

**UNIVERSITY OF EDUCATION, WINNEBA**

**EXPLORING FOREST USE AND CONSERVATION POLICIES AND THEIR  
COMMUNICATION TO COMMUNITIES IN FOREST ZONES: A CASE OF PRA-  
ANUM FOREST ZONE**



**2023**

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ANUM FOREST ZONE**



**A thesis in the Department of Development Communication,  
School of Communication and Media Studies, submitted to the School of  
Graduate Studies, in partial fulfilment**

**of the requirements for the award of the degree of  
Master of Philosophy  
(Development Communication)  
in the University of Education, Winneba**

**MAY 2023**



## DECLARATION

### STUDENT'S DECLARATION

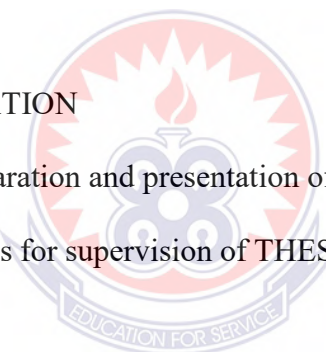
I, DOMINIC PREMPEH, declare that this THESIS, with the exception of quotations and references contained in published works, international journals, and online documents which have all been identified and duly acknowledged, is entirely my own original work and has not been submitted, either in part or whole, for another degree elsewhere.

SIGNATURE: .....

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### SUPERVISOR'S DECLARATION

I hereby declare that the preparation and presentation of this project work was supervised in accordance with the guidelines for supervision of THESIS as laid down by the University of Education, Winneba.



NAME OF SUPERVISOR: KWESI AGGREY

SIGNATURE: .....

DATE: .....

## **DEDICATION**

To my beloved Daughter, Nana Ama Asantewaa Prempeh; and Akosua Addobea.



## ACKNOWLEDGEMENT

I am grateful to God for my life, health and the tenacity to complete this work. Utmost gratitude to my supervisor, Mr. Kwesi Aggrey for his time, dedication and patience throughout the project. I thank the faculty and my colleagues for their contributions during seminar presentations.

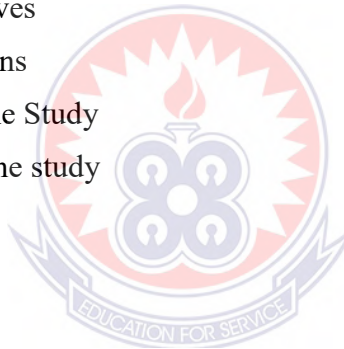
A special appreciation to Uncle James (PhD), Dennis, Eddie, Fiifi and Nyamekye. You guys are awesome.

Finally, I thank me, for believing in me.



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## ABSTRACT

There are few studies on the communication of forest use and preservation policies because researchers concentrate on the policies rather than how they are communicated. This study, therefore explored forest use and conservation policies and how these policies are communicated to communities in forest zones with emphasis on the Pra-Anum forest zone in the Asante-Akim South Municipality of the Ashanti Region. The study hinged on Advocacy Theory and Participatory Communication Theory. The study used qualitative approach to research with a single case study. Interviews, focus group discussion, observation and document analyses were used to gather data. Purposive sampling was used to get respondents to answer the questions that helped meet the objectives of the study. The study found that some of the policies on forest use and conservation were mostly unclear and indecisive, and overlapping in their implementation. It also observed that the law making and implementation institutions were numerous, overlapping, and competing for space and power which had created loopholes for people to override the policies and exploit the forest. The study also found that though most modern development projects and policies had participation components, the local people are disregarded in the enactment of policies on forest use and conservation. Finally, it was observed that not all the means of communicating forest use and conservation policies to forest zone communities were effective. It is recommended that policies on forest use and conservation should be clear, apt and decisive, and straightforward. It is also recommended that the law making and implementation institutions for forest use and conservation should be streamlined, with each having clearly-cut powers, mandate and functions, in order to prevent excesses, unnecessary overlapping, and the fight for space and power. Also, local people should be fully involved in the enactment and implementation of policies that directly affect them. Finally, stakeholders of forest use and conservation should concentrate on and enhance policies that highly reach and benefit communities in forest zones.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Introduction**

This chapter discusses the background to the study, statement of problem, objectives of the study, and the research questions of the study. It also highlights the significance of the study and organization of the study.

#### **1.1 Background to the Study**

The Food and Agriculture Organisation (2010) reports that after the 1983 droughts, 2% of the forest cover in Ghana, averaging about 115,000 hectares, is depleted annually. The FAO (2010) report corroborates the United Nation Environment Programme's (UNEP) report of 2008 that 27% of the country's forest cover and woodland areas were lost between 1990 and 2005. This has reduced the forest cover and woodland in the country which was estimated by Wagner and Cobbinah (1993) to be one-third of the country's land area at the beginning of the 20th century. The 2% depletion rate of Ghana's forest cover is expressed by the United Nations Environment Programme (2008) as one of the highest rates of deforestation in Africa and globally. For this reason, Ghana's tropical forest is one of the severely threatened tropical forests of the Guinea Forest Region of West Africa (Arcilla, Holbeck, & O'Donnell, 2015). The depletion rate puts fear in environmental management practitioners and other stakeholders of the environment that the forest cover and woodland in Ghana can disappear in 2040 (Boafo, 2013).

The major cause of forest depletion in Ghana and the world over is human activities (FAO, 2010). It is estimated that human activities have degraded about 85% of Ghana's forest cover and farmlands (Acheampong, Macgregor, Sloan, & Sayer, 2019). Major human activities that have aided forest depletion in Ghana include construction (UNEP, 2008), agricultural expansion (Pimm, 2020), surface mining and logging of trees for timber and non-timber forest products (Arcilla, et al., 2015), bush burning for hunting activities, and charcoal production. Natural causes such as drought has also been attributed to the depletion of Ghana's forest cover (FAO, 2010). Forest depletion has created several negative outcomes including loss of biodiversity (Barrow, 1999), destruction of the natural habitat of wildlife (Forestry Commission, 2008), and climatic change (Pimm, 2020).

The high rate of forest depletion in the world has attracted global and local attention. For example, Barrow (1999) states, "In the 1990s, many people realize that there are growing problems caused by human activities and threats from nature; some argue there is a crisis—a point at which appropriate action must be taken to avoid disaster" (p. 129). Stakeholders, especially government, and environmental management organisations, have implemented several policies and programmes and enacted several laws to protect and sustain the remaining forest (CIFOR, 2009; FC, 2008). The Forest and Wildlife Policy implemented in 1994, for instance, directed attention to addressing tree cutting and forest degradation in Ghana. Later in 1996, the Forest Development Master Plan (FDMP, 1996-2020) and Forest Development Fund were also implemented to enhance the development of private plantation and entice individual involvement in forest protection and sustenance in Ghana (Acheampong, et al., 2019). The FDMP aimed at resuscitating 10,000 hectares of land every year for 20 years. This led to the establishment of the Forest Plantations Development Centre

at Akyawkrom, near Ejisu, in the Ashanti region. Other laws, policies and programmes emanating from the constitution of Ghana, local government authorities, and international bodies, were also instituted to buttress the protection of the forest and enhance afforestation programmes in Ghana (CIFOR, 2009; FC, 2008).

These several laws, conventions, charters and policies on deforestation in Ghana notwithstanding, the forest reserves are still depleting at an alarming rate (Boni 2006; FC, 2008; Grupstra 2012; Hoogenbosch 2010; Ramcilovic-Suominen & Epstein, 2015). One school of thought indicates that government attaches less commitment to the enforcement of laws and policy implementation programmes on deforestation (Boni 2006; Hoogenbosch 2010). Another view is that people do not understand the principles of the laws, policies and programmes on deforestation (Insaideo et al., 2012). Inadequate laws and inability of law enforcement officers and agencies to help protect the forest cover in the country has made it necessary to rather find other ways of protecting the forest.

It is therefore imperative to find an alternative way to reach the local people in forest zones with information on forest conservation and forest use. The National Environmental Policy Act (NEPA), which was passed in 1969 and signed in 1970, expressed that policies on environmental management should be well known by citizens so they can abide by and apply them (Cox, 2010). The National Environmental Policy Act (1969; 1988, 2016) allows for citizens to participate directly in federal environmental decision making such as protection of forest lands. NEPA (2016) expresses three key elements; awareness; information; and active participation. It expresses that people for whom laws or policies are made for should be aware of such laws and policies. Awareness facilitates both the implementation and punishment, if any, very easy and credible. Again, people should be informed of the laws

and policies. And lastly, the people for whom the laws and policies are made should be involved in the planning and implementation of the laws and policies. Active participation by the people in the implementation of the laws and policies make them (the people/community members) own the laws as theirs and adhere to them (Cox, 2010).

Ansu Kyeremeh (1998) asserts that communication is a shared experience. For the laws and policies on deforestation to be claimed and owned by the people, such laws and policies should be communicated to them (community members). Efficient communication of forest conservation policies is, therefore, relevant for the effective implementation and outcome of these policies (Cox, 2010). Stakeholders, especially people living along forest areas and its fringes, and mostly rural dwellers, should be in the know of such forest conservation policies, their implementation, and the consequences of breach. However, research has shown that most communication content are urban and elite bias; and producing content for urban and literate audiences deprive some members of the public of relevant information needs thereby making them information-poor (Ofori-Birikorang & Aggrey, 2018; Ommani & Chizari, 2008). To meet the information needs of such information-poor communities, there should be innovative ways of communicating policies and programmes (Morris & Venkatesh, 2000; Ofori-Birikorang & Aggrey, 2018).

This study, therefore, explores the ways in which deforestation laws and policies were/are communicated to people living in forest zones who have unfettered access to the forest and might use it anyhow if they are ignorant of any laws and policies protecting forests or are not regulated in using it. The study looks at the content of the existing laws and policies on forest usage and its conservation. It explores the extent to which community members in forest zones are involved in the enactment and implementation of the laws and policies affecting

the usage of the forest. The study also investigates how the laws and policies on forest usage and conservation are communicated to communities in forest zones in Ghana, with emphasis on the Pra-Anum Forest Reserve area in Asante-Akim South Municipality of the Ashanti region.

### 1.1.1 Study Area

The Pra-Anum forest reserve, popularly known as the Banka forest reserve, is located between latitude 6° 20' 6° 11' North and longitude 1° 7' 1°16' West (Forestry Commission, 2012). Most people refer to the reserve as the Banka Forest reserve because Banka is the biggest community and the zonal capital of the area. Politically, the area is under the Asante-Akim South Municipal Assembly in the Ashanti Region, but it is managed by the Akim-Oda Forest District under the Forestry Commission. It is bounded by rivers Anum and Pra on the West, and South and East respectively. It covers a total land area of about 132.87 km<sup>2</sup>. However, 3.10 km<sup>2</sup> have been subletted to some tenant farmers (Yalley et al, 2021).

The Pra-Anum forest reserve falls within the moist semi-deciduous vegetation zone. It has nearly 230 tree species with 67 as timber species. Timber species such as *Chrysophyllum subnum*, *Aningeria robusta*, *Enthandrophragma candollei*, *Piptadeniastrum Africana*, *Turraeenthus African*, *Triplochiton scleroxylon*, and *Ceiba pentadra* are the dominant species. *Albizia zygia*, *celtis mildbraedii*, *Celtis Zenkeri*, *Nesogordonia papyrierii*, and *Hannoa Klaineana* also have significant numbers in the forest. The area is a tropical humid Climatic Zone with mean annual rainfall between 1,250 mm and 1,500 mm. The maximum temperature range is between 27°C and 35°C. Geologically, the reserve is underlain by Brimian rock formation with granite and gneiss intrusive. Several small streams and rivers run through the forest with some becoming marshy and swampy during the wet season and drying up during the dry season (Yalley et al, 2021).

The Pra-Anum Forest Reserve is located South-West of and about 60-minute drive from Juaso the Capital of the Asante-Akim South Municipality. The Asante-Akim South Municipality is located at the eastern part of Ashanti Region with its eastern border forming part of the boundary dividing Ashanti and Eastern Regions. It shares boundaries on the North

and North-West with Asante-Akim North Municipal and Kwahu South District on the West, Bosome Freho District on the South-West, and Birim North District in the Eastern Region on the South-East. The Pra-Anum forest area has communities such as Banka, Ata-ne-Ata, Amantia, Muronaam, Tokwai, Tokwai Asuboi, Denmu (Densu) and Gyadam. Banka is the zonal/circuit capital with a Community Day Senior High School, two basic schools, a police station, a clinic, and few religious institutions. Most of the communities in the zone have electricity supply and use deep-well hand-pump taps. The road network in the zone is not in good shape; and also lack tarred roads linking the communities. Currently, the main Ofoase-Gyadam-Banka road is under construction under the Ghana Cocoa Roads Project (GCRP), a government of Ghana and COCOBOD funded programme to specifically maintain roads in cocoa growing areas. Also, Muronaam to Amantia, which is along the Obuasi Junction-Nsokote-Ofoase (Ashanti-Eastern link roads) stretch, has been tarred. However, the roads from Banka to the adjoining communities such as Ata-ne-Ata, Tokwai and Tokwai Asuboi are in poor state, mostly dusty in the dry season and muddy and sometimes unmotorable in the rainy season (AASMA, 2021).

Inhabitants in the area are predominantly farmers. They grow cash crops such as cocoa, oil palm and citrus. They also do subsistence farming with plantain, tubers, grains and vegetables as the main crops. They mostly go to farm as early as dawn and return at dusk especially during planting and harvesting seasons. A government policy allows farmers to farm in the reserve and plant trees alongside the crops. Tuesdays are considered sacred and held as taboo to go to farm in the area, so inhabitants use Tuesdays to rest and do communal activities. Information flow is mainly through word-of-mouth. However, they also depend on Community Information Dissemination Centres (CIDCs) for mass announcements on

funeral, communal labour, and other social issues. Television is not common in most of the communities apart from Banka (ghanadistricts.gov., 2022).

Figure 1 below shows the Pra-Anum forest reserve area and its location on the Ghana map.

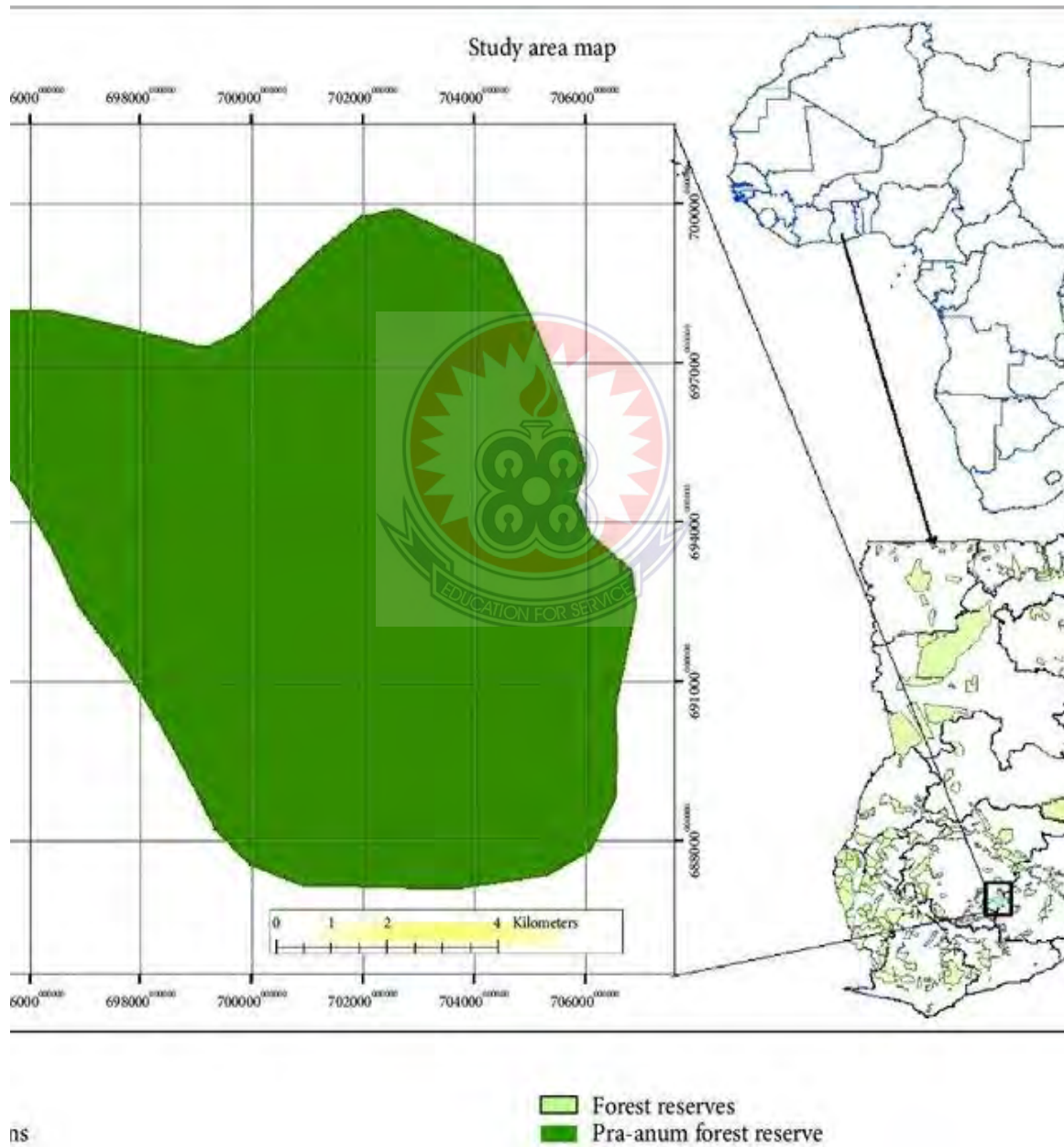


Fig. 1: Pra-Anum Forest Reserve  
Source: Forestry Commission of Ghana (2012).



## 1.2 Statement of Problem

Until 1994, regulating the access to forest or the use of forest products was a major challenge to environmental management practitioners, government and regulating bodies in Ghana. This is because there was no detailed, clearly defined and standard forest policies that specified the objectives and the strategies and tools to help maintain the forests of Ghana (MLF, 1996). Indiscriminate cutting of trees and rampant clearing of the vegetation cover were at such an alarming rate that Ghana lost several hectares of land (Boateng, Okae, & Hansen, 2009). The first official national policy to help protect the forest of Ghana was rolled out in 1994 (Forestry Commission, 2008). It was called the Forest and Wildlife Policy. Its focus was to address tree cutting and forest degradation in Ghana. Later, other laws, policies and programmes to regulate forest use in order to curb forest depletion were enacted. It is believed that the laws are weak (Clark, 1995; Clientearth, 2017). It is also believed that there is inadequate human, equipment and financial resources to oversee the use of the forest (Oduro, 2011; UNEP, 2008). Again, assertion is rife that most people in the forest zones are either not aware of the several of the policies regulating forest use, forest conservation and tree cutting in Ghana or are reluctant to obey the laws because they see these laws as abhorrent (Clientearth, 2017). These factors above made it imperative to look for a more practical way of protecting the forest (Clientearth, 2017). This implied the need for awareness creation.

Awareness is created through communication. However, there is a seeming data gap on how information on policies and programmes were communicated to people living in forest zones, especially in regard to how to use or sustain the forest. Most studies on deforestation or forest regulation policies were done particularly on the laws, policies and programmes and their

application, and or their effect on sustaining the forest (Benhin & Barbier, 2000a; Benhin & Barbier, 2000b), and not necessarily how these laws and policies were communicated. Ankomah (2012) and Adom (2017) briefly state in their respective studies that dissemination of information on forest policies and programmes to people living in forest zones is very low. With information gap already existing between the urban centres and the rural settlements (Ommani & Chizari 2008), and the rural settlements becoming information-poor (McMichael, 2012; Ofori-Birikorang & Aggrey, 2018), there is the need to find the type of information, style in which it was presented, the strategies and the tools used in that communication process and the channels of communicating laws and policies on forest use and conservation to deprived and information-poor communities living in forest zones in Ghana (Morris & Venkatesh, 2000).

The study area, Pra-Anum forest reserve is located between in the Asante-Akim South Municipality of the Ashanti region. But, administratively, the forest is under the management of the Akim-Oda Forest District of the Forestry Commission. The choice of Pra-Anum forest reserve for this study is because the forest zone is one of the forests in Ghana which is protected by the laws of Ghana. The choice is also premised on the fact that the communities in the Pra-Anum forest zone fall into the communities which Ankomah (2012) and Adom (2017) espouse that dissemination of information on forest policies and programmes to them is very low.

This study was, therefore, conducted to generally explore forest use and conservation policies and investigate how those policies are communicated to information-poor communities in forest zones in Ghana. It also specifically explored how communities in forest zones are involved in the making and implementation of policies concerning the use

of the forest and its conservation, using the Pra-Anum forest zone in the Asante-Akim South Municipality of the Ashanti Region as a case study. Finally, the study was also conducted to investigate the tools and strategies used to communicate forest use and conservation policies to people in forest zones.

### **1.3 Research Objectives**

Depletion of the forest in Ghana has been of great concern (Forestry Commission, 2008). Stakeholders have enacted several policies and programmes to sustain the forest in the country (CIFOR, 2009). Concentration of researchers and several studies on deforestation, forest usage and its conservation are mainly on the policies, laws and programmes and how they are implemented (Benhin & Barbier, 2000b). Hence, little is known on how the laws, policies and programmes are communicated, especially to rural people who are staying in or around forest areas and are direct users of the forest (McMichael, 2012; Ofori-Birikorang & Aggrey, 2018; Ommani & Chizari, 2008).

The objectives of the study are to:

1. examine the content of the policy framework on forest use and conservation in Ghana;
2. explore how communities in Pra-Anum forest area in Ghana are involved in the enactment and implementation of policies on forest use and conservation; and
3. investigate the tools and strategies used in communicating policies on forest use and conservation to communities in Pra-Anum forest area in Ghana.

#### **1.4 Research Questions**

There is an insatiable desire for forest products that leads to unrelenting cutting of trees in the Ghanaian forest (Arcilla, Holbech, & O'Donnell, 2015; FC, 2008). Also, the desire to expand agriculture to meet the rising demand for farm produce has risen. (Acheampong, Macgregor, Sloan, & Sayer, 2019). It is feared that Ghana's forest can disappear in the next two decades due to the alarming rate of depletion (Boafo, 2013). Several policies and programmes have been implemented to sustain the forest in the country (CIFOR, 2009). This study was conducted to generally explore forest use and conservation policies and investigate how those policies are communicated to people living in forest zones.

The research questions that guided the study and used to solicit data to fulfil the research objectives are the following:

1. What is the content of the policy framework on forest usage and conservation in Ghana?
2. How are communities in the Pra-Anum forest area involved in the enactment and implementation of policies on forest use and conservation?
3. What are the tools and strategies used to communicate policies on forest use and conservation to communities in Pra-Anum forest zone?

#### **1.5 Significance of the Study**

Little is known on how forest conservation policies are communicated to communities in forest zones though several studies have been done on forest use and conservation policies (Adom, 2017; Ankomah, 2012; Benhin & Barbier, 2000). There are also few studies that have looked into the role communication played in making the implementation of policies

successful (Adom, 2017; Ankomah, 2012; ClientEarth, 2021). Concentration of researchers and several studies on deforestation, forest usage and its conservation, however, are mainly on the policies, laws and programmes and, not on equal rate, how they are communicated to stakeholders, especially communities that are directly affected by the policies (ClientEarth, 2021; Golo & Yaro, 2013). This study, therefore, was conducted to investigate the communication of policies on forest use and conservation to Ghanaians, especially to communities along forest banks that have direct access to forests and forest products. Other objectives including examining the content of policy framework on forest usage and conservation, and finding out how communities in forest zones are involved in the formulation and implementation of policies that affect them are looked at.

