

**Communication for Empowerment and Participatory Development:  
A community engagement strategy in forest carbon trade in Lower  
Zambezi  
A case of Bio-Carbon Partners**

**By**

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**A report submitted to the University of Zambia in partial fulfilment of the requirements for the award of the degree of Masters of Communication for Development**

**The University of Zambia**

**Lusaka**

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## **DECLARATION**

I, Michael Mwape declare that this report:

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## **ABSTRACT**

This study was conducted to assess the effectiveness of the communication strategy employed by Bio-Carbon Partners Limited in engaging local people in REDD+ Project in Rufunsa District. The project is aimed at reducing emissions from deforestation and forest degradation (REDD), while on the other hand providing social and economic benefits to local people around Rufunsa Conservancy Area. The objectives of the study were; to find out the communication strategies used by BCP to engage communities in coming on board in making decisions about REDD+ project; to examine the language used by BCP in engaging communities into REDD+ project; to evaluate the effectiveness of communication strategies used by BCP in mobilising communities to participate in forest carbon trade; to find out the extent to which the communication strategies used by BCP empower the communities with negotiation skills in REDD+ project.

The study employed non-experimental exploratory design in order to evaluate how communication strategies used by BCP motivate communities to participate in REDD+ project. Both qualitative and quantitative research methods were used; primary and secondary data collection methods were employed as well in this research. The sample size was 106 which is divided in two, 100 were local people subjected to structured questionnaires and 6 were key informants subjected to in-depth interviews. The sampling methods were purposive sampling for the selection of Zones to participate in the study and then simple random sampling for the selection of villages from the two Zones to participate in the study. Simple random sampling was also used to select the participants for quantitative research and expert sampling for the selection of key informants.

Quantitative data was analysed using the Statistical Package for the Social Sciences whereas qualitative data was analysed by thematic analysis method. Thereafter, the data was presented in form of figures and tables.

The study revealed that community meetings were a highly used communication strategy by BCP in engaging local people to participate in REDD+ Project. It also revealed that the communication strategies used by BCP are effective in mobilising local people to participate in decision making about REDD+ Project. It was further found that the majority of the respondents said that BCP's communication strategy inform them about project ownership.

This research concludes that participatory communication is effective in mobilising local people to engage in forest carbon trade, participate in decision making and foster the spirit of project ownership.

The researcher has recommended that since community meetings were a highly used communication strategy, sometimes they could be an impediment to apprehensive people to fully participate in decision making at a public meeting; therefore other means of communication should be used such as interpersonal communication to counter this shortcoming.

## **DEDICATION**

This piece of work is dedicated to the working poor of Africa, Latin America, the Pacifica, Caribbean Islands and Asia; it's time we demanded for our voices to be included in all the developmental activities. Long live the spirits of Comrades, Ernesto Che Guevara, Fidel Castro, Thomas Sankara, Paulo Freire, Kwame Nkrumah, Jurius Nyerere, Patrice Lumumba and Kenneth Kaunda who demanded for man-centered development.

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## LIST OF ABBRIVIATIONS

BCP	Bio-Carbon Partners
CEPA	Communication Education and Public Awareness
CDM	Clean Development Mechanism
CFM	Community Forest Management
CSO	Central Statistical Office
DRC	Democratic Republic of Congo
EEP	Environmental Education Programme
ENSO	El-Nino/Southern Oscillation
FAO	Food and Agriculture Organisation
GHG	Green House Gasses
GMA	Game Management Area
HASHI	Hilfadhi Ardhi Shinyanga
IEC	Information Education and Communication
ITCZ	Inter-Tropical Convergence Zone
JFM	Joint Forest Management
LZRP	Lower Zambezi REDD+ Project
MDG	Millennium Development Goal
NEAP	National Environmental Action Plan
NORAD	Norwegian Agency for International Development
REDD	Reduction of Emission from Deforestation and Degradation
REDD+	Reduction of Emission from Deforestation and Degradation plus
SPSS	Statistical Package for the Social Science
TFAP	Tropical Forest Action Plan
UNDP	United Nation Development Programme
UNEP	United Nation Environmental Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNREDD	United Nation Reduction of Emission from Deforestation and Degradation
VCS	Verified Carbon Standard
ZAWA	Zambia Wildlife Authority
ZFAP	Zambia Forest Action Plan

# **CHAPTER ONE**

## **INTRODUCTION AND BACKGROUND INFORMATION**

### **1.1. Introduction**

This chapter brings out the background information of the study, thus it dwells much on how the concept of forest carbon trade (REDD+) came into existence and how communities adjacent to forests have been involved in forest carbon trade through participatory approach. Furthermore, it brings to light the background to the use of participatory communication in forest carbon trade. The geographical information of Rufunsa Conservancy Area is also highlighted to show the reason why the area was chosen for the project. The chapter also outlines the statement of the problem, the purpose of the study, the study objectives, the research questions, the hypothesis and the significance of the study. In addition, the chapter outlines the conceptual and theoretical framework and defines the terms used in the study. The chapter also explains the theories guiding the research and the scope of the study.

### **1.2. Background information**

During the 1992 Earth Summit convened by the United Nations Conference on the environment and development, a rudimentary framework for global emission was presented in a slide show in a tent. The concern over climate change was limited to few scientists and environmentalists and the idea was received with skepticism. Fourteen years later, the situation is quite different, climate change has been widely accepted by many players in a global political economy as a threat to socio-economic progress and that there is need for urgent attention to reduce carbon emission in the atmosphere (Jindal, 2004:12). In addition, market based mechanisms such as emission trading has also been broadly accepted as cost effective method of addressing climate change and other environmental issues (Kanakasabai, 2006:16).

Climate change has remained as one of the world's greatest developmental challenge in the 21<sup>st</sup> century. Across the globe, climate change has caused serious damage to the environment and human life in general. According to climate change experts, global warming is expected to have worst impact in Africa, South and West Asia. This suggests that developing countries are more vulnerable to climate change than developed countries. Therefore, if left unabated it will disrupt the biodiversity and ecosystem functioning because of severe droughts and floods (Kanakasabai,

2006:17). The evidence of climate change impact in Zambia has been noted particularly in land based activities. Thus, droughts, seasonal flush floods and extreme temperatures have affected both humans and ecosystems. These have caused damages to crops, consequently, deepening food insecurity and poverty, besides, energy infrastructure and water quality have been affected adversely. The most serious incidences have been the 1991-1992 droughts and 2006-2007 floods; the later affected 1,443,583 people in 41 districts across the country. Though not severe as the 1991- 1992 droughts, the 2004-2005 caused irreversible damage to crops in two thirds of the country which forced Zambia to import food. On the other hand, 2009-2010 floods affected 238,254 people (39,709 households) (Fumpa-Makano, 2011:10).

This impact of climate change in Zambia and the world over are partly caused by deforestation and forest degradation which contribute significantly to climate change. Globally tropical deforestation account for 3.8 billion tonnes of carbon release, that is roughly 20% of all carbon released by humans. Zambia has the second highest per capita deforestation rate in Africa, and the fifth highest in the world (Aongola, 2009:57). Over the past few decades, Zambia's forest cover has undergone extreme rapid depletion from 81% of land cover in the mid-1970s to possibly as low as 42% by 2003 (CSO, 2013: 15), (FAO, 2006:67). This has been fueled mainly by urban demand for charcoal and rural demand for agricultural and natural resources, as well as by timber exploitation and mining. This forest exploitation contributes to global climate change, which has led to severe droughts and floods that have negatively affected agriculture , energy production and increase heat related illnesses (FAO, 2006:10).

It is for this reason that in the 1997 Kyoto Protocol discussions of global warming, forestry was considered as a possible way to reduce the buildup of carbon dioxide in the atmosphere. The delegates noted that trees and other vegetation naturally remove carbon dioxide from the atmosphere during photosynthesis and store –sequester-carbon in leaves, bark, branches, roots and soils ( Rattan, 2008:29). This has been accentuated by the parties to the United Nations Framework Convention on Climate Change (UNFCCC) that have recognised the need to take action in climate adaptation and mitigation through forestry.

The capacity of the forest to sequester and store carbon is of particular relevance to the global community in terms of mitigating the potential impacts of climate change. This considerable

potential of forests to mitigate the impact of climate change has come to be known as reducing emissions from deforestation and forest degradation (REDD). In 2000 the REDD initiative was expanded to include the role of conservation, sustainable forest management, enhancement of forest carbon stocks and economic benefits of the communities adjacent to the forested land. This expanded approach is known as REDD+ initiative, which was formally adopted as a means of reducing emissions at the 16<sup>th</sup> conference of the parties to the United Nations Framework Convention on Climate Change (UNFCCC, 2016:16).

The REDD+ Project model was designed to provide performance based payment as benefits/rewards/incentives for successful management and protection of threatened forests and natural resources. REDD+ is often referred to as a Payment of Ecosystem Services (PES) mechanisms. REDD+ is also aimed at protecting threatened areas of intact forest that community, government and other key stakeholders are willing to protect. There is currently only one verified REDD+ activity in Zambia, the Lower Zambezi REDD+ Project (LZRP) which was launched by Bio-Carbon Partners Limited in 2012 and was verified against Verified Carbon Standard (VCS) in 2014 (UNFCCC, 2016:12). The nomination of Zambia to be part of the UNREDD programme was as a result of its 60% forest cover which provides a considerable potential for climate change intervention. It is estimated that forests in Zambia (excluding plantation) store as much as 2.6 billion metric tonnes of carbon but this is not a total figure as it does not include carbon sequestered and stored in plantation stock, herbaceous plants and underground plant biomass. It is undeniable fact that if managed properly, forests will play an important role in reducing greenhouse gasses (GHG) (UNFCCC, 2016:13).

However, the ability of forests to sequester and store carbon cannot be easily attained without the involvement of people living adjacent to forest reserves. It is for this reason that there are various pieces of legislation and policies that encourage community participation in forest management in Zambia. Some of these pieces of legislation and policies are the National Conservation Strategy, the National Environmental Action Plan, the Forestry Policy, the National Policy on Environmental and Strategic Plans and other legal statutes such as the Forest Act of 1973, the Forest Bill of 1999, the Environmental Protection and Pollution Control Act of 1990, the Land Act of 1996 and the Agricultural Lands Act of 1960. The National Environmental Action Plan (NEAP) (1994) provides a general policy framework upon which the Zambia Forest Action Plan (

ZFAP), a long term forestry strategic plan (1998-2018), builds on. In addition, international conventions such as the UNFCCC, and Clean Development Mechanism (CDM) provide guidance on what is supposed to be done in relation to forests. This has politically and environmentally attracted proponents including REDD+ initiative envisioning widespread planting of new forests in Zambia that would sequester significant stocks of carbon and generate abundant supply of forest credits that could be used by companies to help offset their emissions as required by their emission cap (UNEP, 2015:89).

### **1.3. Participatory communication in forest management**

In many countries including Zambia, management of forest resources has moved away from command and control system to a participatory approach that requires involvement of a broad spectrum of stakeholders. The introduction of Participatory Forest Management was sparked by several factors at both international and local level. At international level, treaties and accords such as Tropical Forest Action Plan (TFAP), an outgrowth of the Agenda 21 Framework initiated in Rio-de-Janeiro in 1992, sought to reverse the loss of forest through the involvement of stakeholders especially adjacent communities to forests.

At local level the original argument for increasing community participation in rural conservation projects stemmed from the need to better target people's needs, incorporate local knowledge, ensure that benefits were equitably distributed and lower the cost of managing forests. This also includes (1) a recognition that forest reserves can only be adequately managed with the cooperation of forest adjacent communities (2) desire to overcome conflicts with neighbouring communities (3) a desire to create appropriate opportunity for local people to contribute towards protection and rehabilitation of forest resources thus, reducing the cost of management by central governments (4) a philosophical commitment to people's participation in their affairs and to the principle of self-determination and democracy (5) a mechanism for supporting sustainable forest based livelihood in poor rural communities (6) a belief that decentralised institutions are more locally responsive and would manage the forest more efficiently by harnessing skills, motivation and labour of interested local population (Schreckenber, Lutterell, & Moss, 2006:1).

However, the communities adjacent to forests are more often not engaged in public decision making processes, yet they depend on the forest for their social and economic livelihoods as well

as cultural and spiritual wellbeing. As such they may be more vulnerable than other stakeholders in the context of formulating and implementing REDD+ activities. They have a special role to play in REDD+, given their traditional knowledge and relationship to the forest and their presence on the ground. The UN-REDD Programme is therefore, committed to support participatory communication as an engagement strategy of local people in REDD+ (The UNDP, 2011:14). Thus, UN-REDD builds on United Nations Development Programme's (UNDP) strengths in enhancing good governance in forest management. Good governance refers to the ability of any governing authority to be accountable, transparent, efficient and responsive to the will of the governed (Turyahabwe, 2012:67). In this respect, forestry governance should be seen in the context of involving local people and incorporation of their indigenous knowledge in managing forest resources. On this very note, UNDP calls for a paradigm shift from top-down communication to bottom-up approaches which is participatory in nature in order to achieve sustainable forest management.

Furthermore, Article 6 of UNFCCC highlights the importance of participatory communication in engaging communities adjacent to forests in decision making as a way of building consensus and fostering the ownership attitude of the forestry projects (Fumpa-Makano, 2011:5). The Zambian Government in 1998, developed a Forest Policy aimed at including people living close to or involved with the forest resource base as a way of securing sustainable forest management. This policy culminated in the enactment of Forest Act of 1999 popularly known as the Joint Forest Management (JFM). In this piece of legislation, participatory communication forms an important component of Participatory Forest Management, thus, a shift from top down communication to a bottom up communication that emphasises on local people's voice and action in developmental agenda (Bwalya & Vedeld, 2012:2).

#### **1.4. Geographical, economic and demographic information**

##### **1.4.1. Location, demographic and economic information**

The Lower Zambezi REDD+ Project is located in Rufunsa District of Lusaka Province. It is approximately 170 KM away from Lusaka the capital city of Zambia. To the east it borders with the Lower Zambezi National Park and in the south it borders with Chiawa Game Management Area (GMA) up to the west and the Soli Shamifwi Royal Establishment (Chief Bunda Bunda's Chiefdom) in the north. The Project Area is known as Rufunsa Conservancy owned by a

Zambian Company called Sable Transport Limited (BCP, 2013:10). According to the project design document of Bio-Carbon Partners Limited, the population of the project zone is approximately 8,300 people with 1,167 households living in 28 villages spread within 4 community zones (BCP, 2013:19). The project zone is rural and the majority of households have no access to electricity and good sanitation services and are primarily reliant on charcoal production and subsistence agricultural activities (UNDP, 2013:11). The poverty levels stand at 80 percent this does not significantly depart from the findings in 2010 Population and Housing Census, where rural poverty was estimated at 77.9 percent (CSO, 2010:2).

#### **1.4.2. Climate**

The annual precipitation varies between 800-1100 mm and falls primarily in the summer months November to May. Zambia is well known for its annual variance in precipitation, placing more significance on water catchments and head waters of rivers such as those found in the Lower Zambezi. Rainfall is strongly influenced by the movement of Inter-Tropical Convergence Zone (ITCZ) as well as the El-Nino/Southern Oscillation (ENSO) phenomenon. The climate is sub-tropical with three distinct seasons; the cool dry season from May to August, the hot dry season from August to November and the wet season from November to April (Petersen, 2012:24).

#### **1.4.3. Geology**

The Rufunsa Conservancy geology is dominated by the Karoo super group, which covers almost two thirds of the present land surface of Southern Africa. Rufunsa contains significance amounts of carbonate rocks (limestone and Dolomite) which are sedimentary in nature; quartzite and laterite. The geology results in a complex stepped landscape where higher lying are underlain by Kalungwe and Rufunsa formations and lower lying regions are made up of older basement rock formations. The topography is characterised as rolling hills with deep river valleys (Petersen, 2012:26).

#### **1.1.4. Soils**

Within the project area the majority of the upland soil are orthic and almost sandy in nature with little clay or organic component resulting in low nutrient status. Their colour ranges from light-brown (sand-rich) to medium or slightly dark brown where the organic component increases. Soils with higher organic components are generally found in few locations in the main valley tracts. In this project area overlay iron formation rocks, where red-brown plateau soils derived

from the basement complex geology results in the generally poor soils. This suggests that agriculture on these soils is marginal due to acidity and low fertility such that agents of deforestation grow low quality maize in areas of the ranch and practice traditional slash and burn farming system. In addition, the poor quality of the soils results in highly erodible landscapes especially susceptible to gully type erosions (Petersen, 2012:26).

#### **1.4.5. Vegetation**

The Rufunsa Conservancy area falls within the miombo ecoregion. Floristically the miombo ecoregion forms a swathe of woodland that stretches from Tanzania to Angola, including Zambia, Zimbabwe, Mozambique and parts of Malawi. The miombo woodlands of this area is closely linked to the largest regional centre of endemism within Africa. This ecoregion is dominated by trees belonging to the family caesalpiniaceae, characterised by brachystegia and julbernadia species (Petersen, 2012:14).

#### **1.4.6. Topography**

The dominant soils found in the project area include lithosols, orthic ferralsols and some chronic luvisols along the northern border of the Zambezi river valley. The lithsol soils are shallow skeletal soils typically found in the steep mountainous regions. Orthic ferralsols are found in the northern part of the project zone, this soil is typically found in well drained areas where soil development is not hampered by steep slopes and imperfectly weathered rock fragments. Chronic luvisols are found in the southern part of the valley (Petersen, 2012:15).

### **1.5. Statement of the problem**

The concept of reducing emissions from deforestation and forest degradation and enhancing carbon stocks (REDD+) is garnering interest in discussions on policies to mitigate climate change both at international and national levels. In order to ensure that forest carbon trade achieves positive impact in the reduction of carbon emission with equitable co-benefits such as poverty alleviation, the project should have a comprehensive communication strategy aimed at promoting community participation. The focus of this communication strategy should be on consulting local communities and involving them in decision making processes about REDD+ Projects (UNFCCC, 2016:14). Therefore, community involvement throughout the project promotes strong community ownership of REDD+ Project and this results in multiple levels of benefits of protecting forests such as soil conservation and eco-tourism. This in turn help to

conserve and improve bio-diversity and maintain healthy ecosystem functioning. On the other hand, providing communities with meaningful alternative livelihood to illegal charcoal burning and poaching such as conservation farming and eco-charcoal production to improve family economic status as well as reducing the pressure on the forests.

Despite the recognition of the critical role communication plays in engaging communities adjacent to forests in forest carbon trade at both local and international level, there have never been serious studies to examine this process. Moreover, there is also limited literature in the Zambian context on the role of communication in engaging communities adjacent to the forest in forest carbon trade, this means that the piloting REDD+ Project in Zambia commenced solely based on experience of other countries and regions. It is inevitable that the experience would be fraught with numerous challenges. Therefore, it is not clear which communication strategies REDD+ projects are using to engage local communities to come on board to make decision about the matter. It is for this reason the study aspires to understand the role of communication strategies in REDD+ projects in engaging local people in forest carbon trade. Furthermore, from the available literature, there has not been a study of this type in communication for development here in Zambia.

### **1.6. Purpose of the study**

The purpose of this study is to find out what communication strategies are being employed by Bio-Carbon Partners in Lower Zambezi to mobilise communities to participate in forest carbon trade and empower them with skills to make informed decisions on important matters in the project such as land use and identification of key priorities needs and co-benefits

### **1.7. Study objectives**

This study is anchored on the following objectives:

#### **1.7.1. General objective**

The objective of this study is to find out how communication for empowerment and participatory development, empower communities in Lower Zambezi to make decisions and participate in forest carbon trade.

### **1.7.2. Specific objectives**

1. To find out the communication strategies used by BCP to engage communities in coming on board in making decisions about REDD+ Project.
2. To examine the language used by BCP in engaging communities.
3. To evaluate the effectiveness of communication strategies used by BCP in mobilising communities to participate in forest carbon trade.
4. To find out the extent to which the communication strategies used by BCP empower the communities with negotiation skills in REDD+ Project.

### **1.8. Research questions**

This study will be pursued by posing the following questions:

#### **1.8.1. General research question**

How does communication for empowerment and participatory development, empower communities in Lower Zambezi to make decisions and participate in forest carbon trade?

#### **1.8.2. Specific research questions**

1. Which communication strategies do BCP use to engage communities in coming on board in making decisions about REDD+ project?
2. What language does BCP use to engage communities in REDD+ project?
3. How effective are communication strategies used by BCP in mobilising communities to participate in forest carbon trade?
4. What is the extent to which the communication strategies used by BCP empower communities?

### **1.9. Research hypothesis**

BCP has an effective communication strategy that engages communities in forest carbon trade.

### **1.10. Significance of the study**

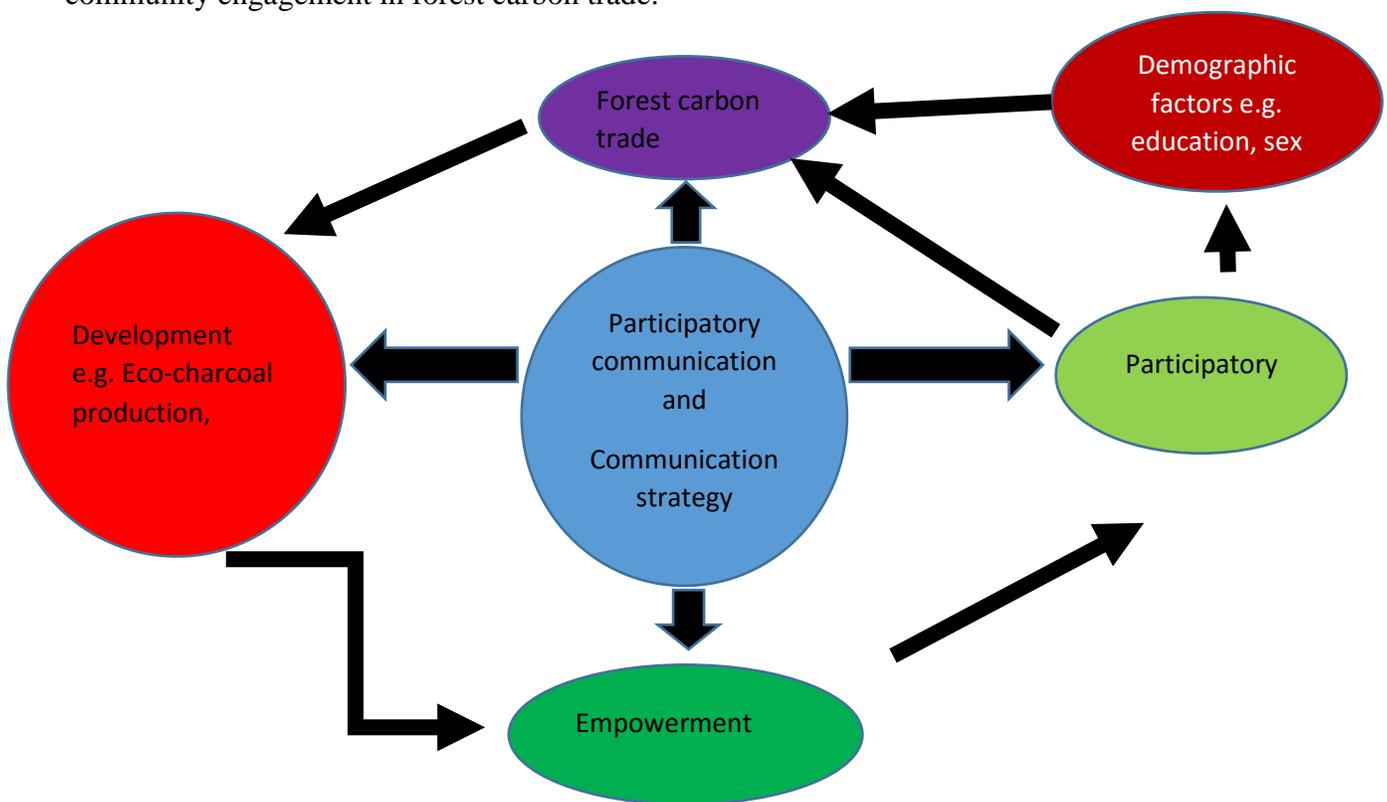
This research demonstrates that communication strategies that are community based and people centered are cardinal in mobilising people to participate in projects. At the same time, it shows that community involvement in decision making is key throughout the project cycle as it fosters the spirit of ownership. Moreover, the study shall be a potent tool to other community based projects in Zambia as well as providing other countries the specific strengths of communication

for empowerment and participatory development in mobilising communities to participate in forest carbon trade. The findings from this study will also help the Department of Forest in Zambia to understand the role of communication in engaging communities adjacent to the forest in forest carbon trade and use that understanding in planning, implementation and scaling up REDD+ programme to other parts of the country.

