source of wood energy.

These social and economic reasons cited by the communities contribute to how they understand the lexical resources used by the environmentalists in their conservation campaigns, hence misinterpretation of the messages. In this case, the environmentalists fail to process their language to suit the socio-economic contexts of the communities in order to clear any misinformation that result from the lexical resources they use in the messages which project a different connotation.

This challenge may also be a result of different conservation strategies that are advanced by the environmentalists and the local communities. The study established that before the coming of MMCT and their scientific intervention in the conservation process, the local communities had their belief systems that helped in the conservation of Mulanje Mountain biodiversity. For example, the researcher was told that anyone wanting to cut a cedar tree had to strip naked in order to see the tree, and that not everyone was allowed to go into the mountain to avoid angering the spirits. However, over the years, people stopped following these beliefs. As a result the desire for utilisation of mountain resources resulted in depletion of mountain resources, hence the coming of MMCT. This means different perceptions of the same phenomenon but different lexical resources. In this case, the research found out that some lexical items used by environmentalists are not accepted because they differ in meaning with the local communities. For instance, the expression “kukolola za m’nkhalango mosaloledwa” (illegal forest harvesting) among the local communities say “kuba za m’nkhalango” which clearly give the exact picture of what the activity is.

What the above observations suggest is that language of environmental discourse has been used to reflect the differences in opinion on what is important regarding the conservation. The use of functional terms by the environmentalists represents their views on what is significant in the conservation process. This confirms what some

scholars (e.g. Balyamajura, 1995) pointed, that for environmentalists, the priority is preservation of the biodiversity for future use while for the local communities, the priority is access and utilisation of the biodiversity. In this case, the lexical resources used by the environmentalists reflect that need for preservation of biodiversity with emphasis on Mulanje Cedar. On part of the communities, they believe that having access to the resources and being able to use them in the course of conservation is important. The use of language in this way reflects the worldviews that environmentalists and local communities have that are informed by their priority of needs.

The use of language in this way reflects the control of text by the environmentalists to advance certain ideological underpinnings to the people. As van Dijk (1993) puts it, the gatekeepers control what has to be accepted and not accepted. In conservation discourse, control of the messages is in the hands of the environmental organisations who command technical knowledge of the conservation issues. As a result they work towards controlling the behaviour of the communities towards conservation of Mulanje Cedar. This is done through the use of functional registers that relate to their field. This means that to the environmentalists, the language used is appropriate and they understand what they mean. For instance, by saying “*kukolola zachilengedwe mosaloledwa, kagwiritsidwe ntchito ka za chilengedwe...*” and “*Kuchotsa zomera za chilendo zomwe zimalpheletsa zomera za chilengedwe kuti zimere (Clearing of invasive alien plant species)*” they are advancing the idea that to them much as harvesting is done on what one deserves, that must be done as a way of reaping although it is unclear as to how much. On the eradication of invasive pine, the ideological underpinning that is revealed is that despite being part of the ecosystem and indeed despite being seemingly significant to the well-being of people, pine can

be cleared off because to them that is what would technically help the conservation of Cedar.

However, Halliday (1994) has pointed out that the appropriateness of language use is determined by the field (all aspects of physical communication, including setting, topic, purpose and the speaker's intention) and tenor (i.e. people involved in the communication and their relationship, including roles and social positions that participants have). Halliday adds that language is never context-free. According to Halliday's SFG theory, language is not good or bad, it is appropriate to the context of use. In view of the language used by the environmentalists in Mulanje, the language is appropriate to them but it is contextually inappropriate to the local communities. It does not consider the participants and their social roles. Thompson (2004) adds that roles and relationships between participants carry with them social interests. The extracts (5), (6) & (7) above reveal that the language used does not factor in the socio-cultural context of the local participants whose understanding of the technical language is limited. This creates misunderstandings and misinterpretation of the messages because the language used has not responded to and is inappropriate to the context of the addressee.

4.5. Linguistic Devices Used and their Impact to Dissemination of Environmental Information

The study also sought to identify the linguistic devices that have been used in producing environmental conservation messages. This was aimed at drawing the underlying effects that those devices may have on the message being conveyed. This was done on the assumption that language is not neutral, it communicates the inner feelings and ideological underpinnings of people contained in the conscious and

subconscious mind. However, some of these ideologies may not explicitly be explicated in the texts. The study identified four linguistic devices, namely: euphemisms, metaphors, erasure, and framing. These had been identified from the texts that have been extracted from the communication documents (see appendices). Some messages in the texts are talking about general conservation of MMFR and others are specifically talking about the conservation of Mulanje Cedar.

The following sections focus on metaphors and euphemisms, erasure, and framing as some of the linguistic devices that are prominent in the corpus.

4.5.1. Euphemisms and Metaphors

The linguistic devices that have received a lot of attention from a number of scholars in ecolinguistics and/or ecological (environmental) linguistics (see Harre et al, 1999; Mühlhäusler 2001; Schultz, 2001) are euphemisms and metaphors. The analysis of environmental discourse has revealed that the language used is replete with euphemisms and metaphorical expressions.

The texts reflect the use of euphemisms and metaphors when talking about the conservation of Mulanje Cedar. Some of the texts that show these devices are presented below (it should be noted that the part of the text to be analysed has been italicised):

4.5.1.1. Metaphor

8. Ngakhale kafukufuku waonetsa kuti pakutha pa zaka khumi
zoteteza chilengedwe ntchito yaikulu yagwirika *pothana ndi*
zomera zachilendo monga pine zomwe zimatha kuononga zomera
zinzake, ntchito yaikulu yothana ndi zomerazi idakalipo

yochuluka pa Chambe komanso pa Sombani (Although it was recorded that great achievement was made in the *eradication of the invasive Pinus patula* on the Chambe and Sombani basins at the end of ten years of conservation activity, still, there remains more work to be done on yet more *difficult invasive plants...*)
(extracted from *Sapitwa* newsletter)

4.5.1.2. Euphemisms

9. *Kuchotsa zomera za chilendo zomwe zimalepheletsa zomera za chilengedwe kuti zimere* (*Clearing of invasive alien plant species*) (extracted from *Sapitwa* newsletter)
10. *Kutentha tchire moteteza kunachitika mu mwezi wa July chaka chino* (*Controlled burning was carried out in July*) (extracted from *Sapitwa* newsletter)
11. *Kulimira mmalo momwe mu mamera cedar* (*Clearing weeds in areas where cedar is growing*) (from the discussions with officials)

Reading through the documents by environmental organisations involved in conservation of Mulanje Cedar, it is evident that some expressions are used to paint a positive picture yet the activities described by those expressions are exploitative in nature to the environment. For instance, expression (8) presents an impressive way of conserving Mulanje Cedar so that its growth is not impeded by other plants. However, the collocation of the words “kuthana (eradication),” “paini (*Pinus patula*),” and “zomela zachilendo (invasive plants)” defeats the purpose of conserving the biodiversity of MMFR, of which Mulanje Cedar is part of. The term “eradication”

means complete removal of unwanted objects, in this case plants such as pine. The word “invasive” has the element of trespassing or getting into something that one is not meant for. In this case, this means completely getting rid of pine and any other plants that are part of the MMFR biodiversity. In conservation discourse, the implication for the use of this expression plays down the impact of the activity of removing the plants that are significant to the well-being of the Mulanje Mountain ecosystem as well as to the communities around MMFR.