This study is significant because it will add up to existing literature on communication of policies on forest use and forest conservation and expand the opportunities for other studies to be done in the area. ClientEarth (2021), and Golo and Yaro (2013) espouse that there is limited data on communication of policies on forest use and forest conservation in Ghana. Based on the recommendation by ClientEarth (2021) that more studies should be done on environmental policy communication in order to expand the discourse on the field, this study comes in handy to provide that needed discourse on the communication of policies on forest use and conservation which is also an environmental issue. There have been arguments by scholars that there is limited involvement of stakeholders of forest conservation policies, especially communities that are directly affected by the policies. Participation, to these scholars, is just a hoax which only exists on paper (ClientEarth, 2017). The findings of the study will either confirm or disconfirm ClientEarth's (2017) assertion. The study will,

therefore, expand the conversation on community participation in issues affecting communities in forest zones.

It has been observed that policies on forest use and conservation are fragmented due to the fact that some institutions have been delegated to enact laws and by-laws to help manage the forests in Ghana. The challenge of “who does what” has brought conflict between most policy-making and policy implementation bodies such as Forestry Commission and the Environmental Protection Agency, the Forestry Commission and the National Commission on Civic Education, among others. The objective of this study to examine the content of the fragmented forest conservation policy framework will help bring out some of the conflicting areas in implementing such policies and profess ways by which the institutions can perform their primary responsibilities without breaching the office of the other institutions. The study will advance the ways of communicating national policies in rural and information-poor areas such as the Pra-Anum forest area in Asante-Akim South Municipality. The findings of the study will reveal the gaps in the communication process of policy implementation and proffer ways of solving those challenges through its recommendations.

Theories and research methods shape research studies. The findings of this study, therefore, will either challenge or affirm the tenets of the theories used in the study. The discourse of the theories will further enhance the theories used. The study will also help deepen research methods. It will either corroborate the appropriateness of the methods used or otherwise.

## **1.6 Organization of the study**

The study is divided into five chapters. The first chapter which is the introductory part comprises the background of the study, the objectives, research questions, significance of the study, and organization of the study. The second chapter focuses on the literature review and the theoretical frameworks underpinning the study. Chapter three features the process and procedures in the collection and analysis of data, sampling technique and sample size, data collection methods and procedure, data analysis process, the data analysis method, ethical issues, trustworthiness and credibility. The findings and analysis of the data collected are presented in chapter four. The issues are presented in themes and explained by using the theoretical frameworks and concepts in the literature review. The final chapter summarises, draws conclusions from the findings and makes recommendations for future studies.

## **1.7 Conclusion**

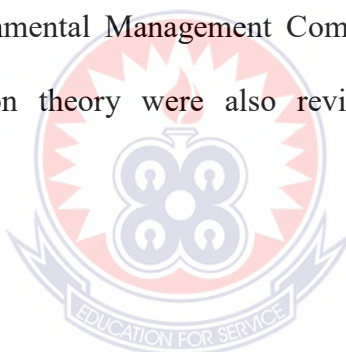
This chapter outlined the objective for which the study in communicating deforestation policies to forest-zone communities was undertaking. It demonstrated the gaps in literature that ignited setting up certain objectives that will help fill the gap. It also stated the significance of the study when it is completed. The next chapter is the review of relevant literature relating to the study and the theoretical and conceptual underpinnings on which the study hinge.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

This chapter reviews, evaluates and analyses literature that is relevant to the study. It presents the conceptual reviews and theoretical framework related to the study. The chapter reviews arguments and findings by different authors on relevant concepts and themes including Forests and Forest reserves, Forest Depletion in Ghana, and Forest Conservation Policies and Programmes in Ghana have been discussed under this chapter. Other concepts and themes that are discussed in this chapter are the concept of communication, Communication for Social Change, and Environmental Management Communication. Advocacy theory and Participatory Communication theory were also reviewed. The chapter ends with a conclusion.



#### 2.1 Forests

Generally, forests are known to be a large area covered with trees and undergrowth. Britannica.com (2020) defines forest as a complex ecological system with trees as the dominant life-form. Forest can also be defined as "vegetation dominated by trees, without a grassy or weedy under-storey, and which has not recently been farmed" (Hall, 1987: 33). This definition is most appropriate for the current study because formally "forestry" in Ghana is largely concerned with only the closed forest zones (Acheampong, et al. 2019; Arcilla, et al., 2015; Clientearth, 2017). Parts of some forests in Ghana, however, have been assigned to communities within the forest zone to do farming and other activities while planting particular tree species to replace the old ones (Acheampong, et al. 2019; Yalley, et al., 2021).



Following Ghana's National REDD+ Strategy, a forest in Ghana must have a minimum of 15% canopy cover, minimum height of 5 meters, and minimum area of 1 hectare. This is also based on thresholds set by the Intergovernmental Panel on Climate Change (IPCC) (an intergovernmental body of the United Nations responsible for the advancement of knowledge on human induced climate change, for these structural parameters) and the Marrakesh Accord. The Marrakesh Accord, signed by 123 Nations on the 15<sup>th</sup> of April, 1994, in Marrakesh, Morocco, was to create an integrated multilateral trading system which encompasses the General Agreement on Tariffs and Trade (GATT, 1947) and the results of all Trade rounds that have been conducted since the signing of the General Agreement on Tariffs and Trade in 1947. One of the outcomes of the Marrakesh Accord is the establishment of the World Trade Organization, which officially came into being on January 1, 1995. This baseline measurement is also used in the most recent National Greenhouse Gas inventory (National Greenhouse Gas Inventory Report, 2015).

Forests are very important. Ramcilovic-Suominen (2012) found that people living in forest areas identified more than hundred beneficial uses of the forests; this he referred to as forest values. He categorised the forest values to communities in forest zones into 32 broader themes. The themes included, "subsistence, environmental, economic, learning, socio-cultural, spiritual, and future forest values" (p. 32). Values that farmers derive from forests under *subsistence* included plant and herbal medicine, (planting of) cash crops, game, and food crops. Ramcilovic-Suominen (2012) described the subsistence value of plants as one of the basic values of forests since creation and the one that holds humanity. Environmental values included fresh air, forest-induced rainfall and climate stabilisation. He explained the environmental value of forest as the one holds the planet and puts the world in equilibrium.

The economic values, Ramcilovic-Suominen (2012) explained, included timber, and other financial outcomes which give government revenue to run state budget.

The socio-cultural significance of forests includes provision of building materials. It also includes sacred sites as well as cultural symbols and recreational centres. Ramcilovic-Suominen (2012) however explained the socio-cultural factors may differ per the race, tribe or region the forest is located due to the religious value the people at that particular place put on certain species of plants. For instance, a tree that might be culturally protected by a tribe in Ghana might be commercially viable in another country. Spiritually, sacred groves in forests provide avenues for traditional prayers, rituals, and a quiet space for spiritual revival. The social structure of Africans also involves forests (Falconer, 1992). Some families, clans, tribes and communities use forests as deities and some also have their shrines in forests. Forest products also feature in the culture of many tribes in Ghana. For instance, the staff of a linguist, drums, and stools found in royal places are made of wood. (Forestry Commission, 2020). Forests feature in academics also. Schools and researchers use forests as research centres. For example, the Centre for Research into Plant Medicine in Akwapim Mampong in Ghana has research sites in several forests in Ghana where they study plants and their medicinal values, and use plants from the forests to produce herbal medicines to cure many ailments (ghanadistricts.com, 2020). And, future values, he explained as preservation for posterity. Forests provide environmental and ecological benefits. They regulate temperature and rainfall, and provide suitable environment for cocoa cultivation (FAO, 2020; Oduro, 2011).

Types of forest include Dry Semi deciduous forest (inner and fire zone), evergreen forest moist, evergreen forest wet, moist semi deciduous south east forest, savannah woodland,

tropical rainforest, closed canopy forest, and open canopy forest (Forestry Commission, 2020). Popular forest in the world include the Amazon forest in South America, spanning about 5,500,000km<sup>2</sup> and have several species of trees within; the Taiga forest which stretched from Canada across Norway to Siberia, but had to split into three separate parts due to natural changes and continental drift; the Tropical Rainforest in Congo, Africa covering about 1,780,000km<sup>2</sup> of land area is the second largest rainforest in the world; and the Burmese Tropical Rainforest in Myanmar, Asia (Clientearth, 2017; FAO, 2020). Ghana's total forest area is estimated at 9.17 million ha accounting for about 40% of total national land (Forestry Commission, 2020). Due to the importance of forest on the lives of humans, some forests are reserved (Ramcilovic-Suominen, 2012).

### **2.1.1 Forest Reserves**

Forest reserves are, generally, areas of forest set aside or protected by government or local authority (Forestry Commission, 2020). They are also portions of lands where commercial harvesting of wood products is excluded in order to capture elements of biodiversity that can be missing from sustainably harvested sites (Amanor, 1996). Forests that are controlled by law or the customs of a group of people are referred to as closed forest or reserved forest (Forestry Commission, 2020). The Global Forest Watch (2021) also defines forest reserve as portions of forested lands where human activities such as commercial harvesting of wood products, mass farming, and sometimes game hunting is prohibited so that elements of biodiversity can be sustained. Thus, reserves are established primarily to protect and preserve forest resources.

Reserves are protected by law or customs (Acheampong, et al., 2019; Amanor, 1996). There are legal sanctions for any infractions or breaches of law regarding forests that are protected by laws. They include fines or imprisonment or both by appropriate bodies such as the Forestry Commission or a court of law. Customary preserved forests are preserved with traditional laws and principles such as customs, history and usages of a group of people. Offenders are punished by the traditional authorities; and in some cases, there is the belief that the gods in the forest will deal with offenders. These traditional laws helped protected most West African forests before political authorities came in later (Acheampong, et al., 2019).

Forest reserves give employment to people. From those who are employed to protect and maintain it to environmental courts set up to trial cases of breach or trespass, reserves help reduce unemployment. The Mayan Biosphere reserve in Guatemala is said to have provided about 7000 jobs to people (Ramcilovic-Suominen, 2012). Reserves also help enhance government and state revenue. Some reserves are opened for tourists. Fees paid for patronising such tourist sites help stimulate local economies of the areas they are located. Others also give huge revenue to their respective governments (Global Forest Watch, 2021). Reserves are also important for medicinal purposes. Owing to the fact that forests are rich in plants used for herbs, particular areas containing such herbs may be protected by the state. The Aburi botanical gardens in the Eastern Region of Ghana was set up by Governor William Brandford-Griffith and Dr. John Farrel Easmon in 1890, among many reasons, to enhance the healing process of servicemen who had been wounded (Parren & Graaf, 1995). Also, some reserves contain sacred sites. This is mostly found in West Africa where the belief in

gods and spirits are high. The Osun-Oshogbo sacred groove in Nigeria is a good example (Amanor, 1999).

The benefits derived from forests and forests reserves are enormous that every country endeavours to have vegetation cover, including Ghana. Renowned forest reserves across the globe include the Amazon forest, North East Greenland National Park in Greenland, Tongass National Forest in Alaska (USA), Coconino National forest in Arizona (USA), The Namib-Naukluft National Park in Namibia which is the largest reserve in Africa, the Yamba Berte Forest reserve in Sudan, and the Guinean Forests of West Africa (USAID, 2021; World Data Base on Protected Areas, 2020). Ghana also has several forests reserves as discussed in sub-topic 2.1.2.

### **2.1.2 Forest Reserves in Ghana**

Portions of Ghana's high forest zone are under reservation. Communities in pre-colonial Ghana collectively owned the lands and forests of their area. Colonial governments enacted laws and established institutions to control and regulate forest use in the then Gold Coast. Traditional leaders became mere custodians of the lands and forests which hitherto were theirs (Amanor 1999). Kotey et al (1998) note that forest reserves were institutionalised under colonial rule to protect selected lands and forests in the early 1930s. The Concessions Act of 1962 put all naturally-occurring timber trees under the control and management of government through the Forestry Commission (Amanor, 1999; Boateng et al. 2009). And currently, the area of Ghana's forest under reservation is about 1.77 million hectares, of which 1.634 million ha is managed by the Forestry Department (Forestry Commission, 2020).

Forest reserves in Ghana under the Forestry Commission have been categorised. Some of the categories of reserves in Ghana include timber production area, purposely for growing logs; permanent protection areas, including hill sanctuaries, swamp sanctuaries, special biological protection areas, intact forest, sanctuaries and fire protection areas; convalescence areas, those with reduced stocking due to over exploitation and bush fire, but which are considered capable of naturally returning to productive forests; and conversion forests, those with very few residual natural trees and as such they require tree planting (Forestry Commission, 2020; Kotey et al., 1998).

In Ghana, forests are preserved to protect biodiversity as exemplified in the creation of national parks such as the Kakum National Park, the Bonfo Bobiri forest, and the Mole National Park. Such forests provide an excellent habitat for numerous species of flora and fauna, and generally help to maintain the biological diversity. Forest reserves in Ghana also provide a very good environment for recreation and wildlife based tourism. As stated by the Forestry Commission (2020), the Kumasi Zoo at Kejetia attracts several tourists in a year. Tourism also fetches foreign exchange for the country. When people patronise tourist sites including plant-only reserves such as the Pra-Anum forest reserve and the Achimota forest reserve, the gate fees and other fees they pay in using the facility gives government revenue. Though agriculture is generally not permitted within these reserves, a few portions of them were alienated "as admitted farms" at the time of gazetting the reserves. Production of annual crops also takes place within some degraded reserves. This is part of the "Taungya system", in which farmers are allowed to cultivate food crops on forest lands; and in return, the farmers must plant trees on such farms for the Forestry Department under strict supervision (Boateng, et al., 2009; Forestry Commission, 2012). Under these systems, the farmers cede the

ownership, control and harvest rights of the trees to government when they grow. The rights to harvest the trees are given mostly to timber firms that can incur the cost attached to acquiring the rights. Farmers and other people living in forest zones do not have the right to cut the trees without official permission when they grow (Acheampong, et al. 2019; Forestry Commission, 2020; Yalley et al., 2021).

Forest reserves in the Ashanti region where the current study was conducted is shown in figure 2 below:

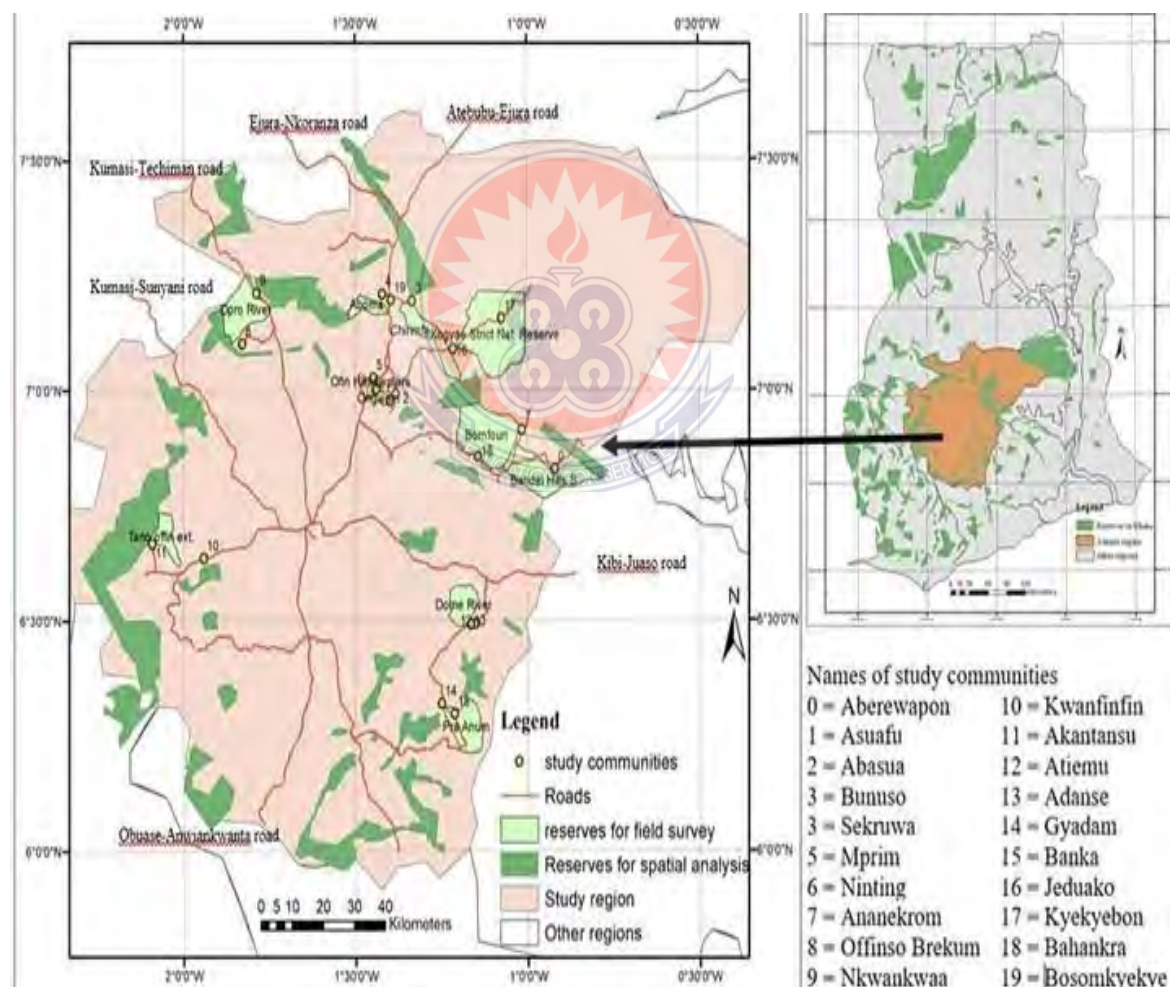


Fig. 2. Forest reserves in Ashanti Region


### **2.1.3 Forest Depletion in Ghana**

Generally, environmental depletion is the running down of resources that supports the earth and its systems (Arcilla, et al., 2015). Environmental depletion is caused by factors such as mining, intensive farming, industrial pollution, excessive burning, and oil spillage, among others. The rate of environmental depletion world over is becoming so alarming that scholars, writers and environmental management practitioners fear that it might not be able to support human life and activities if unchecked (Arcilla, et al., 2015; Barrow, 1999; FAO 2020). The atmosphere, water bodies, air, land, vegetation, and natural resources are all affected through natural occurrences and human activities including bush burning, excessive lumbering, wrong fishing procedures, rampant carbon emission into the atmosphere, open defecation and incessant throwing of filth in drainages (UNEP, 2008).

One of the basic forms of environmental problems in the world and Ghana in particular is forest depletion. Generally, forest depletion is the reduction of vegetation cover due to cutting down of trees or vegetation cover of an area (FAO, 2020; Forestry Commission, 2020). Pimm (2020) defines forest depletion as the clearing or thinning of forests by human beings for wood products, for croplands or for grazing lands. It is also defined by youmatter.com (2020) as the decrease in forest areas across the world that are lost for other uses such as agricultural croplands, urbanization, or mining activities. Forest depletion can be a complete destruction of the forest where all the trees are removed from the forest or partial removal where some of the trees are thinned out to change the original forest structure (Pimm, 2020). Forest depletion may also be referred to as deforestation (Forestry Commission, 2020; Pimm, 2020).



Wagner and Cobbinah in 1993 estimated that Ghana's forest cover at the beginning of the 20<sup>th</sup> century was about one third of its land area of 238,500 km<sup>2</sup>; this translates to about 7,950,000 ha. However, studies show that the size of forest in Ghana has depleted hugely (FAO, 2015; FC, 2008). Ghana's tropical forest is one of the severely threatened tropical forests of the Guinea Forest Region of West Africa (Arcilla et al, 2015). Expert reports put the annual depletion rate of Ghana's forest at an alarming rate of 2.1% (FAO, 2010). This means that about 115,000 hectares of Ghana's forest is depleted annually. With a rate of 2.1%, Ghana has one of the highest deforestation rates in Africa and the whole world (UNEP, 2008). Ghana lost 27% of its forest cover and woodland between 1990 and 2005 (UNEP, 2008). At the current depletion rate, environmental management practitioners fear that Ghana's forests could completely disappear in 25 years (Boafo, 2013). ForestTrust (2021) notes:



An area of rainforest about half the size of Chicago (USA) is lost to deforestation. Countless species which are relied on by habitat is destroyed; and homes and livelihoods of millions of indigenous communities are threatened. Millions of tons of stored carbon are released, disrupting our already fragile climate (p. 4).

With the rate of forest depletion and the fear of the Ghanaian forest disappearing in the next 25 years as Boafo (2013) indicates, it is relevant to investigate the laws and policies which have been enacted to conserve the forest and how they (the laws and policies) are communicated to users of forest products and people living in forest zones. It is also important to know the causes of the depletion of the forest in Ghana.

### **2.1.3.1 Causes of Forest Depletion in Ghana**

Forest depletion is mainly caused by two phenomena, human activities and natural occurrences. Natural causes such as hurricanes, floods, volcanoes, parasitic attacks, droughts and climate change have had little effect on forest depletion in Ghana (Acheampong et al,

2019; Forestry Commission, 2020). It is estimated that human activities have degraded about 85% of Ghana's forest (Acheampong et al, 2019). Some of the major human activities that have aided forest depletion in Ghana include residential, civil, and industrial construction. Few to several hectares of lands are cleared before the erection of physical infrastructure such as buildings, roadworks, dam, and other construction activities (UNEP, 2008). Most Ghanaian farming activities lead to clearing the vegetation and cutting of trees before food crops are planted. Acheampong et al (2019) state that agricultural expansion alone caused 78% of the deforestation in the Ashanti Region. Pimm, (2020) asserts that 'slash-and-burn' agriculture or 'swidden' agriculture is a major contributor to deforestation. Cocoa farming, one of the major forms of farming in Ghana, also leads to high deforestation rate in Ghana (UNEP, 2008). Rampant bush fires through hunting expedition or farming have also led to the depletion of forest areas of the country. In addition, Indiscriminate and unsustainable logging of trees for timber and non-timber forest products have been another cause of forest depletion (Arcilla et al, 2015). The demand for charcoal and fuelwood is high because most households in Ghana rely on them for cooking and other domestic activities (PHC, 2021).

In addition, other causes of deforestation include unregulated grazing. Several forest lands have been consciously cleared by herdsman so their herds can feed on the fresh germinating vegetation. Other forests have been unconsciously degraded by the grazing animals themselves (Pimm, 2020). Unguided mining activities have degraded the soil catena of most parts of the world. Ghana has also had its share of land depletion from mining activities, especially surface mining referred to as land 'galamsey' (UNEP, 2008). UNEP (2008) states that the Wassa West District in the Western Region of Ghana harboured the greatest concentration of mining activities in a single district in Africa from the 1980s to early 21<sup>st</sup>

century. This, to the organization, led to the significant degrading of the Wassa West tropical rain forest. Constant deforestation, in addition to other factors, has aided the process of desertification in Ghana. UNCCD (2002) indicates that one-third of the land cover of Ghana is already affected by aridity with features such as lowered water tables, river siltation, and seasonal streams with increased flooding when it rains.