## 1.11.Theoretical and conceptual framework

### 1.11.1. Conceptual framework

Below is the conceptual framework that shows various relationships and factors that influence community engagement in forest carbon trade.



### 1.11.2. Definition of concepts

#### (i) Communication

Communication is a process in which participants create and share information with one another in order to reach a mutual understanding (Rogers,1971:5). This definition implies that communication is a process of convergence (or divergence) as two or more individuals exchange information in order to move towards each other (or apart) in the meanings that ascribe to certain events.

In this study communication is a human centered approach that values the importance of dialogue and participation in a decision making process in REDD+ at community level.

### **(ii) Empowerment**

In the lecture notes of Dr Elijah Mutambanshiku Mwewa Bwalya, empowerment is defined as the process by which individuals, organisations and communities gain control and mastery over social and economic conditions, over democratic participation in their communities and over their stories. In this way there is local autonomy, culture and knowledge and defence of localised, pluralistic grassroots movements(2017:21).

In this research empowerment refers to individuals' capacity for reflection, for conceptualising, for critical thinking, for making decisions, for taking part in planning of REDD+ programmes and effecting social change in their community.

### **(iii) Development**

In the lecture notes of Dr Elijah Mutambanshiku Mwewa Bwalya, development is defined as a social condition within a nation in which the authentic needs of its population are satisfied by rational and sustainable use of natural resources and systems. This utilisation of natural resources is based on a technology, which respects the cultural features of the population of a given country. He further argues that this general definition of development includes the specification that social groups have access to organisations, basic services such as education, housing, health services, nutrition and above all else that their cultures and traditions are respected within the social framework of a particular country (2017:19).

In this study development is the increase in the number of local people participating in REDD+ Project and taking up alternative livelihoods such as conservation farming, small livestock keeping, eco-tourism and eco-charcoal production that improve their economic status without putting pressure on the forest adjacent to them. This development should take place in an environment where indigenous ecological knowledge is appreciated by external development agents.

#### **(iv) Participation**

The World Bank Participatory Development Working Group's definition put an emphasis on those who are poor and marginalised as primary stakeholders. And the definition reads as a process through which primary stakeholder's influence and share control over development initiatives, decisions and resources which affect them (Long, 2001:14).

In this study participation refers to a joint analysis of needs, opportunities, perceived problems and solution about REDD+ Project between the organisation and local people.

#### **(v) REDD+ Project**

It's the Reducing of Emissions from Deforestation and forest Degradation, a method of reducing global emissions caused by deforestation and creating a financial value for the protection of carbon stored in forests (BCP, 2013:3).

In this research it has been used interchangeably with forest carbon trade to refer to the provision of performance based payment for successful management and protection of threatened forests and natural resources.

#### **(vi) Communication strategy**

Dr Elijah Mutambanshiku Mwewa Bwalya in his lecture notes defines communication strategy as a well-planned series of action aimed at achieving certain objectives through the use of communication methods, techniques and approaches. He further elaborates this definition by stating that the basic element to the strategy is the understanding that any important project should be planned carefully from beginning to end in terms of objectives, inputs, process and overall aims (2017:27).

In this study communication strategy refers to any planned means of reaching the local people with messages aimed at motivating, empowering and engaging them in REDD+ Project.

### **1.11.3. Theories**

#### **1.11.3.1. Participatory theory**

The main theory that was used in this research is Participatory Theory based on Paulo Freire (1970) dialogical pedagogy. The theory is used in this research because of its emphasis on respect for humanity which is truly the concept cherished by African communities including

people in Rufunsa Conservancy Area. The Freirean argument works by dual theoretical strategy, where Freire insists that subjugated peoples must be treated as fully human subjects in any political process. This implies dialogical communication and action. Although Freire's argument is inspired by Jean Paul Sartre's existentialism, a result for the autonomous personhood of each person, the more important source is theology that demands respect for otherness in the case of another person. Freire believes that individuals have the capacity for reflection, for conceptualising, for critical thinking, for making decisions, for planning and social change.

Freire offered the concept of liberating education that conceived communication as dialogue and participation (Freire, 1970:78). The goal of communication should be conscientisation, which he defines as a free dialogue that prioritises cultural identity, trust and commitment. Communication should provide a sense of ownership to participants through sharing and reconstructing experiences (Freire, 1970:79).

Freire further argues that education is not a transmission of information from those who have to those who lack it or from the powerful to the powerless but creative discovery of the world (1970:80). The Freirean model proposes a human centered approach that values the importance of interpersonal channels of communication in decision making process at community level. Freire uses dialogue as an integral part of the conscientisation process (1970:19). Dialogue between the learners and the teacher proceeds by posing problems that stimulate critical thinking, making communication as an integral part of the conscientisation process. He further argues that dialogue should be based on the premise that the teacher, along with the student(s) is a co-learner, and that together they engage in a process of problem solving, learning from lived experiences, reflecting on the problem and taking action based on collective response. This continuous and iterative process of reflection and action results in learners gaining self-confidence to overcome obstacles to their growth such as oppression.

Freire closely associates oppression with the concept of the culture of silence. Freire explains that the oppressor, both within a society and from other societies ensures that people do not become aware of the structures that cause oppression (1970:10). Therefore, this perpetuates a culture of ignorance and silence that exacerbates oppression. To overcome this silence, the Freirean model proposes cultural action, a form of education that values knowing through dialogic communication. The Freirean dialogic communication occurs when the teacher uses

generative words and themes to stimulate a group discussion among learners. This pedagogic approach, called culture circles or learning circles is used to problematise the issues raised by the generative words and themes.

The learners in the learning circles are asked to decode these generative words and situations represented by these words and themes. This process is achieved through dialogue and leads to learners gaining self-confidence and raising their consciousness to overcome oppression. The learning circles are not designed to teach alphabets to adults who are illiterate; their purpose is instead to teach a way to code and decode situations using cultural referents including words, pictures and daily situations within few months of training. Freire adds that in that way learners develop a sense of confidence and dignity for themselves (Freire, 1970:31-32). The Freirean approach to education is critical thinking that can be understood as a process of empowerment, thus, the ability of people to take control over their environment (Soler-Gallart & Brizuela, 2000:1).

Servaes and Malukahao note the problem of dialogical communication is that of it being based on group dialogue rather than amplifying media such as the radio, print and television. They further argue that Freire gives little attention to language or forms of communication, devoting most of his discussions to the intention of communication action (2002:169). It is also clear that the author did not take into consideration the psychological differences that may affect an individual's capacity of critical thinking and subsequently the participation in decision making in important issues. Therefore, due to this weakness, the researcher has brought in a second theory to help seal this weakness. This second theory is the Diffusion of innovation theory.

### **Application of pedagogy of the oppressed in the study**

In this study the Participatory Theory based on pedagogy of the oppressed means a people centred development where communities adjacent to the forest in Rufunsa are considered as key stakeholders in the management of the forest. Therefore, in this discourse the emphasis is on the use of learning circles where local words and themes on forest management are used to stimulate discussions that lead to critical examination of the existing problem of deforestation and forest degradation in Rufunsa Conservancy Area . In this study education is not a mere transfer of knowledge from those who are considered to be masters to those who are not, but a process of problem posing. Consequently, the study considers people in Rufunsa Conservancy

Area as cognisable beings able to engage in critical thinking. In this process where local people are considered as cognisable beings then dialogue is indispensable. It is through dialogue BCP officers are no longer teachers but facilitators who organise people to come together and engage in critical dialogue leading to collective action on forest management. Hence, dialogue creates space for local people to be involved in identifying problems affecting them and this results in building trust and cooperation among key players in forest management.

Another central principle of this theory in the study is empowerment; empowerment is the process in which local people adjacent to Rufunsa Conservancy Area discover within themselves and in others the capacity to manage the forest. This further entails them, accepting personal responsibility to protect the forest from degradation. Therefore, the role of BCP officers is to help communities adjacent to Rufunsa Conservancy Area realise their potential and become free to make decisions on forest management. Furthermore, the theory is further envisaged in the study that empowering local people adjacent to forest results in ownership of REDD+ project and ensure sustainability in the absence of external change agents.

### **1.11.3.2. Diffusion of innovation theory**

Due to weaknesses noted earlier in the pedagogical approach to participatory communication, Diffusion of innovation theory has been identified as an appropriate theory to supplement the participatory theory that is inadequate to answer all questions pertaining to this research. Rogers defines diffusion of innovation as the process in which an innovation is communicated through certain channels over time among the members of the social system (1971:5). Rogers argues that for the innovation to be adopted the person has to be engaged in the innovation-decision process. Innovation-decision process is the way through which an individual (or other decision-making unit) passes through from the first knowledge of an innovation, to forming an attitude towards the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision. This process consists of a series of actions and choices over time through which an individual or an organisation evaluates a new idea and decides whether or not to incorporate the new idea into ongoing practice. This behaviour consists essentially of dealing with uncertainty that is inherently involved in deciding about a new alternative to those previously in existence (Rogers,1971:163).

### **A model of the innovation-decision process**

Diffusion scholars recognise that an individual's decision about an innovation is not an instantaneous act, but a process that occurs over time and consists of a series of actions. Therefore, Rogers demonstrates a five stage model in which an individual passes through before adopting or rejecting an innovation(1971:163).

**Knowledge stage:** The innovation-decision process is said to start with the knowledge stage which commences when an individual or other decision-making unit is exposed to the innovation and gains some understanding of how it functions. Rogers explains that at knowledge stage, an individual is first exposed to an innovation of which he or she lacks information about. Rogers further expounds that at knowledge stage an individual is not inspired to find more information about the innovation but is interested in the innovation and actively seeks information (1971:164-168).

**Persuasion:**In this stage the individual forms a favourable or unfavourable attitude towards an innovation. Whereas the mental activity at the knowledge stage is mainly cognitive (or knowing), the main type of thinking at the persuasion stage is affective (feeling). Therefore, it is indisputably that until the individual knows about an idea, he or she cannot begin to form an attitude towards it. At the persuasion stage the individual becomes psychologically involved with an innovation by actively seeking information about an innovation. In this regard, selective perception becomes important in determining an individual's behaviour in developing a general perception about an innovation. This happens by taking into consideration the perceived attributes of an innovation such as relative advantage, compatibility and complexity (Rogers, 1971:169-172).

**Decision:** The decision stage in the innovation-decision process occurs when an individual (or other decision-making unit) engages in activities that lead to a choice to adopt or reject the innovation as the best course of action available. At this stage most individuals cope with the inherent uncertainty about an innovation's consequences by trying it out on a partial basis. Further, Rogers notes that most individuals will not adopt an innovation without trying it out on probational basis to

determine its usefulness in their own situation. This small-scale trial is often part of the decision to adopt, and it is a way of decreasing the perceived uncertainty of an innovation (Rogers,1971:172-174).

**Implementation:** In this stage the individual or other decision-making unit puts an innovation into use. Until the implementation stage, the innovation-decision process is a mental exercise. However, the implementation stage involves overt behaviour change, as the new idea is actually put into practice. At this stage a certain degree of uncertainty about the expected consequences of the innovation still exist for the individual, even though the decision to adopt has been made previously. Therefore, active information seeking continues at the implementation stage (Rogers,1971:174-184).

**Confirmation:** At this stage an individual or other decision making unit seeks reinforcement for the innovation decision already made, but he or she may reverse this decision if exposed to conflicting messages about an innovation. The confirmation stage continues after the decision to adopt or reject for an indefinite period in time. Throughout the confirmation stage an individual seeks information in order to avoid a state of dissonance or reduce it in case it occurs (Rogers,1971:184-189).

### **Innovativeness and adopter categories**

Rogers argues that not all individuals in a social system adopt an innovation at the same time. Rather, they adopt it in a time sequence, and the time difference in the adoption of the innovation has resulted into categories of adopters. Therefore, it is from these classifications, Rogers developed five categories in which the adopters belong: (i) innovators, (ii) early adopters, (iii) early majority, (iv)late majority and (v) laggards (1971:241).

**Innovators:** Rogers argues that innovators are people eager to try a new idea and that their interest lead them out of a local circle of peer network to a more cosmopolite social relationships (1971:248). Rogers points out that innovators possess certain qualities such as control of substantial financial resources to absorb the possible loss owing to an unprofitable innovation and the ability to understand

and apply complex technical knowledge. He further adds that the innovator must be able to cope with the high degree of uncertainty about an innovation at the time the innovation is being adopted. Even though innovators play an important role in the diffusion process of launching new ideas in the social system, many a time innovators are resented by other members of the social system (1971:248).

**Early adopters:** Early adopters are an integrated part of the local social system than innovators. This adopter category has the greatest degree of opinion leadership in the social system. Potential adopters look to early adopters for advice and information about the innovation. The early adopters are considered by many as “the individual to check with” before using the new idea. Early adopter category increases the speed of the diffusion of the innovation because they are not too far ahead of the average individual in innovativeness. Hence, their role is to decrease uncertainty about a new idea by adopting it, and then conveying a subjective evaluation of an innovation to near-peers by means of interpersonal communication (Rogers, 1971:248-249)

**Early majority:** Rogers claims that the early majority adopt a new idea just before the average member of the social system. The early majority interact frequently with their peers, but seldom hold leadership positions. The early majority’s unique position between the very early and relatively late to adopt makes them an important link in the diffusion process. They provide interconnectedness in the system’s networks. The early majority may deliberate for some time before completely adopting a new idea. Their innovation-decision period is relatively longer than that of the innovators and the early adopters ( 1971:249).

**Late majority:** Rogers points out that the late majority adopt new ideas just after the average member of a social system. Adoption may be as a result of economic necessity or to respond to the increasing network pressure. Innovations are approached with skeptical and cautious air, and majority do not adopt until most members of the social system have done so. They are persuaded by the utility of the new idea, compatibility of the new idea with the existing social norms and the

pressure from peers to adopt. Rogers adds that because of the scarce of resources, the late majority adopt the innovation not until almost all of the uncertainty about the innovation are removed (1971:249-250).

Laggards: Rogers states that laggards have the traditional view and they are more skeptical about innovation and change agents than the late majority. It is the most localised group of the social system and there is interpersonal network within the members of this category. They are said not to occupy leadership positions and adopt the innovation after seeing it working to other members of the social system. Due to all these characteristics, laggards innovation-decision period is relatively long (1971:250).

Rogers further summarises his five categories of adopters in two main groups: earlier adopters and later adopters. The earlier adopters consists of innovators, earlier adopters and early majority while the late majority and laggards comprise later adopters. Rogers identifies the difference between these two groups in terms of socioeconomic status, personality variables and communication behaviour which is positively related to innovativeness (1971:251).

### **Application of the diffusion of innovation theory in the study**

In this study the diffusion of innovation theory is understood in terms of the innovation - decision process and innovativeness and adopter categories. Therefore, REDD+ concept is conceived as a new innovation designed to offer incentives to local communities in Rufunsa in order to reduce carbon emissions from forested lands and invest in low carbon paths. This theory is captured as a process individuals rather than the community pass through from the first knowledge about REDD+ concept, to forming an attitude towards the REDD+ concept, to a decision to adopt or reject the concept, to implementation of the packages that comes with the project and to confirmation where individuals continue seeking supportive messages on REDD+ concept in order to support their decision to adopt or reject the innovation ( forest carbon trade). The innovativeness and adopter categories is understood in terms of the degree to which an individual is relatively earlier in adopting REDD+ concept than other members in Rufunsa Conservancy Area. Rufunsa Conservancy Area is referred to as the social system which is

conceptualised in terms of the interplay of traditional political system, opinion leadership, norms, values and local knowledge in forest management and how this affect the adoption of REDD+ concept and subsequently the participation of local people in decision making.

### **1.12. Scope of study**

Forest carbon trade being a new concept of reducing carbon emissions in the atmosphere has attracted a lot of interest, with several topics within the subject that needs research. However, this study has been narrowed down to the understanding of community mobilisation, communication and engagement strategies that are being employed by BCP that are aimed at empowering communities to participate in forest carbon trade in four zones of 28 villages in Rufunsa District.

### **1.13. Conclusion of the chapter**

This chapter has brought out the background information of forest carbon trade and how participatory communication had been considered to be a potent tool to engage local people adjacent to the forest in the trade. It has also been established that forest carbon trade attained its prominence during the 1992 Earth Summit and the forests where considered to have potential to store and sequester carbon. As it has been already observed, deforestation account for 3.8 billion tonnes of carbon release in the atmosphere. It is for this reason the concept of reducing emissions from deforestation and forest degradation was developed to deal with environmental degradation through deforestation. In order to understand the motive of undertaking this study, the statement of the problem and the purpose of the study were highlighted. The chapter demarcated the boundaries of the research by outlining the scope of the study. The research has further outlined what it wants to achieve by the end of the study by stating its objectives and research questions. The chapter has also clearly pointed out that this research has been guided by two theories, namely; participatory theory based on pedagogy of the oppressed and diffusion of innovation theory and it has further provided the interpretation of these theories in this research. The diagrammatic representation of the study has been provided to help the readers visualise the concept of the research. Besides, concepts in this study have been defined and their meaning explained.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1. Introduction**

This chapter assesses the current literature in communication for development with a heavy focus on participatory communication. This chapter provides appropriate studies on how communication for development has effectively engaged and empowered local communities adjacent to forests to make decisions on forest management and environmental protection. In so doing, this chapter shows that participatory communication is an essential component in building trust, sharing knowledge and ensuring mutual understanding among key players in forest management.

#### **2.2. Global perspective**

##### **2.2.1. Study of communication in community based fisheries and forestry: A case from Cambodia**

In the seasonally flooded zone around the great lake of Tonle Sap in Cambodia's Siem Reap Province, a community based initiative was established to protect and manage thousands of hectares of dispersing forest and fish stocks of the lake. Siem Reap Province is located in the north end of the Tonle Sap Lake, which is the largest fresh water lake in South-East Asia. Every year, the flow of the river connecting the Tonle Sap Lake to the Mekong River is reversed because the flood levels in the Mekong becomes higher than that of the lake. This results in five fold increase of the area covered by the lake. During that time, the area becomes a nesting, feeding and spawning ground for hundreds of different fish, birds and animal species. Thus, this seasonal flooding was a condition for the existence of this rich ecosystem, which provides a source of food and income for a rapidly increasing population around the lake (Thompson, 2006:157).

The unsustainable utilisation of natural resources in the region led the government to initiate a Participatory Natural Resource Management Project in order to promote sustainable management of forest and fishery resources. Unfortunately, this project faced numerous communication challenges at the implementation stage. The

main communication challenge was that the project relied on massmedia such as radio and newspapers as the best way to communicate with local people. This top-down flow of information and conservation technology from mass media to local people raised a number of issues. Firstly local people felt that the messages were not made for them as they were too technical for them to understand; secondly conservation messages concentrated on technical aspects ignoring economic and social needs of the local people; thirdly local knowledge about forest conservation was not included in the massmedia campaign messages. Besides, written materials and newspapers had little potential due to low levels of literacy. Illustrated posters had potential, but lack of permanent structures and harsh climatic conditions posed a challenge as when they had to be produced and posted. In addition, illustrated handouts or leaflets were also limited by the amount of information that could be transferred in form of pictures and when the text was used the understanding was generally low. This meant that the initial communication strategies of the project had no information needed to stimulate the desire of local people to participate in natural resource management and as a result deforestation and over fishing continued (Thompson, 2006:160).

In order to realise the desired results, the approach was changed from the production of materials to systematic use of participatory communication, which was characterised by open and free communication. This meant free and open dialogue between project officers and local communities in order to encourage local participation in natural resources management. After the introduction of participatory communication, local people begun to engage themselves in alternative livelihood activities aimed at reducing pressure on the forest and the lake. This included the planting of trees for fruits and wood along side aquaculture in order to reduce people's dependency upon natural resources base (Thompson, 2006:158). Furthermore, local people of Siem Reap who once refused rural credit and training in community saving clubs started accepting these facilities after they participated in formulating the rules governing the micro credit and saving clubs. It is also evident that participatory communication fostered the spirit of project

ownership as local people continued to conserve natural resources despite the phasing out of the project (Thompson, 2006:167).

It is therefore, clear that communication approaches that do not involve local people in the development process have very limited impact. This has been observed in the case of Siem Reap Community Fishery and Forestry Initiative, where mass media could not stimulate the desire of local people to participate in the project. Chatterjea (2012:165) observes that participatory communication builds capacity in local people to make informed decisions on developmental activities and this results in ownership of community projects. This is evident in Siem Reap Community Fishery and Forestry Initiative where there was continuation of the management of natural resources by local people after the closure of the project.

### **2.2.2. A case study of Tambon –Tha-i-boon, Lomsak Thailand**

The purpose of the study was to understand participatory communication patterns in community forest management. This follows the depletion of the Tha-i-boon forest in early 1980s upto the early 1990s due to illegal logging and clearing of vegetation for farming. In response to this problem, the Petroleum Authority of Thailand launched support in 1995, as part of Her Majesty the Queen 's Initiative to protect the forest. In the beginning of the project, the aim of government communication process was to disseminate information about forest management and this was a two-step flow communication. The first step of communication was initiated by the authorities who transferred information to middle ranks and the second step was the transfer of information from the middle ranks (opinion leaders) to the grassroots (ordinary community members). However, this top-down communication approach had a problem of distorting information through misinterpretation which resulted in people misunderstanding the information sent by forest officers, village headmen and other community leaders (Cadiz and Cabellero, 2006:222).

The solution to the distortion of information was to find a communication model that could be appropriate for development. That is a model that would place emphasis on people's participation in sustainable forest management. Therefore, the initiative adopted a participatory communication model, which was characterised by bottom-up communication approach. This approach allowed the villagers to propose how to prevent deforestation, whereby community

leaders could identify problems related to forest management, then set up the plan, budget and request funds from local administration and other supporting units. Participatory communication approach also allowed community members to take advantage of personal relationships in sharing information about forest management such as tree planting or making fire prevention lines. Furthermore, participatory communication gave an opportunity to message receivers to share their traditional knowledge about forest management. Moreover, the model helped the project officers to spread the information which in the past was difficult to do due to lack of potentiality in utilising the mass media (Cadiz and Cabellero, 2006:224).