In addition, the lexical item “kuthana” has a metaphorical connotation of war or combat. It projects a connotation of combating the “zomela zachilendo (invasive plants) which are regarded as the enemy of Mulanje Cedar conservation. In view of the context of use, despite lexical resource being appropriate to the environmentalists, it is inappropriate to the context of local people because the invasive plants being ‘eradicated’ are in fact not the ‘enemy’ to them, rather they are regarded beneficial to their livelihood. This echoes what most respondents pointed out that those invasive plants are still of value to their livelihood.

Related to the expression (8) above is extract (9) “*Kuchotsa zomera za chilendo zomwe zimalepheletsa zomera za chilengedwe kuti zimere (Clearing of invasive alien plant species)*. The verb “kuchotsa (clearing)” is used to describe removal of native vegetation, (Schultz, 2001). The word has very positive connotations such as bright, open, and light (Schultz, 2001). So this means that the use of this word is meant to portray a picture that the organisations mean well by “clearing” the “invasive alien plant species” because what they want is an open area conducive for the growth of Cedar. The question is: is the activity positive as the usage of the word is meant to be by the conservationists? As already alluded to before, asking the people in Mulanje, many of the respondents complained that the “clearing of invasive plants” such as

Pine has led to disastrous effects such as soil erosion and erratic rainfall and high temperatures which have affected the quality of water in the river which they (communities) rely for domestic use and also the water levels of the rivers. One respondent actually said:

“Madzi anachuluka kwathu kuno, mumtsinje womwe timadalira wa Likhubula munabwera madzi a matope. Nyengo yasintha ndipo zinthu zambiri zasintha kuphiriko kamba ka kuchotsa mitengo yomwe akuti ndi ma invasiveyo (Water flooded here and our reliable river, Likhubula, had soiled water. Climate has changed and many things in the mountain have changed because of clearing the trees they are calling invasive)”.

This means that the expression “kuchotsa zomela zachilendo” has been used euphemistically to hide the negativity of the activity taking place on the mountain. It also shows the extent of grammatical metaphor in scientific texts (Halliday, 1994) in which “clearing” has been nominalised, thereby changing the material process in it into a “thing” in the nominal group. This hides the agent that was responsible for the “clearing” of the trees. In this case, the use of more accurate and appropriate expressions to clearly depict the activity is necessary. This does not mean that the congruent realisation is better (Halliday, 1994) but it may be appropriate to the context of use.

However, when the environmentalists were asked of what they make of the issue raised by the respondents, they said that the activity is benign insofar as conservation of Mulanje Cedar is concerned. They argued that probably the problem was lack of awareness in the beginning of the project so as to enable local communities understand what the concept meant. However, they acknowledged that some terms

and expressions used in their posters and fliers have misleading messages. For example, on the poster which says “dulani mitengo yanu kupititsa patsogolo mphukila” (cut your trees to allow the tree to sprout), they said that the lexical items are indeed misleading because it gives people room to cut trees unnecessarily. They also gave an example of the expression “illegal harvesting” which environmentalists say “kukolola mosaloledwa” which they said could well be said as “kuba” as the local people understand it.

The use of euphemisms and metaphor in environmental conservation discourse could also be attributed to the need by the conservationists to downplay unpleasant realities (Schultz, 2001). Some activities on Mulanje Mountain that are done to protect Mulanje Cedar may have devastating effects to the ecosystem. For example, the phrase “*Kutentha tchire moteteza kunachitika mu mwezi wa July chaka chino* (*Controlled burning* was carried out in July)” is meant to downplay the effects of burning by adding the modifier “kotetezedwa (controlled)”. It brings out the understanding that the burning exercise is prescriptive, therefore not dangerous. As Schultz (2001) contends, controlled burning may get out of control. By also nominalising “burning” they are changing the activity into a thing and theme. This metaphorical expression clearly hides the agent who did the act of “burning” the protected area, thereby leaving the expression open to guessing as to who was/is responsible for burning.

Looking at the contextualisation and the functional use of the language by the environmental conservationists above, it may be deduced that the linguistic resources for representation of the realities are different between conservationists and the communities. This supposedly contrasting use of linguistic resource in talking about environmental conservation may result in distancing and discouraging dialogue and

participation of the communities. However, in the course of spreading out the message of conservation, the communities have to make sense of the information. In Mulanje, communities are still considered the integral part of the environmental project and their participation is crucial to the implementation of conservation of Mulanje Cedar.

Making sense of the potentially obscure messages carried in the language used in conservational discourse would enable the communities to actively engage in the discourse. Usually the esoteric conservational matters that are scientific in nature are decoded by anchoring the information which involves “categorisation of unfamiliar objects through their comparison with an existing stock of familiar and culturally accessible objects” (Jaspal, Nerlich & Cinnirella, 2014). For example, when the conservationists are saying “Ngakhale pali kusintha kwakukulu *pothana ndi kukolola zachilengedwe mosaloledwa, kagwiritsidwe ntchito ka za chilengedwe kakunka kakukulirakulirabe*” (Although significant impact had been registered in the *reduction of illegal resource harvesting, resource extraction* from MMFR reached unprecedented proportions and counting (sic)) and “*Kulimira mmalo momwe mu mamera cedar*” (*Clearing weeds in areas where cedar is growing*) to mean logging of the only required trees and removing unwanted plants respectively, although used euphemistically and metaphorically, the communities are expected to analogise the expressions to the culturally available scenarios and make conclusions on that, that is, relate to what they know in their everyday life, for example, what ‘harvesting’ and ‘weeds’ means in their everyday discourse. However, this may not always be possible due to differences of cultural contexts of the producers of the message and the local communities, who are the consumers of the message.

In the above extracts, the analogous use of harvesting in reference to maize creates an impression that includes reaping from the resources that are meant to benefit the local people. However, this activity of “harvesting” is categorised as either “legal” or “illegal” depending on the quantity and quality of the harvest. The other extract does not mention the unwanted plants (weeds) in the Chichewa translation, as it has been done in English, which leaves people guessing what these unwanted plants are. This can result in misrepresentation and misinterpretation of reality since these two parties are operating from dissimilar socio-cultural contexts. The use of euphemisms and metaphor is meant to control the discourse (van Dijk, 1993) and portray their command for technical knowledge and mark off the expert from those who are uninitiated, (Halliday, 1994).