It is evident that human activities such as farming (Acheampong, et al, 2019), indiscriminate and unsustainable logging of trees for timber and non-timber forest products (Arcilla, et al, 2015), high demand for charcoal and fuelwood (PHC, 2021), wanton grazing (Pimm, 2020), surface mining (UNEP), and civil and industrial construction (UNEP, 2008) have been the main causes of the depletion of Ghana's forest. Many organisations and authorities are reiterating a quick solution to end deforestation and desert expansion in order to conserve the forest left, due to fears of the consequences that come with forest depletion. If not, then the effects of forest depletion in Ghana as discussed below shall linger in the country for many years and might lead to a catastrophe.

### **2.1.3.2 Effects of Forest Depletion in Ghana**

Forest depletion has created several negative outcomes. The forestry commission of Ghana (2008) reports that there is gradual reduction and possible extinction of some trees and plants in the Ghanaian forest. To Barrow (1999), biological diversity is lost when extinction of tree species exceeds the rate that the species are created. He further expresses that though extinction is a gradual natural process, humans have greatly accelerated the rate of this form of extinction in modern times such that biodiversity has become one of the topmost challenges facing environmental practitioners. Pimm (2020) asserts that the reduction or total loss of biodiversity through deforestation makes it impossible for the forest to support nature

that relies on it for oxygen, including humans and animals. This leads to a disequilibrium in the ecosystem. Destruction of the vegetation cover leads to destruction of the natural habitat of wildlife. Some wildlife animals are reported to be on the threat of extinction because of destruction of their natural habitat. The animals are exposed to human and other animal hunters that prey on them (Forestry Commission, 2008).

Forest depletion also affects the weather and the climate of an area. Vegetation cover plays a critical role in the climatic and weather conditions of an area. The depletion of vegetative cover alters the climate and breed greenhouse effect and global warming (Pimm, 2020). Environment management practitioners believe that depletion of forestlands has led to the decline of the level of water content in the soil. It also leads to decline in the volume of fresh water bodies that support human life and activities (Forestry Commission, 2008). Most water bodies have declined and some have become seasonal, becoming active only in the rainy season. The decline in water content from the soil does not support the existence of biodiversity. FAO (2020) posits that deforestation made countries such as Ethiopia and Eritrea experienced drought for more than three years. This has affected farming and subsequently food production. There is food shortage resulting in high prices that heightens the food scarcity in such regions.

Arguably, majority of people living in forest zones such as the Pra-Anum forest zone, with all the features stated in this study, might not know that climatic change, reduction of the volume of fresh water in water bodies and food shortage emanate from forest depletion. They, thus, might not see any reason in restricting their activities such as farming, surface mining, bush burning and charcoal burning. There is the need to communicate the effects of forest depletion to people, especially communities in forest zones so as to preserve the forest.

This current study looks at the ways in which the communication of forest conservation is conducted, especially to people living in forest fringes. In studying how forest conservation policies are communicated to communities in forest zones, it is essential to look at policies and programmes used by authorities to conserve forest in Ghana.

#### **2.1.4 Forest Conservation Policies and Programmes in Ghana**

Concerns have been raised on the rate at which the environment is getting depleted. International and local conferences on environmental depletion have been organised worldwide to look into the causes (current and emerging), effects and possible solutions to it. Many successive governments have implemented environmental campaigns to curb forest and other resource depletion. Environmental campaign can generally be expressed as a strategic course of action which is undertaken for a specific purpose such as protecting the environment. Such campaigns are waged to bring about a concrete outcome which include not only policy but strategies, tools and personnel to advance those strategies and achieve the intended outcome (Cox, 2010). The United Nations Conference on the Environment, held in Stockholm, Sweden, between 5<sup>th</sup> and 16<sup>th</sup> June, 1972 was the first major world conference on the environment. It led to the creation of the United Nations Environment Programme (UNEP), a mother body that spearheads the management of the environment on the international scale. The Stockholm Declaration, with its 26 principles, and other charters from international bodies and conferences were all organised to find possible and amical solutions to the fast-depleting vegetation cover in the world (UNEP, 1972).

Until 1994, regulating access to forest or the use of forest products was a major challenge to environmental management practitioners, government and regulating bodies in Ghana. This

is because there was no detailed, clearly defined and standard forest policies that specified the objectives and the strategies and tools to help maintain the forest of Ghana (Forestry Commission, 2008). Indiscriminate cutting of trees and rampant clearing of the vegetation cover were so high that Ghana lost several hectares of land (Boateng, 1994). The first official national policy to help protect the forest of Ghana was rolled out in 1994 (Forestry Commission, 2008). It was called the Forest and Wildlife Policy. Its focus was to address tree cutting and forest degradation in Ghana. Later in 1996, the Forest Development Master Plan (FDMP 1996-2020) was also implemented to enhance the development of private plantation in Ghana and help protect the existing forest and resuscitate depleting ones. The Forest Plantations Development Centre (FPDC) was created in the Ashanti Region to spearhead the forest resuscitation programme. The FPDC was part of the FDMP. In addition, the Forest Development Fund was also established to entice private individuals, groups and corporate organisations to come on board to protect the remaining forest, and plant more trees (Acheampong, et al., 2019). Moreover, the Environmental Protection Agency Act passed in 1994 (Act 490) was also enacted to support existing laws and policies in protecting the forest.

The Environmental Protection Agency Act, 1994 (Act 490) buttresses the forest protection policies such as CIFOR (2009) and FC (2008) in protecting the forest in particular and the environment as a whole. The Ghana Environmental Assessment Capacity Development Programme (GEACaP) was also launched to monitor and ensure the implementation of environmental regulations by relevant institutions. Also, GEACaP provided environmentally friendly guidelines to aid in making sectors such as manufacturing, transportation, construction and services, agriculture among others to comply with environmental

regulations and help protect the vegetation. Ghana as a signatory to international conventions such as the United Nations Environmental Programme (UNEP, 1972) that protect the forest. Thus, successive governments have endeavoured to implement the provisions of such conventions. The UNEP (1972) was one of the outcomes of the United Nations Conference on the Human Environment which was held in Stockholm, Sweden. The United Nations Conference on the Human Environment was the first major conference organised by the United Nations to bring world leaders together to proffer ways of sound management of the environment. Series of principles, 26 in all, including the Stockholm Declaration and Action Plan for the Human Environment and the UNEP, were adopted at the Conference. Themes such as Awareness, Protection/Prevention and Motivation are outstanding in most of the principles. Miller (1994) buttresses these themes through his discourse on the mechanisms for forest conservation which include persuasion, coercion (legal requirements and restrictions), and financial inducement (grants, tax incentives). The Conference marked the beginning of the discourse on the relationship between the environment, economic growth and the wellbeing of global citizens. Benhin and Barbier (2000a) looked at the impact of the implementation of the Structural Adjustment Programme of 1983 on the forest in Ghana. They found that the rampant clearing of forest for farmlands to produce more food to meet the demands of a hungry population caused government to implement drastic measures to protect the forest, some of which were highly opposed by the affected people.

Environmental campaigns such as forest conservation have particular features. Using the features identified by Rogers and Storey (1987) which include: clear purpose; the ability to yield an intended result; aimed at a large audience; organised effort that goes beyond interpersonal efforts of one or a few people to persuade another person or a small number of

others; a specifically defined time limit; and, involves an organised set of communication activities. The communication activities in a campaign are particularly evident in message production and distribution. The inability to adhere to such features will make a campaign very challenging.

Many state institutions, and international governmental and non-governmental actors have all been involved, one way or the other, in the enactment and implementation of policies and programmes aimed at protecting the environment as a whole and forests in particular. The ‘Greening Ghana’ programme which is a national programme to plant trees all over the country is an example of forest conservation programme. Several writers were, however, silent on how environmental campaigns were communicated to Ghanaians, especially the direct users of forest products such as communities in forest zones. Amanor, (1996) posits that there might have been communication gaps and other challenges in the various campaigns, and therefore, making the campaigns face several challenges.

The current study investigates the content and implementation of forest conservation policies in forest-fringe communities in Ghana. It was also conducted to examine how these policies were communicated to communities in forest zones. The review of forest conservation policies in Ghana serves as a guide to the current study. In spite of the several policies and programmes outlined by state authorities to help conserve the environment, implementation agencies and bodies encountered challenges.

#### **2.1.4.1 Challenges facing implementation of Forest Conservation Ghana**

Notwithstanding the policies and programmes by government and other stakeholders to regulate forest use in Ghana, there are still some challenges. The rate of deforestation in Ghana is still high. The Forestry Commission (2020) states that there is still wanton cutting



of trees and clearing of the vegetation; and that deforestation is very high. Same sentiment was expressed by Barrow (1999, p.129) as follows, “In the 1990s many people realised that there were growing problems caused by human activities and threats from nature; some argue there is a crisis—a point at which appropriate action must be taken to avoid disaster.” The failures in the environmental campaigns raise questions as to why they failed. Boateng, et al (2009) assert that the government imposed foreign conventions of protecting the forest on the people in the 1990s. Thus, the difficulties in the implementation and seemingly near failure of such policies. Some schools of thought assert that government could have localised the foreign conventions to be adaptable to the local people (Amanor, 1999).

Forest conservation policies lack the stakeholder participation of local people. Alhassan (2010) argues that the 1994 forest and wildlife policy was emphatic on the inclusion of communities close to forest reserves in the decision making, implementation and management of the forest and wildlife resources in the country. This, however, did not happen in practice (Adom, 2017). Firstly, Derkye (2007) states that the inclusion of locals in the decision making on forest conservation and management of the reserves was a scam; a paper presentation to satisfy the demands of donors to bring more donations, and also satisfy international charters and global conventions that the country has ratified. Secondly, there is inadequate factorisation of cultural practices and local beliefs in the decision making process. The approach to conserve the forest and combat attack on biodiversity by government institutions nearly failed because of the neglect of indigenous cultural beliefs and practices (Adom et al., 2016; Adom 2017; Golo & Yaro, 2013).

Lack of strong implementation strategies is also another factor hindering the successful implementation of forest conservation policies (Adom, 2017). Weak legal frameworks and

implementation agencies led to the failure of the 1948 forest policy. The inability of enforcement of the policy led to mass depletion of forest reserves because the allowable-cut clause in the policy could not be enforced (Ankomah, 2012). Corrupt practices by law enforcement personnel have also led to breakers of forest laws not being punished (ClientEarth, 2021; Oduro, 2011; UNEP, 2008). In addition, there is no provision of sustainable alternative sources of livelihood for local residents who are debarred from using the forest the way they wanted (Adom, 2017). Indigenous people living in forest zones use the forest for several reasons such as small-scale farming, logging, hunting, fuel-wood and herbal medicine (Ghana Statistical ServiceS, 2012). Barring them or limiting their use of the forest has denied such people the freedom to enjoy the forest resources and soaring their poverty level (Adom, 2017; Cobbina et al., 2015). The local people, hence, fight the forest guards and breach the forest conservation laws. This makes the implementation of forest conservation policies very difficult.

Lastly, there is poor dissemination of forestry and wildlife policies to local communities. While local people are side-lined during discussions and consultations that lead to decisions on forest conservation, public education of these forest conservation policies are not publicised to them either (Adom, 2017). Ankomah (2012) notes that, sadly, some forestry officers do not even know the laws and policies guiding the usage of the forest, let alone educate people on it. He states that about 20% of officers from the Forestry Commission who responded to the questions in his study were not familiar with the content of the 1994 forest and wildlife policy. This, he explained, has hindered the dissemination of forest conservation laws in forest zones. However, it is the inhabitants of these zones that need to know and abide by these conservation laws the more.

The challenges in the implementation of forest conservation policies might have come from policy failures. They might have also occurred because the people for whom the policies were enacted did not understand such laws. Policies, like any other phenomenon, should be a shared experience (Ansu-Kyeremerh, 1998), which occurs through communication. The inability of institutions to efficiently and effectively communicate policies creates challenges in their implementation.

One important phenomenon that past studies have shown to effectively helped in policy implementation is communication (Khan, 2022). Reviewing literature on the challenges associated with the implementation of forest conservation policies will help situate the findings of the current study on how communication plays a significant role in the implementation of forest conservation policies in forest fringe communities.

### **2.1.5 The Concept of Communication**

The word communication is derived from the Latin word ‘communicare’ which means to impart, to participate, to share, or to make common (Khan, 2022). Communication is generally seen as the exchange of information between two or more parties. For the purpose of this study, three models of communication would be looked at: The Stimulus-Response model of communication, the Process model of communication and the Transactional model of communication.

The stimulus-response model states that conditioning is a result of stimulus-response connections. The theory was modelled on how dogs were conditioned by Pavlov to salivate anytime they heard a bell ring (). The theory is, thus, based on the assumption that human

behaviour is learned. This can be translated into human beings being conditioned through communication to get an expected feedback. The stimulus-response model of communication is captured in the American Management Association's (2022) definition of communication as any behaviour that results in an exchange of meaning. Scott (2015) also defines communication as the process which involves the transmission and accurate replication of ideas ensured by feedback for the purposes of eliciting actions which will accomplish organizational goals. The model suggests that response becomes frequent and predictable in a specified environment through reinforcement; that is, response occurs with increasing regularity. It is seen as getting a purposive behaviour out of an action taken (Watson, 1924; 1929). Thus, enforcement of forest conservation policies is the stimulus resulting in desired response such as preventing communities in forest zones from misusing the forest products. Thorndike, on the other hand, argues that response can differ to same stimulus under different conditions. He asserts that responses to action or policy can change over time due to several conditions including the approach, and perceived consequences (reward or punishment). Practically, Thorndike's assertion implies that forest conservation can result in different behaviours among communities in forest zones due to other factors.

Communication is also an information sharing process (Neves & Eisenberger, 2012). One of the ways that information is shared under the process theory is the one-way process of communication. Developed by Shannon and Weaver (1949), communication denotes when a sender sends information to one or more receivers. The emphasis here is on the flow of communication where the message is the subject which is disseminated by a sender to receivers. Though the one-way process of communication has been the basic form of communication, critics see it as non-responsive and non-interactive (Ruler, 2018). Another

form of communication as a process is the two-way communication. The two-way process dwells on not only interaction but feedback system (Neumann, 2008). Communication, hence, is a two-way affair involving a sender, message and a receiver (Schramm, 1954). The scope of modern day communication is expanded into a multidimensional process which goes beyond the traditional sender, message and receiver. This is another form of the process of communicating referred to as the omnidirectional diachronic process of meaning development. Modern day communication involves feedback, and is much more than message exchange, information flow or providing information about people's work (Khan, 2022). Under the omnidirectional diachronic process, "interaction becomes a dynamic interplay between actors in their roles as senders and receivers, which influences the consequences of the communicative transactions at a fundamental level" (Ruler, 2018, p. 373). The process model goes through steps such as idea formation, encoding, channel selection, decoding and feedback (Barnlund, 1970).

The transactional model describes communication as a process in which social realities are generated by communicators within social, relational, and cultural contexts (Barnlund, 1970). Created by Barnlund (1970) based on Max Weber's (1947) work, the transactional model of communication was used to explain basic interpersonal communication. Barnlund (1970) argues that linear communication resembles mediated messages which only involves message creation, message sending and message receipt. Barnlund (1970), thus, states that feedback is important in communication. Hence, information is sent and received simultaneously. Under this concept, communication is not just done, but it is done to create relationships, form socio-cultural affiliations, create communities through dialogue, and shape self or group concept. The main components of the theory are cues which includes

public, private and behavioural cues. The theory argues that people are given what they want to solicit for. It also posits that people are not self-motivated to achieve certain results unless they are guided with conditions such as structure, instruction and monitoring. These conditions are expressed as ‘stressors’ (Lazarus, 1966). Stressors are demands made by the internal or external environment that upset balance, thus affecting physical and psychological well-being and requiring action to restore balance (Lazarus & Cohen, 1977).

The efficiency and reliability of message being communicated under transactional communication is dependent on the medium used for the communication. Examples of transactional communication include a face-to-face meeting, a chat session, and a telephone call. The theory recognises noise as things that interrupt communication flow. These include the physical (home, office, etc.), physiological (body reaction to environmental occurrences), psychological (mind’s reaction to environmental occurrences), and semantic noises (understanding and interpretation of the information sent (Wrench, Punyanunt-Carter, Thweatt, 2021). Principles of the transactional model include i. communication is complex, ii. Communication is continuous, and iii. communication is dynamic (Wrench et al., 2021). The disadvantage of the transactional model is that it is complex. It also suggests that the sender and receiver should automatically understand the messages that are exchanged between them.

The forms of communication include verbal, non-verbal and written communication. Verbal communication is the production of sound such as spoken language to send an intended message to a receiver (listener). Verbal message uses voice or sound. Verbal communication provides complete understanding of the intended message; believed to be one of the fastest and easiest modes of communication; allows speakers (sender) to exercise influence and

persuasion; and is flexible (Khan, 2022; Terry, 2022). Non-verbal communication is the transmission of messages or signals through modes such as the eyes, gestures, posture, facial expressions, and body language (Khan, 2022). Non-verbal communication is also explained by Nowicki and van Buskirk (2022) as the transfer of information on needs, thoughts, feelings, and emotions without verbal action. The content and effectiveness of both verbal and non-verbal communication are affected by socio-cultural factors such as language (American Management Association, 2022).

Other forms of communication are formal and informal. Formal Communication is backed by predefined channels while informal communication has no such channels. Formal communication follows a set of commands which is not so with informal communication. Informal communication can move in every direction freely. Again, while formal communication is designed at the organizational level, informal communication occurs naturally. While formal communication has a long command chain, informal communication has a short command chain and is simple (Khan, 2022). Types of formal communication include downward or top-down (from superior to subordinate), upward or bottom-up (from subordinate to superior authority), and horizontal/lateral communication (between persons or employees of the same status/level) (Khan, 2022). Informal communication includes the single-strand network. This is a form of communication in which one person says something to another who also informs the other as the process continues. Another form of informal communication is the gossip chain. This form of communication happens when a person tells a group of people something to be spread to other groups until the information gets to everyone. Probability chain of informal communication happens when one person selects some persons from a group and transfers information to them, then they in turn share the

information. Cluster chain informal communication occurs when groups share information among themselves (Khan, 2022).

Communication can be conceptualized as the exchange of information within an organizational or project setting (American Management Association, 2021; Khan, 2022). Shabani (2021) notes that communication is about relationship and creating a respectful atmosphere for all the people within an organization or a project setting. This means that communication is about integration of phenomenon. Communication is also about instruction. While the communicator transmits with necessary directives to enable them accomplish a particular goal when sending information, the receiver needs to abide by the directives attached with the message before they can equally understand the message as it was sent (Khan, 2022). That is didactic communication. Beside the instructor-learner type of communication is the dyadic form which is the inter-personal communication between two people or entities. Dyadic communication has elements such as intimacy, immediacy and proximity. Again, communication involves evaluation. Examining activities to form an idea or judgement of the worth of an assigned task involves communication. Hence, communication is a tool to help appraise an individual, a team, or a concept team, and determine their relevance. Common barriers to communication include the type of communication style, socio cultural factors such as language difference or orientation (Khan, 2022).

Ansu-Kyeremeh (1998) explain that communication is a shared experience. Communication, hence, creates effective avenues to achieve the common goal through collective solution of social issues. Communication also projects the ideals, collective objectives, and general usages of a group (Singh (2017). Some scholars advocate that effective communication with



people and their active participation in the activities affecting them are essential for all developing societies (VanPatten, 2017). Wilkins III and Aguiar (2020) argue that effective communication occurs when the intended receiver is involved in the communication process, from the planning and designing to the delivery stages. For instance, in a community where a bore-hole water is to be constructed, the people in that community should be consulted first on their needs and preferences. When the community accepts that they need a bore-hole water, they should be involved in all the processes, from site searching and allocation, drilling, and to the management of the water when completed. Else, the people might not even patronise the water when it is completed. Wilkins III and Aguiar's (2020) argument buttresses the assertion by Singh (2017) that the ability to effectively involve a group of people in the communication of an idea or information that affects them is essential to the success of that idea or information. Wilkins III and Aguiar's (2020) argument is, however, contested by **Pereira and Hone (2021)** on the basis that it is not only the involvement of affected stakeholders that makes communication effective, but other factors such as the strategies and medium of communication also count.

The concept of communication is a shared responsibility (Ansu-Kyeremeh, 1998) that empowers people and groups through their involvement in issues affecting them (VanPatten, 2017). It also involves channels and strategies through which the intended recipients of the message or information are reached (Pereira & Hone, 2021). Communication may also be used to empower a group of people to tackle the challenges facing them or help change their society. This is referred to as communication for social change and it is thoroughly discussed in sub-heading 2.1.5.1.

### **2.1.5.1 Communication for Social Change**

Communication for Social Change refers to the phenomenon where individuals or group of people use dialogue and participation for the purpose of creating cultural identity, trust, commitment, ownership and empowerment (Figueroa, et al, 2002). Pradip (2019) defines Communication for Social Change as the process in which people use dialogue to define who they are, what their needs and wants are, and how they can collectively meet those needs in order to improve their lives. IlluminAid (2020) also defines Social Change Communication as the attempt to change the behaviour of a group of people by influencing their knowledge, attitudes and social norms through a singular or variety of communication techniques. Social Change Communication can occur through various processes including externally generated change, individual behaviour change, social influence, community dialogue and collective action.

One of the challenging questions under Communication for Social Change is how to know when communication for social change is working (Melkote & Steeves, 2001). Though professionals traditionally measure communication effectiveness with the end-products or outcomes, communication for social change is valued as a process in itself. The act of community problem identification, group decision making, action planning, collective action and implementation are critical to how a community grapples with a serious issue (Ansu-Kyeremeh, 1998). Melkote and Steeves (2001) posit that the social change process starts with the identification of a problem. If community dialogue and collective action are implemented systemically, there would be not only an improvement in the phenomenon, but also an increase in the community's sense of collective self-efficacy, a sense of ownership, some level of social cohesion, and a collective capacity. One criticism against

communication for social change process is that it lacks systematic competence. This is validated by the lack of unified and consistent common framework (Mefalopulos, 2008).

Moemeka (2009) iterates that any action taken to reduce or eliminate the problems of rural populations is communication for social change. He states that the end result of communication for social change is to solve the challenges confronting people. He also states that the most important action in solving societal issues would be the setting up of an interactive communication system in order to build understanding and create active participation among people. Moemeka's (2009) explanation of communication for social change adds to Mefalopulos's (2008) idea on communication for social change as supporting sustainable change by engaging key stakeholders. Selecting the type of participation that best fits a group of people in solving their challenges is puzzling because there are several forms of participation (Pradip, 2015).

The Communication Initiative (2007) explain communication for social change as:

Communication for social change is social process based on dialogue using a broad range of tools and methods. It is also about seeking change at different levels including listening, building trust, sharing knowledge and skills, building policies, debating and learning for sustained and meaningful change. It is not public relations or corporate communication (page 3).

The current study looks at how forest conservation policies are communicated to communities in forest zones. Using communication to change the ills of society can also be extended to include taking a critical look at how communication can help in managing the environment of which forests are part.

### **2.1.5.2 Environmental Management Communication**

Generally, environmental communication is referred to as information dissemination and the implementation of environmentally related communication practices. It is defined by Loureiro (2017) as a planned and strategic use of communication to support the development of effective policies and the implementation of projects and programmes that help sustain the environment. Environmental communication is also referred to as ‘Environmental Management Communication,’ and they are used interchangeably to mean similar phenomenon. Effective environmental management communication campaign such as communicating policies on forest use to communities in forest zones should have a clear objective, a clearly identified decision maker, and a strategy to persuade the primary decision maker to act on its objective (Cox, 2010; Yang, 2022).