Besides, participatory communication empowered local people with negotiation skills such that they were able to bring out their developmental agenda to project officers. For instance, prioritising activities in forest conservation such as the decision to build water dykes that provided water for irrigation throughout the year in order for villagers to have an alternative livelihood such as vegetable gardening, wet land farming and fish farming to traditional economy which had put the forest at risk of depleting. Bessette observes that participatory communication has potential to empower local communities to prioritise activities in natural resources management (2006:87). In addition, local people in Tambon developed a sense of ownership of the project as compared to the past when top-down communication approach was used, local people were reported to have been resenting developmental projects to the extent of up rooting exotic plants planted by the Department of Forest. Therefore, 5000 hectares of the forest is still in good condition despite the Petroleum Authority of Thailand pulling out from the project. This reflects the strength of the community as well as the potential of local administration in managing the forest (Cadiz and Caballero, 2006:222-229). This is in line with Bessette's argument that participatory communication ensures true appropriation and ownership of developmental projects by local communities because it supports decentralisation, adaptation of projects to location specific conditions and stakeholder driven (2006:90).

In synthesising the above study, it is worth to note that participatory communication is a very important mechanism in sharing ideas among community members and the project staff in a free and open atmosphere. It is clear in the case of Tambon that participatory communication was a driving force in engaging local people in forest management, whereby, local people started participating in making fire breaks and providing forest guards to patrol the forest with little

monetary incentive. There is a growing corpus of knowledge that whenever participatory communication is used at every level of information exchange, it often yields desirable results. In Tambon, participatory communication design was used at all levels of interaction between project staff and the community and this was not only to convince people to accept the desired objectives, but also to involve the public in decision making. The study results also revealed that participatory communication created a sense of ownership of the project and there is vivid evidence of the existence of a flourishing 5000 hectares of forest despite the phasing out of the project.

### **2.3. African perspective**

#### **2.3.1. Study of miombo woodlands in Bukombe District, Shinyanga in Tanzania**

For the last decades Bukombe District in Shinyanga Region faced a growing environmental degradation due to human made fires as a result of old age traditional farming practices of slash and burn. This farming method was common among the Sukuma people. These nomadic pastoralists were setting fires to initiate pasture regeneration for their cattle, at times the fire were set for good intention but would go out of control of individuals and cause damage to the forest. Consequently, land degradation and dwindling soil nutrients made farmers not to grow enough crops and this forced them to quit farming and begun relying on illegal logging and charcoal production for their livelihoods (FAO,2013:11).

In response to forest degradation in Shinyanga Region, the government through the Ministry of Natural Resources and Tourism introduced the *Hifadhi Ardhi Shinyanga* (HASHI) Project which means soil conservation in Kiswaili. The HASHI Project begun with a wide range of communication strategies such as video shows, theatre, newsletters and community meetings to raise awareness and mobilise communities to protect the forest. When the impact assessment was done it was found that forest fires kept on increasing. This was because the communication strategy was unable to relay information that could be understood by local people. This was partly as a result of not involving local people in planning messages to be communicated about forest conservation. Hence, the content of most of the materials were not relevant to people of Shinyanga; moreover, a good number of

these materials were written in English that could not be understood by local people(Mbwana,2008:29). Consequently, local people felt that their needs and aspirations were not considered and that the communication strategies were a mere information dissemination.

Therefore, in order to overcome the forest fires, the project started to involve people close to forests in making decisions on matters that affect them and the forest resources (Mbwana, 2008:27). In this approach, participatory communication was the core principle in engaging and empowering communities adjacent to forests in decision making. This involved the use of a comprehensive strategy known as Communication Education and Public Awareness(CEPA) in order to actively mobilise and engage local people in managing fires. Furthermore, CEPA encouraged the use of indigenous knowledge in the prevention of fires known in Sukuma as '*ngitili*' meaning enclosure. *Ngitili* was an area near a village which was closed off at the beginning of the wet season to preserve fodders and opened during the dry season for grazing cattle. The villagers were encouraged to identify such an enclosure and dig strips around the area for demarcation purpose which also functions as fire breaker (FAO, 2013:12).

Furthermore, participatory communication was helpful in setting up or reinforcing social institutions such as village environmental committesss. These committees formulated by-laws and village work plans for use during the fire season.The by-laws were enforced by local scouts called *sungu sungu* mainly young people who were mandated to patrol the forest and bring arsonists and other environmental offenders to justice. It also created an opportunity for local people to think of other means in which they could utilise natural resources for their benefit such as the use of dead wood for making handcrafts which boosted eco-tourism. In addition, local people learned to keep bees and an alternative way of harvesting honey without using fire (FAO, 2013:15).

From the foregoing case of Shinyanga Region, participatory communication strengthened the existed social structures within communities and increased

people's confidence in tackling forest fire challenges. It has also been observed that in Shinyanga Region, information dissemination alone was not sufficient to address the serious challenge of wildfires, hence, the adoption of participatory communication that empowered local people to make decisions on what they thought was the best way of overcoming forest fires such as the use of *ngitili*. Shinyanga Region is a true testimony to Santucci's argument that participatory communication build social capital in participating communities (2005:102). True to that local people in Shinyanga Region acquired new social and economic skills such as woodcraft skill that of using dead wood to make artifacts that promoted ecotourism. Finally, the involvement of local people in decision making and subsequent management of the forests promoted a sense of ownership of the project where local people offered themselves as guards to patrol the forests even after the phasing out of the project (FAO, 2013:11).

### **2.3.2. Study from the Democratic Republic of Congo**

Kahuzi-Biega National Park situated in South Kivu in the Eastern Democratic Republic of Congo(DRC). The park is the major repository and sanctuary for biodiversity. It is a home to 13 species of primates, 9 species of antelopes and more than 400 bird species. Since 1996, the park has featured on the list of world heritage sites at risk because of intense human pressure on its natural resources. The park was created to serve two functions; to preserve the typical mountain forest of Kivu and to protect a subspecies of gorillas that are found only in the forest of the Eastern Congo. The park also plays an important role in conserving the region's hydrography, rainfall and climatic equilibrium. Hence, this natural resource protect the water table upon which the inhabitants of Bukavu and the villages located within the park depend for their water supply. The Kahuzi-Biega National Park case provides a prime illustration of the confrontational dynamics that are sparked when two contrasting approaches collide; that of the authority seeking to protect a fragile ecosystem from over exploitation and that of indigenous people insisting on their ancestral rights over their territory. It also illustrates how participatory communication can help to find a common ground between opposing views and generate cooperative action (Mumbu, 2006:115).

The presence of indigenous people in the zone, who continued to pursue their traditional way of life undermined conservation efforts. The natural forest in these areas had been exterminated by

farmers through slash and burn agricultural method, uncontrolled harvesting of forest and wildlife products. Therefore, in 1970 the government expelled local people from the area and resettled them beyond the boundaries of the park as a way of curbing exploitation of the forest and wildlife. Later in 1975, the government expanded the park extending its boundaries to the villages, bringing 9000 displaced people back into the park. This was done in isolation of the local people and their leaders. As the result, the traditional leadership of this hierarchical society felt that they had lost some of their power which was essentially based on landholding when a portion of their territory was incorporated into the park, this fueled resentment among local communities, who for this reason refused to recognise the park's existence. The inhabitants continued encroaching on the park to do their economic activities such as slash and burn farming, hunting, fishing, collecting firewood and digging of precious stones and this became a serious obstacle to conservation of biodiversity (Mumbu, 2006:116).

Not surprisingly, this exclusive model was found wanting. What was needed was an alternative model for managing and conserving the park's resources. The authority had recognised the need to hold discussions with local people concerned in conserving natural resources in the park. In the course of many meetings organised by the park authorities, local people described their view of the problem by saying that when the park was created people were driven out of a territory that they had occupied for generations without consultation and compensation for economic activities deprivation. This meant exclusion of local people in the management of their natural resources. Despite the realisation of the defects of top-down communication approach, the authority designed a number of development initiatives in isolation of local people aimed at lifting them out poverty, such as health centres and maternity wings, boreholes, bridges, primary and secondary schools which they built. However, these were not needs local people wanted in order for them to avoid encroaching the park and as a result they continued to exploit the forest (Mumbu, 2006:119).

It was for this reason a survey was conducted in 1996 to ascertain the reasons people were not participating in conserving the park's natural resources. It was found that only 36 percent of the local people had a favourable opinion of the park's conservation, surprisingly a high percentage were in favour of the previous systematic opposition. Therefore, both 1996 survey and a 1999 assessment concluded that the top-down approach did not allow the involvement of local people

in initiating developmental activities aimed at improving their economic activities in order to reduce dependency on natural resources for their economic wellbeing (Mumbu, 2006:120). This coincides with Mefalopulos's argument which says that when people are not involved from the beginning they tend to be more suspicious of the project activities and less prone to support them, conversely, when communication is used to involve them in the definition of an initiative, their motivation and commitment grow stronger (2008:9).

Through this in-depth study of stakeholders in Kahuzi-Biega National Park, the authority realised the importance of strengthening collaboration with local people in order to achieve a true participatory management. Thus, in 2000 participatory management and communication mechanisms were introduced in certain villages on experimental basis. This structure offered a framework for cooperation, dialogue and decision making. Since the introduction of participatory communication there has been an increase in a number of community members participating in conserving the park's natural resources through the adoption of environmental friendly activities such as conservation farming, eco-charcoal production and keeping small livestock as an alternative to poaching. In addition, participatory communication had banded people together in village social units to pursue collective self-help activities rather than relying solely on individual initiative. These units became a backbone of management and support for locally inspired micro-projects, therefore, more local people were engaged in income generating activities in order to meet locally expressed needs. Along with participatory communication, the park authority continued to use mass media for broader dissemination of information, where local people provided written and audio visual materials in order to ensure that materials are cultural relevant and meet the information needs of the people of Bukavu (Mumbu, 2006:121).

Therefore, it is indubitable fact that participatory communication promoted dialogue and cooperation between the park authorities and the neighbouring population. Participatory communication has also proved itself most useful whereas, people are able to share their indigenous ecological knowledge. It is clear that efforts to conserve bio-diversity are more likely to succeed if policies and practices relating to management of the park's natural resources carry a stamp of consensus among stakeholders rather than being imposed on them. In other words free and open communication based on dialogue and mutual respect between the park authorities and the local people can overcome the resistance of local people to conserve the forest. To date the

results of participatory communication are quite incredible as people in Kahuzi-Biega National Park have developed a sense of full ownership of the project, whereby they are able to guard the park and report any illegal activity to relevant authorities.

## **2.4. Local perspective**

### **2.4.1. Chinyunyu Community Forest Project – Zambia**

The protection of forest resources is crucial to the survival of rural dwellers such as the Chinyunyu community. But the area along with many others in Zambia suffered a rapid deforestation. The case of deforestation was estimated to be 300,000 ha per annum, the main force behind the deforestation is the production of charcoal and shifting cultivation. In response to this depletion of forest resource, the Norwegian Agency for International Development (NORAD) in conjunction with the Zambian Government initiated the Chinyunyu Community Forestry Project in 1990 where they provided forestry extension officers to work with local people in managing forest resources. The project had a number of conservation activities which included tree planting as a way of expanding the forest, conservation farming and alternative energy project (Lukama, 2000:167).

In the initial stage of the project, local people could not participate in forest management. This was evidenced by the high rate of deforestation as most of them continued to practice shifting cultivation and making large traditional kilns of charcoal. This is because forest extension officers were using top-down communication which did not communicate the importance of forest management as the messages were too technical and lacked cultural relevance. Top-down communication approach was also found wanting for creating dependency within the Chinyunyu community, whereby local people could not do any conservation activities in the absence of extension officers. Furthermore, this approach lacked potential to empower local people to formulate their own bylaws. This made law enforcement more difficult (Wily and Mbaya, 2006:225).

The above stated communication challenge was overcome by orientating forest extension staff in participatory communication which was both bottom-up and

linear in nature. Therefore, participatory communication became the anchor of the Chinyunyu Community Forest Project and was used to stimulate the desire of local people to engage in forest management. Participatory communication also brought in the sense of unity in defending the forest resources from exploitation where local people were able to report any illegal activity in the forest. Moreover, participatory communication enabled local people to identify problems and make decisions on the best way to manage the forest. For instance, community members in Chinyunyu identified shifting cultivation and charcoal burning as major drivers of deforestation; and they suggested that there was a need to promote agro-forestry practices in order to improve soil fertility, control soil erosion and to establish a culture of permanent land cultivation (Lukama, 2000:169).

In addition, participatory communication encouraged open dialogue where local people were free to deliberate on forest management. This equipped them with negotiation skills and able to prioritise activities in an attempt to halt deforestation. For example, local people together with extension officers discussed and agreed to have an agro-forestry demonstration plot to encourage people to include the tree component in farming (Lukama,2000:172). It was also found out that participatory communication increased knowledge sharing among local people and even with extension officers. Whereby, members of the community were able to explain and share the information on the importance of agro-forestry of increasing soil organic matter through fixation of nitrogen by their litter and root decay and its importance in controlling shifting cultivation which is dependent on felling of trees. This communication mechanism also provided a platform through which local people in Chinyunyu were able to use and share indigenous knowledge on forestry conservation. This is whereby project staff had to tap in the already existing knowledge of tree planting prior to the commencement of the forestry extension tree planting campaign (Lukama,2000:173). Participatory communication has so far established the community ownership attitude of the Chinyunyu Community Forest Project. In other words the management of the existing forest has become the responsibility of everyone in the community as well as of other stakeholders since 1990(Lukama, 2000:174).

In summing up the case, the involvement of local stakeholders in defining development priorities has advantages other than just gaining their support. It gives outside experts and managers valuable insights into local reality and knowledge that ultimately lead to more relevant, effective and sustainable project design (Mefalopulos,2008:10). In the case of Chinyunyu, the adoption of participatory communication has made indigenous knowledge a valuable asset in the successful implementation of the project, thus extension officers incorporated local knowledge in order to ensure local people's participation and project ownership. Rahema concludes that a number of major international aid organisations agreed that development projects are floundered because local people are not actively involved at the initial stage of the project (1993:17). Equally NORAD noted that the Chinyunyu Community Forest did not yield any positive results in the initial stage as a result of top-down communication which excluded the local community in the management of the forest. Furthermore, Rahema adds that whenever, local people are involved and actively participate in the projects much more is achieved with much less financial expenditure which is true with the Chinyunyu Community Forest Project where the cost of guarding the forest was reduced because the community offered themselves to patrol and guard the forest with little monetary incentives (1993:19).

## **2.5. Conclusion of the chapter**

The preceding chapter has elaborated on how participatory communication is used to steer the desire of local people to participate in the management of natural resources particularly the forests in five countries. It has also indicated how participatory communication is an essential ingredient in building trust, sharing knowledge and ensuring mutual understanding. Besides, it has been noted that participatory communication has enabled the communities to share and apply their indigenous knowledge in forest management such as the *ngitili* in the case of Tanzania. More significantly, it has been found that whenever top-down communication was used in forest management, it did not yield desirable results as it had no potential to motivate local people to participate in projects. A number of studies have confirmed that a top-down management approach to development is

less effective than a participatory one. The World Bank provides data to support this perspective and further argues that development communication supports the shift towards a more participatory approach and its inclusion in development work often results in reduction of political risks, the improvement of project design, increased transparency of activities and the enhancement of people's voices and participation (1992:57). Agunga argues in Mefalopulos that the history of development has included failures and disappointments which have been ascribed to two major intertwined factors: lack of participation and failure to use effective communication and this was evident in the initial stages of the projects in forest management that had adopted the top-down communication which did not provide necessary information to initiate local people in forest management (2008:8). The same point is emphasised by Mckee et.al who state that successes and failures of most developmental projects are often determined by two crucial factors that is communication and people's involvement (2008:256).

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1. Introduction**

This chapter describes the research methodology used to collect and analyse the data in the study. It focuses on the research design, research methods, the study population, the sample selection, the sample size, the data collection techniques and the plan for data analysis. Besides, ethical considerations and study limitations have also been highlighted.

#### **3.2. Research design**

The study employed non-experimental exploratory design in order to evaluate how communication strategies used by BCP motivate communities to participate in REDD+ project. The exploratory study was chosen because the study was a small scale research, which was conducted over a relatively short period of time. Besides, the topic or issue was relatively new and data was difficult to collect, this is in line with Earl's argument that one of the objectives of exploratory research is to gather preliminary information that will help define problems and suggest hypotheses in topics that are new in order to increase a researcher's understanding of a subject (2007:87-89).

#### **3.3. Research methods**

The study employed both quantitative and qualitative methods in order to evaluate how communication strategies used by BCP motivate communities to participate in REDD+ project. Quantitative approach allowed the measurement of the reaction of subjects to a set of questions and also allowed the researcher to compare and analyse the results statistically. While qualitative methods provided the context in which the researcher fully understood the results as the method captured people's reasoning, feelings and experiences about the subject (Moore and McCabe, 2006:206). The reason of using the triangulation methodology was to overcome each other's weakness.

#### **3.4. Data collection methods**

The researcher collected data in two ways ; primary data collection and secondary data collection methods.

##### **3.4.1. Primary data collection method**

In this method the researcher collected data by using both quantitative and qualitative methods.

#### **3.4.1.1. Quantitative method**

The researcher used structured administered questionnaires. The questionnaires were both open and closed-ended in order to capture a variety of views on the subject. The reason for using questionnaires was to uphold privacy in order to have authentic responses as much as possible. Besides, the reason for choosing both open-ended and closed-ended questions was to allow a greater freedom of responses whereas the later forced respondents to choose from the alternatives provided in order for the researcher to capture desired responses needed for the research. The structured administered questionnaire was preferred to self-administered questionnaire as the majority of the respondents were not conversant with the English language.

#### **3.4.1.2. Qualitative methods**

In this method the researcher used in-depth interviews. In-depth interviews with open-ended questions helped the researcher to get insight and expert information in complex issues of forest carbon trade, communication and community engagement.

#### **3.4.2. Secondary data collection**

In order to supplement data from qualitative and quantitative methods, the researcher used books, internet extracts, newspapers, magazines and seminar papers that provided much needed data in the study. This is because the materials are written by experts in the field of REDD+ concept, communication and community engagement and provide valuable information based on experience and research.

### **3.5. Study area or Site**

The Lower Zambezi REDD+ Project is located approximately 120 km southeast of Lusaka and falls within the miombo eco-region which is a host to plethora of endemic species. It falls within recently declared Rufunsa district and borders with the Lower Zambezi National Park to the east and South Chiawa Game Management Area (GMA) to the west and Soli Samifwi Royal Establishment (Chief Unda Unda's chiefdom) to the north. The project areas is accessible by a gravel road via the small town of Chinyunyu and Sinjela. The project sits on 38,781 ha on which four zones are participating in forest carbon trade and these are; Chilimba, Mweeshang'ombe, Ndubula and Namanongo (BCP, 2013:10).

### **3.6. Study population**

In this study the population of interest comprised of BCP Officers, Forestry Officers, Zambia Wildlife Authority Officers (ZAWA) and the local community of Rufunsa Conservancy Area. Where 100 were subjected to structured administered questionnaires, 2 BCP officers, 2 ZAWA Officers and 2 Forestry Officers were subjected to in-depth interviews as key informants.

### **3.7. Study sample**

This study used a sample of one hundred and six (106) respondents comprising of local communities in Rufunsa Conservancy Area, BCP, ZAWA and Forestry Officers. The main reason of choosing this sample size of one hundred for structured administered questionnaires was because it was cost effective, manageable and adequate in terms of generalisation as the Rufunsa community is homogeneous in nature.

### **3.8. Sampling techniques**

Purposive sampling was used to select two zones to participate in the study, this non-probability sampling was based on the researcher's judgement. The selected zones were considered to be representatives of all zones as the population is homogeneous in nature; that they have similar living conditions. The reasons of using purposive sampling was to capture zones with a large number of villages that could be subjected to a simple random sampling for quantitative research. Participants of the in-depth interviews were selected using expert sampling a type of purposive sampling technique. This was used because the researcher wanted to glean knowledge from individuals that had expertise on the subject. This expert knowledge was required during the exploratory phase of the qualitative research in order to highlight potential areas of interest and to open doors to others to participate in the research.

The participants for quantitative research were randomly selected using simple random sampling where each member of the population participating in REDD+ project in four villages of two purposefully selected zones had equal chance to be

chosen as part of the sample. The reason for choosing simple random sampling was to remove bias from the selection procedure and have a representative sample.

In order to create a simple random sample the researcher took the following steps: Firstly, the researcher defined the population as people participating in REDD+ project in two purposefully selected zones in Rufunsa Conservancy Area where the sampling frame was all 1000 participating people. The researcher used the ratio of 1:10 to arrive at the sample size of 100. However, the researcher could have used the sample size calculator a useful statistical tool to determine the sample size. This could have suggested the need of a larger sample size; perhaps as many as 250 participants. Thirdly, the researcher listed the population of all participating people in simple randomly selected villages of two purposefully selected zones in order to identify all 1000 participants in REDD+ project and selected a sample from it. Fourthly, the researcher assigned a consecutive number from 1 to 1000 of the population of participants in REDD+ project in four simple randomly selected villages of two purposefully selected zones. Fifthly, the researcher created a list of random numbers before selecting the sample of 100 from the total list of 1000 participants in REDD+ project. These numbers were run on the computer and 100 random numbers were generated. Finally, the researcher selected a sample of 100 from the total population of participants in REDD+ project and were notified that they would be visited by research assistants for structured administered questionnaires.

### **3.9. Data collection procedure**

In order to collect the data necessary for the study, structured administered questionnaires and in-depth interviews were used. The questionnaires were administered to respondents at their residences by research assistants. The in-depth interviews were conducted at the key informants work places and this was done by the researcher in the presence of research assistants who helped to record the responses. In in-depth interviews the researcher followed the written down questions on interview guides and recorded the responses on paper and on the tape recorder.

### **3.10. Data analysis instruments and procedures**

Data was collected using questionnaires and it was checked for consistency, uniformity and accuracy before data entry. Thereafter, the questionnaires were entered and coded in Epi-data for data management. The data from Epi-data was exported to the Statistical Package for the Social Sciences (SPSS) for processing and analysis. The SPSS presented data in form of frequency tables, and bar charts while Microsoft Word was used in the presentation of results. Epi-data and SPSS were chosen because they are user friendly to the researcher. For qualitative responses, the study used thematic analysis. Thematic analysis is the process of identifying patterns or themes within qualitative data (Braun and Clarke, 2006: 78). The goal of thematic analysis is to identify themes that are important or interesting and use these themes to address the research or say something about the research. The research used Braun and Clarke's six phase framework for doing a thematic analysis. Firstly, the researcher familiarised oneself with the data, secondly the researcher generated initial codes using Microsoft Excel, thirdly the researcher started searching for themes, fourthly the researcher started reviewing the themes that were identified, fifthly the researcher defined the themes and in the sixth stage the researcher produced the report of the findings (Braun and Clarke, 2006:78).

### **3.11. Ethical considerations**

The study ensured voluntary participation /informed consent: All participants in the study were not forced, coerced or manipulated to take part in the study, but did so out of their own volition. This included the participants' right to answer the questionnaires or to refuse at any point in time of the interview. Furthermore, the study ensured that the right of participants' anonymity and confidentiality was upheld by making the questionnaires anonymous, by keeping secret the information provided by the participants and by publishing research findings in a way that would not reveal the respondents.

### **3.12. Limitations of the study**

In the course of the research a number of short comings were encountered. Firstly, it was difficult for the researcher to be accepted to do his attachment at Bio-Carbon Partners Limited and this delayed the data collection process. Besides, the researcher was not fluent in native languages, Tonga and Soli and relied on the interpreters hence some meaning could have been lost when collecting data with

structured administered questionnaire. Thus, not knowing the local languages posed a challenge in the research process of collecting, analysing and synthesising the information. The questionnaires were not completed on time by some respondents as most of the respondents were busy harvesting their crops as the research was conducted during the harvesting season.