4.5.2. Erasure

The use of language in environmental conservation discourse depicts an element of distancing the plants and animals from human consciousness (Stibbe, 2012). The language of environmental conservation in Mulanje erases some important cognitive stimulators that could prompt action from the local communities. This is done by either abstracting the resources meant for conservation or in some cases omitting the plant species that is being targeted for conservation. This is shown in the examples below:

12. Kuchotsa zomera za *chilendo* zomwe zimalpheletsa zomera za *chilengedwe* kuti zimere (*Clearing of invasive alien plant species*) (extracted from *Sapitwa* newsletter)

Looking at the statement (12) from newsletter given above, it explains about the plant species that must be removed. However, this is done in an obscure manner. It does not

specify the actual trees that constitute the “invasive alien species” that are supposed to be eradicated. The mentioning of the actual plants species could stimulate the imagination of people to act and participate in the process of conservation. By simply abstracting and massifying “zomera zachilendo” and “zomera za chilengedwe” does not give a clear picture of which trees of the so many species are “invasive”. This leaves a faint trace of what the local communities need to know of the plants that need eradication. In contrast to the statement (12) above, a more concrete statement is presented in the same newsletter, which makes clear what this invasive plant is:

13. Ngakhale kafukufuku waonetsa kuti pakutha pa zaka khumi zoteteza chilengedwe ntchito yaikulu yagwirika pothana ndi *zomera zachilendo monga pine* zomwe zimatha kuononga zomera zinzake, ntchito yaikulu yothana ndi *zomerazi* idakalipo yochuluka pa Chambe komanso pa Sombani (Although it was recorded that great achievement was made in the eradication of the *invasive Pinus patula* on the Chambe and Sombani basins at the end of ten years of conservation activity; still, there remains more work to be done on yet more difficult *invasive plants*)

The statement (13) mentions what the invasive plant is in the context of Mulanje Cedar conservation. In this case, by clearly stating that pine is the invasive plant, it would evoke people’s imagination of what this tree is, what value it has in relation to cedar, and what action they may take in order to get involved in the conservation process. The statement, however, continues to leave a trace of what other invasive plants are as it indicates that “yet more difficult invasive plants” are yet to be eradicated.

Another way that erasure occurs is through the use of lexical resources that abstract the living beings in the forest reserve. The statement from the fliers (see figure 1) reads: “moto olusa munkhalango umaononga *chilengedwe* (forest fire destroys the *biodiversity*). The lexicon “*chilengedwe* (*biodiversity*) is more abstract. This represent the coming together of a diversity of animals and plants but the imaginable individuals are deeply buried within the abstractions (Stibbe, 2014). This could be differentiated with the other statement which presents the biodiversity vividly, although with some degree of erasure:

14. “Ngakhale tachita bwino mu zinthu zambiri, tidakakumanabe ndi zovuta zina zomwe zikuononga *chilengedwe mu phiri la Mulanje*. Zina mwa izo ndi monga *kukolola zachilengedwe munkhalango popanda chilolezo komanso kuzembetsa nkhuni kupita nazo kumadera ammatauni* (In spite of many successes registered, there remained challenges that have great potential for continued loss of the Mulanje Mountain *biodiversity* such as *illegal forest resource harvesting*, which include *logging and trafficking of firewood* into the urban centres).

The Chichewa statement is even more abstract as compared to its English equivalent. The “biodiversity” is partly elaborated as being the “forest resource” which is further clarified by being referred to metonymically by the function they are serving (Stibbe, 2012) “firewood”. This somehow presents a picture of what those biodiversity are, that is trees, although it does not specify which trees considering that Mulanje mountain has many tree species that are of great value apart from the Mulanje Cedar.

The omission of the plant species that are considered “weeds” constitute another instance of erasure. The statement “*Kulimira mmalo momwe mumamera cedar (Clearing weeds in areas where cedar is growing)*” does not mention what these weeds are. These could be other equally valuable trees but are considered weeds in comparison to Mulanje Cedar which is the primary tree for conservation. In the Chichewa statement, the material process of “kulimira” (clearing) has no “goal” (Halliday, 1994), that is, the nominal group or participant that the material process is projected to. This is in contrast with the English equivalent which clearly mentions the “goal”, that is, the “weeds”. By not mentioning explicitly what has to be cleared, the statement leaves a trace that people would on their own guess what could it be, which in the case of Mulanje has proved to be problematic as it has ignited conflicts between the environmentalists and the local people because every group has its own interpretation of the statement.

4.5.3. Framing

One of the devices that the study observed to be used in the texts is framing. Framing is manifested in the way messages are presented. The choice of some lexical resources influences the decisions that the readers of the text may make. This may be done implicitly or in some cases explicitly. The study identified three types of framing prominent in the texts. These include emotional appeal frame, which targets a broad range of positive and negative sensing emotions including compassion, guilt, hope, empathy, and anger; fear and shock frames, which attempts to arouse the emotion of fear and the recommendations for preventing the consequence; and risky frames, which presents potential outcomes as losses or gains. These are discussed in the following sub-sections.

4.5.3.1. Emotional Appeal Frame

One of the fliers carries a message written in big letters written: “*Moto olusa mu nkhalango umaononga chilengedwe. Ndi udindo wa tonse kupewa moto. Tizimitse moto nthawi zonse tikauona*” (*Wild forest fire destroys biodiversity. It is the responsibility of everyone to avoid fire. Let us put out fire every time we see it.*). This extract rests the responsibility of making sure that fire is always avoided in the hands of the communities. Emotional framing when communicating environmental messages targets a broad range of positive and negative sensing of emotions including compassion, guilt, and empathy (Diedring, 2008). By giving people the responsibility to take care of the biodiversity, it is appealing to their emotions and empathy to feel compassionate about the environment, and feel guilt whenever they have failed their responsibility. By using the word “olusa” (fierce) they want to depict fire as very destructive and thus need not to be left unattended. This may prompt the communities to be on alert every time to make sure that no fire destroys the biodiversity.

4.5.3.2. Fear and Shock Frames

Diedring (2008) has argued that fear and shock framing of messages in environmental communication is used so that an audience member is so shocked by what he/she is witnessing, and therefore something must be done about it. This kind of messaging is evident in one of the fliers (figure 2) used in sensitising people on the need to conserve the trees by avoiding making charcoal: “*Chonde makala ayi. Kuotcha makala kukuononga chilengedwe, kukubweretsa umphawi ndi njala. Tikane kugwiritsa ntchito makala*” (*please stop charcoal making. Charcoal making is destroying biodiversity, is bringing poverty and hunger. Let us reject using charcoal*). The message is meant to arouse emotion of fear in people that some consequence may

follow if the recommended action is not followed. By talking about poverty and hunger, the message is meant to influence people's actions in order to end hunger and poverty. The desired emotion in such framing is that the message receiver feels "some terrible consequence or harm that will befall the individual for not adopting the recommended response" (Walton, 2000:1) in Diedring, (2008). The arousal of sufficient fear in a person makes them believe things which they would reject in calmer situations, (Walton, 2000 in Diedring, 2008). Since hunger and poverty are the most feared life ills, the message would prompt people to act on the problem of charcoal making. This in a way would promote preservation of Cedar which always becomes the target of logging for economic activities.

4.5.3.3. Risky Frames

One of the frames salient in the newsletter is risky frame. This kind of framing presents potential outcomes as losses or gains. For instance, in the statement: "*Kuchotsa zomera za chilendo zomwe zimalpheletsa zomera za chilengedwe kuti zimere*" (*Clearing of invasive alien plant species*), the message endeavours to persuade people that there is a risk of not having other plants to grow because of the invasive plants. Unless the invasive plants are cleared, the risk will still be there. Regardless of what those invasive plants are, whether they are equally valuable, that should not be a concern if the risk of not having other plants to grow is to be averted.