Swarnakar, Shukla, and Broadbent (2021) state that communication is important in environmental management because it links the elements involved in the process and enhances the realisation of proposed actions. This means that environmental communication creates opportunities for communities affected by policies or programmes implemented to effect some level of changes in their vicinity. Environmental communication creates opportunity for three basic rights of citizens: awareness, right to information, and right to active participation (Loureiro, 2017; Yang, 2022). In the United States of America, for instance, the National Environmental Policy Act (NEPA), which was passed in 1969 and signed in 1970 allows citizens the right to know what is happening in their area with regards to the environment (Cox, 2010; NEPA, 1970). In Ghana, The Environmental Protection Agency (2002) policy gives people insight into environmental issues. Members of a community have the right to be aware of the environmental condition of their area. According

to Willoughby and Smith (2016), environmental communication aims at increasing public awareness on environmental issues and influencing more environmental friendly and savvy attitudes in individuals. In extension, policies on forest use and conservation should be communicated to people in forest zones with the aim of increasing public awareness on forest issues and influencing more forest-friendly and know-how attitudes in individuals in forest zones.

Information on environmental use in general, and on forest use in particular, should be available to members of communities where environmental policies or programmes are effected (Palm, Bolsen & Kingsland, 2021). Making information available to people affected by environmental actions and inactions creates awareness and makes them also feel part of the process (Willoughby & Smith (2016). Finally, citizens have the right to participate in environmental activities, from decision making through the implementation process to the evaluation stage (Yang, 2022). This means that whether active or passive, an individual or group of people have the right to participate in any activity affecting the environment in which they live. For people to observe the policies or not, communication practitioners believe that they (the people the policies affect) should be involved in the process. This gives communities a say in the decision making and actions or inactions concerning the environment. The most frequently used modes of individual citizen communication on environmental matters are; i. comments to agencies, including testimony at public hearings; ii. participation on advisory panels, and iii. collaboration with other parties with interest in an environmental decision (Palm, Bolsen & Kingsland, 2021; Yang, 2022).

The Aarhus Convention is known for its guarantees of public participation in environmental matters. Adopted in 1998 in the Danish city of Aarhus, the Aarhus Convention was described

by the United Nations Economic Commission for Europe (UNECE) as a "new kind" of agreement, linking environmental rights and human rights (UNECE, 2008). The tenets of this convention constitute three principles: Access to information; ensuring public participation; and the public's access to justice. The first two principles reinforce the principles of environmental communication as espoused by NEPA. A third principle, the right to justice, gives individuals and groups affected by environmental decisions the right to access the legal system (Ma & Hmielowski, 2021). Environmental management communication uses techniques and strategies in the dissemination of information. Some of these techniques and strategies are elaborated below.

#### ***2.1.5.2.1 Strategies and Techniques Used in Environmental Management Communication***

Forest conservation policies, like every environmental campaign, have techniques and strategies used in their dissemination. A communication strategy is a plan for delivering a message to an identified target audience (Singh et al., 2014; Yang, 2022). Three important factors that determine the success of a communication strategy is the audience, the message, and the channels through which the message is delivered. There are internal and external communication strategies. Internal communication is the exchange of information and ideas within the organization. External communication strategy deals with a plan to reach an audience outside of an organization. The goal of external communication is reach and influence the outside world with a message. The External communication strategy is appropriate for this study. Communication technique, on the other hand, is the process of conveying, exchanging, or sharing information (Marketing91, 2021). Some basic communication techniques to use in disseminating information on forest conservation policies include having a concise and clear message, showing empathy to the receivers,

focusing, establishing trust, making observations, seeking clarification, open mindedness, taking feedbacks, and attentive listening (Marketing91, 2021; Yang, 2022).

Communication strategies and techniques used to disseminate policies on environmental management vary depending on the sector and the type of management policy to be disseminated (Muchunku et al., 2014). However, the basic communication strategies and techniques used in disseminating policies on environmental management, including forest conservation, comprise of radio, television, the press, community gatherings/fora, outdoor advertisement, one-on-one interactions, social media, and community information dissemination centres (Kalungu et al., 2013). Muchunku et al., (2014) and Singh et al., (2014) argue that when information is communicated to local communities in their indigenous dialect, it is easy for such communities to comprehend and relate to the information been communicated.

Studies show that information mostly originates from the mainstream state entities (Yang, 2022) but reaches the public through several means including radio, television, the press, community gatherings/fora, outdoor advertisement, one-on-one interactions, social media, and community information dissemination centres (Muchunku et al., 2014; Singh et al., 2014). It is also posited that using indigenous dialect to share information appears to be the most effective means of environmental management communication such as communicating forest conservation policies to communities in forest zones (BBC World Service Trust, 2010; Kalungu et al., 2013).

The following segment of the review discusses the theoretical underpinnings of the study. Advocacy theory and Participatory Communication theory are examined to provide a better understanding of the findings of the study.

## **2.2 Theoretical Framework**

This section reviews the theoretical framework on which the study was based. They are Advocacy Theory and Participatory Communication Theory.

### **2.2.1 Advocacy Theory**

Earlier writers on advocacy such as Melkote (1991) and Wallack, Dorfman, Jernigan, & Themba (1993) define advocacy as “a set of skills used to create a shift in public opinion and mobilise the necessary resources and forces to support an issue, policy, or constituency” (p. 27). To these writers, advocacy is the calculated enhancement of social issues. Advocacy is used to promote societal issues to get public results. Singh (2017) explains advocacy as influencing of decisions and actions and driving change. The theory espouses, among other things, the mobilisation of resources, groups, ideas, and communication channels to boost the interest of the public to act on a national or general issue (Singh, 2017; Social Care Institute for Excellence, 2020; Wallack et al, 1993). It is primarily used to stimulate public decisions on policies and programmes; and an appropriate tool used to direct people’s thoughts and opinions about social issues and motivate them to act (Wallack et al, 1993). Social Advocacy, therefore, reinforces the social acceptance of pressing social issues and normally suggests ways of dealing with such issues (Singh, 2017).

Cullerton, Donnet, Lee and Gallegos (2018) state that the basic objective of advocacy is to encourage public debate and promote responsible resolution on an issue. Singh, (2017) also states that advocacy is all about influencing decisions and actions and driving change. Advocacy, therefore, generally complements the struggles of humanity; and helps find solutions to societal negatives. The Social Care Institute for Excellence (SCIE) (2020) also buttresses Melkote’s (1991) assertion that social advocacy is the one that is targeted at



changing social ills and challenges; that is, influencing certain decisions and behaviours among a group of people. Advocacy stands on affecting the public debate on issues such as public health, security, governance, the economy, and the environment, among others. Holder and Treno (1997), posit that advocacy is used to achieve social justice but not individual satisfaction. Media advocacy can be used to find solutions to environmentally disastrous issues such as deforestation. Campaigning for a change in the social setup and encouraging the alteration of behaviours that negatively affect state and society or legitimising certain behaviours, actions and decisions in the society expresses social advocacy (Cullerton, et al., 2018; SCIE, 2020).

Advocacy types include self-advocacy, group advocacy, non-instructed advocacy, peer advocacy, citizen advocacy, and professional advocacy (Petri, Beadle-Brown & Bradshaw, 2020; SCIE, 2020). Self-advocacy refers to individuals' ability to effectively communicate their interests, desires, needs and rights. Self-advocacy aims to empower people to decide what they want and to carry out plans to help them get what they wanted (Petri, et al., 2020). SCIE (2020) explains group advocacy as the coming together of people with shared experiences, positions or values to collectively communicate issues of relevance to them. Non-instructed advocacy is needed when an individual or community is not able to make decisions or articulate their experiences despite the provision of enough assistance and support. Under this type of advocacy, the advocate uses information gathered on an individual or group to represent them. Non-instructed advocacy aims at securing individuals' rights, promote their wellbeing and ensure that their wishes are fully considered. Peer advocacy is the one-to-one support provided by individuals with the same experience or similar challenges. Citizen advocacy aims at involving communities in solving their own

challenges and helping them make decisions on the things that affect them. Citizen advocates normally operate with support from a coordinated scheme. Professional advocacy aims at allowing persons with expertise and adequate skills to help communicate ideas that will effect change or solve a problem (Petri, et al., 2020; SCIE, 2020). Gibson (2010), however, states that professional advocacy can fail in marshalling the necessary resources and forces, especially without stakeholder commitment.

Cox, Tice and Long (2019) espouse that access, economic and social justice, human needs and rights, and supportive environment as the tenets of advocacy. Advocacy stands on access: realising political, social, economic, cultural, religious, legal, and environmental conditions in an area. It also includes information and services. Hoefler (2012) states that opening up persons and places to people builds their knowledge and enhances their sense of belongingness. This enhances the freedoms of people and help make their voices heard on issues affecting them. In advocating for a group of people, there should be equity in the ownership, management, control and distribution of resources. That is what Cox et al., (2019) refer to as economic and social justice. Social and economic justice also include the defence and promotion of individual and group rights and responsibilities. To Cox et al (2019), fairness in distributing economic and social powers among a group of people breeds equilibrium and satisfaction among them. Advocacy also looks critically at how to provide human needs and rights and make people and groups comfortable in their environment. Providing human needs and wants involve human welfare services such as social infrastructure, security, food, health, and education. The National Association of Social Workers (2018) of the United states of America state that human needs and wants also include choices. Cox et al (2019) assert that the first three tenets work effectively in a

supportive environment. They explain supportive environment as the one that breeds social justice, results oriented, and promotes the dignity, security and social inclusion of the people.

These tenets are buttressed by other principles such as clarity of purpose, equality and diversity, and putting people first (Holder and Treno; 1997; Petri, et al., 2020; SCIE, 2020).

Some writers assert that advocacy should lead to empowerment. The empowerment promoted by writers involve encouraging self-advocacy in individuals and groups; involving decision makers and receivers in actions that affect them; and designing a feedback policy (Cox et al., 2017; Petri, et al., 2020; SCIE, 2020).

Other scholars also state that advocacy should lead to social change (Cullerton, et al., 2018; Hoefler, 2012). According to such scholars, social advocacy usually combines with agenda setting and framing to influence social issues, change conditions, address social inequalities, and promote collective change.

Some qualities that good advocates should possess in order to perform an excellent advocacy include good communication skills such as active listening, clarity, coherence, responsiveness, and empathy, analytical and research skills, good judgement, creativity, and good logical reasoning (Cullerton, et al., 2018).

Advocacy encompasses several activities with majority of them getting people involved in what will finally bring change. Some of activities involved in advocacy include developing or modification of social policies and programmes; legislation and constitutional amendments; persuasion of institutions, authorities and people; negotiations and persuasions; education and sensitization; practices; and working on projects (Hoefler, 2012). Due to the fact that challenging issues such as conflict are usually a result of power struggles and inequalities, Melkote (1991) advises that a dual strategy, which involves the formation of groups or coalition of several groups and grassroot actions that help implement the decisions

taken such as setting the agenda, lobbying, and constant reporting should be used in advocacy.

Advocacy is not solely concentrated on the media, though media is the main tool normally used by campaigners to effect advocacy (Melkote, 1991). Government institutions and officials, local, national and internal institutions, religious affiliates, and everybody or institutions that matter are used in advocacy for results (Petri, et al., 2020; Singh, 2017). For example, advocacy can be used to target a leader or a department of an institution when it is believed that a change in the leader's character or mindset or a reform in the work of the department can change the fortunes of the whole institution. Hence, media advocacy can work on groups and individuals (Petri, et al., 2020).

Advocacy, however, has been opposed by writers such as Gibson (2010) who expressed that it is difficult to measure advocacy empirically. Though Gibson (2010) agrees that advocacy changes public perception, he asserts that measuring advocacy is challenging. Advocacy is also opposed on the grounds that reliance on some means of communication and persons to change public issues might not work well, especially without a wider platform. This limits the advocates' capability to reach policy makers and citizens. Again, media advocacy can fail in marshalling the necessary resources and forces, especially without stakeholder commitment. Finally, media advocacy is opposed on the grounds that there is a wide difference between the theory and its practice. Thus, advocacy does not reach people that could not access the media at the point in time when the advocacy was done (Gibson, 2010).

The linkage of advocacy theory to this study is to assess whether stakeholders relied on the tenets of advocacy in enacting and communicating environmental conservation policies like laws on deforestation to people living in forest zones. Advocacy is very important to this

study because it helps to assess whether stakeholder institutions such as the Forestry Department actually advocate a transformation of individual character towards the use of forest and forest products in forest zones in Ghana. The theory also helps to analyse how forest conservation policies helped protect forest reserves in Ghana. Again, the theory helps to analyse if advocacy programmes could change people's perceptions and actions towards forest use in Ghana.

### **2.2.2 Participatory Communication Theory**

Generally, participatory communication is believed to be based on dialogue. Participatory communication evolved in the 1970s as a challenge to the linear and top-down forms of communication that dominated the era (Freire, 1996; 2008). Developed mainly from the dialogic communication approach as espoused by Paulo Freire (Freire, 1996, 2008), participatory communication was an answer to the argument that dialogue was impractical and just a normative theory (Kent & Lane, 2021). The failure of many programmes with the top-down and linear components of communication made social movements and Non-Governmental Organizations (NGOs) go for and popularise the participatory communication approach to social change (Melkote & Steeves, 2015; Pavarala & Malik, 2021). Such social campaigns by NGOs and social movements focused on community-driven projects, making the recipients of their projects become active participants of all their initiatives, from decision making to implementation (Melkote & Steeves, 2015; Pavarala & Malik, 2007). Hence, local people should be involved in all the phases of the development process: planning, designing and the delivery stages (Freire, 1996, Kent & Lane, 2021).

Moemeka (1987) sees participatory communication as serving, among others, roles such as determining the needs of the people; allowing interaction; preservation of local culture; relevant information dissemination; promoting societal development projects and policies; and awareness creation. Basics Oliveira (1993) defines participatory communication as an approach that utilises appropriate communication mechanisms and techniques such as information sharing, motivation and training, and grassroots engagement to enhance stakeholder participation in development projects. Tufte and Mefalopulos (2009) buttress Basics Oliveira's (1993) definition with the claim that participatory communication allows for the creation of an environment for sharing of information, perceptions, ideas, opinions and experiences among parties and stakeholders in the quest to empower people and groups. Ansu-Kyeremeh (1998) explains communication as a shared experience. Individual participation in issues affecting their community creates experiences and enhances responsibility. To Tufte and Mefalopulos (2009), participatory communication goes beyond the sharing of experiences and information, to include the exploration and generation of new knowledge that is purposefully targeted at improving situations.

Participatory communication excels on collective action. To Minkler and Wallerstein (2008), to design a vibrant communication and promotion programmes, one should make room for community participation. It is the community members that know *what, how and where* a challenge is, and normally, can help proffer insightful solution to such challenges. Montenegro and Szabzon (2020) also posit that community programmes should involve community people from the decision making to implementation stages. They explain that participatory communication is a crucial tool that involves actively engaging participants to seek broader consultation, deliberation and consensus on development initiatives that help

build or sustain communities. Tufte and Mefalopulos (2009) observe that all parties in the communication process should have equitable opportunity to influence outcomes. They also express that participatory communication should ideally be part of the whole project process if better outcomes are expected. Kent and Lane (2021), however, states that community participation is just a hoax since most communities that are affected by policies and programmes are not fully involved in the process. He explained that participation is based on the assumption that it is government that formulate or develop policies and programmes, and the community just participates in the implementation of such policies. Kent and Lane (2021), therefore, sums participation as community implementation of government formulated policies and programmes.

Tufte and Mefalopulos (2009) suggested three ways that ideally would make participatory communication effective: firstly, participatory communication should be a two-way communication, should be applied from the beginning, and should be constant. Secondly, participatory communication should have the full participation of all stakeholders and participants. However, full participation is not possible at all levels. Therefore, broad consensus can be satisfactory in the absence of full participation. Thirdly, there should be a balance between inclusiveness and resource availability, participant's time and availability, and participants' interests and knowledge.

Participatory communication is a continuous process involving dialogue, listening, learning and action (Cornish & Dunn, 2009). As a continual process, Tufte and Mefalopulos (2009) espouse four basic phases of a participatory communication programme. They state phase one as 'Participatory Communication Assessment' (PCA). Phase one is an exploratory stage. Here, studies are done and analysis are generated on issues through a two-way

communication process. They explain that phase one is achievable if there is an open space for free interaction of participants and stakeholders among themselves. Phase two is 'Participatory Communication Strategy Design' (PCSD). PCSD is the detailed outline of objectives, and the ways and processes to reach an expected outcome. To them, an achievable communication strategy begins with a clear definition of the objectives to reach expected outcomes. Broad, vague and poorly stated objectives hardly result in expected outcomes. Phase three of the participatory communication process, as stated by Tufte and Mefalopulos (2009), is the 'Implementation of Communication Activities' (ICA). In the implementation phase, an action plan thoroughly guides the implementation, management and monitoring processes of all activities in the communication process. The last phase of the participatory communication process, phase four, is 'Monitoring and Evaluation' (M & E). Monitoring and evaluation help facilitators to know whether the process is going on as planned. Evaluation starts from the onset of the programme or initiative. Stakeholders or partners should be part of the impact evaluation.

Participatory communication enhances individual and group empowerment. Szalvai (2009) believes that communication empowers people through their active involvement in the programmes and projects within their communities. For a group of people to be empowered, therefore, the communication gap created by the urban bias should be closed (McMichael, 2012). Development and empowerment through participatory communication stand on access, namely access to information (Kent et al, 2021). True access can be achieved through allowing majority of people to be part of the process (Pavarala & Malik, 2021).

Notwithstanding the widespread regard for participatory communication as the best approach to holistic development, not every developmental project or programme is truly participatory.



Scholars have observed that though most developmental projects have participation component in it (Waisbord, 2014; Servaes, 2016), few are applied (Carpentier, 2016; Yudarwati & Gregory, 2022).

This study seeks to analyse whether there is any involvement of communities in forest zones in the decision making and implementation of policies and programmes aimed at preserving the forest they live in. It also seeks to know if there is access to information through participation of the local people, education and enlightenment of the community members, and capacity building of the local human resources in protecting the forest. Participatory Communication Theory helped in situating the findings of the study. The theory helped in assessing how communities in Pra-Anum forest area were involved in the enactment and implementation of forest use and conservation policies. This review is, therefore, necessary because findings of the study may confirm, contradict or add another form of participation to the existing ones found in the literature.

### **2.3 Conclusion**

This chapter elaborated the theoretical and contextual frameworks on which the study was based. Concepts and themes such as Environmental Depletion, Forest Depletion in Ghana, Forest-zone communities, Environmental/Forest Management Campaign in Ghana, Environmental Communication, Communication for Social Change were reviewed. Advocacy Theory and Participatory Communication Theory were also looked at in this chapter.

## CHAPTER THREE

### METHODOLOGY

#### 3.0 Introduction

This chapter presents the research methodology used in the study. It discusses the research approach and design used for the study. It also looks at the processes used in the collection of data on the research questions. The chapter also looks at data presentation and analysis. Reasons for choosing particular approach, design, data collection and analysis methods are also presented in this chapter. Lastly, ethical issues underpinning the study are discussed in this chapter.

#### 3.1 Research Approach

The study employed a qualitative approach of enquiry. Creswell (2013) espouse that using qualitative approach in research allows the researcher to use different manifold approaches to study a phenomenon. Miller (2010) also indicates that qualitative research approach is, currently, the ideal approach to delve into how organizations deal with crises. Qualitative approach has been accepted as the best way to go deeper into studying phenomena; hence choosing the qualitative approach for this study.

There has not been a universally accepted definition for qualitative approach (Creswell, 2013). However, qualitative research as articulated by Denzin and Lincoln (2011, p. 3) is “an interpretive, naturalistic approach to study the world.” They expand it to mean a “set of interpretative, material practices that make the world visible... transform the world and turn the world into a series of representations” (p. 3). The representations include interviews, conversations, and field notes, among others. Thus, Denzin and Lincoln’s (2011) explanation of qualitative research justifies the selection of qualitative research approach for this study.

The study used interviews, conversations and field notes to explain how forest conservation policies are communicated to communities in forest zones. The study is also used to throw more light on policies on forest use and conservation and how communities in forest zones react to these policies. Consequently, the qualitative approach assisted me to analyse and present data gathered from respondents such as persons living in forest zones, forestry officers and personnel from the Municipal Assembly. Interpretations were also drawn from actions of stakeholders (government and forest zone communities) towards the forestry policy. Patton (2015) states that the goal of the researcher in qualitative research is to uncover facts without interfering or manipulating the natural setting of the phenomenon of interest. This study was, in similar manner, conducted in the natural setting of the Pra-Anum forest reserve in the Asante-Akim South Municipality without any attempt whatsoever to manipulate the happenings in the communities found in the forest zone.

### **3.2. Research Design**

Research design is seen generally as a processes of inquiry (Yin, 2009). Creswell (2014) describes the research design as a strategy, plan and structure of conducting a research project. According to Yin (2009), the research design involves setting the conditions for collecting and analysing data relevant to the researcher and the phenomenon of interest. Qualitative research design includes narrative research, phenomenology, grounded theory, ethnography and case study; and the selection of a suitable design hinges on the nature of the research, the research problem and questions, personal experiences of the researcher, and the type of audience for the study (Creswell; 2014). The research design for this study was the case study.

Case study design looks at the depth of a phenomenon (Creswell, 2013). A case study seeks to explore a real-life case or cases over time through detailed, in-depth data collection that involves multiple sources of information, including observations, interviews, audio-visual materials, documents and reports, and reports a case description and case themes (Creswell, 2014). The current study which seeks to examine how forest conservation policies were communicated to people living in forest zones represents a case which is to be examined in detail.

Creswell (2014) expands the relevance of using case study in qualitative research to include the fact that case study aims at understanding human beings in a societal context by interpreting their actions as a single group, community or a single event. This is the situation of the current study because the study seeks to thoroughly understand how forest conservation policies are communicated to people living in communities around forest zones. Case studies allow for the use of multiple methods of information gathering such as interviews, focus group-discussions, documents analysis and observations (Creswell, 2013). This study is a single case design. The researcher only intends to study one single thing or a specific/single group of people (people in the Pra-Anum or Banka forest zone). In the situation of studying a common group of people such as the communities in the Pra-Anum forest zone, Yin (2014) advises that a single case study is the best choice. Yin (2014) explains that a single case design suits a group with homogeneous characteristics. The case study design also facilitated the study of both the content and the communication of policies on forest conservation.

### 3.3 Sampling

Sampling technique denotes the process used by a researcher to select a sample for a particular study. Lindlof and Taylor (2017) state that sampling method guides the researcher in selecting what to observe or whom to interview; and the process of rightly choosing a sampling technique helps researchers to make a methodical connection with communicative phenomena with a least of wasted effort (Lindlof & Taylor, 2017). This means that sampling technique helps to ensure that data is appropriately collected. Sampling for qualitative research looks at how reality or experience can be gotten from respondents. This form of sampling relieves the researcher of starting data collection on a specific number of respondents. The researcher continually collects data until a saturation point is reached or information from respondents become repetitive (Lindlof & Taylor, 2017). Sampling for qualitative research design using case study does not require a larger size because it takes a lot of time to get responses through the thorough interviews, focus group discussions and observations (Lindlof & Taylor, 2017).

Wimmer and Dominick (2013) note that there are two types of sampling procedure. These are the probability and non-probability sampling procedure. They explain probability sampling to be the one that employs the use of statistical rules whereby each unit has an equal chance of being selected. They, on the other hand, explain non-probability sampling as the one that does not follow any statistical rules. The current study did not use any statistical rules in the sampling process, therefore, the non-probability sampling procedure was applied. Non-probability sampling procedures include the convenience sampling, the purposive sampling, the unqualified volunteer sampling and the snowball sampling (Wimmer & Dominick, 2013).