### **3.13. Conclusion of the chapter**

The chapter looked at the research methodology used in the study, where it highlighted that non-experimental exploratory design was used. The study area has also been discussed to show to the reader where the study was done. The study population has been defined and the relevance of the population to the study. The chapter also outlined the sampling techniques used in the study, thus purposive sampling for qualitative data and simple random sampling for quantitative data. Furthermore, the chapter brought to the fore the data collection methods thus, structured administered questionnaires and in-depth interviews were discussed. Data analysis and procedures were also pointed out that the researcher entered the data in Epi-data for coding and management and thereafter the data was exported to SPSS for processing and analysis. It was further pointed out that thematic analysis was used for qualitative data. Lastly but not the least, the chapter also took into consideration the limitations and ethical considerations of the study in order to indicate to the readers factors that could compromise the objectivity of the research and how individual rights of participants were upheld respectively.

## **CHAPTER FOUR**

### **PRESENTATION OF RESEARCH FINDINGS**

#### **4.1. Introduction**

The research looked at how communication for empowerment and participatory development, empower local communities to participate in forest carbon trade in Lower Zambezi in a case of Bio-Carbon Partners Limited. Presented here are the findings of the study which are aligned along four objectives namely: (a) To find out the communication strategies used by BCP to engage communities in coming on board in making decisions about REDD+ project; (b) To examine the language used by BCP in engaging communities in REDD+ Project; (c) To evaluate the effectiveness of the communication strategies used by BCP in mobilising communities to participate in forest carbon trade; (d) To find out the extent to which communication strategies used by BCP empower the communities with negotiation skills in REDD+ Project.

A total of 100 questionnaires were administered to randomly selected residents of Chilimba and Ndubulula Zones in Rufunsa District. Besides, six in-depth interviews were conducted in order to garner expert knowledge on the subject from Marketing and Communication Advisor of BCP, Community Engagement Officer of BCP, District Forest Officer, Assistant Forest Officer, Senior Warden and Park Warden of Zambia Wild Life Authority.

#### **4.2. Descriptive Variables**

The variables of interest for the 100 participants in the study were sex, age, education, occupation and income variables.

#### 4.2.1. Sex Variable

**Table 4. 1. Sex**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	65	65.0	65.0	65.0
Female	35	35.0	35.0	100.0
Total	100	100.0	100.0	

**Figure 4. 1 Sex**

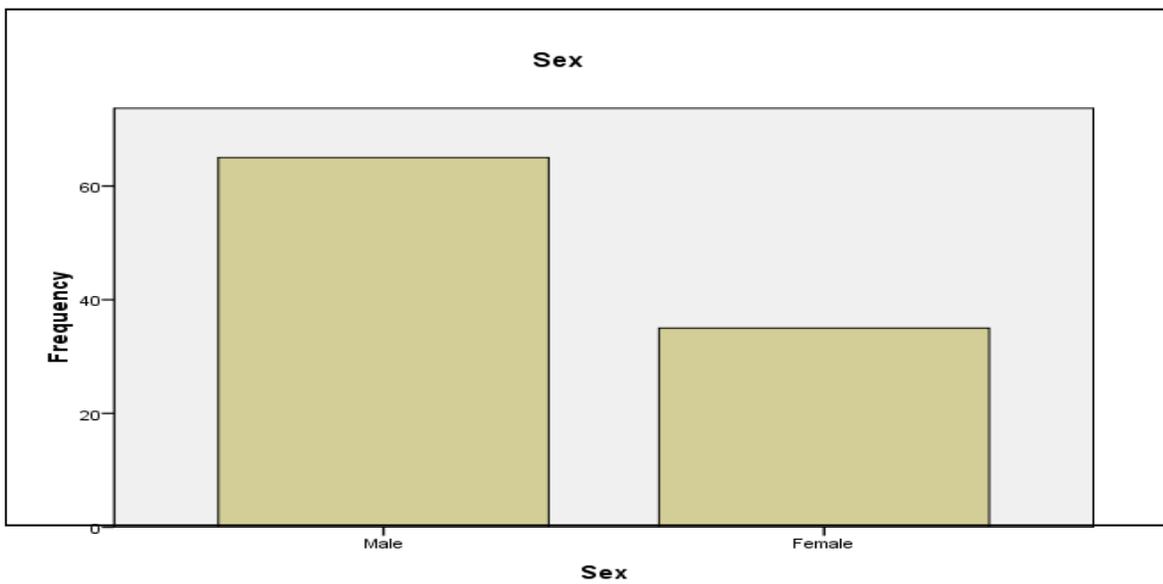


Table 4.1 and Figure 4.1 above show the distribution of respondents by sex and it shows that 65% of the respondents for the study were male while 35% were females.

#### 4.2.2. Age Variable

**Table 4. 2. Age**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20-29	22	22.0	22.0	22.0
30-39	19	19.0	19.0	41.0
40-49	24	24.0	24.0	65.0
50-59	23	23.0	23.0	88.0
60 and above	12	12.0	12.0	100.0
Total	100	100.0	100.0	

**Figure 4. 2. Age**

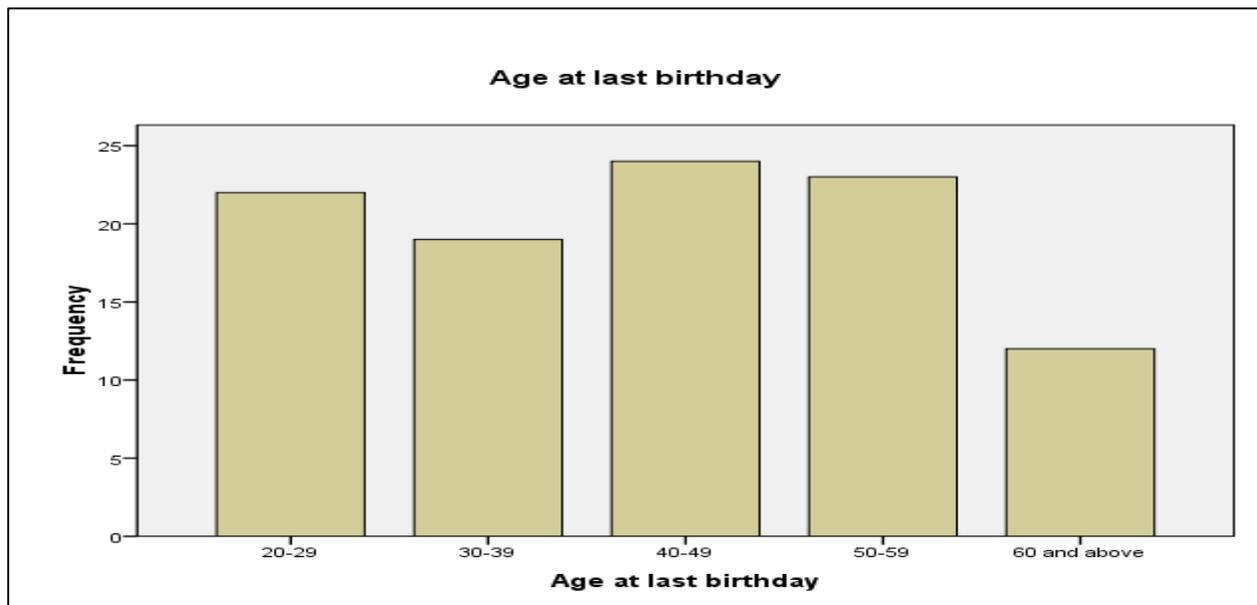


Table 4.2 and figure 4.2 show the age distribution of respondents. The majority of respondents were between 40-49 years representing 24%, followed by the age group (50-59) representing 23%, (20-29) representing 22% while 60 years and above was the least representing 12%.

### 4.2.3. Education Variable

**Table 4. 3. Education Variable**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid None	22	22.0	22.0	22.0
Primary	61	61.0	61.0	83.0
Secondary	14	14.0	14.0	97.0
Tertiary	3	3.0	3.0	100.0
Total	100	100.0	100.0	

**Figure 4. 3. Education**

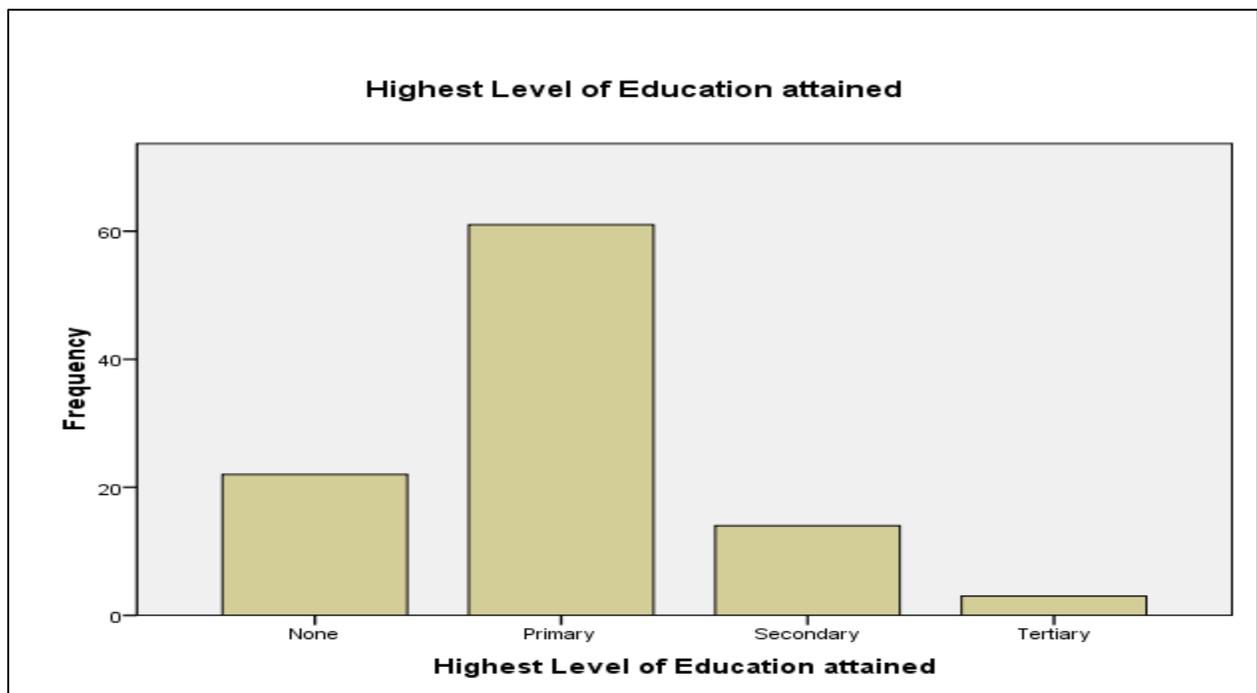


Table 4.3 and figure 4.3 above show that among the respondents 61% have attained primary education, followed by 22% without any level of education, and 14% of the respondents had secondary education. Respondents with tertiary education were only 3%.

#### 4.2.4. Occupation Variable

**Table 4. 4. Occupation**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Farmer	98	98.0	98.0	98.0
Other specify	2	2.0	2.0	100.0
Total	100	100.0	100.0	

**Figure 4. 4. Occupation**

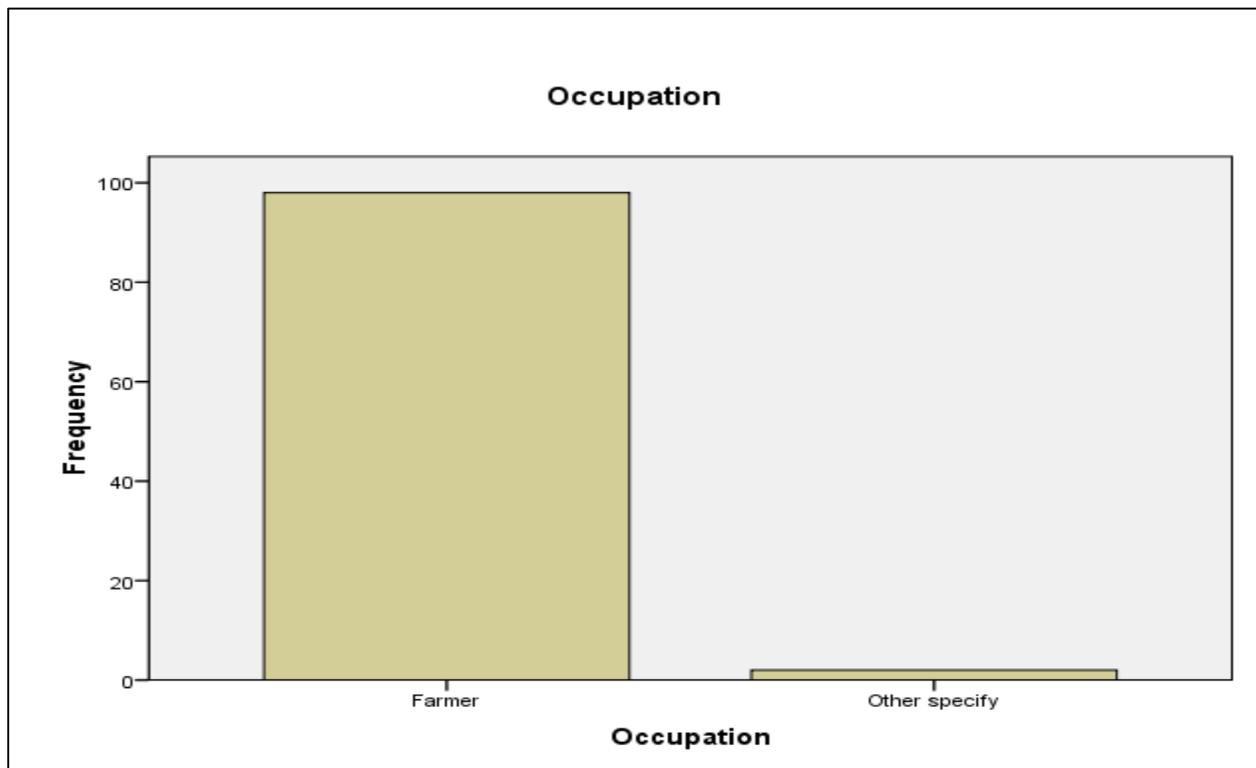


Table 4.4 and figure 4.4 above show that out of the 100 respondents, majority were farmers representing 98%, followed by 2% who were in other categories such as small scale traders.

#### 4.2.5. Monthly Income Variable

**Table 4. 5. Monthly Income**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Less than K200	71	71.0	71.0	71.0
K200-K500	27	27.0	27.0	98.0
K1,000 and above	2	2.0	2.0	100.0
Total	100	100.0	100.0	

**Figure 4. 5. Monthly Income**

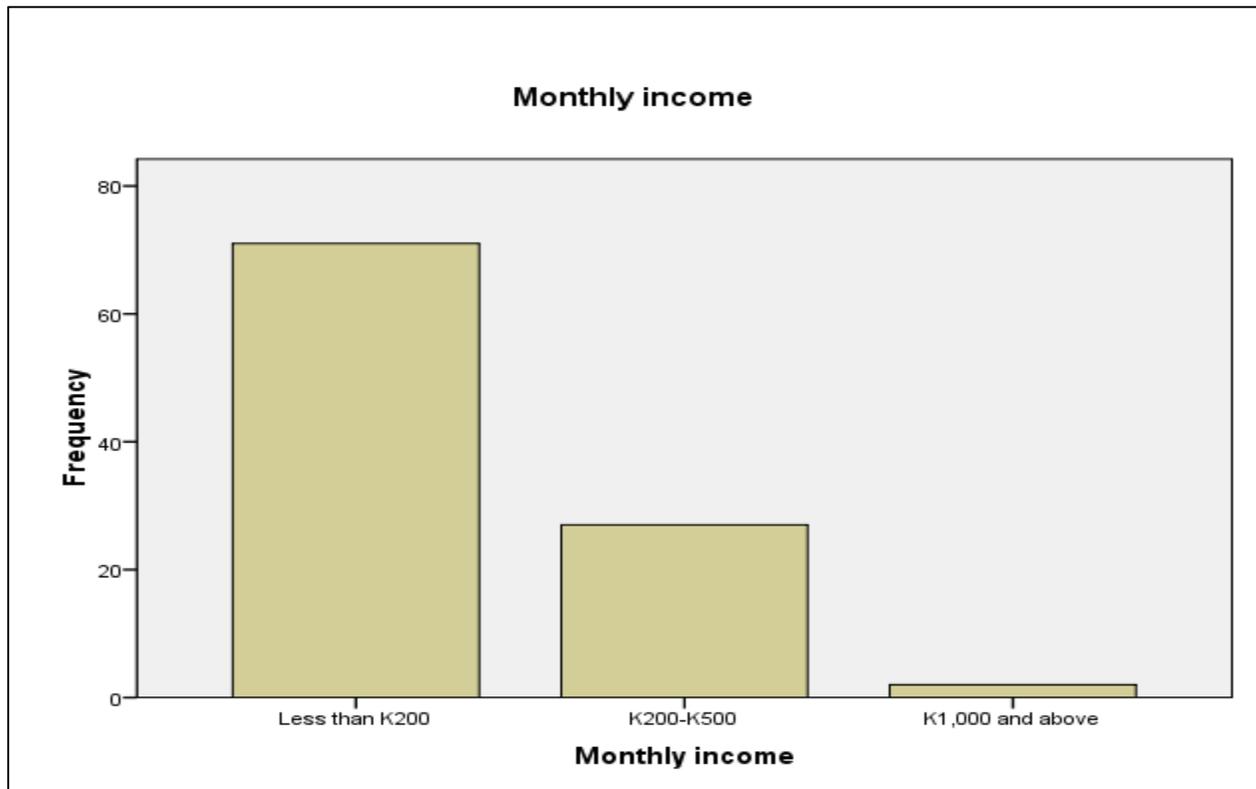


Table 4.5 and figure 4.5 show the respondent's monthly income with the majority 71% of the respondents were earning less than K200, while 27% of the respondents were earning between K200-K500. The least 2% of the respondents were earning K1000 and above per month.

**4.3. To find out the communication strategies used by BCP to engage communities in coming on board in making decisions about REDD+ Project**

**Table 4. 6. Have you ever been involved in making decisions about the project?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	77	77.0	77.0	77.0
No	23	23.0	23.0	100.0
Total	100	100.0	100.0	

**Figure 4. 6. Have you ever been involved in making decisions about the project?**

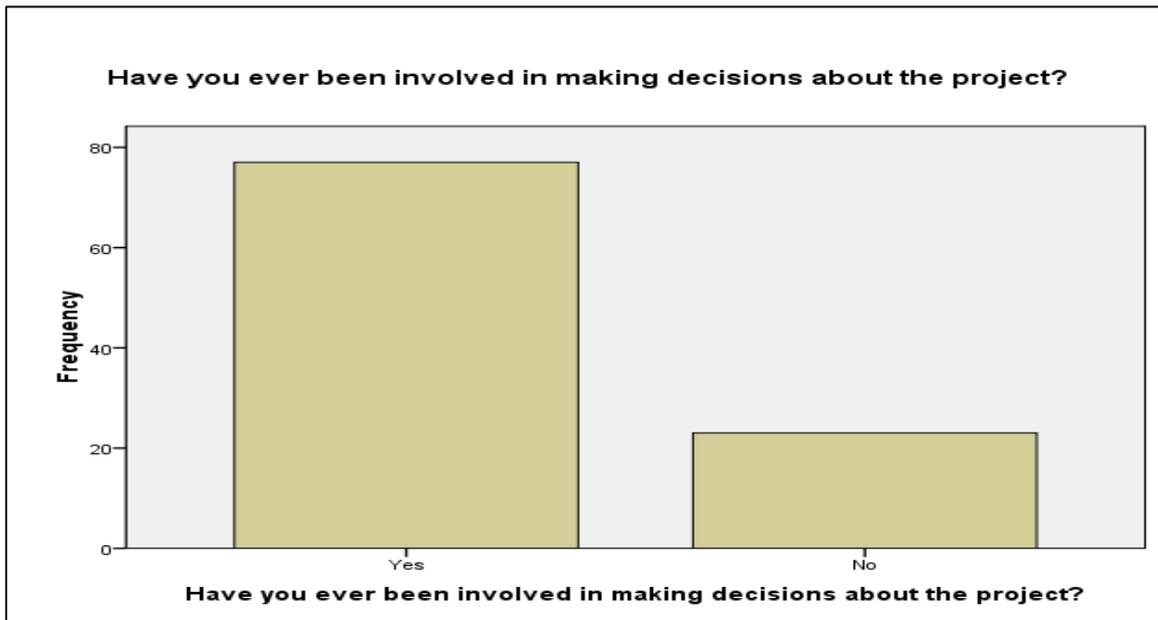


Table 4.6 and figure 4.6 indicate that from a total of 100 respondents, 77% were involved in making decisions of the REDD+ project while 23% were not involved.

**Table 4. 7. What communication channel is used by BCP to motivate people to participate in decision making?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid ZNBC Radio 1	1	1.0	1.0	1.0
Pamphlets and brochures	2	2.0	2.0	3.0
Bill boards	12	12.0	12.0	15.0
Community meetings	83	83.0	83.0	98.0
Campaign vans	1	1.0	1.0	99.0
Any other specify	1	1.0	1.0	100.0
Total	100	100.0	100.0	

**Figure 4. 7. What communication channel is used by BCP to motivate people to participate in decision making?**

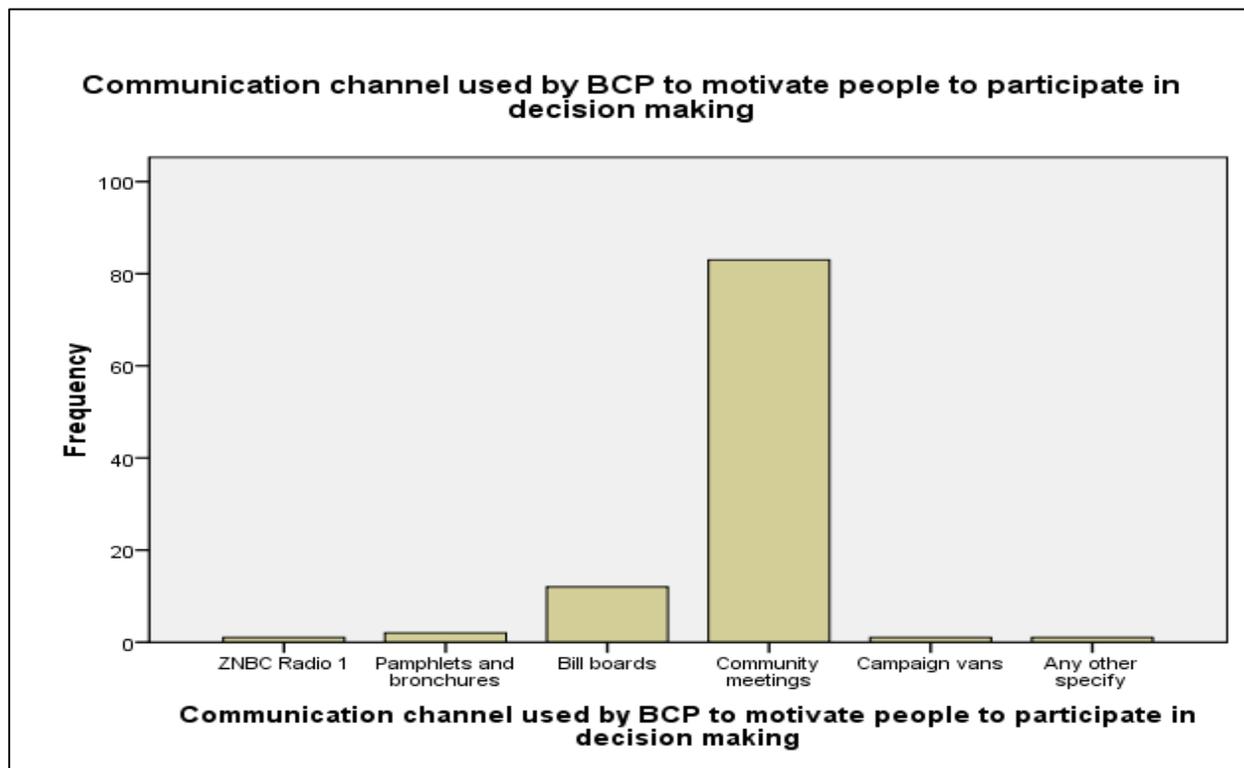


Table 4.7 and figure 4.7 show that the majority of the respondents 83% said the communication channel used by BCP to motivate people to participate in decision making was community meetings, followed by 12% who said Bill boards and 2% said pamphlets and brochures. The least 1% of the respondents said campaign vans and other channels apart from the ones in the list respectively.