Another extract that shows risky framing is "*Chonde makala ayi. Kuotcha makala kukuononga chilengedwe, kukubweretsa umphawi ndi njala. Tikane kugwiritsa ntchito makala*" (*please stop charcoal production. Charcoal production is destroying biodiversity, is bringing poverty and hunger. Let us reject using charcoal*). This extract aims at alerting the local communities on the risk they face if they do not stop

charcoal production. It states that they run a risk of experiencing hunger and poverty. This would prompt the communities to act on curbing charcoal production.

The linguistic devices used in the communication documents reveal the meaning problems that may arise from how the lexical resources are used. In case of framing, they are implicit such that their effects may not be so overt but they may manifest in how the local people relate to the authorities in the conservation of biodiversity. This may be due to the interpretation and understanding of the message that creates a fearful mentality in the people to act on the depletion of Cedar population. However, this is complicated by the lexical resources that present the information in a euphemistic and metaphorical way, which going by what the respondents said, already faces some resistance in terms of accepting what the messages are saying. The communities understand the documents but they do not agree with the way the message is packaged. This is because the language is abstract and misrepresents the everyday understanding of the language of the people when talking about conservation of Mulanje Cedar. This defeats what Halliday (1994) advocates that language must be appropriate to the context because a text is an authentic social interaction material.

4.6. Discursive Construction of Citizen Participation in the Environmental Discourse

In its quest to examine the language of engagement in the conservation discourse, this study sought to examine how the citizens are included or excluded in participation of the conservation process. This was done by analysing information dissemination documents to see how the language in the written text is used to construct the participation of local communities. In order to examine how the citizens are

constructed, verbal transitivity in the clauses from the environmental documents was analysed in order to see how the elements of “goings-on” in relation to actors/participants are being presented.

The texts show impersonal agents, double positioning of citizens, direct agent, obligation assignment, and the use of imperative mood.

4.6.1. Impersonal Agents

The texts have shown that there is the use of lexical items to denote an agent of action in the clause without personalising the agent. This is done through the use of nominal items that do not address a specific person. Examples of the texts that show impersonal agents are as follows:

15. A Malawi okonda dziko lawo salola kuti moto olusa uwononge zachilengedwe (Malawians who love their country do not allow wild fire to destroy biodiversity).
16. Ndi udindo wa m'Malawi wina aliyense kuonetsetsa kuti chaka chili chonse wabzala mtengo umodzi kapena kupitilira apo (it is the responsibility of every Malawian to make sure that he/she has planted one or more trees every year).

The analysis of the texts (1)5 and (16) above have shown a variegated stylistic complexity of clausal positioning of the agent. Some texts have impersonal agent resulting from general lexical items denoting the actors in the clause. For instance, the statement: “A Malawi okonda dziko lawo salola kuti moto olusa uwononge zachilengedwe” (Malawians who love their country do not allow wild fire to destroy biodiversity), does not specify the actor who cares for the biodiversity. The mental

process sensor “okonda dziko lawo” and the material process “(sa)lola” are meant to be performed by the general participant actor “a Malawi”. This addresses the citizens as general Malawians without specifying which group of Malawians in this case are responsible. This kind of citizen construction may distance people in the project area because they may not feel that the information is addressing them directly, rather it is addressing some people other than him/her.

In some instances, the impersonality is being achieved by nominalisation of material process and properties collocated with the general referent of the citizens. For instance, in statement (16) the attribute “be responsible” has been nominalised to “responsibility”. The grammatical metaphor “responsibility” attributes to the general participant actor “Malawian” as the one who should be seen doing the action of planting the trees. The action is clear but the actor is not specified such that every citizen should feel that that responsibility is his/hers. The expression of modality in the statement “kuonetsetsa kuti” (to make sure that) depicts an obligation that actor “m’Malawi” has over the act of planting trees.

4.6.2. Double Positioning of Agents

Some texts show citizens as both active and passive agents in the conservation process. This is achieved by presenting local communities as both beneficiaries of the activities done by the environmentalists as well as the active participants in the conservation exercise within a single clause. For instance:

17. Tithokoze kwambiri kwa onse amene takhala tikugwira nawo
ntchito yotamandika yowonetsetsa kuti tabzala mitengo yambiri
m’madera mwathu (we thank all those we have been working

with on a commendable task of making sure that we have planted
a lot of trees in our areas)

Text (17) above depicts a double position of the citizens. Within a single text, citizens are presented as being beneficiaries of the leadership and guidance of the authorities in conservation, and on the other side as active participants, however implicitly, in the conservation process. In this statement, “we” is the frequent subject that has been used in the complex clause which is followed with material process “thokoza” (thank) “kugwira nawo ntchito” (working with), “kubzala” (plant) and relational process “takhala” (have been/have). The citizens are presented as participant “Goal” “onse” (all those). The deictic “those” denotes distant referent, therefore puts the citizens at the distant position. The frequency of participant actor “we” being used together with relational processes “have been” and “have” puts the authorities in the forefront as the active participants in the exercise of planting trees, leaving the citizens they acknowledge to have taken part behind the curtains. The citizens are there as the partners whose role is to help the authorities who lead and guide the process of tree planting. Despite the authorities being more visible than the local communities (citizens), the clause mentions the citizens as participants who took an important position in planting the trees. This is however done in an implicit way, in which the citizens are only recognised in thanking them for their participation.

4.6.3. Direct Agent

The analysis of the texts has also shown that some texts have lexical items that depict a direct agent of the action. The local communities (citizens) are positioned as active participants in the process of conservation. This is mainly achieved by the use of personal pronouns, especially second person demonstrative pronouns, that address a

specific reader. The use of these pronouns might make the reader or listener to feel that the message is directly addressed to him or her. This is shown in the following texts:

18. Tikhulupilira *nanunso* mwayambapo kutenga nawo gawo pa ntchito yobzala mitengo m'madera *anu* (we believe that *you* have also started taking part in planting trees in *your* area).

19. Kololani nkhuni *zanu* mosamala (harvest *your* firewood carefully).

20. Dulani mitengo *yanu* popititsa patsogolo mphukila (cut *your* trees to let trees sprout).

21. Dulani mitengo *yanu* ndi chida chakuthwa ndikusiya chitsa chotalika masentimitala khumi ndi asanu (15) (cut *your* trees using sharp tool and leave a 15 centimetre high stump).

The extracts (18), (19), (20), and (21) depict some instances in which the citizens are addressed directly and individually through the personal and possessive pronouns (“nanunso/you,” “zanu, yanu/your”) with “you” as actor in a declarative clause (Lassen, et al, 2011).

These statements (18), (19), (20) and (21) give citizens an active role in the conservation process. The actions to which they are called upon are clear “kubzala mitengo” (planting trees), “kololani nkhuni [...] mosamala” (harvest [...] firewood carefully), “dulani mitengo” (cut trees). This gives the opportunity for the citizens to act on the calls of the authorities in order to conserve the biodiversity. It is a call for doing (Lassen et al, 2011) not a prescribed form of activity. This kind of discursive construction of citizens enables them to engage and participate in the processes of

conserving the environment because everyone getting the information feels it is a call personally targeted on him/her.