The researcher employed purposive and convenience sampling techniques for the current study. Purposive sampling helps a researcher to purposively select respondents for a study based on specific characteristics or qualities and eliminates those who fail to meet these criteria (Wimmer and Dominick, 2013). Creswell (2013) defines purposive sampling as the selection of sites or participants that will help the researcher understand the problem and the research question.

In line with the above assertions, the researcher purposively selected Banka forest zone as a case for this study because the area is a protected forest. Also the Banka forest zone, like other geo-traditional zones in the Municipality, have similar demographic, political, economic, agricultural, and socio-cultural characteristics that make it appropriate to select the area for the study (Ofori-Birikorang & Aggrey, 2018). All the respondents for the interviews were purposively selected. They include the Municipal Forestry Officer, the Zonal Forestry Officer, forest guards, Municipal Environmental Protection Officers from the Environmental Protection Agency, the Municipal Chief Executive Officer (MCE), the Municipal Police Commander, the Municipal Officer for National Commission for Civic Education, Bush Managers of Timber firms, chainsaw operators, charcoal burners, commercial farmers and some other members from the communities in the Pra-Anum forest reserve. The respondents were purposely selected based on Ofori-Birikorang and Aggrey's (2018) assertion that the people who manage, use, directly or indirectly benefit, and have knowledge of a phenomenon are to be selected when an interviewer wants an in-depth knowledge about a phenomenon.

Though purposive sampling was used to select the Focus-Groups, convenience sampling method was used to select the members of the Focus-Groups. The members of the focus

groups included traditional leaders and community dwellers. Convenience sampling denotes selecting respondents based on some basic screening criteria such as availability and willingness on the part of a respondent (Creswell & Creswell, 2018; Eyisi, 2016). This means that there is no pattern in selecting the respondents. Anybody available and willing to take part in the study is eligible to be selected. The rationale for the usage of convenience sampling to select members of the focus groups was based on reachability and willingness as espoused by Creswell and Creswell (2018).

### **3.3.1 Sample Size**

Generally, qualitative sampling consists of small sample size of the phenomenon under study; however, this is done in depth. Sample size in qualitative studies does not necessarily determine the quality of the study (Daymon & Holloway, 2011). Ritchie et al (2013) argue that it is better to get a small sample size that a researcher can work than getting a large sample size that the researcher cannot complete data collection at a given time. Small sample size of a phenomenon allows the researcher to capture participants' specific responses and individual interpretations. This might not be achieved when a researcher uses large sample size (Creswell & Creswell, 2018; Daymon & Holloway, 2011). Creswell (2014) argues that as a general rule of thumb, qualitative sample for a single case study involving individual interviews should usually be below 50 participants.

In line with these assertions, a sample size of 25 was selected for the study, 11 for interviews and 14 for two (2) focus group discussions. The 11 face-to-face interviews involved the Municipal Officer and the Public Relations Officer at the Oda Municipal Office of the Forestry Commission, a forest guard, the Municipal Environmental Protection Agency Officer, the Municipal Chief Executive (MCE), the Municipal Police Commander, the

Municipal Director for National Commission for Civic Education, Bush Manager of LLL Timbers (a timber and log processing firm based in Kumasi), a commercial farmer farming in the Banka forest zone, a chainsaw operator, and a charcoal burner. Each of the two focus groups had seven members. One of the focus groups included the leadership of the Banka Zonal Council (about a 43-member council of the leaders from the 8 communities in the Pra-Anum forest zone), and local farmers. This sample size was also taken to give me the opportunity to easily record responses of participants and interpretations of the phenomenon. The sample size also helped me to gain in-depth knowledge into the phenomenon under study.

### **3.4 Data Collection Method**

Data refers to facts that are raw and unrefined (Aina, 2004). However, processed data becomes information (Sackey, 2020). Under qualitative research, Creswell (2013) posits that data collection involves the procedures and tools, getting approvals, obtaining a rationale and worthy sample size, and getting information through ethical foundations of research. In-depth interviewing, observation, group discussions, and document analysis and material culture are the four main data collection methods that qualitative researchers characteristically rely on (Creswell, 2013; Marshall & Rossman, 2006). However, there are other secondary and particular methods of data collection that complement the four primary methods. Riemer (2008) states that ethnographers use multiple data sources and methods of data collection to increase the validity and trustworthiness of their findings. To be able to make comparisons, verify emergent claims, and convey a sense of trustworthiness through



research, a researcher needs to analyse data from multiple sources which were collected through diverse methods (Creswell & Creswell, 2018; Riemer, 2008).

### **3.4.1 Interviews**

Interviews are the ethnographer's most important data-gathering method (Fetterman, 2010). An interview is an extendable conversation between partners that aims at having 'in depth information' on a particular issue or subject, and through which a phenomenon could be interpreted through the meanings interviewees bring to that phenomenon (Creswell & Creswell, 2018; Schostak, 2006). According to Berg (2007, p. 96), interviews enable interviewees to express their own thoughts and feelings using their own voice. Interviews also refers to a form of conversational interaction between an interviewer and interviewee or a group of interviewees through which knowledge is produced (Brinkmann, 2007).

According to Creswell (2014), qualitative interviews include a face-to-face interview with participants, telephone interviews, or focus group interviews with six to eight interviewees in each group. He further explains that interviews involve few unstructured and generally open-ended questions that are intended to elicit views and opinions from the participants. There is a general interview guide that allows for flexibility in the composition and process of interviewing. Qualitative interview allows the interviewer to encourage others to freely articulate their interest and experiences; and through that, allows the interviewer to gather information, gain insight and understand the participants' perspectives and experiences that cannot be observed effectively by other means (Creswell & Creswell, 2018).

Based on the afore-mentioned assertions, interviews were used to gather information for the study. I used this instrument basically to gather responses for research questions two and three which inquired about the involvement of communities in forest zones in the enactment

and implementation of policies on forest usage and conservation, and the communication of such policies to the communities in forest zones. An in-depth face-to-face interview was used in collecting information from respondents to enable me have first-hand information about the experiences of the participants and how forest conservation policies were either communicated to or received by people living in communities found in forest zones. The reason for choosing Face-to-face interviews for this study is based on Ofori-Birikorang and Aggrey's (2018) study that used similar methods for direct operators or managers of Rural Information Dissemination Technology Centre (RIDTC); and explained that "Face-to-face interviews are appropriate for participants who operate, man, supervise or manage a particular phenomenon under study so as to gain enough information and operational history of the phenomenon (p.300).

#### **3.4.2 Focus-Group Discussions**

Creswell (2013) explains focus group discussion as the process of gathering data from a group of people through interviews. Hancock, Ockleford and Windridge (2009) explain focus group discussion as an interview, or a procedure that resembles interview in a way. However, Lindlof and Taylor (2017) claim that inasmuch as focus group discussion is a form of interview, it has evolved so much that it has become a stand-alone data collection method. According to Dilshad and Latif (2013), focus group discussions allow for the marginalised to also partake in the discussion; subsequently, providing divergent views on a subject. According to Krueger and Casey (2000), "focus groups provide a more natural environment than that of individual interview because participants are influencing and influenced by others just as they are in real life" (p.11). Discussions are informally used between a

researcher and a focus group to get their thoughts or feelings about the phenomenon under study.

Focus group discussions help to get a generalised view of a group about a phenomenon. Ofori-Birikorang and Aggrey (2018) used focus group discussion in their study of Locally Designed Rural Information Dissemination Technology Centres (RIDTCS) in Ghana; and stated that focus group discussions are essential when dealing with general community folks or groups who use, benefit from, or witness directly or indirectly, the phenomenon under study. According to Ofori-Birikorang and Aggrey (2018) the explicit usage of group interaction produces data and insights that would be less accessible without the interaction found in a group. Creswell (2013) also adds that focus group discussion provides better results when participants are from a similar background and have some common traits.

In line with this assertion, each of the focus groups was designed to consist of seven participants. Using focus group discussion helped the researcher to seek for different views from participants on the research questions, particularly on research question two (2) and three (3). It also helped in paving way for other participants to share their views as they gained motivation from the opinions from group participants. Furthermore, it gave the researcher the chance to have an in-depth knowledge and insight into their experiences and ideas about communicating forest use and policies to communities in forest zones.

### **3.4.3 Observation**

Observation is one of the main tools ethnographers use to collect data; and makes them spend a good deal of their time in the field observing. Observation occurs in the natural environment of the activity being observed (Wimmer & Dominick, 2011). According to Hennink (2011), observation allows the researcher to situate people's behaviour and actions within their

sociocultural context. Wimmer and Dominick (2013) assert that it offers the researcher rich and refined data to work with. Kozinetz (2015) notes that the most important element in fieldwork is the researcher being there to personally observe, ask insightful questions, and write down what is seen and heard.

Wimmer and Dominick (2011) classify the process of observation into two; the degree to which the researcher participates in the activity being studied, and the degree to which the observation is concealed. They explain that these two classifications bring about four approaches to observation. The first approach Wimmer and Dominick (2011) expressed is the overt observation in which the researcher discloses his identity to the subjects/objects to be observed but does not participate in the process being observed. They state the second approach as the overt participation in which the researcher also participates in the activity being studied and the people being observed are also aware of the researcher as an observer. The third approach is that of a covert observation in which the researcher observes the activity without being noticed by the subjects under observation. The last approach is the covert participation in which the researcher participates in the activity under study without being identified by the subjects as an observer.

For this study, the researcher was identified as an overt observer. In relation to the above, the researcher observed some parts of the Pra-Anum forest reserve to see if farmers adhere to the rules of farming in reserves. It allowed the researcher to get first-hand information on how the policies on tree cutting and planting, and forest conservation laws were applied. It also gave the researcher the opportunity to see if farming in forest reserves in Ghana is done in line with the policies on farming.

#### **3.4.4 Document analysis**

Owen (2014) asserts that surveys, in-depth interviews and participant observation are not the only tools available for conducting effective research; but document analysis is also another. Document analysis implies scrutinising documents that are relevant to the study and contain information about the phenomenon being studied (Bailey, 1994). Payne and Payne (2004) explain document analysis as the techniques used to categorise, investigate, interpret and identify the limitations of physical sources, most commonly written documents whether in the private or public domain. Daymon and Holloway (2011) also espouses that document analysis is an analytical research method that allows the researcher to critically examine data in order to elicit meaning, gain understanding and develop empirical knowledge.

Daymon and Holloway (2011) states that document analysis involves finding, choosing, evaluating and synthesizing the data contained in the document into themes or categories. Documentary sources are necessary when the researcher wants to make references to past behaviour or experience that has been documented (Mogalakwe, 2006). Document analysis are also significant when observed behaviour has been documented and can be used in the triangulation and validation of other methods. Document analysis is useful due to its inert nature; making the documents naturalistic and with a level of authenticity (Leavy, 2014). Yin (1994) also avers that document analysis is very appropriate for case studies in qualitative studies.

Based on these qualities, document analysis was used by the researcher to find, choose, evaluate and synthesise documented policies on forest use and forest conservation. This method was used to particularly gather information that would help answer research question one.

### **3.5 Data Collection Procedures**

According to Asiamah (2017), data collection procedure refers to how the researcher applied the various data collection instruments to collect data for the study. It includes the various steps and ways that a researcher used to gather data for a particular study. Data for this study was collected over a period of nine (9) months, spanning January, 2022 to September, 2022. The following are the various ways of data collection procedure for the current study.

#### **3.5.1 Interviews**

Respondents were interviewed to ascertain how policies on forest use and conservation were communicated to communities in forest zones. Permission was sought from the respondents before the interviews, as advised by Creswell (2013). In instances where respondents were working in an organisation, official permission was sought from the organisation after the respondent had agreed to grant an interview. In other instances, interview schedules were booked via phone. Face-to-face meetings were held with some of the participants to brief them on the study. An interview guide was given to participants to enable them study the questions and the requirements of the interview before the scheduled dates. Times, locations and dates for the interviews were scheduled based on the participants' convenience.

Face-to-face format was adopted for all the interviews. In order to have a detailed discussion on the subject under study, a semi-structured interview guide involving open-ended questions were used. The set-up of the interview allowed respondents to elaborate on various issues and also gave me (researcher) the chance to probe further on responses and attention-seeking issues that emanated from the responses. This development buttresses the claim that semi-structured interviews with open-ended questions tolerate greater flexibility and

freedom on the part of both interviewers and interviewees in terms of planning, implementing and organising the interview content and question (Sackey, 2020).

The interview locations were reached before the scheduled time in all instances. However, the focus group discussion was rescheduled once due to the unavailability of some of the discussants. Pre-interview discussions were held in all the interview sessions to set a relaxed atmosphere for the interviews. The interviews were recorded with the permission of respondents via a Huawei Y7 Prime mobile phone. Other key points were however recorded in a field notebook. The notes taken were to help the researcher in the transcription of the interview for analysis. The Municipal Forestry officer, Municipal Chief Executive and other government officials in the sample were interviewed on dates other than that of the participants in the communities surrounding the Pra-Anum forest zone.

The interviews were conducted in an informal way which allowed participants to speak in the language they understood. The participants were asked questions which unravelled issues relating to the communication of forest use and conservation policies in forest fringe zones. The knowledge, skill, position and depth of information possessed by participants were considered relevant for the study and placed participants in the right position to answer the various questions fundamental to meeting the objectives of the study. Interviews with the respondents also helped to explain, verify, validate and clarify issues emanating from the observations earlier made in the field. Interviews that were conducted in Asante-Twi were translated into the English language, and subsequently, transcribed. Translation was done by an Asante-Twi language expert teaching in the Department of Ghanaian language at Akokerri College of Education.

### **3.5.2 Focus Group Discussion**

Two focus groups were formed for the study. Based on Creswell's (2014) assertion on the size of focus groups, 7 people were selected for each group. Group 1, which involved peasant farmers, had five (5) men and two (2) women; and group 2, which involved community leaders, also consisted of five (5) men and two (2) women. The participants were selected on the basis of Kruger's (1998) "Piggyback" and "On the Spot" techniques for choosing participants for a focus group. With these methods members recommended other people who have similar or required characteristics that qualifies one to be a participant as specified by the researcher. Again, individuals were accessed and asked by the researcher to participate in the discussion. Discussions were carried out at specific locations and periods, and on different dates. This was done in line with Krueger's (2002) advise that the researcher should pay attention to the characteristics of the focus group, the environment for the discussion, and the time for the discussion since these can affect the quality of the data collected. Discussions were held in Banka.

Chairs for the discussion were arranged in semicircles. This arrangement was based on Escalada and Heong's (2018) assertion that it facilitates interaction among participants and allows participants to freely see and hear each other. As the moderator, the researcher sat in the middle of the semi-circles based on Krueger's (2002) argument that a focus group should have a moderator who has adequate knowledge of the phenomenon under study and set the guidelines for the discussion. Each focus group session lasted between thirty (30) to thirty-five (35) minutes which is in line with Escalada and Heong's (2018) claim that focus group discussions should not be stretched beyond two hours in order to minimize boredom.



Participants were periodically reminded of the purpose of the discussion throughout a session.

Information on participants' demographics including age, ethnic background, level of education and profession were obtained after the researcher had declared his own in a jovial way. Some participants did not know their ages and guessed. They were assured of anonymity and encouraged them to feel free to express their views. Discussions were done in the local language, Asante-Twi (Akan), because it was easily understood and spoken by all the participants. The discussion was guided by unstructured interview questions. Questions were asked in simple, short and audible manner and discussants responded accordingly. Clarifications and further explanations were provided. The discussions were recorded after participant's permission was sought. Some non-verbal expressions were noted down in my notepad. Recorded data was later translated into English language by an Asante-Twi language expert teaching in the Department of Ghanaian Languages at Akokerri College of Education, and afterwards, transcribed.

### **3.5.3 Observation**

Before the observation, the researcher took an introductory letter from the Department of Communication and Media Studies at the University of Education, Winneba to negotiate access to the site for this study. The letter was sent to the Municipal Forestry Officer. These were done in accordance with Creswell's (2013) assertion on community entry. The Municipal Forestry Officer gave the assurance that he would order the forest guards to accompany the researcher when it is time for the observation. Researcher was introduced to the forest guards a week later; and on the same day, they also visited Banka, Tokwai,

Amantia, and Gyadam for initial observation. The researcher left the area and planned with the forest guards to visit on later dates for the official observations.

The Pra-Anum forest reserve and the communities that surround it were toured, aided by guards from the Forestry Commission. Most of the observation was conducted in the daytime, starting in the morning and ending in the afternoon. Lumbering sites owned by timber firms were also visited. Most of the abandoned and current farms were also toured. Places where chainsaw operators illegally cut trees and illegal mining activities were going on were visited. Sites where charcoal burners undertook their operations were also visited. Water bodies in the reserve area were observed. The first entry into the field was on a Saturday when most farmers were on their farms. The reserve was visited by researcher five times during the eight months of data collection procedure.

During the observation, the researcher paid particular attention to how trees were cut and new ones were planted; how farmers cut, burnt and planted their foodstuff; and how trees at mining sites were destroyed. Views and opinions of the guards were recorded as they explained issues and answered some questions that were asked. Field notes were taken and everything that was seen and heard during the various visits were recorded in a small notepad. Pictures were also with a 'Huawei Y9 Prime' mobile phone. The field notes were later transferred into a field notebook. The data was saved on an 8gigabyte scandisk pen drive and also made provision for a backup on Google drive in order to forestall any eventuality of loss of data. Based on the advice by Hennink et al. (2011), care was taken not to interfere with activities and interactions during the observation.

### 3.5.4 Document Analysis

Another data collection procedure used for the current study is document analysis. Document analysis refers to the analytical research method that allows for the careful investigation of data in order to elicit meaning, gain understanding and develop empirical knowledge (Daymon & Holloway, 2011). This means that document analysis gives the researcher the opportunity to assess data to answer specific questions and or fulfil specific objectives. Document analysis involves finding, selecting, appraising and synthesizing the data contained in the document into themes or categories (Daymon & Holloway, 2011). According to Leavy (2014), document analysis enhances authenticity in the findings due to its unobtrusive and non-reactive nature.

O’Leary (2014) gives two ways of analysing documents. The first is the interview technique. He explains that this technique enables the researcher to treat the document being analysed as a respondent or informant who provides relevant information for analysis. The second technique is taking note of occurrences within a text. Under this technique, the researcher does inductive analytical data collection, building from particular to general core occurrences within the text (O’Leary, 2014). The second technique as well, involves coding and category construction (Creswell, 2013; O’Leary, 2014). This study adopted the first document analysis procedure as provided by O’Leary (2014). In this regard, documents on forest use and forest conservation were treated as respondents or informants providing relevant information for analysis.

At the onset of this study, all relevant documents on policies, programmes, and laws and by-laws on forest use and its conservation; and implementation plan for such policies, programmes, laws and by-laws were gathered. Documents gathered for the study also

included academic journals and thesis on forests and forest reserves in Ghana, Africa and the world; programmes on deforestation, afforestation, and forest use and its conservation; and local laws and International Charters on forest use and its conservation. These documents were gathered from several sources, including public and institutional libraries; online search engines; the National, Regional and Municipal offices of the Forestry Commission; the Asante-Akim South Municipal Assembly; the Municipal office of the National Commission for Civic Education (NCCE); and the Municipal office of the National Disaster Management Organisation (NADMO). Each relevant document gathered was well scrutinised on the basis of the research questions and interview guide. The relevant information was summarised before use.

### **3.6 Data Analysis**

Another important aspect of the study was the data analysis segment. Generally, data analysis is the process of making meaning out of information gathered from the field or respondents. Lindlof and Taylor (2017) describes data analysis as the process of labelling and breaking down raw data and reconstructing them in patterns, subjects, themes, concepts and propositions. Data analysis for this study was, therefore, done in order to draw patterns and themes from the data collected. Analysis for this study was done alongside the information gathering process; that is, observation, interviews, focus group discussions and document reviews in line with Lindlof and Taylor's (2019) assertion that data analysis can be done simultaneously with data collection. All the data that were collected were assembled and prepared to get a clear view, description and understanding of the information gathered. This is in line with Flick's (2013) argument on the aims of qualitative data analysis as describing

issues in the field or a phenomenon into greater detail (Appiah Kubi, 2018). The field notes, documents gathered, and interview and discussion transcripts were also read through several times so as to identify descriptive issues.

In answering research question 1 which deals with the description of laws, policies and programmes on forest use and forest conservation, portions, themes and quotations from the documents gathered that enhanced the description of the specific phenomenon being studied were looked out for. It was ensured that in-depth analysis of the documents and direct quotations were given to support the detailed descriptions and discussions of research question 1. The descriptive way of presenting findings for research question 1 buttresses what Genzuk (2003) emphasised, he notes that “let the reader know what happened in the environment under observation, what it was like from the participants’ point of view to be in the setting and what particular events or activities in the setting were like” (p. 9).

With regards to research questions 2 and 3 for which interviews, observation and focus group discussion were used as data collection tools, raw data were initially grouped into relevant themes as posited by Braun and Clark (2019). According to Braun and Clark (2019), thematic analysis is the method for identifying, grouping, analysing, and reporting patterns or themes within data. Thematic data analysis minimally organises and describes your data set in detail. The inductive type of thematic data analysis where the researcher does not try to fit the data into any form of preconceived analysis or pre-existing coding frame (Braun & Clark, 2019) for the study was used. Limits were not put on the emergence of sub-themes. The findings were further interpreted using concepts to draw meanings from responses from the informants. Direct quotations were also used to support the interpretations, descriptions and the discussion of the research questions. Findings were then presented. The presentation of

findings was done on the opinions from interviewees and focus group discussants, observations on the field, and reviewed documents (Friese, 2019). During the interpretative process, issues that were raised in the scenes were looked out for and also explore how these issues related to one another; and then drew meanings from them with the aid of the theoretical underpinnings.

### **3.7 Ethical Issues**

Some ethical issues came up during the ethnography of the study. Sound research is a moral venture and should be concerned with protecting the interests of the participants in a study (Banks & Brydon-Miller, 2018). Against this background the conduct of the study was informed by some ethical principles, namely informed and voluntary consent, beneficence and reciprocity, confidentiality and anonymity, and the consequence of the interviews (Banks & Brydon, 2018; Braun & Clarke, 2022).

For the purpose of seeking consent, the following procedures were followed. An introductory letter from my department was sent, signed by the Head of Department, to all the persons and groups that were interviewed or had discussions with, to notify them and seek their approval before the interviews and discussions were done. The purpose of the research and what would be expected of them were explained to the informants before data collection started. This was in line with Creswell's (2013) claim that under qualitative studies, ethical considerations begin before the study and ends after the study is published. The following considerations were, therefore, made to make the study ethical. Participants were given ample opportunity to either accept or decline to be part of the research study. Only those that gave their consent were interviewed and participated in the research work. As part of the

consent protocol participants were made aware of their right to withdraw from the study and refrain from or answering a particular question if they deemed it intrusive or inappropriate.

Before the interviews and discussions, time was taken to explain very well the objectives of the study and what the study sought to do. The researcher was personally present and led all interviews and discussions. The consent of participants was sought at every stage of the data collection process as espoused by Creswell (2013). Participants were assured of the principle of anonymity when presenting the findings of the study. Anonymity and privacy entail not using names of informants but rather linked them to pseudonyms especially at instances where informants were being quoted directly. This is based on Creswell's (2013) view on the essence of anonymity. For confidentiality, all private issues that were discussed were kept highly confidential. Permission was also sought from informants before audio recordings and photos were taken. Leading questions or guess work were also avoided during the interviews and Focus-Group discussions. Personal hints were also not shown. Researcher did not impose his views on any participant, or skewed the interviews and discussions to favour his pre-determined mind-set.