**Table 4. 8. Did the information you got empower you to make a decision to participate in the project?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	99	99.0	99.0	99.0
No	1	1.0	1.0	100.0
Total	100	100.0	100.0	

**Figure 4. 8. Did the information you got from the source empower you to make a decision to participate in the project?**

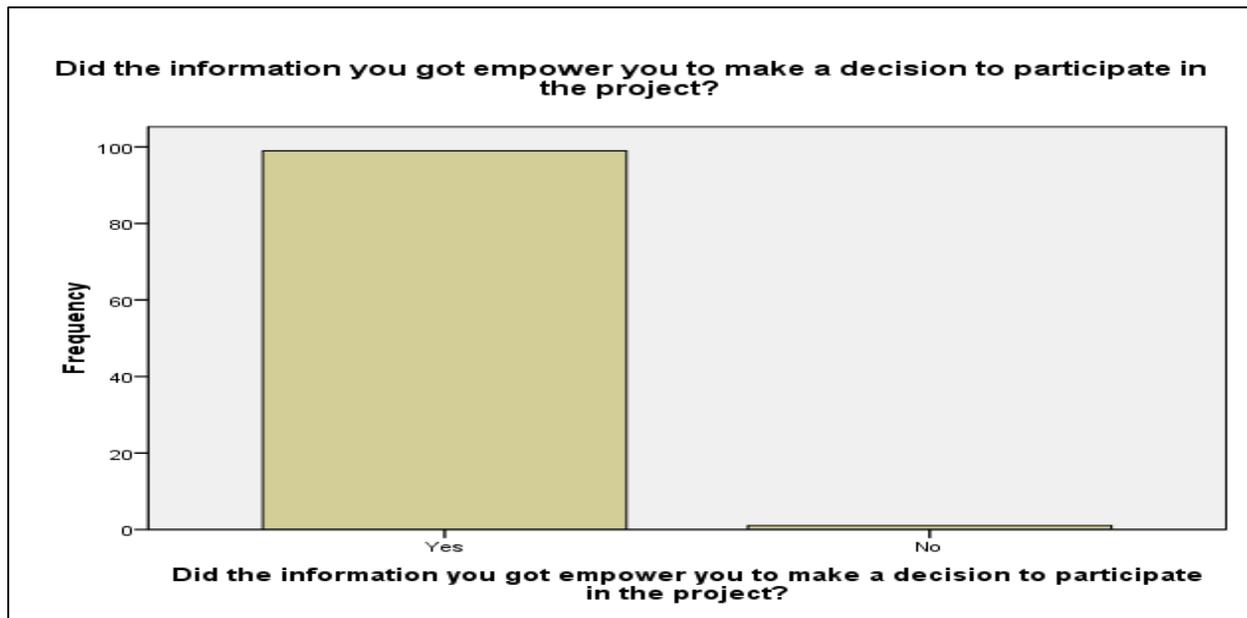


Table 4.8 and figure 4.8 show that the majority of the respondents 99% were empowered by the information they got to make a decision to participate in the project and 1% felt that the information did not empower them to make a decision to participate in the project.

**Table 4. 9. BCP, Forestry and ZAWA Officer’s views on the relevance of the messages in motivating the members of the community to participate in making decisions about forest carbon trade**

**Question:** How relevant are the messages in motivating community members to participate in making decisions about forest carbon trade?

1.	<p>Forestry officers</p> <ol style="list-style-type: none"> <li>1. District Forestry Officer</li> <li>2. Assiatant Forestry Officer</li> </ol>	<ul style="list-style-type: none"> <li>• The messages are aimed at promoting dialogue where members of the community are encouraged to talk about the project. It is from here where they build confidence to participate in decision making.</li> <li>• The messages are aimed at encouraging everyone to be a facilitator at community meetings and this gives community members an opportunity to participate in decision making.</li> </ul>
2.	<p>BCP officers</p> <ol style="list-style-type: none"> <li>1. Marketing and Communication Advisor</li> <li>2. Community Engagement Officer</li> </ol>	<ul style="list-style-type: none"> <li>• The messages are aimed at problem posing where community members are encouraged to participate in decision making.</li> <li>• The messages and meetings are based on the principles of democracy where every one has equal chance to participate in decision making.</li> <li>• The right of respecting each other’s opinion on any matter.</li> <li>• The communication strategy also respect local ecological knowledge whereby members of the community are motivated to share knowledge on forest management and participatory decision making.</li> <li>• The communication strategy has cultivated mutual trust between parties and this has encouraged all parties to participate in decision</li> </ul>

		making.
3.	ZAWA officers 1. Senior Warden 2. Warden	<ul style="list-style-type: none"> <li>• The messages encourage dialogue where local people are given platform to voice out their concerns and participate in decision making .</li> <li>• The content of the messages are aimed at encouraging local people to engage in critical thinking about the environmental problems and this is the basis of motivation to participate in decision making .</li> </ul>

**Table 4. 10. At what stage of the project were you involved in decision making?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	At the beginning of the programme	34	34.0	44.2	44.2
	At the middle of the programme	12	12.0	15.6	59.7
	At the end of the programme	4	4.0	5.2	64.9
	At all the stages	27	27.0	35.1	100.0
	Total	77	77.0	100.0	
Missing	Not applicable	23	23.0		
Total		100	100.0		

**Figure 4. 9. At what stage of the project were you involved in decision making?**

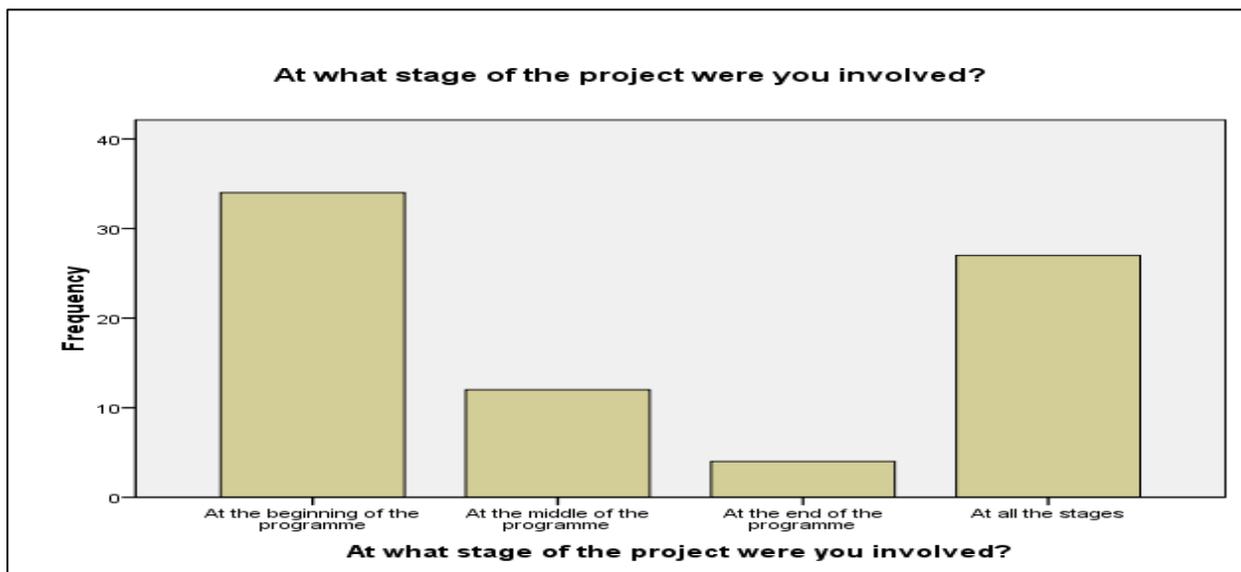


Table 4.10 and figure 4.9 above show that the majority of the respondents 34% were involved in decision making at the beginning of the programme, 27% were involved in decision making at all stages of the project and 12% were involved in decision making at the middle of the project. 4% of the respondents were involved in decision making of the project at the end of the programme. And 23 % of the respondents said that they were not involved in decision making at any stage of the project.

**Table 4. 11. How often are you involved in decision making at any stage of the project?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
Very frequently	15	15.0	19.2	19.2
Frequently	35	35.0	44.9	64.1
Rarely	28	28.0	35.9	100.0
Total	78	78.0	100.0	
Missing				
Not applicable	22	22.0		
Total	100	100.0		

**Figure 4. 10. How often are you involved in decision making at any stage of the project?**

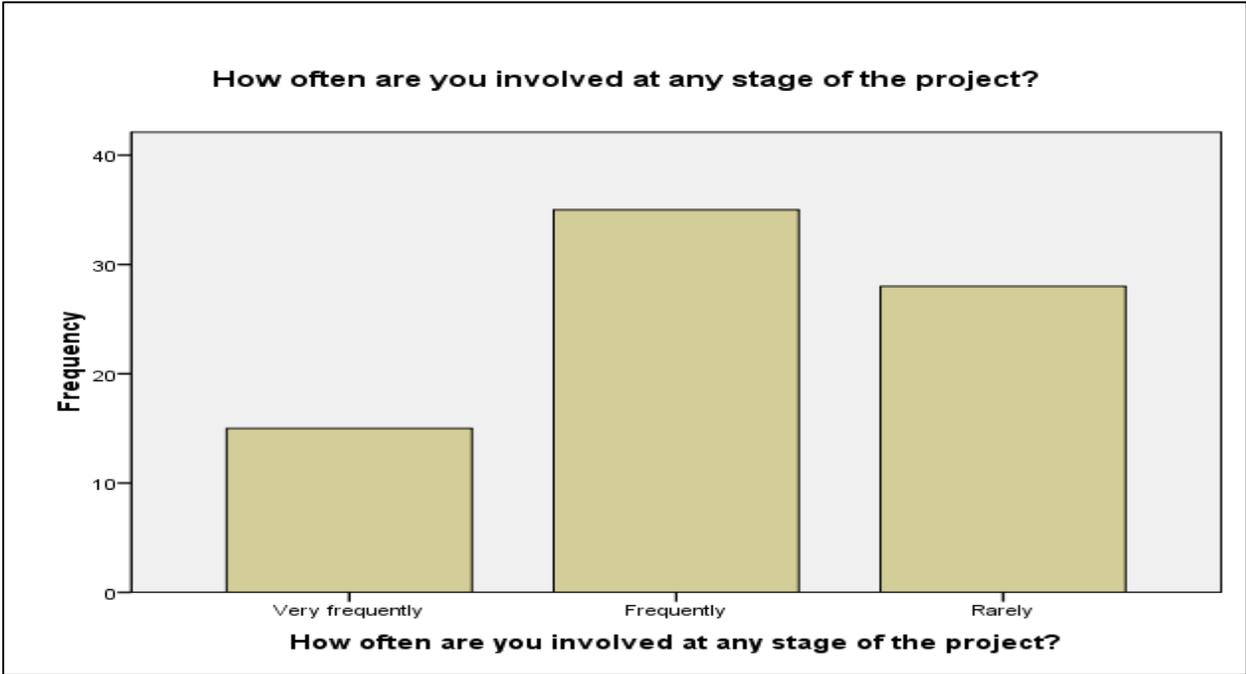


Table 4.11 and figure 4.10 above show that the majority of the respondents 35% were frequently involved in making decisions about the project, 28% were rarely involved in making decisions about the project and 15% were very frequently involved in making decisions about the project. The remaining 22% of the respondents were not involved in making decisions about the project.

**Table 4. 12. Rate of the efficiency of the communication strategy in motivating people to participate in decision making**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very efficient	23	23.0	23.5	23.5
	Quite efficient	70	70.0	71.4	94.9
	Not sure	2	2.0	2.0	96.9
	Not efficient	3	3.0	3.1	100.0
	Total	98	98.0	100.0	
Missing	None response	1	1.0		
	Not applicable	1	1.0		
	Total	2	2.0		
Total		100	100.0		

**Figure 4. 11. How do you rate the efficiency of the communication strategy in motivating people to participate in decision making?**

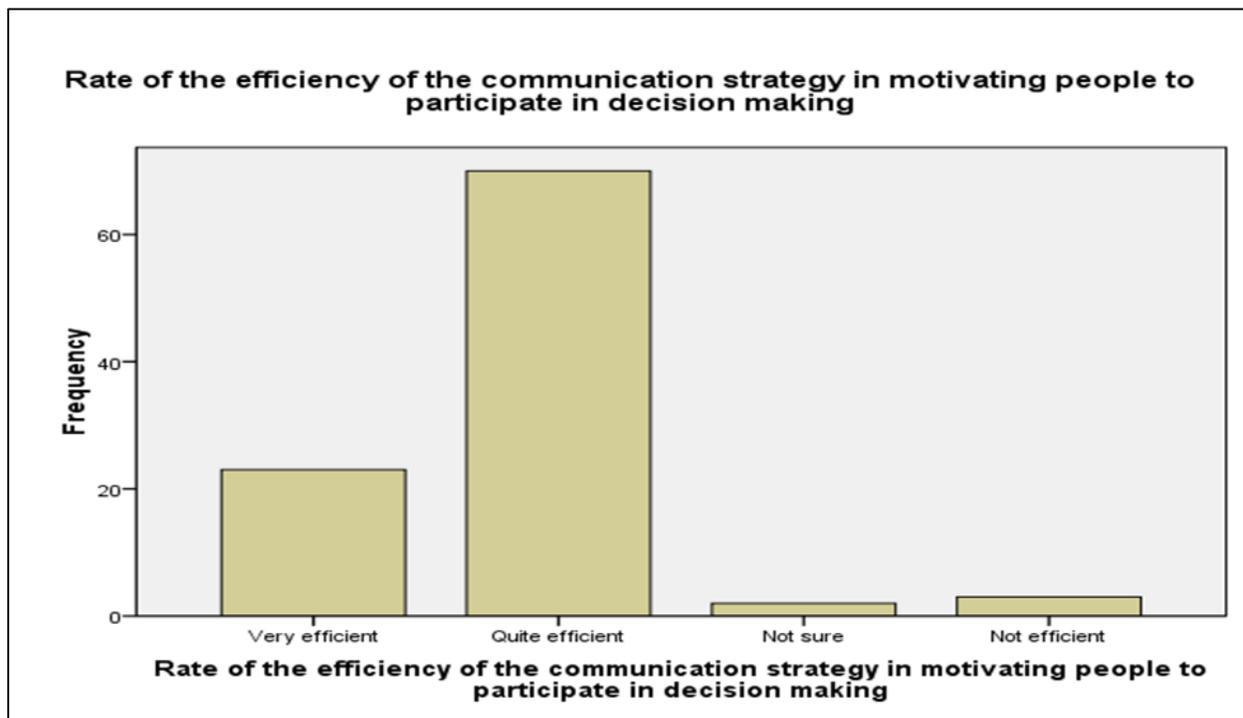


Table 4.12 and figure 4.11 above show that in terms of the efficiency of the communication strategy in motivating people to participate in decision making, the majority 70% said it was quite efficient, 23% said it was very efficient, 3% said it was not efficient and 2% said they were not sure. The remaining 2% of the respondents did not give their views on the efficiency of the communication strategy in motivating people to participate in decision making.

**4.4.To examine the language used by BCP in engaging communities in REDD+ Project**

**Table 4. 13. Are you given an opportunity to share information on forest conservation?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	92	92.0	92.0	92.0
No	8	8.0	8.0	100.0
Total	100	100.0	100.0	

**Figure 4. 12. Are you given an opportunity to share information on forest conservation?**

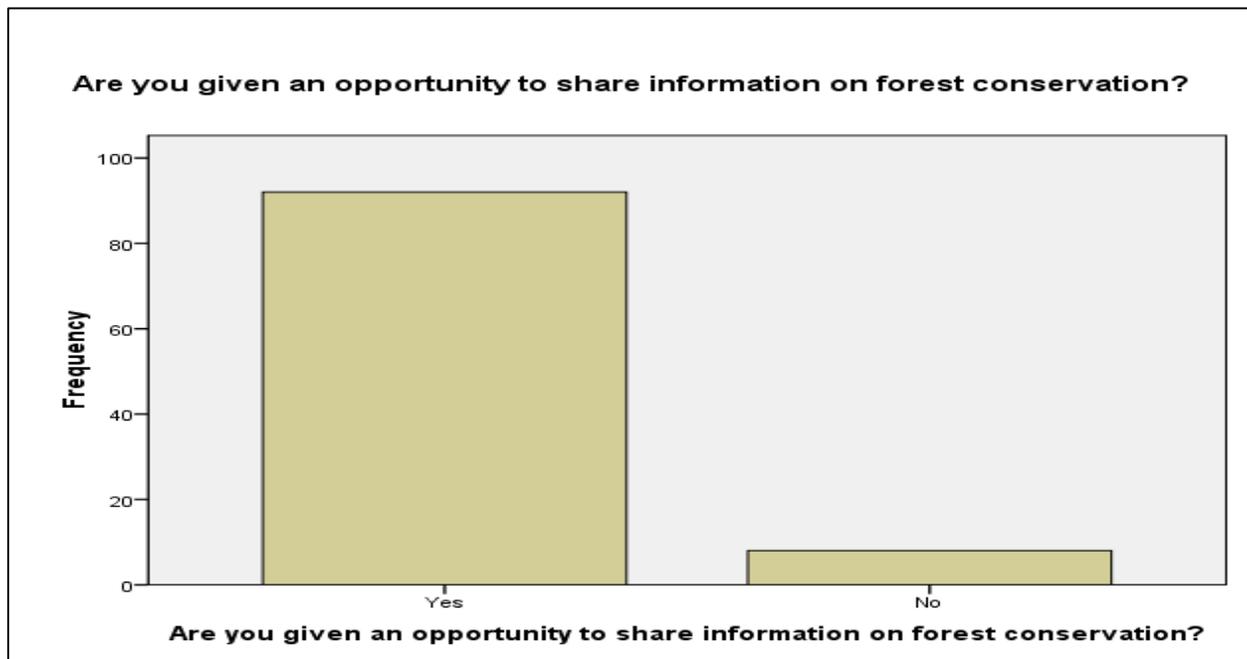


Table 4.13 and figure 4.12 above show that from a total of 100 respondents 92% said they were given an opportunity to share information on forest conservation while 8% said no.

**Table 4. 14. BCP, Forestry and ZAWA Officers views on allowing local people to share information on forest conservation**

**Question:** Do you allow local people to share their local knowledge on forest conservation?

Respondent		Responses
1.	<p>Forestry Officers</p> <ol style="list-style-type: none"> <li>1. District Forestry Officer</li> <li>2. Assistant Forestry Officer</li> </ol>	<ul style="list-style-type: none"> <li>• Yes BCP allows local people to share indigenous knowledge on forest conservation. For instance, they have been sharing how they have been protecting the environment such as no cutting of trees on the source of the river and on top of the hills in order to protect ground water.</li> </ul>
2.	<p>BCP officers</p> <ol style="list-style-type: none"> <li>1. Marketing and Communication Advisor</li> <li>2. Community Engagement Officer</li> </ol>	<ul style="list-style-type: none"> <li>• Yes local people share local knowledge on forest conservation. During meetings they share their past practice of protecting the environment such as no cutting of trees on the grave yards, on top of hills and near the rivers.</li> </ul>
3.	<p>ZAWA officers</p> <ol style="list-style-type: none"> <li>1. Senior Wardern</li> <li>2. Park Warden</li> </ol>	<ul style="list-style-type: none"> <li>• Yes local people are allowed to share local ecological information during community meetings. For instance, they do share that pregnant wild animals are not allowed to be hunted, cutting of trees around the river is also not allowed.</li> </ul>

**4.4.1. What language do you use in sharing information about forest conservation?**

**Table 4. 15. Language used in sharing information about forest conservation**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid English	4	4.0	4.0	4.0
Local languages	96	96.0	96.0	100.0
Total	100	100.0	100.0	

**Figure 4. 13. What language do you use in sharing information about forest conservation?**

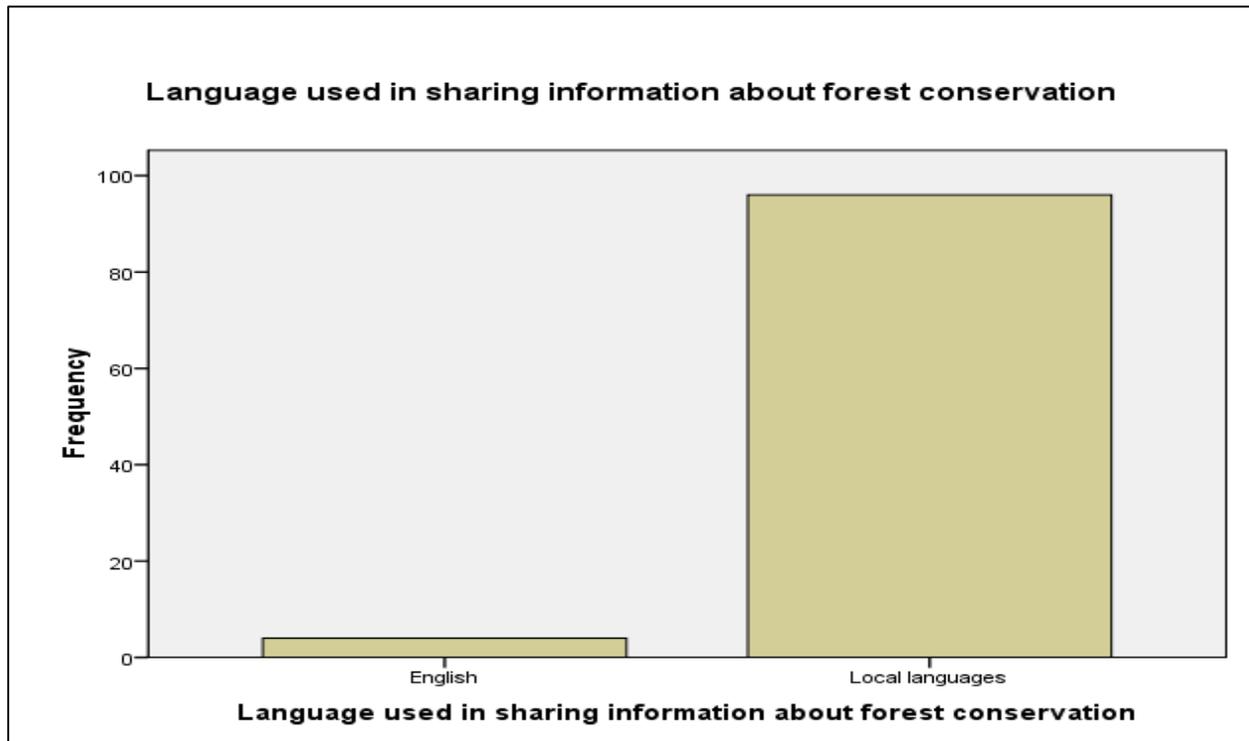


Table 4.15 and figure 4.13 above show that the majority of respondents 94% said that the local languages were used in sharing information about forest conservation while 6% said the language used was English.