4.6.4. Obligation Assignment

The lexical items in the texts have also been used to assign responsibilities that the local communities have towards conservation. This is done by the use of linguistic features to express modality which places obligation on the actor in the clause. However, the obligation is assigned differently, where some texts have implicit assignment and others having explicit assignment of obligation. This is shown in the texts below:

22. *(Ti)khulupilira* nanunso mwayambapo kutenga nawo gawo pa ntchito yobzala mitengo m'madera *anu* (we believe that you have also started taking part in planting trees in your area).
23. Ndi udindo wa m'Malawi wina aliyense *kuonetsetsa kuti* chaka chili chonse wabzala mtengo umodzi kapena kupitilira apo (it is the responsibility of every Malawian to make sure that he/she has planted one or more trees every year)
24. Tithokoze kwambiri kwa onse amene takhala tikugwira nawo ntchito yotamandika *yowonetsetsa kuti* tabzala mitengo yambiri m'madera mwathu (we thank all those we have been working with on a commendable task of making sure that we have planted a lot of trees in our areas).

In addition to the experiential meanings expressed through a number of lexical items, other linguistic features have been used to express modality. This means the intermediate degree of possibilities of choice that shows indeterminacy that fall

between positive and negative poles (Halliday, 1994). In this case, the speaker's opinion regarding the probability that his/her observation is valid is coded not as a modal element within a clause but is expressed through modal finites of ability, although some meanings of obligation are present, and power relations established on the basis of the usage of vocatives and imperative and interrogative moods (Wattles & Radić-Bajanić, 2007). The lexical resources used for modality express contrasting moral obligation that is assigned to the actor in the clause.

In statements (22), (23), and (24), modality is expressed through engagement (Wattles & Radić-Bajanić, 2007). In statement (22), “(ti)khulupilira” ((we) believe that) projects a mood with less explicit obligation “mwayambapo” (you have started) to the actor “nanunso” (you). This is in stark contrast with the other two statements (23 & 24) whose mood projects an obligation on the actors. The expressions “kuonetsetsa kuti” (to make sure that), and “yowonetsetsa kuti” (of making sure that), places a clear obligation on the participant being addressed. However, the obligation is projected on participants that are not given an active participant role in the conservation. This is unlike in statement (22) in which the participant actor is clearly assigned an active role but the obligation is implicitly given to them.

4.6.5. Use of Imperative Mood

In the discourse advocating for civic environmentalism (Lassen et al, 2011), some texts use imperative mood to construct citizen involvement in conservation process. The analysis of the texts below has shown that some texts use imperative mood to construct citizen involvement. However, this does not place the citizens as active participants, but rather as individuals who need expert advice and guidance. The following texts depict that instance:

25. *Kololani* nkhuṇi zanu mosamala (*harvest your* firewood carefully).

26. *Dulani* mitengo yanu popititsa patsogolo mphukila (*cut your* trees to let trees sprout).

27. *Dulani* mitengo yanu ndi chida chakuthwa ndikusiya chitsa chotalika masentimitala khumi ndi asanu (15) (*cut your* trees using sharp tool and leave a 15 centimetre high stump).

Here the imperative mood “kololani” (harvest), “dulani” (cut) seems to be addressing the local communities on how best they can collect and harvest firewood. This clearly marks off the expert/non-expert boundaries (Farahani & Hadidi, 2008; Halliday, 1994) between the environmentalist and the local communities (citizens). Through the imperative mood, the experts are giving advice and telling the citizens what is supposed to be done when collecting firewood, and conserving forest resources, implying that the citizens do not know how to do it and therefore need guidance. This message as projected by the use of imperative mood by the environmentalists in the above statements (25), (26) and (27) places the participant beneficiary “zanu, yanu/your” as less responsible people.

This use of language presents a critical dimension of experts versus citizens interaction that in some way affects the implementation of some important projects. The documents (see appendices) position local communities differently in which some are giving them an active role and others a passive role. This echoes what some respondents pointed out that some of their views are disregarded because the responsibility of looking after the mountain has been rested in the hands of the Forestry Department, MMCT and chiefs. This arrangement is clearly manifested in

the documents. This use of language may sometimes create resistance among other stakeholders like local communities because this may make them feel side-lined.

4.7. Visual Communication

Some of the documents that were used in the study had visual images that accompanied the texts. The images portray the actions and consequences of some activities that may be hazardous to the biodiversity. By just looking at the images on the fliers and posters, they are presenting a message that conservation is not as simple as the local communities know it is and in the way they do it. One of the fliers (figure 2) contains a picture with a man seated on a chair and other people (men and women) seated on the floor seemingly listening to the man on the chair. The man seems to be a chief considering the way he has dressed.



Figure 2: Poster on wild fires

Figure 2 above constitutes what Kress & van Leeuwen (2006) call bidirectional narrative. It is narrative because the images are represented as acting or “doing” something. This is shown by a vector, as represented by a hand stretched by the chief and the direction of the eyes of the listeners showing that they are paying attention to what the chief is saying. The positioning of the image represents the type of interaction and/or involvement of the people in the activities of conservation. The placement of the chief to the left means the ‘given’ aspect and the audience being placed to the right is the ‘new’ (Jewitt & Oyama, 2001). The chief’s position shows that he is familiar with and has the knowledge of what needs to be done. The people are listening to the ‘new’ information they need to know in order to conserve the biodiversity. This underpins the hierarchical organisation of the communities which positions the chief as the omniscient being, thereby leaving the local communities in the subordinate position as people with little or no knowledge of what they have to do. Such interaction in the image shows a syntactic pattern that position a chief as an active participant and the audience as the passive participants. The written text constitutes what the chief is advising his subjects as being one of the best practices for conserving the environment.

In an effort to reduce dependency on charcoal making business which is contributing to the depletion of tree population in the mountain, one of the documents (figure 2) depicts the bags of charcoal that are accompanied by written text “*Chonde makala ayi. Kuotcha makala kukuononga chilengedwe, kukubweretsa umphawi ndi njala. Tikane kugwiritsa ntchito makala*” (please stop charcoal making. Charcoal making is destroying biodiversity, is bringing poverty and hunger. Let us reject using charcoal).

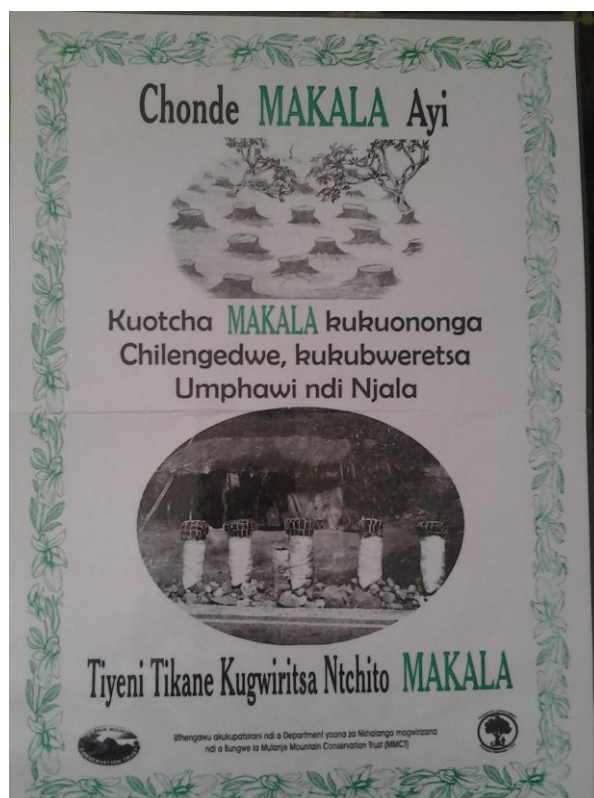


Figure 3: Poster on charcoal production.