### **3.8 Validity and Trustworthiness**

Gibbs (2007), cited by Creswell (2014), defines validity in qualitative research as the extent to which the researcher checks for the accuracy of findings by employing certain procedures. Creswell (2014) therefore recommends some validation techniques including transcripts' checking; avoiding code redefinition; and coordinating coders when it is a team research or when the researcher is assisted by another person during coding process, and employing intercoder agreement or reliability.

Anney (2014) recommends that qualitative research should include trustworthiness in its method of inquiry. The recommendation further details that researchers should employ credibility, transferability, dependability and confirmability in their method of enquiry. Anney's (2014) recommendation opposes Lincoln and Guba's (2000) contention that trustworthiness of a study is significant in ensuring its credibility. Creswell (2014) defines trustworthiness as the consistency of research approach across different researchers and different projects. Creswell (2014) further recommends triangulation or using multiple data sources; using member checking; using rich, thick descriptions to deliver findings; clarification of researcher biases the; presentation of negative evidence; spending prolonged time in the field and the use of peer briefing to enhance the accuracy of the account and the use of an external auditor to review the entire project, as techniques a researcher can use to enhance trustworthiness.

In accordance with this, the study adopted interviews, focus group discussions, observation and document analysis as data collection methods for triangulation purposes. This procedure corresponds with Creswell's (2014) argument that the use of multiple data source and methods of data collection increase the validity and trustworthiness of the findings. The study was also built on a multi-theoretical framework comprising Advocacy Theory and Participatory Communication Theory. The study was conducted in an objective manner and subjected to peer review. An in-depth description of the phenomenon under study as suggested by Daymon and Holloway (2011) was given. Also, themes from the analysis were developed based on the codes that were generated.



### **3.9 Summary**

The chapter focused on the methodology used by the researcher for the study. The study adopted a qualitative approach with a case study design to examine the how forest conservation policies are communicated to communities in forest zones. Multiple and rationalised data collection methods – interviews, focus group discussion, observation and document review - were used to collect the data from the field. The study was also done on confidentiality, anonymity, and reciprocity, informed and voluntary consent. Summarily, the chapter presents and explains the research approach, research design, sampling technique and size, data collection method, data collection process, method of data analysis, ethical issues and trustworthiness as used by the researcher.



## CHAPTER FOUR

### FINDINGS AND ANALYSIS

#### 4.0 Introduction

This chapter presents detailed discussions of findings from the data collected through *interviews, observation, focus group discussions, and document analysis* on communicating forest conservation policies to communities in forest zones: a study of the Pra-Anum forest zone in Asante-Akim South Municipality. The chapter also presents findings on data collected from twenty-five (25) informants to examine the content of the policy framework on forest usage and conservation in Ghana; find out the extent to which communities in forest areas in Ghana were/are involved in the enactment and implementation of policies on forest usage and conservation; and investigate how policies on forest usage and conservation are communicated to the communities in forest areas in Ghana. For easy analysis and interpretation, the data derived from the field work was simplified into thematic units. The themes were thoroughly described and critically analysed using the theories of advocacy and participatory communication and the literature reviewed in chapter 2. For anonymity and confidentiality, informants were represented with alphanumeric codes such as (Informant1). Below are the research questions that underpinned the data collection.

1. What is the content of the policy framework on forest usage and conservation in Ghana?
2. How are communities in the Pra-Anum forest area involved in the enactment and implementation of policies on forest use and conservation?

3. What are the tools and strategies used to communicate policies on forest use and conservation to communities in Pra-Anum forest zone?

#### 4.1 Demographics

The demographics of participants for the study were captured as follows: sex, age range, and educational level.

##### SEX DISTRIBUTION OF PARTICIPANTS

<b>FEMALES</b>	<b>MALES</b>
4	21

##### AGE DISTRIBUTION OF PARTICIPANTS

<b>AGE RANGE</b>	<b>60+</b>	<b>50-59</b>	<b>40-49</b>	<b>30-39</b>	<b>20-29</b>
<b>FREQUENCY</b>	2	9	8	5	1

##### EDUCATIONAL LEVEL DISTRIBUTION OF PARTICIPANTS

<b>EDUCATIONAL LEVEL</b>	<b>FREQUENCY</b>
POST-GRADUATE	3
FIRSTDEGREE	5
HND/DIPLOMA	4
SECOND CYCLE	3

MIDDLE SCHOOL/JUNIOR HIGH SCHOOL	7
NO SCHOOL AT ALL OR DROPOUT	4

#### **4.2 RQ1. What is the content of the policy framework on forest usage and conservation in Ghana?**

Research question one (1) addresses the framework of international, national, local and traditional laws and policies used to protect forests and forest products in Ghana. Anderson (1975) defines policy as “a purposive course of action followed by an actor or set of actors in dealing with a problem or matter of concern” (p. 3). Public policy, according to (Miller, 1994), is a "compendium of statements, laws and other actions concerning government's intentions for a particular human activity under its jurisdiction” (p. 2). Policy Statements are formal expressions of public policy and include legislative statutes, decrees, and administrative rules and regulations (Anderson, 1975). The policy process involves inputs, outputs and outcomes. Inputs are the perceptions, demands, and apathy that give shape to a policy. Outputs include such things as application, interpretation, enforcement, and evaluation, among others (Easton, 1965; Parsons, 1995; Teye, 2008).

A forest policy articulates the aims, objectives, goals and strategies that are used for the management of forests; and outlines procedures for the distribution of costs and benefits of the forest and forest products (Forestry Commission, 2019; Teye, 2008). International Charters and local Laws, Acts, Constitutional Amendments, By-laws, and Traditional customs and conventions on forest use and preservation were interrogated. Analysis was

done on International policies and programmes such as the United Nations Environment Programme (UNEP, 1972), The United Nations Programme on Reducing Emissions from Deforestation and Forest Degradation (UN-REDD Programme); the United Nations Framework Convention on Climate Change (Decisions 3/CMP.1, 28/CMP. 1, and 5/CMP. 2) (UNFCCC 2007; 2015; 2020); and the EU Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan. Local policies on forest preservation from bodies such as the Forest Research Institute of Ghana (FORIG), Forestry Commission of Ghana (FC), the Constitution of Ghana, the Environmental Protection Agency (EPA) were analysed. The study also looked at pre-colonial, colonial, and modern policies on forest use and conservation.

A forest policy primarily adopts three forms of mechanisms to protect forests. These are: Awareness, Coercion and Motivation (Miller, 1994; Teye, 2008; UNEP, 1972). Analysis of the findings for this study were based on these three mechanisms of protecting the forest.

#### **4.2.1 Awareness-Creation Forest Conservation Policies**

It was found that some forest conservation policies were tailor-made to make people, especially those in direct contact with the forest, aware of the importance of conserving the forest. Some of the objectives of the EU Forest Law Enforcement, Governance and Trade (FLEGT) (2003) Action Plan policy are on awareness creation. They include i. raising awareness on forest use and forest conservation; and ii. providing support for the availability and quality of information on forests and commodity supply chains. Furthermore, the EU Timber Regulation policy (2013) also promotes dialogue and cooperation with other major market on how to reduce dependence on forest and forest products and help conserve global forest.

The Ghana Forest and Wildlife Policy (2012) also has sections on awareness creation. Included in the Policy as established in Part 2.1.1 is the National Forest Plantation Development Programme (NFPDP) (2010) which aims at instituting an annual forestry forum where stakeholders will meet to review actions and plan programmes. Also, included in part 4 (policy strategy) of the Ghana Forest and Wildlife Policy is the strategy of awareness creation on the importance of keeping the forest and the consequences of depleting it. Included in the awareness strategies are plans on showing visuals on the dire effect on forest depletion in some areas in the world.

#### **4.2.2 Coercive Forest Conservation Policies**

According to Adom (2017), coercive mechanisms control people; it prevents people and groups from doing what they would naturally do (Clientearth, 2021). Coercive mechanisms that help protect forests include legal requirements and restrictions, traditional customs and conventions, punishment, and personnel and institutions (Clientearth, 2021; Ghana Forest and Wildlife Policy, 2010; Miller, 1994). The study found that some policies on forest conservation prevents people and groups from encroaching on the forest or forest products. Since 2001, the United Nations Programme on Reducing Emissions from Deforestation and Forest Degradation (UN-REDD) is one of the tools used by the United Nations to protect forests. This emissions-reducing strategy was implemented in developing countries. Various REDD+ strategies help communities to manage and protect forests by using sustainable and results-based finance, in order to reduce emissions from deforestation and forest degradation. The National REDD+ Investment Plan and a GCF proposal to further help protect the forest has been developed by the UNDP with the help of the Italian Ministry for the Environment, Land and Sea.

The European Commission's "EU Communication on Stepping up EU Action to Protect and Restore the World's Forests" in July 2019 has helped most countries, including Ghana, that also absorbed that policy. The policy has two objectives: 1. Protecting and improving the health of existing forests, especially primary forests; 2. Significantly increasing sustainable, biodiverse forest coverage worldwide. The policy's priorities include the reduction of the EU consumption on land and encourage the consumption of products from deforestation-free supply chains in the EU; partnering producer countries to reduce pressures on forests and to "deforest-proof" EU development cooperation; strengthening international cooperation to stop deforestation and forest degradation, and encourage forest restoration; redirect funds in support of more sustainable land-use practices; and providing support for the availability and quality of information on forests and commodity supply chains. The EU Timber Regulation orders EU Market timber and timber products operators to help reduce the importation of illegally harvested timber. The EU Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan policy aims at working with member countries and trade partners to help protect and restore global forest. The Action Plan focuses on fighting illegal logging and associated trade, enhancing global forest governance, and helping reduce demand for illegal timber in member countries.

Locally, the Forestry Commission Act, 1999 (Act 571) as amended by the Timber Resources Management (Amendment) Act, 2002 (Act 617), is the fundamental law for forest management. Act 571 re-established the Forestry Commission and put the main public bodies and agencies responsible for protecting, developing, managing and regulating forest and wildlife under the Forestry Commission. Act 617 (2002) of the Ghana Timber Resource Management Amendment made reforms in Act 571. Under Act 617, even farmers are not

allowed to harvest timber from their own farmlands. One needs to get a ‘timber exploitation permit’ before cutting down a tree. The challenge with this policy is that it gives the timber firms who have the financial resources the opportunity to cut the trees and in the process damage the crops in the farms without adequately compensating the farmers. This has demotivated the farmers to stop planting regenerative trees. Bushfire control policies were aimed at protecting forests from wanton bush fires caused by human activities. These policies help in managing human activities that could spark bushfires, including the ‘slash and burn’ farming practice.

The Timber Resources Management Act, 1998 (Act 547) as amended by the Timber Resources Management (Amendment) Act, 2002 (Act 617) regulates granting of timber rights to people or organisations. It is tasked to look at the application, qualification and requirements for grant of timber rights, and specifies the land that is subject to timber rights. The requirement for the granting of timber rights include harvesting plan; likely environmental effect; proof of financial ability; proof of ability to operate the area; and plans for addressing the social needs of the affected communities. The Act specifies the duration and limits for timber rights as not more than 40 years and 125 square kilometres. The content of timber contract must include land size of the contract area, contract period, assurance by the contractor to undertake reforestation plan, assurance of prompt payment of rent, royalties, compensation and other charges, periodic review of contact activities, contract suspension or termination grounds.

Notwithstanding the stringent laws on timber harvesting in reserves, loopholes and contradictions in some of the laws have created an opening for people to exploit the forest. For example, the National Land Policy (1999; 2016) bans mining in forest reserves. It states



that all lands declared as forest reserves are fully protected by laws and that agriculture, timber, mining, and other extractive activities can be done on lands outside Ghana's permanent forest and wildlife estates. The law also states that “no land with primary forest cover will be cleared for the purpose of establishing a [...] mining activity”. The Environmental Guidelines and Forest and Wildlife Policy (2001), however, imply that mining is permitted in forest reserves, with limits. The Environmental Guidelines for Mining in Production Forest Reserves state that protected areas of forest reserves such as Globally Significant Biodiversity Areas (GSBAs), Hill Sanctuaries and special protection areas are exempt from mining exploration. The Forest and Wildlife Policy (2012) includes the aim to “reduce, as much as possible, the prospecting and mining of mineral resources in forest reserves”. The legal confusion about whether mining is permitted in forest reserves and the contradictions in the laws on how much forest reserve can be converted to mining concessions have softened the stance on laws prohibiting mining in forest reserves. This has given people and groups the opportunity to exploit the reserves.

There is a legal recognition of customary land rights in Ghana. However, these customary rights have been continuously overlooked or overridden by judicial decisions. Traditional authorities and communities are excluded from contributing to the decisions about large-scale land acquisitions, including concessions. The Government is the sole decision-making power over the land in trust for the original owners who are traditional leaders. While the law requires the Government to consult relevant Stool or Skin when lands under their jurisdiction are leased to individuals, government officials have overlooked such laws.

### 4.2.3 Motivational Forest Conservation Policy

Motivational Forest conservation policies are those policies that influence people to be involved in the conservation of the forest without fear but favour (Adom, 2017; UNEP, 1972). They involve persuasion, financial inducement such as grants and tax incentives, and provision of farm inputs and equipment for policy abiding persons, among others (ClientEarth, 2021; Miller, 1994; Teye, 2008). Motivation can also be in the form of providing alternative source of livelihood for people who primarily depend on forest and forest products for their livelihoods (ClientEarth, 2021). In Ghana, policies that motivate communities in forest zones to help in the preservation of the forests include the following:

1. The REDD+ (Reducing Emissions from Deforestation and forest Degradation) programme developed investment programmes that will help tackle deforestation across the commodity value chain. It also introduced incentive mechanisms to encourage communities to manage their forests sustainably. This strategy helps to secure the livelihoods of over one million women involved in shea tree value chain in Ghana.
2. The adaptation funds of the United Nations Framework Convention on Climate Change (Decisions 3/CMP.1, 28/CMP.1, and 5/CMP. 2) are to provide financial support to adaptation projects and programmes of eligible countries including Ghana (UNFCCC 2007). The challenge with these funds are the accessibility processes and donor fatigue.

Alternatively, communities in forest fringe zones can farm in forests and reserves, and in place of the forest cleared, plant specified species of trees. This corroborates the farming system that Boateng, et al. (2009); and Forestry Commission (2012) referred to as the ‘Taungya system’ of farming. The ‘Taungya’ farming policy allows farmers to cultivate food crops on forest lands; and in return, the farmers must plant trees on such farms for the

Forestry Department under strict supervision. Under these system, the farmers forfeit the ownership, control and harvest rights (which is leased to timber firms) of the trees to government when they grow. During my observation, I witnessed such farming system in Amantia which the local people call “Nsensaε ’ which literally means demarcated farmlands. Portions of the forest were assigned to the local people to plant foodstuff while they in turn planted particular species of plant. Under the ‘Nsensaε ’ policy, the local farmers farm on the land for specific years and leave it to the forestry department.

According to ClientEarth (2021), Policies on the provision of alternative source of livelihood to forest zone communities prevent the local people from exploiting the forest. These alternative source of living motivational policies help to reduce the dependence of forest zone communities on forests or forest products (FDMP, 2020). The National Liquefied Petroleum Gas Project which started in the early 2000s in which government distributes gas cylinders and burners to people living in forest areas motivates the local communities to use gas as alternative fuel instead of fuelwood or charcoal which has a toll on the forest. Under the National LPG programme, government-tasked institutions identify and select poor households in rural and small communities and distribute gas cylinders and burners either free of charge or at a highly subsidized price.

#### **4.2.4 Forest Conservation Institutions**

Institutions have been created at the national, regional, and district levels and given power and authority to manage and protect forestry resources in the country. Their sole responsibility is to use the International, National and Local policies to regulate forest use and its conservation. The study noted some institutions and their core responsibilities in forest protection. These institutions include the Forestry Commission and its allied

departments such as the Forest Services Division, Forest Products Inspection Division, Wildlife Division, and Timber Export Development Division. Other institutions such as the Environmental Protection Agency, Metropolitan/Municipal/District Assemblies, Zonal Councils, and Traditional authorities all have some level of oversight responsibility in protecting the forest.

The Forestry Commission (FC) regulates the use of forest and wildlife resources, protects and manages those resources, and coordinates the policies relating to the forest and wildlife resources. It was established under the Forestry Commission Act, 1999 (Act 571) as amended by the Timber Resources Management (Amendment) Act, 2002 (Act 617). Membership of the Forestry Commission includes a Chairman, Chief Executive, and other members representing institutions and bodies such as the National House of Chiefs; the timber and trade industry; the wildlife trade and industry; the Ghana Institute of Professional Foresters; non-governmental organisations involved in forest and wildlife management; the Lands Commission; and three other persons. Among the functions the Commission performs is the protection and management of permanent forest reserves and protected areas; regulating timber harvesting, wildlife and other non-timber forest products; vetting and registration of contracts and issuance of permits for forest and wildlife products exportation; creation of wildlife protected areas and regulating wildlife resources harvesting in the various ecological zones; monitoring the harvesting and marketing of forest and wildlife products; and preparation and implementation of forest and wildlife management plans for environmental quality maintenance (Forestry Commission, 2020).

The Forest Services Division (FSD) is agency with the responsibility to calculate the allowable number of timber that can be cut in a year. It also advises and provides technical

services to government on the protection of forest and wildlife products. It ensures that the collection of non-timber forest products is in accordance with the laid down rules. This helps stop excessive cutting or damaging of forests. The agency reviews the operations of timber utilization contract holders. Another agency is the Timber Industry Development Division (TIDD). Its focus is on the logging and wood processing sector. The agency has the task to add value and minimize waste, seeks Partnership and promotes Ghana's Timber Interest Overseas, monitors export contracts, and mounts checkpoints on roads to check vehicles. The Wildlife Division, apart from its basic responsibility of wildlife conservation, management and protection of wildlife reserves, and wetland conservation, also protects and develops Ghana's permanent reserves and wildlife-protected areas; assists local communities to develop, manages their reserves and foster closer collaboration with communities closer to Protected Areas; and promotes public awareness and education on wildlife and forest management.

Another institution with the mandate to help protect the forests in Ghana is the Environmental Protection Agency (EPA). It was created by an Act of Parliament, (Act 490) in 1994. It is tasked with improving, conserving and promoting the country's environment, and enhancing environmentally sustainable development with sound, efficient resource management, taking into account social and equity issues (EPA, 1994). The EPA has an Executive Director; representatives from the Council for Scientific and Industrial Research, Association of Ghana Industries, Ghana Standards Authority, and the Ministries of Environment, Land, Local Government, Finance, Health and Education. It also has a board that oversees the work of the management body (EPA, 1994). The National Commission for Civic Education (NCCE) also has a mandate, among their many tasks, to educate Ghanaians on sustainable

management of the environment. The NCCE is a non-partisan and independent governance institution set up under Article 231 of the Constitution of Ghana and of the NCCE Act, 1993, Act 452 of Parliament. It is governed by a 7-member board comprising a chairperson, two deputy chairpersons, and four non-executive commissioners.

The Metropolitan/Municipal/District Assemblies also have an oversight responsibility over lands in their jurisdiction, including forests. The Assembly teams up with the forestry district or division in the area to protect and manage the forest in the area in question (ghanadistricts.com, 2020). The MCE for Asante-Akim Central, Hon. Alexander Frimpong, states:

The Municipal Assembly, through the Municipal Security Council (MUSEC) involving the MCE, Municipal Police Commander, Officers from Fire, Immigration, Customs Excise and Preventive Services, and Zonal Councils and Traditional authorities, among others, is responsible for security, law and order, including protecting the forest. I (the MCE), as head of MUSEC, make sure that the Forestry Commission in the Municipality has done their work. I take periodic reports on the forests and the reserves in the Municipality and give orders based on the recommendations of the Area Head of the Forestry Commission.

Zonal Councils and Traditional authorities also have a role in protecting the forest of the country. The Executive Arm of Government depend on traditional authorities in addition to state institutions to implement its policies in many communities in rural Ghana. The Executive relies on traditional leaders to control local communities and lands (Boone, 2003). Traditional authorities also use customs and conventions, principles and usages, and culture to control the use of forest in their zones, especially when the community shrine is established in the forest in question. Though the traditional authorities wield power to protect the forest, majority of these powers are political and reside in the central government.

#### **4.3 RQ2. How are communities in the Pra-Anum forest area involved in the enactment and implementation of policies on forest use and conservation?**

Research question two (2) sought to find out the level of involvement of forest-fringe communities in the enactment and implementation of forest use and conservation policies in Ghana. Data was gathered by interviewing government authorities responsible for enacting and implementing policies on forest usage and conservation with concentration on implementing institutions in the Asante-Akim Municipality where the study was conducted. The following findings were revealed:

On the premise of the involvement of forest zones in the formulation of policies on forest use and conservation, the study found that communities in forest zones were not fully involved. As Tufte and Mefalopulos (2009) stated, communication is a continual process which should involve all stakeholders from the beginning (consultation stage) to the end (evaluation stage). Communities in forest zones should, thus, be fully involved in the enactment of policies on forest use and conservation in all the stages including consultation, planning, implementation, and monitoring and evaluation. Tufte and Mefalopulos (2009) further stated that broader consultations should be at the local level to get the ideas of almost everyone at the consultation stage of policy enactment. The consultation process in enacting forest conservation policies should involve all identifiable groups directly and indirectly associated with usage of the forest such as youth groups, farmers' associations, chainsaw operators, charcoal burners and fuelwood cutters, hunters; Traditional leaders, religious leaders, timber firms, truck drivers, and sawmill operators, among others. This, to Tufte and Mefalopulos (2009), will give a broad spectrum of ideas to finalise from. It was however found that most forest zone communities were neglected in the consultation stages of

formulating policies on forest use and conservation, a phenomenon which affects the people living in forest zones directly. For instance, the Forest Manager of the Oda Municipal office of the Forestry Commission states:

It is the national policy of the Forest Commission to involve all stakeholders in the communication of forest conservation policies. However, it is very difficult to consult all local communities in forest-fringe zones when enacting policies affecting them. We cannot finish the consultation process let alone move on. We usually deal with zonal leaders. This makes consultation process easier and finishable;

a respondent from the Banka Traditional Council indicates:

It is a scam if they (Forestry Commission) say they consult our leadership, especially the paramount chiefs, in the consultation stages of policy enactment. I have been a sub-chief to the paramount chief of this area for more than fifteen years. I have never seen, heard, or been told by Nana (the paramount chief) about any consultation on the past or recent policies on forest use in this area. We always wake up to hear the news from the Forestry officers.

Another respondent asserts:

I remember once or twice the Forestry Officer brought some drafts of proposed policies on fuelwood and charcoal burning by the Commission to the Traditional Council to study and make recommendations. You see, they sit there and make the laws and tell us to make inputs. When the final policy came out, our inputs were nowhere to be found. The Forestry Commission did not include it. Why waste state resources and also worry us down here for inputs if you have already made up your mind?

It is evident from the contrasting statements by the Forest Manager of the Forestry Commission and the respondents from the community that there is a gap in the consultation stage of enacting policies on forest use and conservation. This finding contradicts Tufte and Mefalopulos (2009) assertion of how the consultation process should be when enacting policies on forest use. The findings, however, affirms Kent & Lane's (2021) claim that community participation in policy formulation is just a hoax since most communities that are affected by policies and programmes are not fully involved in the process.



It was, however, found that some selected personalities are involved in the actual enactment process after the consultation process had been done. Though the local people are side-lined in the consultation stages of law enactment, they are represented by the selected members from the National House of Chiefs in the Commission.