**Table 4. 16. Forestry, ZAWA and BCP Officers views on the languages used to engage communities**

**Question:** What language do local people use to share information on forest conservation?

Respondent		Responses
1.	Forestry Officer 1. District Forestry Officer 2. Assistant Forestry Officer	<ul style="list-style-type: none"> <li>• Soli</li> <li>• Nyanja</li> </ul>
2.	BCP officers 1. Marketing and Communication Advisor 2. Community Engagement Officer	<ul style="list-style-type: none"> <li>• Soli</li> <li>• Nyanja</li> <li>• Tonga</li> </ul>
3.	ZAWA officers 1. Senior Wardern 2. Park Wardern	<ul style="list-style-type: none"> <li>• Soli</li> <li>• Nyanja</li> </ul>

**Table 4. 17. Do you think the language you use to share information about forest conservation is easily understood by partners?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	97	97.0	97.0	97.0
No	3	3.0	3.0	100.0
Total	100	100.0	100.0	

**Figure 4. 14. Do you think the language you use to share information about forest conservation is easily understood by partners?**

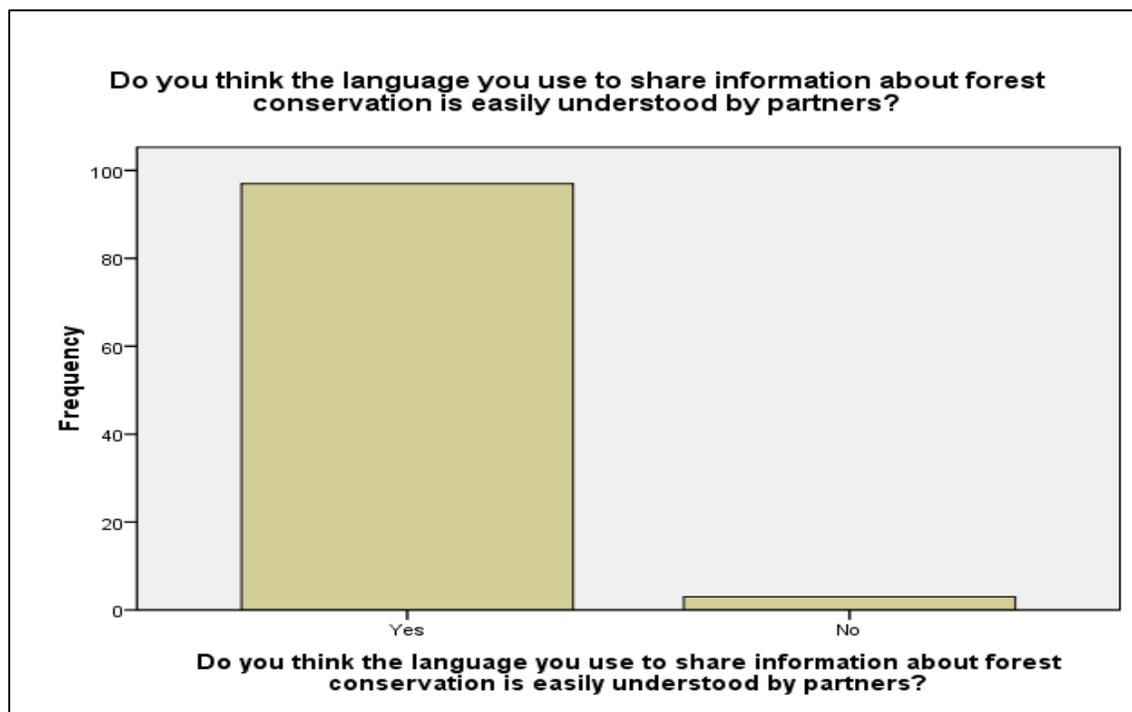


Table 4.17 and figure 4.14 above show the majority of the respondents, 97% said that the language they used to share information about forest conservation was easily understood by partners (BCP, Forest and ZAWA Departments) while 3% said that the language was not understood by partners.

**Table 4. 18. Do you get feedback on the information shared?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	97	97.0	97.0	97.0
No	3	3.0	3.0	100.0
Total	100	100.0	100.0	

**Figure 4. 15. Do you get feedback on the information shared?**

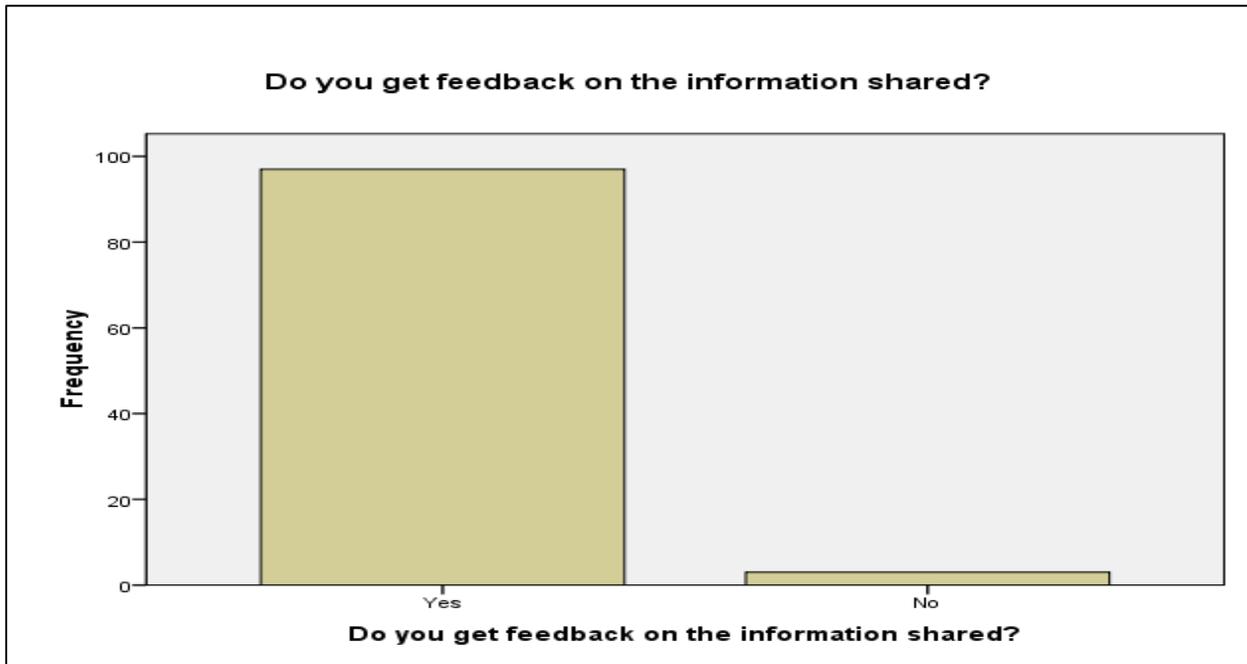


Table 4.18 and figure 4.15 above show that the majority of the respondents, 97% said that they got feedback on the information they shared while 3% said that they did not get feedback on the information they shared.

**Table 4. 19. What channel do they use to give feedback of the information shared?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Notice boards	4	4.0	4.1	4.1
Community meetings	93	93.0	95.9	100.0
Total	97	97.0	100.0	
Missing Not applicable	3	3.0		
Total	100	100.0		

**Figure 4. 16. What channel do they use to give feedback of the information shared?**

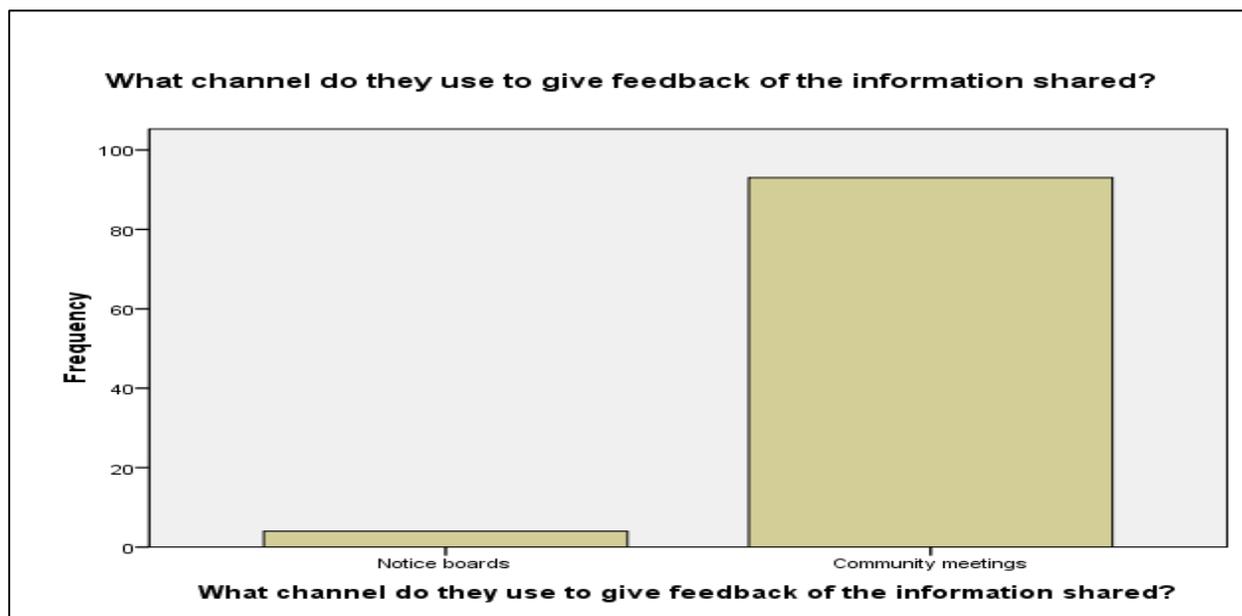


Table 4.19 and figure 4.16 above show that the majority of the respondents 93% said that the channel used to give feedback on the information shared were community meetings and 4% said notice boards. The remaining 3% of the respondents did not give their views as the question was not applicable to them.

**4.5.To evaluate the effectiveness of communication strategies used by BCP in mobilising communities to participate in forest carbon trade**

**Table 4. 20. Where did you get the information for you to be involved in the project?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Pamphlets and brochures	4	4.0	4.0	4.0
Bill boards	12	12.0	12.0	16.0
Community meetings	82	82.0	82.0	98.0
Campaign vans	2	2.0	2.0	100.0
Total	100	100.0	100.0	

**Figure 4. 17. Where did you get the information for you to be involved in the project?**

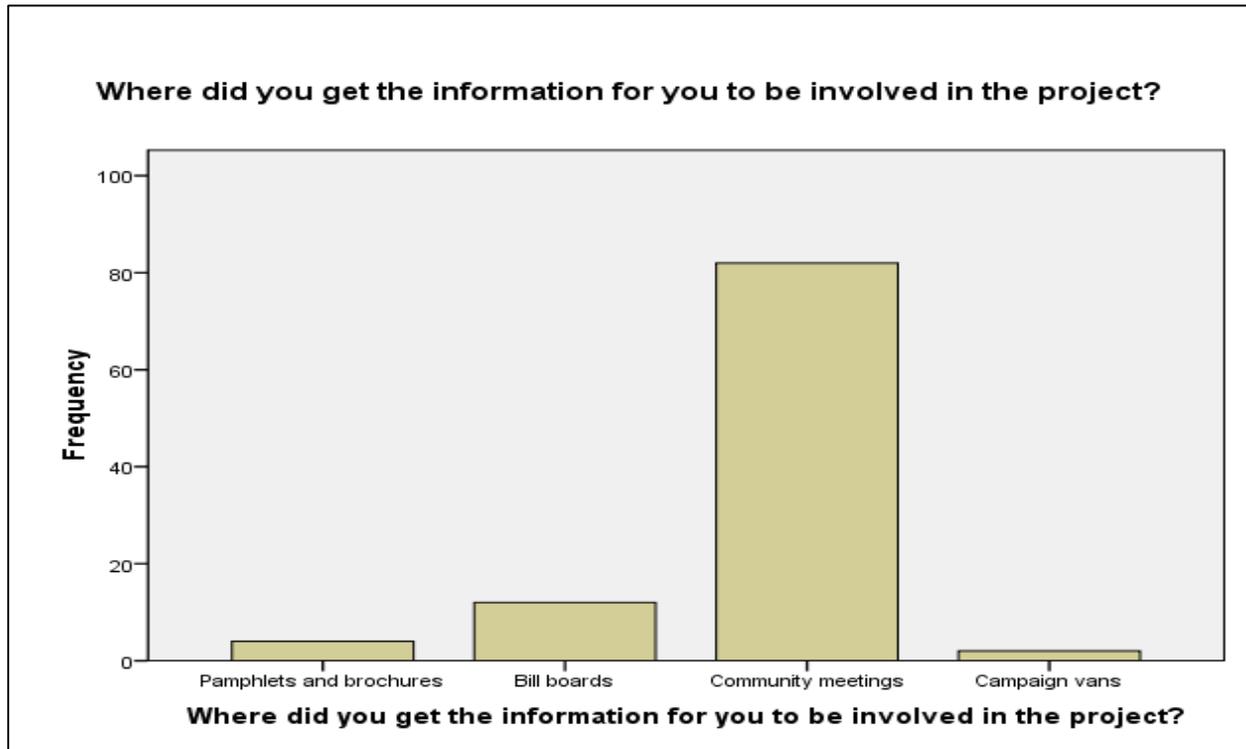


Table 4.20 and figure 4.17 show that the majority of the respondents, 82% got the information to be involved in the project from community meetings, 12% got the information from notice boards and 4% got the information from pamphlets and brochures. Only 2% of the respondents got the information from campaign vans.

**Table 4. 21. BCP, Forestry and ZAWA Officer’s views on communication strategies used by BCP to mobilise community members to participate in the project**

**Question:** Do you know any communication strategies used by BCP to engage community member in REDD+ Project?

Respondent		Responses
1.	<p>Forestry Officers</p> <ol style="list-style-type: none"> <li>1. District Forestry Officer</li> <li>2. Assistant Forestry Officer</li> </ol>	<ul style="list-style-type: none"> <li>• Community meetings</li> <li>• Drama performances at different stages of the project</li> <li>• Bill boards</li> <li>• Information education and communication (IEC) materials such as pamphlets and brochures</li> <li>• ZNBC Radio 1 advertisement</li> </ul>
2.	<p>BCP officers</p> <ol style="list-style-type: none"> <li>1. Marketing and Communication Advisor</li> <li>2. Community Engagement Officer</li> </ol>	<ul style="list-style-type: none"> <li>• Pamphlets and brochures</li> <li>• ZNBC radio 1</li> <li>• Community meetings</li> <li>• Campaign vans</li> </ul>
3.	<p>ZAWA officers</p> <ol style="list-style-type: none"> <li>1. Senior Wardern</li> <li>2. Warden</li> </ol>	<ul style="list-style-type: none"> <li>• Community meetings</li> <li>• Pamphlets and brochures</li> <li>• Campaign van</li> </ul>

**Table 4. 22. Rate of the effectiveness of the communication strategy of BCP in mobilising local people to participate in the project**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very effective	30	30.0	30.0	30.0
Quite effective	65	65.0	65.0	95.0
Not sure	1	1.0	1.0	96.0
Not effective	4	4.0	4.0	100.0
Total	100	100.0	100.0	

**Figure 4. 18. Rate of the effectiveness of the communication strategies of BCP in mobilising local people in the project**

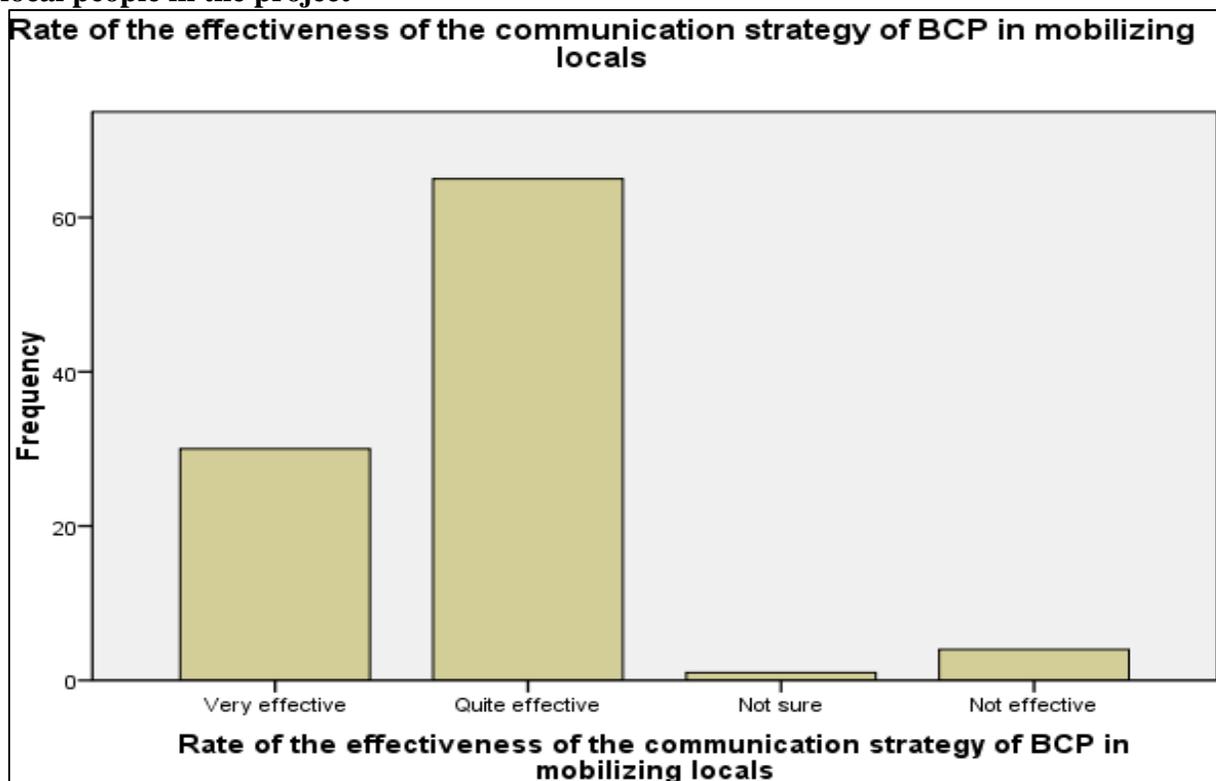


Table 4.22 and figure 4.18 show the rate of effectiveness of the communication strategy of BCP in mobilising local people to participate in the project, out of 100 respondents the majority 65%

said the strategy was quite effective, 30% said it was very effective and 1% were not sure. 4% of the respondents indicated that the strategy was not effective at all.

**Table 4. 23. Forestry, BCP and ZAWA Officer’s views on the effectiveness of the communication strategy in mobilising local people to participate in the project**

**Question:** How effective is the channel of communication used by BCP?

Respondent		Responses
1.	Forestry Officer 1. District Forestry Officer 2. Assistant Forestry Officer	<ul style="list-style-type: none"> <li>• Community meetings are effective in communicating messages on REDD+ as people are able to ask question during the meetings.</li> <li>• The Community meetings allow the exchange of ideas between the officers and community members.</li> <li>• During community meetings, local people are allowed to use local languages to share the information.</li> </ul>
2.	BCP Officers 1. Marketing and Communication Advisor 2. Community Engagement Officer	<ul style="list-style-type: none"> <li>• Through community meetings the project has mobilised 1000 households to participate in REDD+ Project indicating its effectiveness in engaging local people in the project.</li> <li>• Community meeting is a two-way communication in that the participants are also given</li> </ul>

		<p>chance to facilitate during the meetings.</p> <ul style="list-style-type: none"> <li>• The channels of communication allow local people to ask questions and get feedback there and then or later within a specified period of time.</li> <li>• The channel is effective as it is easy to measure the level of comprehension of the topics discussed during community meetings among the participants in a plenary session.</li> </ul>
3.	<p>ZAWA Officers</p> <ol style="list-style-type: none"> <li>1. Senior Wardern</li> <li>2. Park Wardern</li> </ol>	<ul style="list-style-type: none"> <li>• The channel of communication is effective as it has been able to mobilise the community to participate in the project.</li> <li>• The channel is able to communicate the concept of REDD+ which was previously misconceived as illegal mining of diamonds in the forest conservancy. Local people are able to explain the concept and they appreciate it.</li> </ul>

**4.5. To find out the extent to which the communication strategies used by BCP empower local people with negotiation skills in REDD+ Project**

**Table 4. 24. How do you rate the efficiency of the communication strategy in terms of empowering you with negotiating skills in REDD+ Project?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very efficient	29	29.0	29.0	29.0
Quite efficient	66	66.0	66.0	95.0
Not sure	1	1.0	1.0	96.0
Not efficient	4	4.0	4.0	100.0
Total	100	100.0	100.0	

**Figure 4. 19. How do you rate the efficiency of the communication strategy in terms of empowering you with negotiating skills in REDD+ Project?**

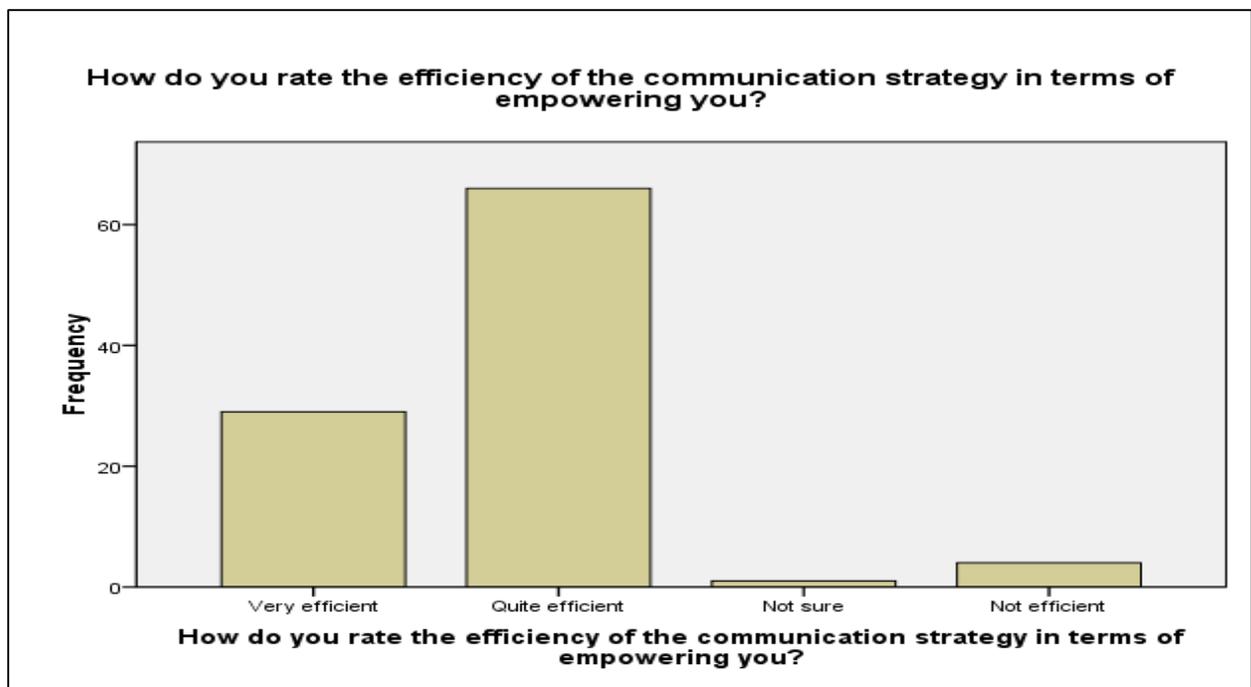


Table 4.24 and figure 4.19 show the rate of efficiency of the communication strategy of BCP in empowering local people with negotiating skills in REDD+ Project, out of 100 respondents the majority 66% said the strategy was quite efficient in empowering them, 29% said it was very efficient and 1% were not sure. 4% of the respondents indicated that the strategy was not efficient at all.