Figure 3 reinforces what the written text is conveying which is presenting the consequences of charcoal making to the livelihood of the communities. The top image presents a concept of dry land with tree stumps only meaning that without trees what may follow is drought. The image below depicts the concept of poverty by presenting in the background a shelter that is overshadowed by the bags of charcoal. This presents the idea that charcoal making results in abject poverty. The bags of charcoal and the tree stumps are made salient to show cause and effect of the actions of the people. The charcoal bags are placed together with the shelter in the background making the bags more prominent in colour to show that the issue is about charcoal making that is resulting in the poor shelter in the background. Such shelters in Malawi are associated with poverty because they are associated with poor people's dwellings. The images are depicted with high modality, thus presenting the images as

real and meant to create a clear picture in the viewer's mind on what really could follow when such actions are done.

This framing of the images is meant to appeal to the emotions of the local communities to take action on dealing with the business of charcoal making. This has borne some fruits because when this researcher was interviewing people in some villages, they pointed out that in some villages such as Mbewa and Nakhonyo, they have formed some community groups that police the mountain against any act of charcoal making. This means that the communities have understood the message and the pictures conjure images of what could befall them if they do not act. This is the effect of framing used in designing the poster.

Further, figure 4 depicts two distinct images juxtaposed with each image having a person acting on the environment.



Figure 4: Flier indicating a man and a woman collecting firewood

Figure 3 depicts on one side a man chopping a stump and the other side of the flier has a woman collecting firewood. The juxtaposing of the images is meant to give a comparison of the actions of the participants in the image. This is clearly represented by the sign of the encircled cross on the left image meaning that what is being done

by the man is undesirable in the conservation process. The other picture on the right side is marked by a positive mark indicating that what is depicted in the picture is what is required. This means that what the woman is doing is the desirable way of “harvesting firewood” not what the man is doing. However, without clear explanation of what the encircled cross and the right mark mean on the flier would not make sense to the local communities because symbols are cultural specific. In terms of placement of the images, the man cutting the stumps is placed to the left of the flier showing that it is ‘given’ (Kress & van Leeuwen, 2006). This means that what the man is doing is what people already know, that is what people usually do. Therefore, what people need to know, the ‘new’ (Kress & van Leeuwen, 2006) is what the woman is doing which is the desirable way of collecting firewood for forest conservation.

In conservation discourse, the use of the pictures could be very significant given that the language that is used is more technical and therefore not easily understood by the local communities. When the people read the message on the documents and relate that to the pictures, that creates a background for interpreting the written text. What is more significant in having multiple semiotic resources for environmental messages is that the images present a concrete picture of the actions that are advocated for by the organisations. In this case the communities can easily relate what they see in the images and what they actually do. In the pictures above, they do not position local communities as active agents of conservation but those that are depleting the environment. The images show that some actions that are performed by the communities are destructive to the environment and therefore, need to be reminded and enlightened on what they are required to do to conserve the environment, hence the first picture having a chief advising his people and the last flier depicting two opposing actions.

4.8. Summary of Findings

This section has presented, analysed and discussed the research findings. The section has presented the findings on the forms in which the conservation information is disseminated, the linguistic adequacy of the Chichewa lexical resources that are used in environmental conservation discourse, the linguistic devices that have been used in the communication documents, and the texts that show how the citizens are positioned and/or constructed in the conservation discourse. It has also analysed the visual communication which is used to complement the written text in the conservation discourse.

What has come out clearly from the discussion is that the information is mainly disseminated using documents such as fliers, posters and newsletter. In most cases, the message is put in Chichewa, the language that is commonly spoken in the area despite the area being Lomwe ethnically (Matiki, 1996/7). However, for the newsletter, it was observed that it is bilingual with many pages written in English. This document, despite being meant mainly for the local communities, is written mainly in English which already creates a barrier for the local communities to understand.

Despite the information being disseminated in Chichewa, the study has established that not every piece of information in Chichewa is easily understood or clearly carries disambiguated messages. After analysing the linguistic adequacy of the Chichewa lexical resources, it has been concluded that some lexical resources are liable to misinterpretation and misunderstanding because they carry double meanings or meanings that do not foster social cohesion. The lexical resources do present different

meanings which make them prone to misinterpretation hence may incite misunderstandings in the conservation process.

In some cases, the ambiguity of the lexical resources arises because of the linguistic devices that have been employed in the discourse. The study has found out that the environmentalists use euphemisms, metaphors, erasure and framing to communicate their messages. However, these may not be deliberate techniques employed by the environmentalists. These linguistic devices have an effect of presenting the information in a different way from how the local communities understand the same concepts. For example, the ‘eradication of invasive plants’ may not mean the same to the local communities. This may result in misunderstandings in the process of conservation. It has also been found out that some lexical resources and/or expressions being used do not concretise the messages, thereby leaving a faint trace that local communities should supply by themselves. Such messages are in some instances presented in a form of massified objects which does not specify the species to be given attention.

The discussion of the study has also shown that local communities are positioned in the texts differently. Mostly, it has been observed that local communities are positioned as distant actors or passive participants. Their main role is reduced to the recipient of the expertise from the environmentalists, thereby leaving them in the peripheral. In instances where the local communities are positioned as active participants in the conservation process, they are however controlled by the environmentalists in their (local communities’) activities of conserving the environment.

CHAPTER 5

5.0. CONCLUSION AND IMPLICATIONS OF THE STUDY

5.1. Summary

This study set out to examine the language used in the discourse of environmental conservation in Mulanje district. This stemmed from the background that environmental conservation discourse is scientific and technical, hence likely to have lexical resources unique to the field. However, this exercise of conservation is conducted in an area where its inhabitants have lexical resources for their everyday discourse which may not be the same as that of the environmentalists. This creates a challenge of miscommunication and misinterpretation of information. This may also be a result of having different viewpoints of conservation between the environmentalists and the local communities, where the environmentalist look at conservation as a means of preserving resources for future use, whereas the local communities look at the conservation of resources as a means to gaining economic benefits for use here and now.

The study considered discourse as an interactive process that is aimed at bringing out social cohesion and social meaning to the information. Language, in this case, is regarded a critical tool to achieving a coherent social process of conservation of the environment. Any communicative process becomes meaningful with the language that is mutually intelligible to all stakeholders in the discourse. This is why this study

concerned itself with the analysis of language and the lexical resources used in the conservation discourse in order to determine if it promotes citizen participation and dialogue. This was done using the Systemic Functional Grammar (SFG) approach, framing theory and visual semiotic approach in order to explain how the language meets the expectation of the local communities in the project area.