A respondent from the Banka Traditional Council expressed this statement:

My chief is not on the Commission. However, the fact that other Traditional Leaders are on the Commission, I am sorted. My only challenge is that these representatives might not come from forest zones and might not fully understand our plight. In such cases, it becomes very challenging to help enact policies that will favour those of us at the forest-fringe areas.

The statement by the respondent from the Banka Traditional Council relates to that of the Municipal Forestry officer when he stated that:

It is very difficult to bring everyone on board in the policy-making process; not even all the people in the forest zones who will be directly affected by the policies. The Commission selects their (local people) leaders, especially paramount chiefs to represent them on the membership of the Commission. This makes the making of policies an all-inclusive one.

The findings of selecting Traditional leaders from the National House of Chiefs to be part of the membership of the Commission is in line with Tufte and Mefalopulos (2009) assertion that representation can be satisfactory in the absence or inability of full participation.

The Municipal Chief Executive expressed that, the Assembly, in enacting by-laws on forest use in the Municipality, always highly involve the local people in every stage of the policy-making process. He cited a current instance when the Municipal Assembly needed to make by-laws on the cutting of a particular tree species for rope. The MCE explained that:

We got reports from the forest guards of the Forestry Commission that a particular specie of wood was under threat of extinction from the Pra-Anum forest due to massive exploitation by farmers, hunters, and fuelwood cutters. The Municipal Security Council toured the forest to get first-hand information on the threat as reported by the

Forestry Commission. We then had separate communal meetings in each of the communities along the Pra-Anum forest belt before having a joint meeting of representatives of the communities in Banka. Finally, together with the community representatives, the MUSEC made the necessary by-laws which the communities are revering so well.

Responses from the communities along the Pra-Anum forest zone corroborated the MCE's claims of involving the local people in enacting by-laws concerning the use of the Pra-Anum forest or its products. One respondent stated that:

For the MCE and his people in the Municipal Assembly, they do well to involve us in most of the things they do concerning the forest or us. They consult us in most events and involve us in making policies. But, I commend the current MCE for this feat. It was not so formerly. The current DCE is very democratic and open. He understands us and we understand him. Maybe that is the reason he always involves us in most of his programmes.

The Assembly's high involvement of communities along the Pra-Anum forest zone in most policy enactments reinforces Ansu Kyeremeh's (1998) assertion of communication as a shared experience. It also buttresses Melkote and Steeves' (1991) claim that social campaigns focus on making the recipients of projects active participants of all the initiatives and processes of the projects, from decision making to implementation. The finding also confirms Kent & Lane's (2021), statement that participatory communication involves indigenous and traditional communities in which an activity is taking place.

On the implementation of forest conservation policies, the study found that there is a high level of involvement of forest fringe communities. The researcher observed that all the forest guards working in the Pra-Anum forest reserve were natives of the communities along the forest. The Municipal Forestry Officer confirmed the localisation of the forest guard portfolio and stated that the guards are recruited from the adjoining communities along the forest for some reasons:

Recruiting guards from the communities along the forest reserve is for the following reasons. Firstly, to create a sense of belongingness among the local people; secondly, to empower local people to take up national duties; and thirdly, to purposefully involve them in the implementation of policies affecting them.

The finding on the recruitment of local people as forest guards in the reserves confirms Kent & Lane's (2021) summation of participatory communication as the implementation of government policies and programmes by local people.

It was also found that Local Authorities such as Traditional leaders and the Unit Committee members in the communities in Banka circuit have a level of coordination on the use and conservation of the Pra-Anum forest reserve. The local leaders implement the policies from central government and by-laws from the Municipal Assembly. The local authorities also have a level of punitive measures they can apply during minor breaches of the policies and by-laws. For instance, the Unit Committee in the communities along the Pra-Anum forest reserve or the Traditional Council in Banka circuit can adjudicate and punish anyone who fetches fuelwood in the part of the reserve where collection of fuelwood is officially barred. However, major breaches including logging of timber or mining in the forest is taken up by the Municipal Forestry Office after the local authorities raise alarm.

A respondent from the Unit Committee in Amantia states that:

Community leaders control the use of the forest in our area, but on the directives of the Forestry Commission. Petty offences such as cutting of firewood and farming at restricted parts of the forest are adjudged at either the Traditional Council or the Unit Committee level. Most of such cases ends in the community. However, non-conforming people are referred to the Municipal Assembly or the Municipal Forestry Office for Disciplinary action.

This finding also buttresses Kent and Lane's (2021) assertion that community participation in the implementation of government policies and programmes fulfils participatory communication.

#### **4.4 RQ3. What are the tools and strategies used to communicate policies on forest use and conservation to communities in Pra-Anum forest zone?**

Research question three (3) sought to explore the key techniques and strategies used in communicating policies on forest use and conservation to communities in forest zones. A communication strategy is a plan for dissemination of information to an identified audience (Yang, 2022). The success of a communication strategy is based on the audience, the message, and the channels through which the information is delivered. Communication technique is the process of conveying, exchanging, or sharing information (Marketing91, 2021). Basic communication techniques include having a concise and clear message, showing empathy to the receivers, focusing, establishing trust, making observations, seeking clarification, open mindedness, taking feedbacks, and attentive listening (Marketing91, 2021; Yang, 2022).

Response was gathered by interviewing a member of the Forestry Commission, the Chief Executive of the Municipal Assembly, National Commission for Civic Education, the Environmental Protection Agency, seven (7) local authority members in Banka Circuit, and ten (10) members from the communities in the Pra-Anum forest area. The following approaches were found: The use of radio, television and print media; community gathering/fora; outdoor advertising; one-on-one interactions; online platforms (Social media and world wide websites); and community information dissemination centres

##### **4.4.1 Use of Radio, Television and Print Media**

With respect to the key tool used in communicating forest conservation policies to forest zone communities, respondents said radio, television and the print media were the commonest. This comprises of radio, television and the print media. Respondents from the

Forestry Commission stated that most of their forest conservation programmes were formulated and directly communicated from the National office, Accra. They explained that their national outfit use radio and television to disseminate their policies and programmes on forest use and conservation.

You see, our outreach programmes are all designed in Accra by our National Public Relations team. They also choose the media stations to disseminate information on forest use and conservation on. Their biggest preference is the old media platforms including radio, television and the print media. Because the print media has now seen low patronage, they concentrate on radio and television, with radio being the highly patronized. We here have little say in the choice, production and dissemination of information for the public. Ours is to further explain the content or any part of the content to whoever does not understand the information disseminated

The response from the Forestry Commission tallies with the assertions of the **British Broadcasting Corporation's World Service Trust (2010)** that the key tool or medium mostly employed in communicating environmental conservation programmes in Sub Saharan Africa is radio programmes, especially since radio appears to be the most frequently utilised communication channel among local communities in Africa. The findings are also affirming the definition of environmental management communication by Loureiro (2017) and Yang (2022).

It was also found that the techniques used in disseminating policies on forest use and conservation to communities in forest zones were drama, adverts and music.

We use radio and Television drama, jingles and music as a way of creating awareness and educating the public on forest use and conservation. These drama, jingles and adverts are constantly played at prime time on radio and television.

Majority of respondents from the communities in the Pra-Anum forest reserve area corroborated the response from the Forestry Commission. They rather expressed that they get more information on forest use and conservation on radio (FM stations) especially than on Television and the press. A respondent stated that *“my small radio on my yam phone*

*(non-smart phone) is my source of information.*” Observations done showed that the people in the Pra-Anum forest zone listen to radio mostly than they watch television. It was found that farmers even take along their radio receivers to their farms just to listen to programmes while working. Other people too listen to radio on their mobile phones. The observation affirms the 2021 National Population and Housing Census report that most rural dwellers in Ghana patronize radio more than television. It also buttresses the National Media Commission’s report that radio and television are one of the most effective tools to disseminate information in Ghana.

It was found that most of the information on forest use and conservation disseminated through the media were purposefully to create awareness and also deter forest and forest product users from misusing the forest. The Municipal Forestry Officer states *“the objectives for the radio and television adverts and programmes are simple. They are to sensitise and educate citizens all over the country on how to use the forest and its products.”* The findings are in line with the tenets of Advocacy theory such as inclusion and empowerment. It also confirms the tenets of environmental management communication, including forest conservation. Finally, the findings buttress the objectives of communication for social change, that is, changing the behaviour of a group of people by influencing their knowledge, attitudes and social norms through a singular or variety of communication techniques (Pradip, 2019).

#### **4.4.2 Community Gathering/Fora**

The respondents mentioned community gathering/fora as a way of communicating policies on forest use and conservation in forest reserves. Common places for the community fora include religious worship centres such as church buildings, mosques and shrines; community

centres, community parks, and market squares. At the gatherings, community members are educated on the dos and don'ts in relation to forest use and how to protect the forest from depletion. *"Officers come here occasionally to educate us on how to use and protect the forest"*, a respondent corroborated an earlier response by the Asante-Akim South Municipal NCCE Director when he was asked whether he organises training and educational sessions for the communities on environmental conservation. Sharing information and ideas on forest use and conservation through community gatherings and fora is in conformity with the explanation of the concept of communication by Khan (2022) and Loureiro (2017) that communication involves impartation, participation, sharing, or making an idea or phenomenon common to all.

The study also found that the community gatherings were mostly led by officers from among the following agencies: National Commission for Civic Education, the Forestry Commission, the Environmental Protection Agency, local authority leadership including Assembly Members, Unit Committee Members. Sometimes it is the combined effort of two or more of these institutions. The District Chief Executive of Asante-Akim South Municipality stated that *"Though not periodic, the (Municipal) Assembly organises education and training on environmental issues in the various communities with resource persons."* This finding is in sync with the assertion that advocacy is not solely concentrated on the media, though media is the main tool normally used by campaigners to effect advocacy (Melkote, 1991). It also conforms with the notion that government institutions and officials, local, national and internal institutions, religious affiliates, institutions or any person that matter are used in advocacy for results (Petri, et al., 2020; Singh, 2017).

It was however found that these community gatherings were not regular. They were rather held as and when factors such as resources (funds, personnel and materials) were available.

The Asante-Akim South Municipal Chief Executive indicates:

The (Municipal) Assembly organises social programmes based on the availability of funds, logistics and experts. Resource persons for such education and training programmes are also selected based on expertise, environmental challenges at hand, and availability. However, the most crucial resource is funding; and that has been very challenging most times.

Checks made by the researcher showed that the District Assembly Common Fund (DACF), the fundamental source of funding for the Metropolitan/Municipal/District Assemblies (MMDCs), has not been paid for almost two years (8 quarters). The Asante-Akim South Municipal Assembly, therefore, relied on an already deficit budget with funds raised internally (Internally Generated Fund) from market tolls at Obogu and Ofoase and other local level levies. Hence, community trainings and sensitisation through social gatherings were not regularly held. For instance, in the past three years, there had been only two zonal or community meetings held in Banka under the auspices of the Asante-Akim Municipal Assembly. The first meeting was to sensitise the communities in Pra-Anum forest zone (Banka circuit) on how to be watchdogs against illegal mining, popularly referred to as 'galamsey', and report any moves towards that to the Municipal authorities. The second forum was a meeting between the Banka community and the Municipal Assembly. The Banka youth had cited the Municipal Assembly as accomplice to a fraudulent act by the Banka chief to squander royalties that were supposedly paid by a company that was mining on the Banka land.



The findings reiterated the assertion that communication through community gatherings or fora remains crucial as far as the key techniques and strategies used in communicating forest conservation policies to communities in forest zones is concerned.

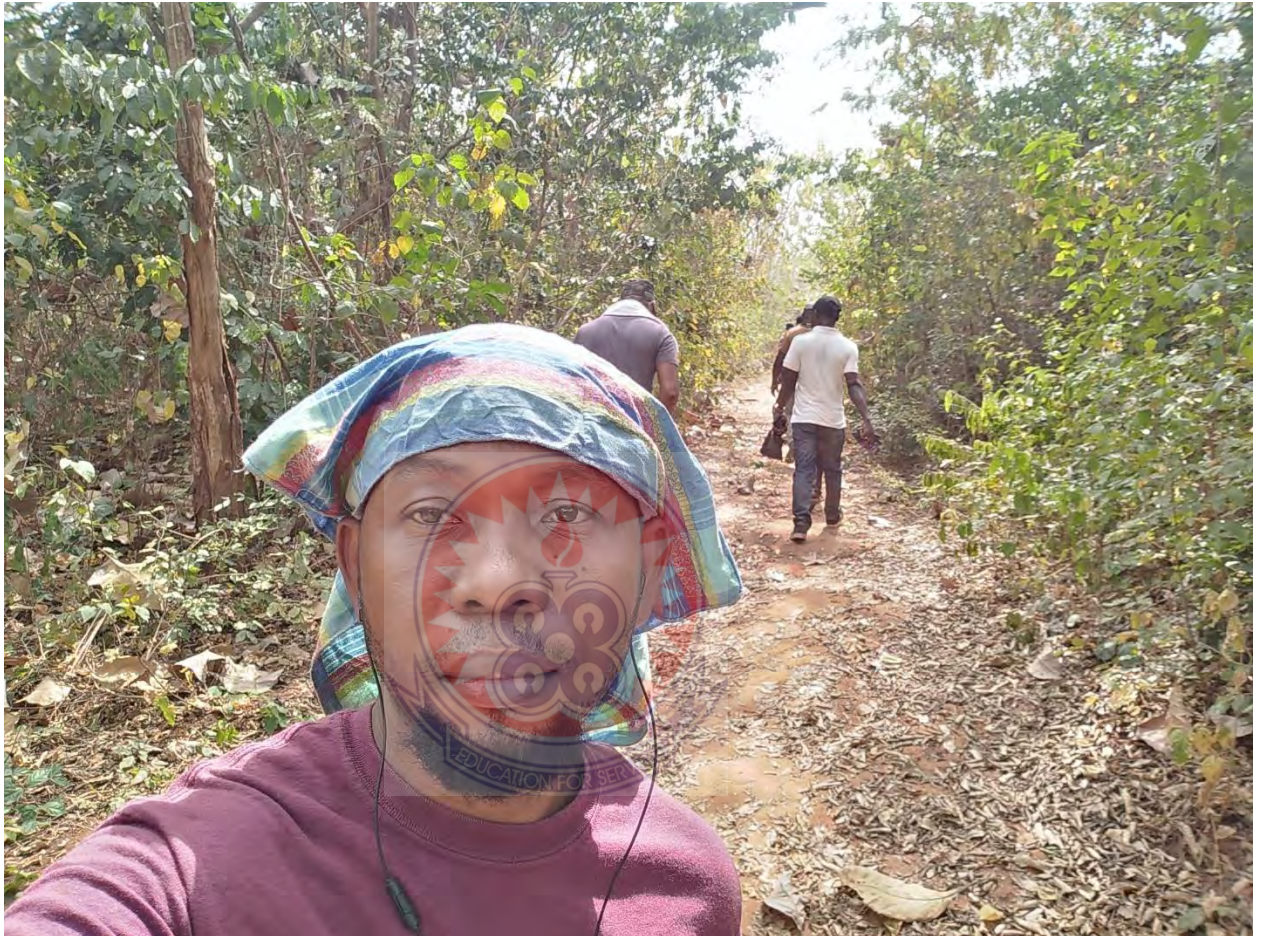


Fig. 3 Researcher going to the forest with forest guards and some members of Amantia Community

#### **4.4.3 Outdoor advertisement**

The study found that outdoor/public advertisement has been another way that state authorities communicate forest conservation policies and programmes to Ghanaians. Commonest among the outdoor advertisement that was found through observation by the researcher include billboards, placards and flyers as Figs. 4 shows.



Fig. 4. Billboard and placard showing messages imploring people to protect the forests

On national basis, billboards with a message for readers to “protect the forest” or “stop illegal lumbering” or “stop galamsey in our forests” are positioned on highways and near popular rest stops on major roads, and in inner cities. The billboards validate the District Forestry Officer’s claim that the national office erect billboards to educate and remind people of the need to protect the environment, including forests and reserves. Unfortunately, most of these

billboards were not erected in the forest zones or along their major roads. For instance, the researcher observed that there was no pro-vegetation or anti-illegal lumbering billboard in any of the communities in the Pra-Anum forest zone or the Banka Circuit or even in the Municipal Capital, Juaso, where vehicles branch to the Pra-Anum forest zone, or along the Juaso-Banka road. Also, messages on majority of the pro-environment billboards that were erected in the urban centres and highways were centred on illegal mining (galamsey) despite the fact that illegal mining is not the only activity that destroys the forest or vegetation cover. It was found out, despondently, that some billboards with forest protection messages were erected at wrong places such as Accra where people were not directly involved in forest depletion activities.

#### **4.4.4 One-on-One Interactions**

Pertaining to the key techniques and strategies used in communicating forest conservation policies, respondents mentioned one-on-one interactions as one of the most significant approaches. A respondent states:

Trained agricultural extension officers come here to meet we the farmers in our communities to communicate with us on the fundamental ways of protecting the forest. The officers sometimes visit us in our farms. They also train us on the best farming practices that we can perform. We the farmers are also given the opportunity to ask questions.

The district director of the Agricultural Extension Service also confirms:

One of our core mandates as Agric Extension Officers is to educate and train farmers on international best practices in farming along forests and reserves. The training and education programme involves several activities including training farmers on their farms on how to grow their seedlings along that of protected species of trees, how to use pesticides and weedicides, and how to harvest crops without destroying protected species.

The responses are in line with the assertions of Loureiro's (2017) definition of environmental management communication as a planned and strategic use of communication to support the development of effective policies and the implementation of projects and programmes that help sustain the environment. Communicating fundamental ways of protecting the forest in which the local people farm, and training farmers in forest zones on best farming practices also buttress Hoefler's (2012) assertion that education and sensitisation, training on best practices, and working on projects are some of the activities involved in advocacy. The one-on-one interactions were in line with Loureiro's (2017) assertion that Communication for Social change is the attempt to change the behaviour of a group of people by influencing their knowledge, attitudes and social norms through a singular or variety of communication techniques. In addition, giving opportunities to farmers to ask questions concerning their activities in the Pra-Anum forest reserve confirms the statement by Yang (2022) that citizens have the right to participate in environmental activities, from decision making through the implementation process to the evaluation stage.

Observations made by the researcher about the one-on-one approach of communicating forest conservation policies and programmes to communities in forest zones showed that just like the community gatherings, the one-on-one interactions were not regular. The one-on-one communication approaches were also held as and when resources such as funds and logistics were available. A respondent states:

The officers do not come regularly. I believe that they only come when there is some money to share. Then they quickly organise such programmes so they can squander government funds. Other than that, we are left to our fate to do anything in the forest; and once they visit you at the farm too, they will complain on everything, including how we even walk in the farm.

The statement by the respondent corroborates that of the Agric Extension Officer who stated that:

Let me be quick in adding that these one-on-one of face-to-face visits are not regular. We do it as and when there are resources to support it. The only resources also come from the central government. As I am talking with you now, subventions for last and this quarters have not been paid. Our office needs to wait until the subvention comes before we can operationalise such programmes. In such cases, the farmers are left to their fate and the forest is also left in their care.



Fig. 5. Researcher joins farmers in Tokwai on a tricycle ride to the farm in the Pra-Anum Forest Reserve

#### 4.4.5 Online Platforms (Social media and world wide websites)

Included in the key techniques and strategies used in communicating forest conservation policies to communities in forest zones is the use of the internet or online platforms such as Social Media and websites. The study found that government institutions including Ministries, Departments and Agencies (MDA) are currently using social media and websites to reach their target audience. The government institutions operate Social Media pages such as Facebook, Instagram, Twitter and YouTube, and websites to communicate their policies and programmes to their target audience. An observation by the researcher found that almost all the institutions associated with this study, including the Forestry Commission, NCCE, the Asante-Akim South Municipal Assembly, and the EPA, all have, at least, one social media handles, especially Facebook, where people can access information. For example, <https://www.forestrycommission> or <https://www.fcghana> open the website of the Forestry Commission where all information on the Commission and its activities can be accessed. A screenshot of the website of the Forestry Commission is shown in Fig 6.



Fig. 6. Screenshot of web pages of the forestry commission

Also, [www.facebook/asanteakimsouth](http://www.facebook/asanteakimsouth) takes one to Facebook Social Media Handle of the Asante-Akim South Municipal Assembly as shown in Fig. 7.

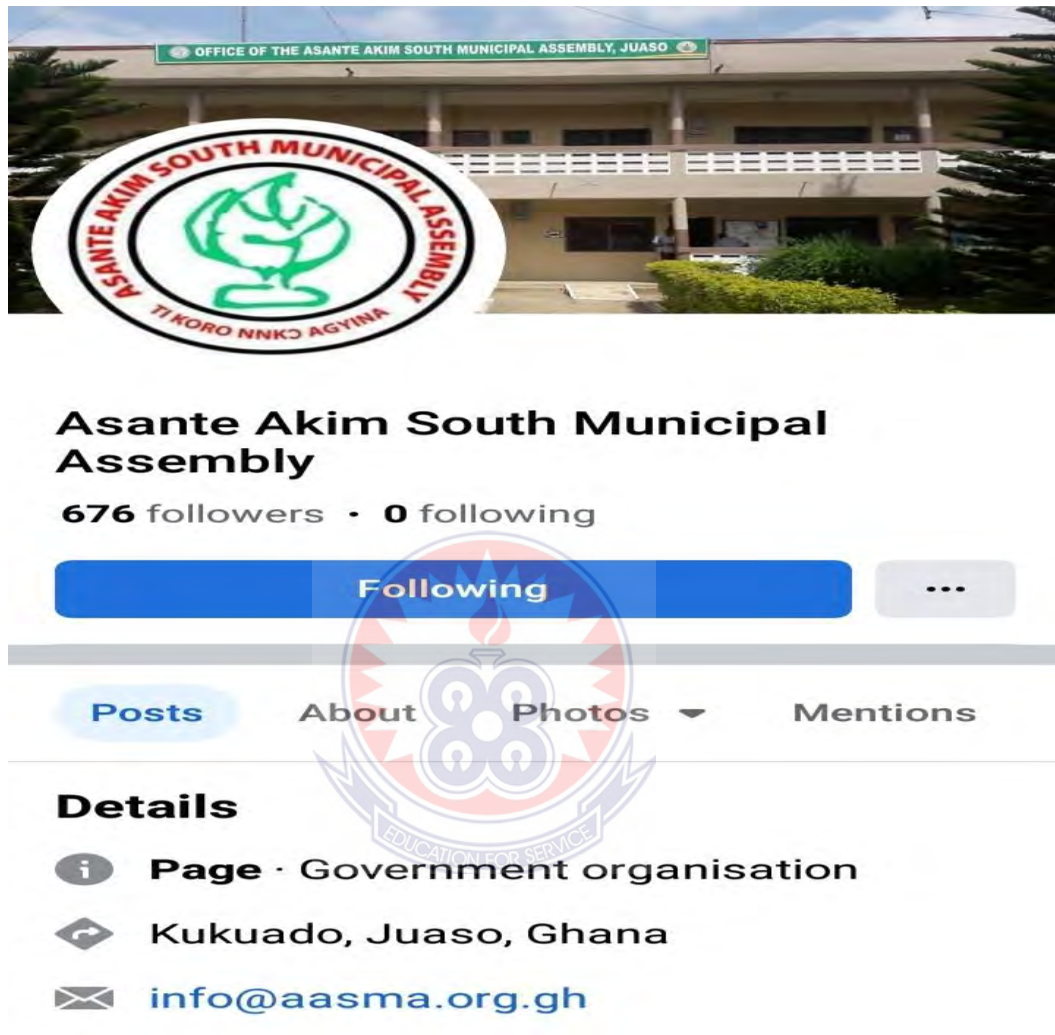


Fig. 7. Screenshot of Facebook page for Asante-Akim South Municipal Assembly

This finding is in line with the principles of the Aarhus Convention which are access to information; ensuring public participation; and the public's access to justice.