**Table 4. 25. Do you feel BCP communication strategies inform people about the ownership of the project?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	93	93.0	93.0	93.0
No	7	7.0	7.0	100.0
Total	100	100.0	100.0	

**Figure 4. 20. Do you feel BCP communication strategies inform people about the ownership of the project?**

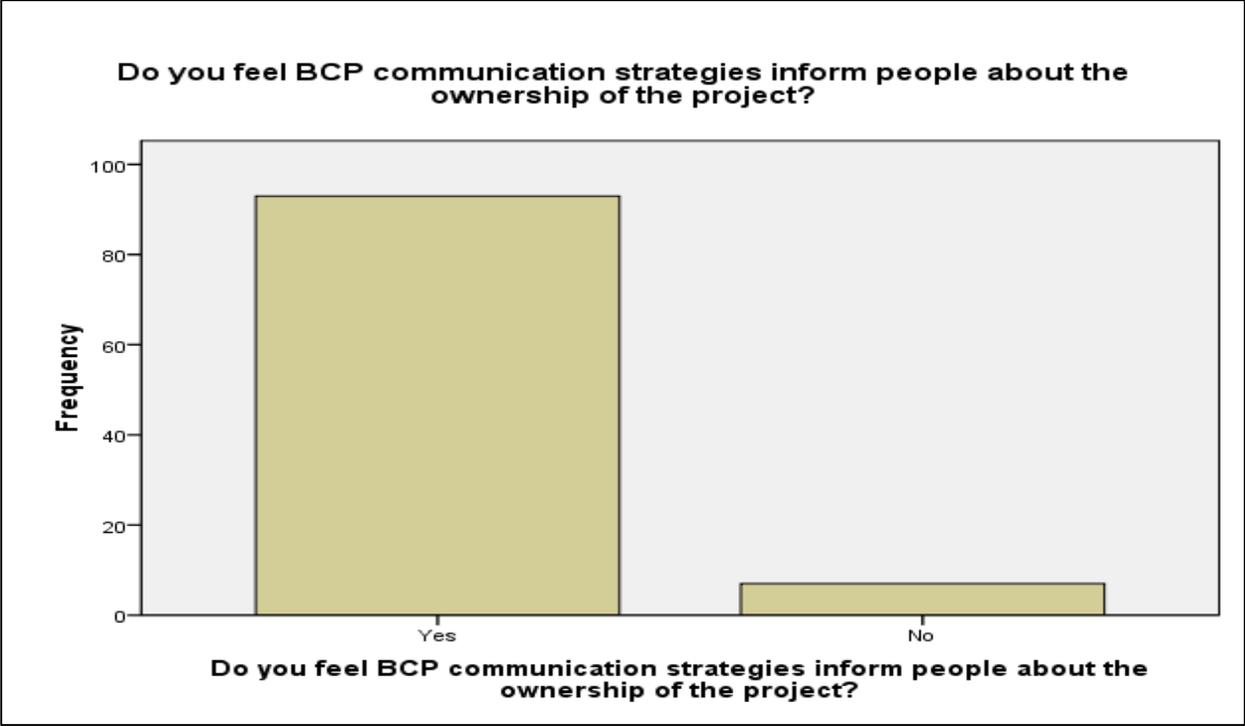


Table 4.25 and figure 4.20 above show that the majority of the respondents 93% said that the communication strategies inform people about ownership of the project while 7% said communication strategies do not inform people about ownership of the project.

**Table 4. 26. What communication strategies do they use to foster a sense of ownership of the project?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ZNBC Radio 1	1	1.0	1.1	1.1
	Pamphlets and brochures	4	4.0	4.3	5.4
	Bill boards	8	8.0	8.6	14.0
	Communication meetings	79	79.0	84.9	98.9
	Campaign vans	1	1.0	1.1	100.0
	Total	93	93.0	100.0	
Missing	Not applicable	7	7.0		
Total		100	100.0		

**Figure 4. 21. What communication strategies do they use to impart a sense of ownership of the project?**

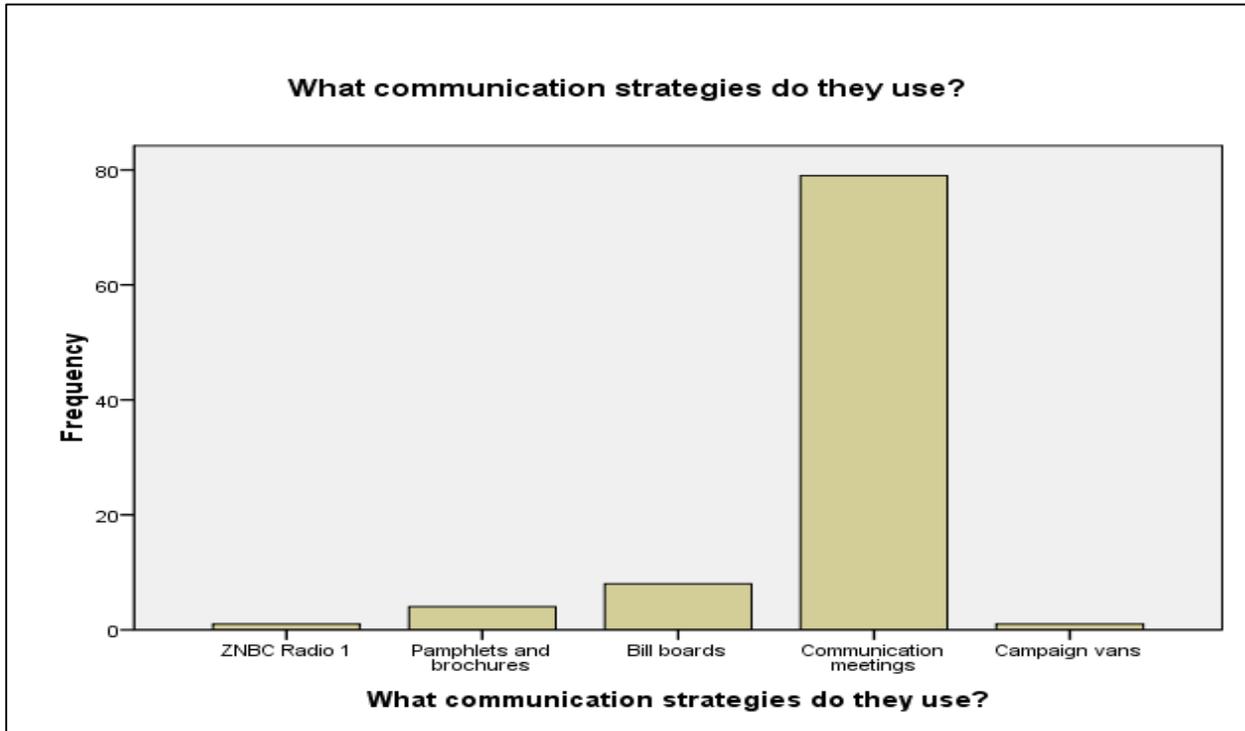


Table 4.26 and figure 4.21 above show that the majority of the respondents 79% said the communication strategy used was community meetings, 8% said bill boards, 4% said pamphlets and brochures, 1% said campaign vans and ZNBC Radio 1 respectively.

**Table 4. 27. Views of Forestry, BCP and ZAWA Officers on the kind of information they give to the community to foster community ownership of the project**

**Question:** What kind of information do you give to the community to foster community ownership of the project ?

Respondent		Responses
1.	<p>BCP Officers</p> <ol style="list-style-type: none"> <li>1. Marketing and Communication Advisor</li> <li>2. Community Engagement Officer</li> </ol>	<ul style="list-style-type: none"> <li>• They always tell them that forest conservation is a responsibility of the local people and that BCP has just come to help them conserve their own forest.</li> <li>• They are encouraged to form committees to manage forest activities at community level comprising of local people only.</li> <li>• Messages on community responsibility and civic duty to care for their environment.</li> <li>• Messages on leadership and community governance in order to instill a sense of ownership of the environment and the project as well.</li> </ul>
2.	<p>Forest officers</p> <ol style="list-style-type: none"> <li>1. District Forestry Officer</li> <li>2. Assistant Forestry Officer</li> </ol>	<ul style="list-style-type: none"> <li>• The messages encourage the formation of local committees to manage the forest affairs at community level.</li> <li>• The messages also aimed at developing attitude of conserving forest among local people so that through this learned behaviour they remain conserving the forest when the project come to an end.</li> </ul>
3.	<p>ZAWA Officers</p> <ol style="list-style-type: none"> <li>1. Senior Wardern</li> <li>2. Wardern</li> </ol>	<ul style="list-style-type: none"> <li>• The content of the messages encourage the development of local leadership in forest conservation to continue with forest conservation at the time the project will come to an end.</li> <li>• It also aimed at encouraging forest conservation as a norm and behaviour to help in preserving the forest for the other generation to come.</li> </ul>

#### **4.7. Conclusion of the chapter**

The chapter has presented the findings from both 100 questionnaires and six in-depth interviews in form of tables and figures. This also includes the demographic variables such as sex, education, age, monthly income and occupation. These findings have been aligned along the four objectives of the study: (a) To find out the communication strategies used by BCP to engage communities in coming on board in making decisions about REDD+ project, (b) To examine the language used by BCP in engaging communities in REDD+ Project, (c) To evaluate the effectiveness of the communication strategies used by BCP in mobilising communities to participate in forest carbon trade, (d) To find out the extent to which communication strategies used by BCP empower the communities with negotiation skills in REDD+ Project.

## **CHAPTER FIVE**

### **DISCUSSION OF THE FINDINGS**

#### **5.1. Introduction**

The research looked at how communication for empowerment and participatory development, empowers communities in Lower Zambezi to make decisions and participate in forest carbon trade. Presented here are the findings of the study based on four research objectives that guided the research; (a) To find out the communication strategies used by BCP to engage communities in coming on board in making decisions about REDD+ Project; (b) To examine the language used by BCP in engaging communities in REDD+ Project; (c) To evaluate the effectiveness of communication strategies used by BCP in mobilising communities to participate in forest carbon trade; (d) To find out the extent to which the communication strategies used by BCP empower the local people with negotiation skills in REDD+ Project. In an attempt to validate the findings, the chapter has incorporated various pieces of literature and case studies to support the discussion.

#### **5.2. Consideration of variables**

##### **5.2.1. Sex**

The results show that 65 % of the respondents for the study were male while 35% were female. These findings agree with figures in the Project Design Document which states that there were 940 male headed households and 240 female headed households in the project area ( BCP, 2013:19). The possible explanation of this unequal percentages between male and female respondents is that Zambia is a patriarchal society where men are the heads of the family units. Therefore, females were not free to respond to the questions in the questionnaires in the absence of a male figure head and in most cases they would postpone the meeting until the husband is around or any male figure within the household.

##### **5.2.2. Age**

Age is another important parameter in social analysis since in most societies different age groups perform different set of activities. Overholt et al (1991:37) show that age can be seen as an indicator of knowledge and experience as well as a measure of maturity of an individual. The results show that the majority of the respondents participating in REDD+ Project were between 40-49 years representing 24%, followed by the age group (50-59) representing 23%, (20-29) representing 22% while 60 years and above was the least representing 12%. The probable

explanation of these results is that the age groups between 25 and 50 are the ones who are economically active in Zambia and the lower percentage of people participating in REDD+ Project in age bracket of 60 and above is that there are few people in that age cohort as the life expectancy in Zambia is at 51.2 years (CS0, 2010:58).

### **5.2.3. Education**

Knowing education level of the participants was an important factor in assessing skills and knowledge they have to read print materials and understanding the concept of REDD+. The results show that among the respondents 61% have attained primary education, followed by 22% without any level of education, and 14% of the respondents had secondary education. Respondents with tertiary education were 3%. The high level of primary education in the study area might be due to the fact that primary education is cheap and easily accessible by many people compared to secondary and tertiary education. The poverty levels sometimes also militate against people to continue with their education as the higher they go the more they pay.

### **5.2.4. Occupation**

In the study it was also important to look at the occupation of the local people in the area in order to understand how their economic activities may affect the REDD+ Project. The results show that out of the 100 respondents, majority were farmers representing 98%, followed by 2% who were in other categories such as small scale traders. These findings are broadly in line with the study in Bukombe District in Shinyanga Region where most of the people in the region whose forest was under threat were peasant farmers using slash and burn farming method (FAO, 2013:11).

### **5.2.5. Monthly income**

Monthly income was considered as an important variable in order to appreciate the well-being of the communities in the project area. The results show that the majority of the respondents (71%) monthly income was less than K200, while 27% of the respondents were earning between K200-K500. The least 2% of the respondents were earning K1000 and above per month. It can be contentedly be argued that the majority of the people in the project area live below a dollar a day. These findings are consistent with Mbatu's argument that there are higher poverty levels in areas where forest is threatened of extinction and he points to studies in Cameroon (by Gbetnkom,

2008) and in Democratic Republic of Congo (DRC) (by Iloweka, 2002) who have documented the devastating effects of poverty in forest loss and degradation in these countries (2012:37).

### **5.3. Communication strategies used by BCP to engage communities in making decisions about REDD+ Project**

This objective enquired on the communication strategies used by BCP to engage communities in decision making about REDD+ Project. Therefore, this objective was realised by looking at tables 4.6, 4.7, 4.8, 4.9, 4.10, 4.11 and 4.12.

#### **5.3.1. Discussion of the findings from the community members**

It was found that 77% of the respondents were involved in decision making of the REDD+ Project while 23% said were not involved. From these findings, it can be deduced that the majority of local people are involved in decision making of the REDD+ Project and indeed this qualifies it to be called a Community Forest Management project. This is in line with Turyahabwe's argument that Community Forest Mangement (CFM) requires maximum community participation in decision making at all stages of the project. He adds that the focus of CFM is not the output but rather on how the output is arrived at, therefore, the participation of all stakeholders in decision making is the core principle (2012:54).

The study also reveals that 83% of the respondents said that community meeting was the communication channel that motivated them to participate in decision making, followed by 12% who said Bill boards and 2% said pamphlets and brochures. The least 1% of the respondents said campaign vans and other channels apart from the ones in the list respectively. Therefore, it can be conclusively be argued that community meeting was an appropriate channel of communication in the project area and this could be as a result of low literacy levels among the members of the community to comprehend information in the printed materials such as brochures and from one-way communication (mass media). This assertion is supported by the findings in the study that 61% of the respondents had only acquired primary education, consequently lack of literacy ability to read and understand written materials. This conforms with Thompson's findings in Cambodia's community based fisheries and forestry project where it was found that due to low levels of literacy, written materials and newspapers had little potential to stimulate local people to participate in the project. On the other hand, the mass media such as radio and television carried messages which were too technical for local people with low levels

of literacy to understand. It was for this reason community meetings were found to be effective means of engaging local people to participate in the project because members of the community were able to communicate and express their views freely in local languages (2006:160). At this point it is cardinal to consider if the information they received empowered them to make a decision to participate in REDD+ Project or not. It was found that 99% of the respondents said (Yes), that the information they received empowered them to make decision to participate in REDD+ Project and 1% of the respondents said (No), that the information they received did not empower them to make decisions to participate in REDD+ Project. This 1% of respondents who said that the information they received did not empower them to make a decision to participate in REDD+ Project could be conceivably be explained by Everett Roger Innovativeness and Adopter Categories, where these could be the laggards, who are the last in a social system to adopt an innovation. This is because people in this category often make decisions in terms of what has been done in the previous generations, moreover, they interact primarily with others who have relatively traditional values. Therefore, their traditional orientation slows the innovations-decision process to a crawl, with adoption lagging far behind awareness-knowledge of a new idea (1971:250).

In order to draw a formidable conclusion of the involvement of local people in decision making, it is important to consider the stages in the project at which they were involved. The results reveal that 34% of the respondents were involved in decision making at the beginning of the programme, 27% were involved in decision making at all stages of the project and 12% were involved in decision making at the middle of the project. 4% of the respondents were involved in decision making of the project at the end of the programme. And 23 % of the respondents said that they were not involved in decision making at any stage of the project. From these results it can be concluded that it is difficult to have every member of the community to be involved in decision making at all stages of the project. Therefore, these findings run counter to widely expressed view that the project becomes genuinely participatory if people are involved in decision making from the beginning and be applied consistently in each phase of the project (Tuftte and Mefalopulos, 2009:20). On the other hand Tuftte and Mefalopulos support the varying percentage of local people participating at each stage of the BCP project cycle by stating that full participation by all stakeholders at all stages of the process is not possible and in some cases probably not entirely desirable, for instance, in technical issues it would be a waste of project

time to broaden participation in decision making as most local people may not be conversant with technical issues (2009:20).

It is further important to discuss the efficiency of the communication strategy in motivating local people to participate in decision making of REDD+ Project. In this case 70% said it was quite efficient, 23% said it was very efficient, 3% said it was not efficient and 2% said they were not sure. However, the remaining 2% of the respondents did not give their views. From the findings where majority of the respondents fall in quite efficient and very efficient categories, it can be concluded that the BCP communication strategy was quite efficient in motivating local people to participate in decision making of the project. This argument resonates well with FAO's observation in Bukombe District where local people were participating in decision making in a community based fire management project because the communication strategy was effective in motivating them to do so. This is where both interactive and mediated communication were used to motivate local people to participate in decision making (2013:45).

### **5.3.2. Discussion of the views of BCP, Forestry and ZAWA Officers on the relevance of the communication strategy in motivating community members to participate in making decision about forest carbon trade**

The in-depth interviews conducted with BCP, Forestry and ZAWA Officers revealed that BCP communication strategy was relevant in encouraging community participation in decision making. It was found that BCP communication strategy poses problems to community members in order to encourage them to find solutions to their own problems and make decisions on the matters affecting them. It is further noted that the BCP's communication strategy was founded on the principles of democracy where every member of the community is free to dialogue and participate in decision making. The stakeholders also pointed out that dialogue between BCP Officers and local people became a platform of sharing local ecological knowledge, it is through this platform local people shared knowledge on how they used to preserve natural resource before REDD+ Project. These findings are in tandem with Paulo Freire's argument that dialogue between the learner and the teacher proceeds by posing problems that stimulate critical thinking, where the learner and the teacher together engage in a process of problem solving, learning from lived experience, reflecting on the problem and taking action based on collective response (1970:19).

#### **5.4. Examination of the language used by BCP in engaging communities in REDD+ Project**

This objective examined the language used by BCP to engage local communities in REDD+ Project. The objective was realised by considering tables 4.13, 4.14, 4.15, 4.16, 4.17, 4.18 and 4.19.

##### **5.4.1. Discussion of the findings from community members**

Firstly, it is important to understand, whether local people were given an opportunity to share their local ecological knowledge. It was found out that 92% of the respondents said that they were given an opportunity to share their local ecological knowledge while 8% said they were not. Indeed the results show that BCP's communication strategy provided a platform for local people to share their local ecological knowledge. This is in line with the findings in the study of the Miombo woodlands in Bukombe District, where the communication strategy in *Hifadhi Ardhi Shinyanga* (HASHI) Project provided the platform to local people to share indigenous knowledge of managing forest fires through the use of 'ngitili' concept. As earlier alluded to *Ngitili* was an enclosure area near a village which was closed off at the beginning of the wet season to preserve fodders and opened during the dry season for grazing cattle. In this concept, villagers were active in identifying such an enclosure and dig strips around the area for demarcation purposes which functioned as fire breakers (FAO, 2013:12).

The previous findings that local people were allowed to share their local ecological knowledge is obviously facilitated by the fact that 94% of the respondents used the local language which they were conversant with to share their past practices concerning forest conservation with a paltry 6% of the respondents who used English. It is therefore, undisputable fact that from these results it could be said that the communication strategy used by BCP allowed people to use any language they were comfortable with to share local ecological knowledge. It was also cardinal to ascertain if the language used by the community members to share information about the forest conservation is easily understood by partners. In this regard, the results indicate that the majority of the respondents 97% said yes and only 3% said no. This is a clear indication that the language used by local people to share their local ecological knowledge was understood by the partners. This assertion is supported by the fact that officers at community level are employed among the local people who are able to understand Nyanja, Soli and Tonga and appreciate the Soli culture. For instance, the Community Engagement Manager is Tonga and

most of the members of the Community Engagement Team belong to either Soli or Tonga ethnic groupings (BCP, 2012:122).

Feedback is an important component in the communication process, it is therefore important to understand whether local people receive feedback on the information shared. In this study it was found that the majority of the respondents 97% do receive the feedback on the information they share while 3% said that they do not get any feedback. Therefore, the results indicate that the BCP's communication strategy has a system of giving feedback of the information shared to the members of the community. Furthermore, the results show that the majority of the respondents 93% said that they do receive the feedback of the information shared at community meetings and 4% said through the notice board. The remaining 3% of the respondents did not give their views as the question was not applicable to them. Therefore, it is an incontestable fact that community meetings were a widely used channel of communication that BCP was using to give feedback of the information shared. This is in line with Torres's argument in "Paving the way for creating space in local forest management in the Philippines", where he argues that community meetings were a channel of communication Bayagong Association for Community Development was using to give feedback to the members of the community because of its usefulness as a tool to foster further deliberation with the community members on the feedback given (2006:170).

#### **5.4.2. Discussion of the views of BCP, Forestry and ZAWA Officers on allowing local people to share information on forest conservation and on language local people use to share information on forest conservation**

The views of the key informants are in line with the majority of the community members who said that they are allowed to share local ecological knowledge. The informants said that the members of the community are given opportunity to share their local ecological knowledge. For instance, they pointed to some of the best practices learnt from community members how they used to manage the forest and wild life in the past such as no cutting of trees on the source of the river, burial sites and on top of the hills in order to protect ground water. These findings truly show that BCP is committed to liberation as opposed to what Freire called banking concept of education. They have adopted the concept of women and men as conscious beings, and as consciousness intent upon the world. This involves problem posing education, responding to the

essence of consciousness and rejects communique and embodies communication. It is through this process of conscientisation local people are able to refer to the past practice of forest conservation and share in a communication process in the sitting which Freire called learning circle (1970:120). It was also found that local languages which are Soli, Nyanja and Tonga were used by local people to share local ecological knowledge. Indeed the use of local languages encouraged many local people to participate in sharing the local knowledge about forest conservation indicated by 92% of respondents who said are given the opportunity to share local ecological knowledge.

## **5.5. Evaluation of the effectiveness of communication strategies used by BCP in mobilising communities to participate in forest carbon trade**

This objective evaluated the effectiveness of communication strategies used by BCP in mobilising communities to participate in forest carbon trade. The objective was therefore, achieved by looking at tables 4.20, 4.21, 4.22 and 4.23.

### **5.5.1. Discussion of the findings from community members**

Firstly, it is important to consider the source of the information for individuals to be involved in REDD+ Project. It was found that 82% of the respondents got the information to be involved in the project from the community meetings, 12% got the information from notice boards and 4% got the information from pamphlets and brochures. Only 2% of the respondents got the information from the campaign vans. These results clearly show that BCP used mixed communication in mobilising local people to participate in forest carbon trade, however, community meetings were a highly used strategy. This is in tandem with Bessette's observation that community meeting was a common strategy of engaging local people in natural resource management, where he brings out a case of Community – based natural resource management in Viet Nam where community meetings were a potent tool used to engage communities in identifying their needs and priorities, and to discuss ways of improving their livelihood. It is through community meetings local people are involved in the definition of the problem, where they would bring out existing community knowledge in natural resource management, attitudes, existing policies and other relevant contextual information related to socio-economic conditions, culture, spirituality, gender and many more. It is through the involvement of local people in the definition of the problem during community meetings they become participants in natural resources management (Bessette, 2006:12-16).