5.2. Conclusions

Despite the use of predominantly spoken language in the area, that is Chichewa, it becomes clear that the discourse practice in environmental conservation is replete with inconsistencies arising from factors such as linguistic choices, power relations and representation of citizens in the discourse. We have also seen that language has been used to position the environmental agents as the saviours of the environment that is at the brink of extinction, thereby rendering the local communities as incapable of conserving the environment. This is probably because of the way the communities are behaving towards the mountain resources. This has been sustained by the use of functional language of those who share the technical discourse and this has been meant to advance their hegemonic ideological agenda.

The discussion has shown that the linguistic choices made in the communication documents have resulted in creating multiple meanings due to the use of terms and expressions that are open to varied interpretations. The linguistic choices were meant to serve the ideological objectives of the environmental agents to present their conservation practices as benign and proper way of conserving the environment. This has been sustained by the use of functional registers that are appropriate to their field of practice. This ignores the participatory approaches that are advocated by the environmental agents in which they claim to involve the local communities in the

conservation process. In this case, the use of Chichewa as a language of communication does not guarantee the comprehension of the information being disseminated because the lexical resources used are a reflection of capitalistic hegemony that intends to establish the environmental agents as the controllers of the discourse and knowledge of conservation.

The appropriateness of language being used in the conservation discourse in Mulanje is limited to the producers of the text, in this case the environmental agents. This shows that the communication texts have some lexical resources that are not contextually appropriate to the end-users who are the local communities whose understanding of the conservation practices is limited to their everyday language use. As discussed in the study, this has ended up creating misinterpretation of the information because the local communities have their own understanding of the lexical resources used in the discourse. This is contrary to what Halliday (1994) postulates that language must be appropriate to the context of use, and therefore mutually intelligible to all the interlocutors involved.

The discussion has also revealed that the framing of the conservation messages presents a control mentality that the environmental agents are advancing. By presenting the message to appeal to the emotions and evoke fear in the listeners and readers on the potential consequence of their actions towards the mountain resources shows their effort to influence how the local communities must behave towards the conservation practice. This is simply meant to ascertain that what they are advocating is the best practice possible, thereby ignoring what the local communities know about the conservation process. As observed in the discussion, this is compounded by the use of expressions that are abstract and presents their (environmental agents) actions as benign. However, the critical evaluation of such expression in the discussion has

shown that they are exploitative in nature, which has also been corroborated by the local communities themselves. As a result conflicts have ensued due to differences in understanding of the expressions. The net effect of this use of language is lack of participation by the citizens because they feel the language does not represent their viewpoints and their needs.

Recent trends in environmental conservation, including debates in climate change has advocated for the citizen participation in order to achieve meaningful outcomes. The basis has been that citizens are critical in realising the fundamental outlines of development programmes and if not considered as co-owners of the projects, the programmes may end up being disregarded and being a waste. This entails that any attempt to conserve the environment must put the citizens at the centre of the exercise. The messages that are meant to galvanise efforts from the citizens in the conservation process must place the citizens in the active position so that they become active agents in the social process of environmental conservation. Communication must be regarded as a social process, in which the text is an authentic social material that carries the aspirations of the stakeholders in order to reach an agreeable consensus. The framing of the messages in the communication texts/documents should use language in a way that construct citizens as a central ingredient by allowing their methods they best know to achieve the same objective, thus making the interactional situations and participation meaningful. This aspect has been observed to be lacking in some documents and texts that are used in the information dissemination for the conservation of MMFR.

However, the discussion has shown varying stylistic clausal construction of the citizens. In most cases, the texts do not overtly acknowledge the participation of the local communities in the conservation exercise. The use of impersonal agents in the

texts is meant to make the actor invisible thereby failing to recognise the efforts that the local communities are doing or are called to do. This has been done stylistically to maintain the presence of the environmental agents as the central figures in the conservation process. This further asserts their control position so that they should be seen as the saviours of the environmental situation and it is their efforts that are at play.

The discussion has also shown that where the communities are positioned as central actors in the texts, it is done so in the form of a call from the environmental agents for them to do something or being given some guidance on how they could go about conserving the biodiversity. Much as this construction of citizens enables them to have a sense of being acknowledged as they are addressed using personal pronouns, it however implies that as they occupy the central position of 'doing' they cannot do that themselves as they still need the expertise from the environmental agents. This marks off the expert/non-expert boundaries in the world of science and knowledge development (Farahani & Hadidi, 2008). This is also reflected in the visual communication in which it has been observed that the images are either depicting local communities as people who need to be guided or they need to be reminded of the consequences of not conserving the environment. This shows the local communities as irresponsible people.

The study has observed that the involvement of both environmental agents and the local communities is crucial to the sustainable conservation of the MMFR. The constant ignoring of the local communities' voices may result in disastrous effects because they may disregard any effort the environmental agents are doing thereby rendering their efforts meaningless. As observed in the study, in Mulanje the environmental agents have assumed more power as such the local communities are

left powerless and therefore their contributions are more often than not disregarded. This has resulted in minimal participation and engagement of the citizens, and as consequence constant disagreements.

The study has also shown that the controllers of discourse in the environmental conservation lack understanding that language is a powerful tool in disseminating information and that it carries messages that may sometimes overlap. The use of language if not considered critically may send messages that were not initially intended. This is clearly manifested in the texts being used by the environmental agents. They seem not to understand the potent messages that the lexical resources do carry. Language has an effect of shaping people's and society's attitudes and behaviours. Therefore, environmental conservationists must pay attention to the potent messages of language and recognise its ability to influence people and society. What this means is that the technical language used by the scientists is often thought to be adequate for use by the common folk but this is erroneous.

5.3. Implications of the Study

What the study has found out as lacking in the environmental discourse is the use of contextually appropriate language that every common person can easily comprehend. In some instances where the communication documents have been said to be easily understood by the local communities, the language used and the lexical resources used had been simple and that which the local communities use in their everyday discourses. This means that if the framers of the environmental messages could use language of everyday communication for the local communities, some disagreements could have been avoided because both stakeholders could easily engage in a negotiation that could bring agreeable meanings. The implication of the language

being used currently is that what local communities know and what is being communicated in the documents creates differentiated meanings and mistrust because the meanings people get and what is initially meant is different in relation to what local communities know of what they are experiencing. Therefore, this study recommends that what is needed is for this language to be well packaged for the comprehension of the common person. This could be done by understanding the sociolinguistic background of the project area before framing the messages so that the language being used in the messages embraces the sociolinguistic needs of the local communities. Local common equivalents must be found from the end-users of the communication documents so that no sideward meanings are created.

If the local communities in Mulanje are to participate and enter into a meaningful dialogue with the environmental agents, the language of engagement must be closer to their everyday literacies and that which they can easily relate with. This entails that when coming up with the communication strategies, the environmental organisations must take a critical approach of considering the socio-cultural context of communication and the language needs of the local communities.

The call for participatory approaches in environmental conservation management may not be meaningful if local communities' voices are muted through the use of language that is meant to uphold the expert status of the environmental agents. The use of language that clearly marks off expert knowledge through verbal forms that indicate advise-giving and providing directions as to how local communities should behave towards the environment undermines the local knowledge that local communities have on how the environment can be conserved. Therefore, language must reflect the acknowledgement of local approaches that are taken to enhance

environmental conservation so that local communities feel part of the process of conservation.

Schultz (2001) advises that in order to achieve shift in attitudes and behaviour essential for sustainable society, care must be taken on how we use language. Debates must be encouraged so that alternatives to language of exploitation can be proposed and adopted. The question is, how can debates be encouraged in a highly technical area whose language is mostly understood by its practitioners? Thakadu, Irani and Telg (2011) point that effective information flow processes between the sources and recipients can enhance support for policy-making and public involvement in environmental sustainability. The communicating agents must include civic discourse to understand the everyday literacies that may help shape their language that may encourage public participation and collaborative decision-making in a community. Environmental conservation discourse must foster a dialogic engagement between technocrats and societies for the enhancement of a well informed policy decision. This entails that the environmental agents must deliberately create an enabling environment that would allow communities and experts discuss the best ways possible for effective conservation of the environment and formulation of policies that are responsive to all parties affected with environmental issues. This may be possible if communication is carried out in a mutually intelligible language, otherwise, the powerful will continue to dominate the discourse domain of environment leaving no room for citizen participation.

5.4. Suggestion for Further Study

From what the study has found out, it is evident that the issue of language use in environmental conservation discourse is crucial and hence needs more attention in

order to put to right what could be the best communicative practices. In view of this, the study suggests that further research be conducted on language choice in environmental conservation. This is coming from the background that when the researcher engaged one of the officers from one of the environmental organisations in Mulanje, the officer observed that in most cases the documents that they produce for awareness campaigns are meant to please their donors. This is why the *Sapitwa* newsletter is written mainly in English with few pages (in most cases four pages) in Chichewa, yet the document is meant for the communities. He also pointed that even the language used in the Chichewa documents, i.e. posters and fliers, is the language which is mostly understood by their donors. This reveals that there is more to language used in environmental conservation that needs to be researched on.

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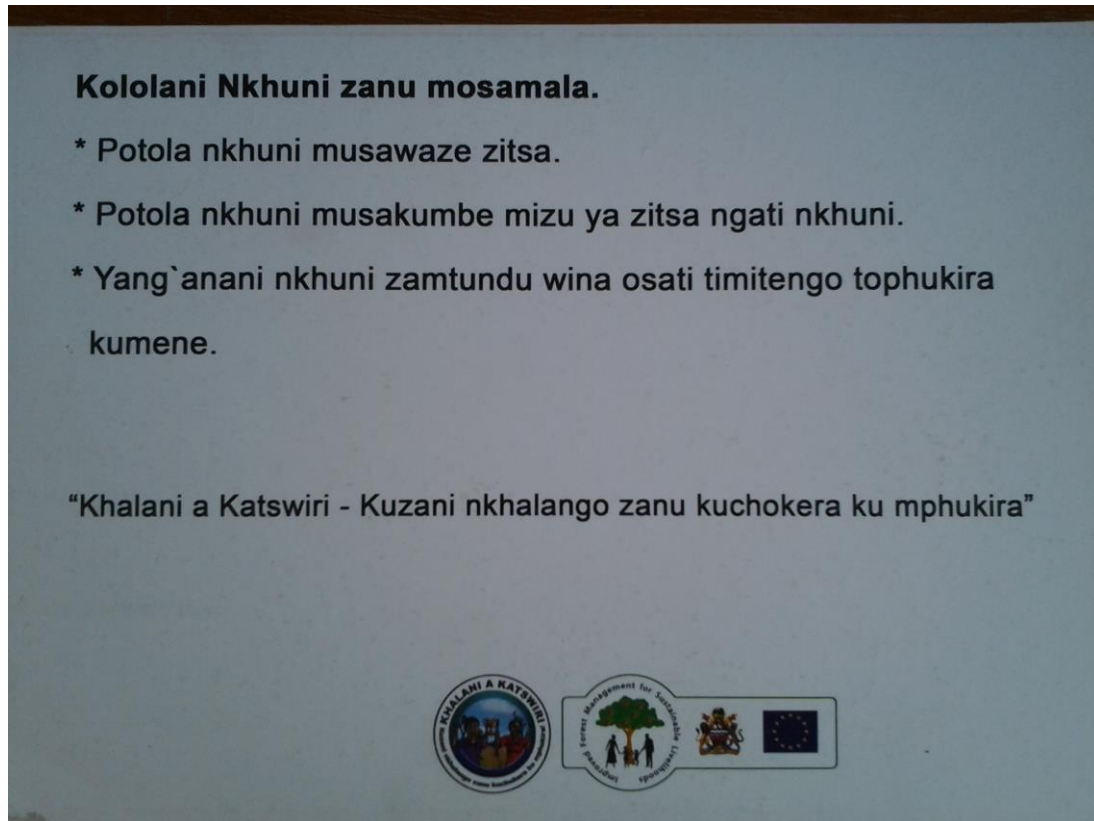
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APPENDICES

APPENDIX 1A: Flier indicating firewood harvesting



APPENDIX 1B: Flier indicating firewood harvesting



APPENDIX 2A: Flier indicating tree cutting

Dulani mitengo yanu kupititsa patsogolo mphukira.

- * Dulani mtengo ndi chida chakutwa ndikusiya chitsa chotalika ma sentimitala khumi ndi asanu (15).
- * Patulirani mphukira pa chitsa chimodzi ndi kusiyapo mphukira ziwiri kapena zitatu.
- * Izi zimathandiza kubweretsa ndi kuchulukitsa milimo ndi phaso.

“Khalani a Katswiri - Kuzani nkhalango zanu kuchokera ku mphukira”



APPENDIX 2B: Flier indicating tree cutting



APPENDIX 3: Poster on wild fires



APPENDIX 4: Poster on charcoal production



APPENDIX 5: Cover for *Sapitwa* newsletter



APPENDIX 6

INTERVIEW GUIDE FOR LOCAL COMMUNITIES

1. What language(s) do the environmental officials use when communicating about environmental conservation?
2. Do you understand the language?
3. How do you understand the information on the documents? (respondents will be presented with the documents to read, for those who cannot read, the researcher will read for them).
4. Do the concepts used in the documents to talk about conservation of Mulanje Cedar relate to/agree with your understanding of the concepts and your everyday use of the expressions?
5. What's your understanding of the following terms and expressions used by the environmental officials:
 - a. (Il)legal Harvesting of forest resources
 - b. Eradicating/clearing invasive plants (which includes pine)
 - c. Pine was used as a nurse tree
 - d. Cedar is a national tree
 - e. Clearing weeds
6. How do you value Cedar and other trees in the mountain? Do you value these trees in the same way?

APPENDIX 7

INTERVIEW GUIDE FOR ENVIRONMENTAL OFFICIALS

1. What language(s) do you use in your programmes?
2. (a) Do you think language is important to the environmental conservation? Do you think it really matter?
(b) Explain your response.
3. (a) Have you encountered any difficult words/expressions/concepts in the course of your work in conservation initiatives?
(b) If yes to '3a', please give examples of such words/expressions/concepts.
4. (a) Have you faced in difficulties in explaining some words or concepts to the local communities?
(b) If yes to '4a', how do you overcome such challenges?
5. (a) Have you differed with the communities in terms of meanings and conceptualisation of environmental words, concepts and expressions in the course of your work?
(b) If yes to '5a', how do you deal with such cases?

Thank you!