In order to have a complete understanding of this study it is important to know how of the effectiveness of the communication strategy of BCP in mobilising local people to participate in the project. The findings show that 65% of the respondents said that the strategy was quite effective, 30% said it was very effective and 1% were not sure. 4% of the respondents indicated that the strategy was not effective at all. Therefore, from these results it can be deduced that the BCP communication strategy was effective in mobilising local people to participate in REDD+ Project.

### **5.5.2. Discussion of the views of BCP, Forestry and ZAWA Officers on communication strategies used by BCP to mobilise community members to participate in the project**

The findings from the key informants indicate that BCP uses mixed communication strategy to mobilise community members to participate in REDD+ Project. This include ZNBC Radio 1 advertisements, community meetings, drama, bill boards and Information Education and Communication (IEC) materials such as brochures and pamphlets. This approach is what Mefalopulos called “communication multitrack approach” a project oriented model of communication. This approach combines monologic and dialogic approaches in a purposeful way. This multitrack approach requires that dialogic features of communication be used during the initial stage of the project and, thereafter, this track becomes truly multitrack, using a variety of approaches to the situation. These approaches include information dissemination, social marketing, lobbying, edu-tainment and community mobilisation as observed with BCP communication strategy (2008:71-74).

### **5.5.3. Discussion of the views of Forest, BCP and ZAWA Officers on the effectiveness of the communication strategy in mobilising local people to participate in the project**

The findings from key stakeholders show that the communication strategy was effective in mobilising local people to participate in REDD+ Project because the messages were cultural, socially and economic compatible to the needs of the local communities. Therefore, it had managed to mobilise 1000 households to participate in REDD+ Project. The effectiveness of the strategy manifested itself also in allowing a two-way communication that gives chance to all participants to facilitate during the community meetings. Therefore, the communication strategy allowed local people to deliberate on forest conservation issues, seek clarifications and get

feedback. The key informants also said that the strategy had enabled local people to understand and appreciate the concept of REDD+ which was previously misconceived as an extraction of a liquid carbon dioxide from the trees with injection syringes and store in cylinders for export. Therefore, the communication strategy was effective in that it was responsive to the communication needs of the project and contained relevant messages to mobilise local people to participate in forest carbon trade. This conclusion can be aligned to Mody (1991) in Mefalopulos who argues that the effectiveness of the communication strategy is construed from the content of the messages of being socio-cultural sensitive, language appropriate, psychologically appropriate, political compatibility, economic compatibility and expected achievements (2008:123-124).

#### **5.6. To find out the extent to which the communication strategies used by BCP empower local people with negotiation skills in REDD+ Project**

This objective aimed at finding out the extent to which the communication strategies used by BCP empower local people with negotiation skills in REDD+ Project. The objective was realised by looking at tables 4.24, 4.25, 4.26 and 4.27.

##### **5.6.1. Discussion of the findings from community members**

Firstly, it was imperative to look at the rate of the efficiency of the communication strategy of BCP in empowering local people with negotiating skills in REDD+ Project. It was found that the majority of the respondents, 66% said the strategy was quite efficient in empowering them, 29% said it was very efficient and 1% were not sure. 4% of the respondents indicated that the strategy was not efficient at all. Looking at the high percentage of respondents falling between quite efficient and very efficient, it can be concluded that the communication strategy of BCP was quite efficient in empowering local people with negotiation skills in REDD+ Project. Therefore, it was important to know if this communication strategy that has been said to be quite efficient in empowering local people with negotiation skills does also inform them about ownership of the REDD+ Project and it was found that the majority of the respondents, 93% said that the communication strategies inform them about ownership of the project while 7% said communication strategies do not inform them about the ownership of the project. Lastly, the objective was realised by looking at the communication strategies that foster a sense of ownership of the REDD+ Project. It was found that 79% of the respondents said that the

communication strategy used was community meetings, 8% said bill boards, 4% said pamphlets and brochures, 1% said campaign vans and ZNBC Radio 1 respectively. It can be concluded that mixed communication was used to foster a sense of ownership of the REDD+ Project where of course community meetings were a highly used strategy in fostering a sense of ownership of the project.

### **5.6.2. Discussion of the views of BCP, Forestry and ZAWA Officers on the kind of information they give to the community to foster community ownership of the project**

The key informants said that the BCP communication strategy inform local people about their responsibility to conserve the forest and its inhabitant. In order to ensure the ownership, the key informants said that local people are encouraged to be part of the governance system of the forest by forming local committees to co-manage the forest. The messages are also aimed at developing positive attitude towards forest conservation among local people so that through this learned behaviour they would remain conserving the forest at the time the project will come to an end. Furthermore, the messages are aimed at encouraging forest conservation as a norm and behaviour in order to help in preserving the forest for the future generation.

Besides, the key informants pointed out that BCP has developed a school curriculum on forest conservation under Environmental Education Programme (EEP) aimed at developing a positive attitude towards forest conservation and eventually building a sense of ownership of the forest in school going children. From these findings, it can be established that BCP communication strategy based its messages on changing the attitude of the local people from irresponsible forest practice to a responsible attitude of caring about their environment. This finding is in line with Warner's argument that education and training for young people in natural resource management is aimed at increasing knowledge about natural resource management as well as developing positive attitude towards natural resource conservation (1991:10). Thompson also points out the importance of environmental education for children where in Siem Reap Province the Ministry of Environment had developed a manual for primary schools and trained 1000 primary school teachers in environmental education in order to equip them with skills of raising awareness and knowledge about the lake ecosystem in school going children (2006:163).

## **5.7. Conclusion of the chapter**

The chapter has discussed the research findings by looking at four research objectives that guided the study. These were (a) To find out the communication strategies used by BCP to engage communities in coming on board in making decisions about REDD+ Project, (b) To examine the language used by BCP in engaging communities in REDD+ Project, (c) To evaluate the effectiveness of the communication strategies used by BCP in mobilising communities to participate in forest carbon trade, (d) To find out the extent to which communication strategies used by BCP to empower the communities with negotiation skills in REDD+ Project. Therefore, the discussion proceeded by aligning the responses from the questionnaires and in-depth interviews along the above four research objectives. Then appropriate cases and pieces of literature were brought forward to support the discussion of the research findings.

## **CHAPTER SIX**

### **CONCLUSION AND RECOMMENDATIONS**

#### **6.1. Introduction**

The chapter outlines the suggested recommendations and conclusion that have been formulated in line with the issues that have emerged from the preceding chapters. The chapter has also indicated the other area of study that need attention in order to have a complete understanding of issues pertaining to participatory communication, development and natural resources management.

#### **6.2. Conclusion**

In the implementation of the REDD+ Project, BCP has adopted a participatory communication approach that requires a two-way flow of information among stakeholders. It is therefore, established that the communication strategies used by BCP to engage local people to come on board in making decisions about REDD+ Project are community meetings. Community meetings involve the coming of key stakeholders at the central place where they exchange ideas among themselves on issues relating to forest conservation in the Rufunsa Conservancy. In this approach, communication is said to be free and open dialogue.

Participatory approach to communication that BCP has adopted is effective in mobilising local people to participate in forest carbon trade as local people are not coerced but they participate in the project out of their own free will, after deliberating and participating in the identification of problems and finding solutions to it. This means that the involvement of local people in REDD+ Project is out of trust and mutual consensus built after a series of community meetings in which they participate to make decisions.

It has been noted that in the quest to encourage participation of local people in the project, the BCP's communication strategy provides a platform on which they are given an opportunity to share their local ecological knowledge. This includes the previous experiences, attitudes, existing local policies, spirituality related to the forest and wildlife. It is in this same spirit the BCP's Communication strategy allows local people to use local languages (Tonga, Soli and Nyanja) during community meetings, and this allows them to engage in critical thinking as they are able to conceptualise REDD+ in their native languages, hence contributing meaningfully during the meetings. This has adeptly responded to the general objective of this study which sought to

understand how communication for empowerment and participatory development empower communities in Lower Zambezi to make decisions and participate in forest carbon trade.

Moreover, the BCP's communication strategy is designed in a way that promotes the spirit of ownership of the REDD+ Project. This is because the focus of the messages is on roles and responsibilities of local people in forest management as well as capacity building in forest governance. This is in conformity with participatory communication, that places emphasis on empowering local people with skills and knowledge that are necessary to see the sustainability of the projects.

However, it has been noted that the participation of local people at each stage of the project vary in numbers. This could be due to the fact that certain stages in the REDD+ Project require people with technical ability to participate in the deliberations, consequently, an inclusive participation would have been resulting in the loss of project time and financial resources. Furthermore, this conclusion of the study totally confirms with the research hypothesis that stated that "BCP has an effective communication strategy that engages local people in forest carbon trade", indeed the participatory approach has been found to be effective in doing so as it has managed to engage 1000 households into the project.

More importantly, this conclusion is also in line with all the findings in the literature review, where it has been noted that participatory communication is at the centre of Participatory Forest Management and this has been proven to be effective in engaging local people adjacent to forested lands in managing their forests. Lastly but not the least, there is evidence that the BCP's communication strategy has elements of empowering local people with necessary knowledge, skills and economic benefits (participatory development) such as training local people in conservation farming, bee keeping and eco-charcoal production, building schools, clinics and sinking boreholes. Indeed these are some motivating factors to local people to engage into forest carbon trade.

### **6.3. Recommendations**

In view of the foregoing chapters, the study wish to make the following recommendations.

- There are few trainers trained in environmental education. Therefore, more people should be trained in forest conservation to avoid the shortage of trainers.

- The curriculum for forest conservation under Environmental Education Programme just targets grade 6 pupils leaving other grades without knowledge on forest conservation. Therefore, the curriculum should be broadened to cover all grades from (1-12) in the project area.
- Few people are aware of the REDD+ Project outside the confines of the Rufunsa Conservancy Area. Therefore, there is a need to produce a documentary to be aired on ZNBC TV 1, to showcase the activities of the REDD+ Project and its community benefits.
- There are few billboards and placards placed in the project area. Therefore, there should be more billboards and placards placed in the project area to serve as continuous reminders of the importance of conserving natural resources.
- It has been noted that community meetings are a widely used strategy of communicating, however, there could be some people who are apprehensive to speak in public, hence their views may not be taken. Therefore, interpersonal communication should be considered as another avenue of engaging local people to participate in making decisions about REDD+ Project.

#### **6.4. Further research**

Participatory communication is not a panacea to all developmental ills, therefore it has some limitations and pitfalls to consider in regarding to the quality and ownership of the interventions. Therefore, it is from this background this research suggests to other future researchers to consider the group of people Bill Cooke and Uma Khotari (2000:10) referred to as “tyranny”. Hence the topic below should be explored by other researchers.

Participatory Communication in a REDD+ Project in heterogeneous society.

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## APPENDICES

### APPENDIX 1: QUESTIONNAIRE FOR RUFUNSA CONSERVANCY RESIDENTS

RESEARCH QUESTIONNAIRE

NO:.....

THE UNIVERSITY OF ZAMBIA  
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES  
DEPARTMENT OF MEDIA AND COMMUNICATION STUDIES

Dear respondent,

I am a postgraduate student at the University of Zambia Great East Road Campus. I am undertaking a research for award of the degree of Masters of Communication for Development, the topic is Communication for Empowerment and Participatory Development: A community engagement strategy in forest carbon trade in Lower Zambezi. A case of Bio-Carbon Partners Limited. You are part of the sample from the entire population of Rufunsa Conservancy Area. I am therefore, seeking your assistance in this regard by completing the questionnaire. The information will be used for academic purpose with highest confidentiality. To ensure confidentiality is maintained in its strongest term. I request you not to write your names on the questionnaire.

#### Instructions

1. Do not indicate your name on the questionnaire.
2. Please try as much as possible to answer all the questions.
3. Give an answer that express your views.

QID	QUESTION NUMBER	DESCRIPTION	RESPONSE CODE
	a. District b. Province		
	Name of the interviewer		
	Date of the interview	..... (dd/mm/yyyy)	
	Name of the field editor		
	Date of editing	..... (dd/mm/yyyy)	
	Name of the data entry clerk		
	Date of data entry	..... (dd/mm/yyyy)	

## Quantitative research questionnaire

### Questionnaire

#### Section A: Background information

1. What is your sex?  
(1) Male [ ] (2) Female [ ]
2. What was your age at your last birthday?
  - a) 19 years and below [ ]
  - b) 20-29 [ ]
  - c) 30-39 [ ]
  - d) 40-49 [ ]
  - e) 50-59 [ ]
  - f) 60 and above [ ]
3. Highest level of education attained?
  - a) None [ ]
  - b) Primary [ ]
  - c) Secondary [ ]
  - d) Tertiary [ ]
4. What is your occupation?.....
5. What is your monthly income?
  - a) Less than K 200 [ ]
  - b) K 200- K 500 [ ]
  - c) K 500- K 1000 [ ]
  - d) K 1000 and above [ ]

#### SECTION B: Empowerment

6. Are you part of the population participating in REDD+ Project?  
(1) Yes [ ] (2) No [ ]
7. What do you know about forest carbon trade or REDD+ Project?
  - a) Involved in reducing carbon through forest conservation. [ ]
  - b) Giving incentives to people doing conservation farming. [ ]
  - c) Do not know anything. [ ]
  - d) Other (specify).....

8. How did you know about forest carbon trade? (Even if more than one answer please tick)
- a) ZNBC Radio 1 [ ]
  - b) Pamphlets and brochures [ ]
  - c) Bill boards [ ]
  - d) Community meetings [ ]
  - e) Campaign vans [ ]
  - f) Any other.....
9. If yes, where did you get the information for you to be involved in the project? (Even if more than one answer, please tick)
- a) ZNBC Radio 1 [ ]
  - b) Pamphlets and brochures [ ]
  - c) Bill boards [ ]
  - d) Community meetings [ ]
  - e) Campaign vans [ ]
  - f) Any other.....
10. Did the information you got from the source chosen in (Q9) empower you to make a decision to participate in REDD+ Project?
- (1) Yes [ ] (2) No [ ]
11. What was the key message?.....
12. What activities are you engaged in? (Even if more than one answer, please tick)
- a) Eco-charcoal production [ ]
  - b) Conservation farming [ ]
  - c) Livestock production [ ]
  - d) Other (specify).....
13. How do you rate efficiency of the communication strategy in terms of empowering you?
- a) Very efficiency [ ]
  - b) Quite efficiency [ ]
  - c) Not sure [ ]
  - d) Not efficiency [ ]

**Section C: Engagement in decision making**

14. Have you ever been involved in making decision about the project?

(1) Yes [ ] (2) No [ ]

15. If yes, at what stage of the project were you involved?

- a) At the beginning of the programme [ ]
- b) At the middle of the programme [ ]
- c) At the end of the programme [ ]
- d) At all stages [ ]

16. If the answer is yes to question 14, how often are you involved at any stage of the project?

- a) Very frequently [ ]
- b) Frequently [ ]
- c) Not sure [ ]
- d) Rarely [ ]
- e) Very rarely [ ]

17. What communication channel is used by BCP to motivate people to participate in decision making? (Even if more than one answer, please tick)

- a) ZNBC Radio 1 [ ]
- b) Pamphlets and brochures [ ]
- c) Bill boards [ ]
- d) Community meetings [ ]
- e) Campaign vans [ ]
- f) Any other.....

18. How do you rate the efficiency of the communication strategy in motivating people to participate in decision making?

- a) Very efficiency [ ]
- b) Quite efficiency [ ]
- c) Not sure [ ]
- d) Not efficiency [ ]

**Section D: Project co-ownership**

19. Do you feel BCP communication strategies inform people about ownership of the project? (1) Yes [ ] (2) No [ ]

20. If yes, what communication channel do they use? (Even if more than one answer, please tick)

- a) ZNBC Radio 1 [ ]
- b) Pamphlets and brochures [ ]
- c) Bill boards [ ]
- d) Community meetings [ ]
- e) Campaign vans [ ]
- f) Any other.....

21. What key messages do this communication channel/s contain?  
.....  
.....

22. How often does BCP use the communication channel/s that you have stated in (Q 20)?

- a) Very frequently [ ]
- b) Frequently [ ]
- c) Not sure [ ]
- d) Rarely [ ]
- e) Very rarely [ ]

**Section E: Use of local Language**

23. Are you given opportunity to share information on forest conservation?

(1) Yes [ ] (2) No [ ]

24. If yes, what language do you use in sharing information about forest conservation?

(Even if more than one answer please tick)

- a) English [ ]
- b) Local languages [ ]

25.If no, why do you think you are not given opportunity to share the information about forest conservation?

.....  
.....

26. Do you think the language you use to share information about forest conservation is easily understood by partners?

(1) Yes [ ] (2) No [ ]

27. If no, what is your suggestion?.....

28. Do you get feedback of the information shared?

(1) Yes [ ] (2) No [ ]

29. If yes, what channel do they use to give you feedback of the information shared? (Even if more than one answer, please tick)

- a) ZNBC Radio 1 [ ]
- b) Pamphlets and brochures [ ]
- c) Bill boards [ ]
- d) Community meetings [ ]
- e) Campaign van [ ]
- f) Other (specify).....

30. If yes, to Q 28, what language do they use to give feedback of the information shared? (Even if more than one answer, please tick)

- a) English [ ]
- b) Local languages [ ]

31. How do you rate the effectiveness of the communication strategy of BCP in supporting the use of local language in sharing information?

- a) Very effective [ ]
- b) Quite effective [ ]
- c) Not sure [ ]
- d) Not effective [ ]

**Thank you for your time!!!**

## **APPENDIX 2: IN-DEPTH INTERVIEW FOR BCP OFFICERS**

### **INTRODUCTION**

#### **PART 1**

- ✓ Thank the participant for giving you time to interview them.
- ✓ Explain the purpose of the study.
- ✓ Assure them that the discussion will be kept confidential.
- ✓ Ask for their consent to participate and explain that their participation is voluntary.

#### **Part 2**

- ✓ Explain the purpose of the interview.
- ✓ Tell them the amount of time the interviewee is expected to spend with you.
- ✓ Introduce the moderator (Yourself) the note taker and explain what each one's role.
- ✓ Remind the participant that anything which is said in the interview should not be talked about outside.
- ✓ Explain that a voice recorder will be used since the note taker cannot write down everything.
- ✓ Explain that there is no right or wrong answers and that their opinion is important and respected.
- ✓ Have participants introduce themselves and share something about themselves (their names, job title and the name of the organisation)

#### **Part 3**

### **STUDY PURPOSE**

The researcher is interested in learning how you feel about the communication strategies used by Bio-Carbon Partners Limited to engage communities to participate in forest carbon trade.

### **IN-DEPTH INTERVIEW QUESTIONS**

1. What is your understanding of forest carbon trade?

.....  
.....

2. What is your role in this organisation?

.....  
.....

3. Do you have a communication strategy in place?

(1) Yes [ ] (2) No [ ]

4. If yes, what kind of messages do these strategies carry?

.....  
.....

5. If no, what are the reasons you do not have the communication strategy in place?

.....  
.....

6. What communication channels do you have in place?

.....  
.....

7. How relevant are the channels/ messages in motivating the community members of Rufunsa to participate in forest carbon trade?

.....  
.....

8. How effective are the channels/ messages in motivating local people to participate in decision making about forest carbon trade?

.....  
.....

9. Does BCP communication strategy allow local people to share local ecological knowledge?

(1) Yes [ ] (2) No [ ]

10. What language do local people use to share information on forest conservation? (Even if more than one answer, please tick)

- a) English [ ]
- b) Soli [ ]
- c) Nyanja [ ]
- d) Bemba [ ]

- e) Tonga [ ]
- f) Other (specify).....

11. How is feedback given of the information shared? (Even if more than one answer, please tick)

- a) ZNBC Radio 1 [ ]
- b) Pamphlets and brochures [ ]
- c) Bill boards [ ]
- d) Community meetings [ ]
- e) Campaign vans [ ]
- f) Other(specify).....

12. What language do BCP use to give feedback to local people of information shared? (Even if more than one answer, please tick)

- a) English [ ]
- b) Soli [ ]
- c) Nyanja [ ]
- d) Bemba [ ]
- e) Tonga [ ]
- f) Other (specify).....

13. What kind of information does BCP's communication strategies contain to foster community ownership of the REDD+ Project?

.....  
 .....

14. What weaknesses have you noted in BCP's communication strategy?

.....  
 .....

15. What strategies have you put in place to deal with the weaknesses?

.....  
 .....

**Thank you for your time!!!**

## **APPENDIX 3: IN-DEPTH INTERVIEW FOR FOREST AND ZAWA OFFICERS**

### **INTRODUCTION**

#### **PART 1**

- ✓ Thank the participant for giving you time to interview them.
- ✓ Explain the purpose of the study.
- ✓ Assure them that the discussion will be kept confidential.
- ✓ Ask for their consent to participate and explain that their participation is voluntary.

#### **Part 2**

- ✓ Explain the purpose of the interview.
- ✓ Tell them the amount of time the interviewee is expected to spend with you.
- ✓ Introduce the moderator (Yourself) the note taker and explain what each one's role.
- ✓ Remind the participant that anything which is said in the interview should not be talked about outside.
- ✓ Explain that a voice recorder will be used since the note taker cannot write down everything.
- ✓ Explain that there is no right or wrong answers and that their opinion is important and respected.
- ✓ Have participants introduce themselves and share something about themselves (their names, job title and the name of the organisation)

#### **Part 3**

### **STUDY PURPOSE**

The researcher is interested in learning how you feel about the communication strategies used by Bio-Carbon Partners Limited to engage communities to participate in forest carbon trade.

### **IN-DEPTH INTERVIEW QUESTIONS**

1.What is your understanding of forest carbon trade?

.....  
.....

2.Do you know any communication strategies used by BCP?

.....  
.....  
3. What kind of messages do these strategies carry?

.....  
.....  
4. How effective are the messages in motivating local people to participate in decision making about forest carbon trade?

.....  
.....  
5. How relevant are the messages to motivate the community members to participate in forest carbon trade?

.....  
.....  
6. Does BCP communication strategy allow local people to share local ecological knowledge?

(2) Yes [ ] (2) No [ ]

7. What language do local people use to share information on forest conservation? (Even if more than one answer, please tick)

- a) English [ ]
- b) Soli [ ]
- c) Nyanja [ ]
- d) Bemba [ ]
- e) Tonga [ ]
- f) Other (specify).....

8. How is feedback given of the information shared? (Even if more than one answer, please tick)

- a) ZNBC Radio 1 [ ]
- b) Pamphlets and brochures [ ]
- c) Bill boards [ ]
- d) Community meetings [ ]
- e) Campaign vans [ ]
- f) Other(specify).....

9. What language do BCP use to give feedback to local people of the information shared?  
(Even if more than one answer, please tick)

- a) English [ ]
- b) Soli [ ]
- c) Nyanja [ ]
- d) Bemba [ ]
- e) Tonga [ ]
- f) Other (specify).....

10. What kind of information does BCP's communication strategies contain to foster community ownership of the REDD+ Project?

.....  
.....

11. What weaknesses have you noted in BCP's communication strategy?

.....  
.....

12. How do you like these weaknesses to be improved upon?

.....  
.....

**Thank you for your time**