It was, however, found that one challenge with the use of the internet in communicating forest conservation policies to communities in forest zones is cloned Social Media pages and websites. Some institutions associated with the study have more than one page on a particular

Social Media site. For instance, Asante-Akim South Municipal Assembly has more than two Facebook pages at the time of the study. This makes it challenging to know the genuine page especially when the ‘Bluetick’ authentication has not been activated by the handlers. The ‘Bluetick’ authentication is the signal given by Social Media operators that a particular page with the blue-tick symbol is authentic and a true representation of the person or institution found there. Figs. 8 and 9 show the screenshot of Facebook pages that pop up when one looks for Asante-Akim South Municipal Assembly with Facebook search engine.

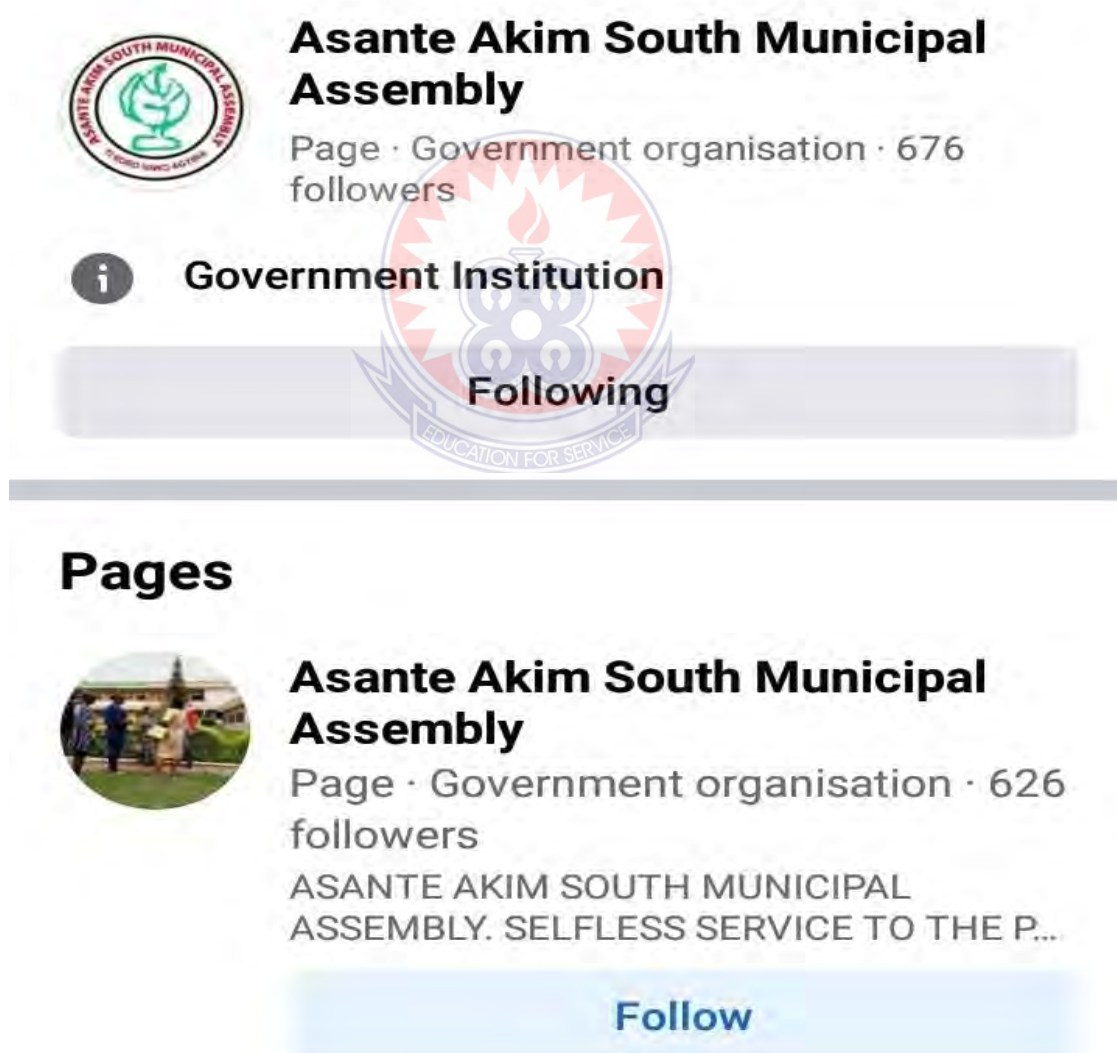


Fig. 8. Facebook Search engine showing two Facebook pages for Asante-Akim South Municipal Assembly



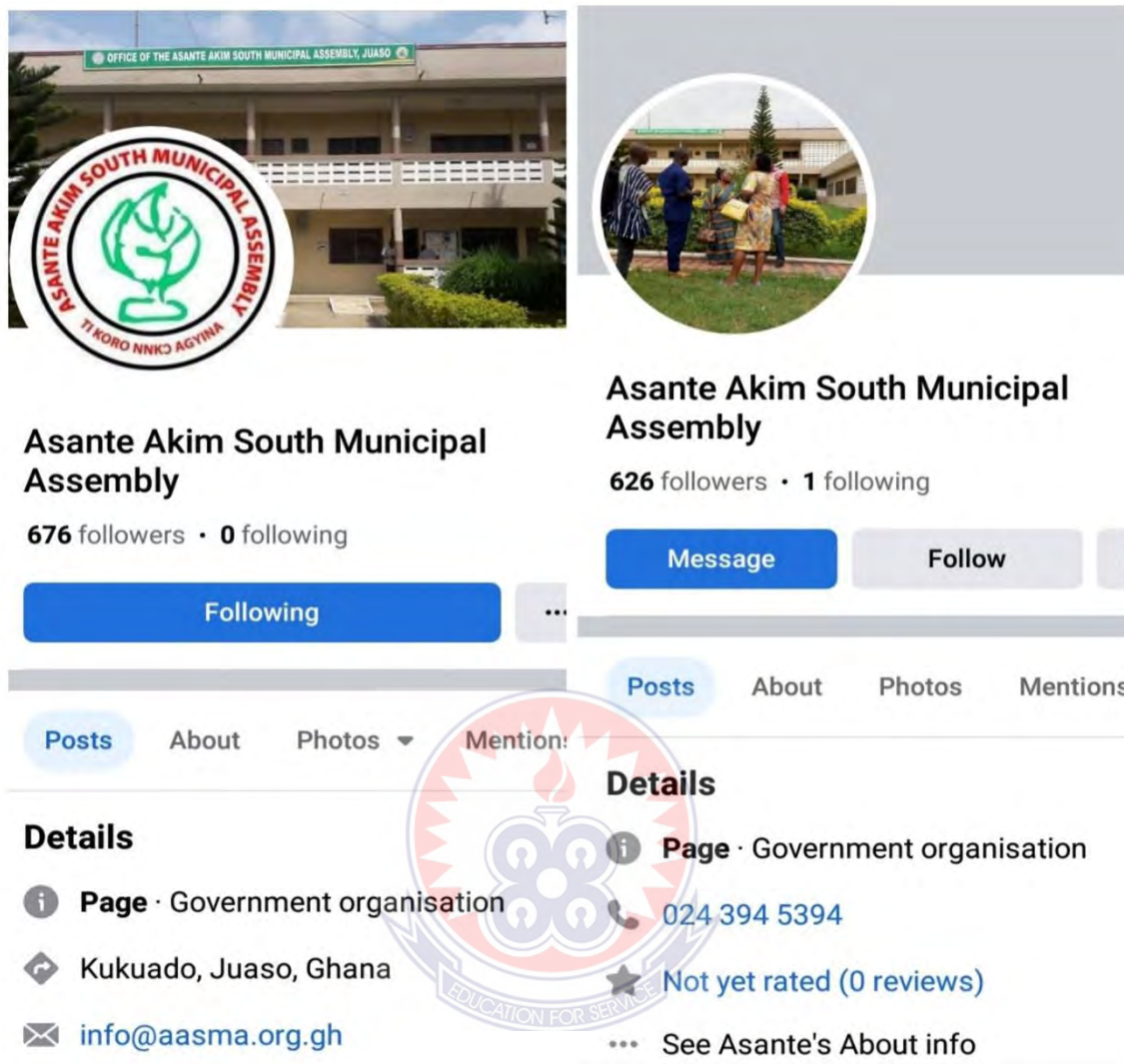


Fig. 9. Facebook Search engine showing two different Facebook profiles for Asante-Akim South Municipal Assembly

Another search for the Forestry Commission on Facebook showed more than five pages as shown in Fig. 10. This makes it challenging for people to know which social media page to pick information from.

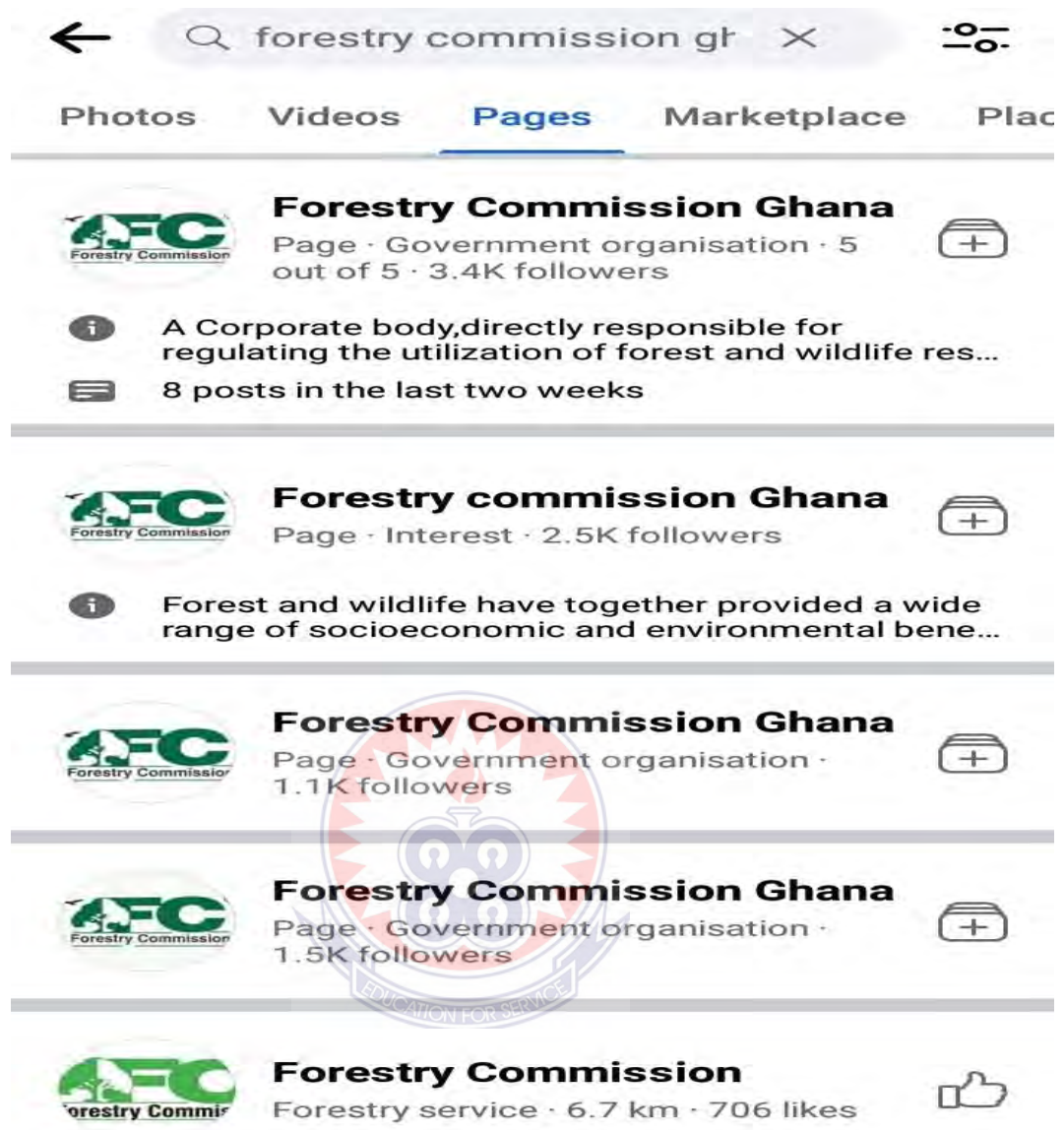


Fig. 10. Facebook Search engine showing some of the several Facebook pages managed by the Forestry Commission

Also, not all the institutions related to this study have active Social Media handles and websites. Though the National office of the NCCE has its Website and Social Media handles, it was found that the Asante-Akim Municipal office has none. It is therefore challenging to access local information of the NCCE at the Municipal level. Some of the institutions have not also updated their Social Media pages and websites for some time. Asante-Akim South

Municipal Assembly, for instance, had not updated its Facebook page since June, 2022 as shown in Fig. 11.



Fig. 11. Screenshot of one of the Facebook pages of Asante-Akim South Municipal Assembly showing the date of the last time the page was updated

The main, and in fact greatest, challenge of using the internet with its associate Social Media and websites to communicate policies and programmes on forest use and conservation is the communication gap in rural Ghana. The Population and Housing Census, 2020 found that most rural communities in Ghana do not have access to internet. Hence, putting information

on the internet would not reach rural Ghanaian dwellers who are the main users of the forests. This makes the information ineffective.

#### **4.4.6 Community Information Disseminating Centres**

The study also found that Information Disseminating Centres were used to communicate forest conservation policies to communities in forest zones. Community Information Dissemination Centres (CIDCS), also referred to as Rural Information Dissemination Technology Centre (RIDTC) by Ofori-Birikorang and Aggrey (2018), and popularly known in Ghana as ‘Information Centres’, have been the new way of generating and disseminating information in rural areas in Ghana to purposefully fill the urban-rural information gap. The core idea of CIDCs is to get information, prepare information and disseminate information to the local people with simple logistics including a microphone, speaker horns, tuner and amplifier (Ofori-Birikorang & Aggrey, 2018). It was found that most of the communities in Banka Circuit have, at least, one Community Information Dissemination Centre through which every information is communicated to the community members. The Municipal Assembly, Forestry Commission, Environmental Protection Agency, NCCE, and the Zonal Council use these CIDCs to disseminate information on forest use and forest conservation to communities in the Pra-Anum forest reserve. The Assembly member for the Ata-ne-Ata electoral area explained that:

Sometimes, the Assembly send information to us, then we reframe and disseminate it through the Information Centres. We mostly do such communication in the early morning when most of the people had not gone to farm yet or in the evening when majority of the farmers had returned home. The onus lies on the Unit Committee Members in the community to make sure that the information had been disseminated.

One challenge that the study found was that the message disseminated to the community members can be distorted due to miscommunication. Translating messages from English

Language, which is the official and usual communication line for most government institutions, to Asante-Twi, the local language spoken in Banka-Circuit, comes with its own challenges. Some English words do not have their direct Twi synonyms to use. For instance, mentioning laboratory-created tree species in Twi is very challenging. One can only describe them, and this might be challenging to grasp by the farmer. Again, it was found that operators of the Community Information Dissemination Centres were not experts to accurately disseminate information of forest conservation policies. This would have an effect on the quality of message disseminated to the local people.

#### **4.5 Conclusion**

This chapter discussed the findings and analysis of the research questions for the study. The study discovered that policies on forest use and conservation are enacted based on three main themes: awareness, prevention and motivation. the study also found that communities in forest zones have not been involved in the enactment of policies on forest use and conservation, though state policies have stated that local people should be involved in the enactment of policies affecting them. The study also found that policies on forest usage and conservation are communicated to communities in forest zones predominantly through six (6) channels, namely radio, television and print media; community gathering and fora; outdoor advertisement, one-on-one-interaction; social media and websites; and Community Information Dissemination Centres.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter summarizes the important issues that were raised in the study, draws conclusions and makes recommendations to enable stakeholders of the forest and forest products know how to communicate forest use and forest conservation policies to communities in forest zones. The chapter also provides suggestions for further research.

#### 5.1 Summary

The main objective of the study was to investigate and understand how laws and policies on forest usage and conservation are communicated to people living in forest zones. This was expanded to three specific objectives which were to examine the content of the policy framework on forest usage and conservation in Ghana; find out the extent to which communities in forest areas in Ghana are involved in the enactment and implementation of policies on forest usage and conservation; and investigate how policies on forest usage and conservation are communicated to the communities in forest areas in Ghana. The study was underpinned by the theory of Advocacy and the theory of Participatory Communication. In all, five chapters made up the entire study. Each chapter focused on various aspects of the topic under study which came together to address the objectives of the study. Through an ethnographic study of the social actors at the selected sites and with the use of observations, informal semi-structured interviews and focus group discussions, I was able to elicit

responses for the research questions. I was also able to solicit data to fulfil the research objectives.

## **5.2 Main Findings**

The study discovered that forest use and conservation policies in Ghana were enacted on three main themes which are Awareness, Coercion and Motivation. This buttresses Miller (2010), National Environmental Policy Act (1988) and UNEP's (1972) assertion that most forest use and conservation policies are enacted on three main themes of awareness, coercion and motivation. The study however discovered that coercive policies on forest use and conservation outweigh the other two mechanisms (awareness and motivation). This is evident in the number of preventive policies that the research revealed compared to the policies for awareness or motivation. The study also discovered that some of the policies for protecting the forests were sometimes unclear and indecisive, and overlapping in their implementation. It was also evident that the law making and implementation institutions were numerous, overlapping as well and competing for space and power. This had created loopholes for people to override the policies and exploit the forest.

The study also discovered that institutions such as the Forestry Commission, the Forest Services Division, Forest Products Inspection Division, Wildlife Division, Timber Export Development Division, Environmental Protection Agency, Metropolitan/Municipal/District Assemblies, Zonal Councils, and Traditional authorities all helped to protect forests and forest reserves, enacted and implemented laws and policies on forest use and conservation; they equally punished law breakers on forest use and conservation, and promoted forest use and conservation in forest zone communities.

In addition, the study revealed that there was less involvement of communities in forest zones in the formulation of policies on forest use and conservation. This had made most of the policies on forest use and conservation alien, unadaptable, inapplicable, and seemingly abhorrent to the communities in forest zones. It was also a contrast to the assertion by Kent and Lane (2021) that local people should be involved in all the phases of the development process from planning to the delivery stages. However, there was some improvement in the involvement of communities in forest zones in the implementation of policies on forest use and conservation. The study revealed that local people were mostly used to spy on and report others who encroached on reserves. The localisation of the forest guard portfolio in forest zones confirms Pavarala and Malik's (2021) summation of participation in communication as community implementation of policies and programmes formulated by government.

Furthermore, the study revealed that radio, television and print media; community gathering and fora; outdoor advertisement, one-on-one interaction; social media and websites; Community Information Dissemination Centres, and government officials were the main ways through which policies on forest use and conservation were communicated to the communities in forest zones. This affirms Melkote's (1991) exposition that advocacy is not solely concentrated on the media, though media is the main tool normally used by campaigners to effect advocacy. It also supports the assertion by Petri, et al. (2020) that government institutions and officials, local, national and internal institutions, religious affiliates, and all persons or institutions that matter are used in advocacy for results. Among the ways of communicating forest use and conservation policies to local communities, the study found that the most common ones were the community gathering and fora, one-on-one-interaction, and the use of community Information Dissemination Centres. However, the



means of communicating forest use and conservation policies to communities in forest zones that were hardly seen or heard or patronised by the forest communities included television and print media, outdoor advertisement, and social media and websites.

### **5.3 Conclusions**

The study concludes that while some of the policies for protecting the forests were sometimes unclear and indecisive, and overlapping in their implementation, the law making and implementation institutions were also numerous, overlapping, and competing for space and power which had created loopholes for people to override the policies and exploit the forest.

The findings showed that though most modern development projects had participation component in it as Waisbord (2014) expressed, few of such participatory components were applied. Also, local people of the communities in forest zones were mostly overlooked when policies were being enacted on the use and conservation of forest products. However, these forest zone communities were involved in the implementation of such policies, especially by localising forest guarding system.

Finally, it is concluded that not all the means of communicating forest use and conservation policies to forest zone communities are effective. Some of these communication mediums such as using outdoor advertisements including billboards, newspapers and the internet do not reach the communities in forest zones.

#### **5.4 Limitations**

The study set out to investigate how policies on forest use and conservation are communicated to communities in forest zones in Ghana.

One limitation of this study is the fact that it focused on a single case study, namely the Pra-Anum forest zone. As a result, the findings of this research cannot readily be extrapolated to other forest zones. Any attempt to extrapolate the findings would be to ignore the large variation between the forest communities in terms of region, group philosophy, culture, and models.

Getting informants to interview was also a very big challenge. Gathering community members for the focus group discussions was one big challenge because sometimes set time by group members could not be met as sometimes some of the informants would not have returned from their places of work/farms. I needed to sometimes wait for long hours before discussions could be held. Again, the idea of having to record the discussion sometimes drew them back, even though we had agreed on these prior to the discussion. It sometimes took me long and persuasive time to get informants to speak. The two focus group discussions, however, produced adequate data which represented the various social actors at the selected sites.

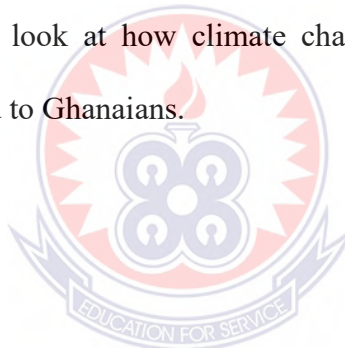
These limitations, notwithstanding, the credibility of the study was not affected in any way, as the study has critical implications for further studies.

## **5.5 Suggestions for Further Research**

It is suggested that a follow up study can be done using two or three forest zone communities and comparing their involvement in the enactment and implementation of forest use and conservation methods, and how forest use and conservation policies are communicated to these forest zone communities.

Further studies can investigate how gender issues are portrayed in environmental communication such as communicating environmental conservation policies to males and females in Ghana. This will go a long way to determine the rate of effect that environmental conservation policies have on males and females in Ghana.

Future researchers can also look at how climate change issues, another environmental challenge, are communicated to Ghanaians.



## **5.6 Recommendations**

Based on the discussions and conclusions of the study, the following recommendations are made.

1. Policies on forests use and conservation should be clear, apt and decisive, and straightforward. They should be simple and easy to interpret and implement. This recommendation is as a result of the findings of the study that some of the policies for protecting the forests were sometimes unclear and indecisive, and overlapping in their implementation. Making forest use and conservation policies clear, apt and decisive make it easier for everybody to explain and/or implement such policies.

2. The law making and implementation institutions for forest use and conservation should be streamlined, with each having clearly-cut powers, mandate, functions, and their respective checks and balances machinery in order to prevent excesses, unnecessary overlapping, and the fight for space and power. The study found that the law-making and implementation institutions were also numerous, overlapping, and competing for space and power which had created loopholes for people to override the policies and exploit the forest. Streamlining the institutions that make and implement forest use and conservation policies will bring sanity in the institutions.
3. Participatory components in policies, especially on environmental communication, should be fully applied during enactment and implementation of policies on forest use and conservation. The study found that local people of the communicates in forest zones were mostly excluded when policies were being enacted on the use and conservation of forest products. Involving local people in forest zones in the enactment and implementation of forest conservation policies will make them contribute directly to policies and projects that directly affect them.
4. Stakeholders of forest use and conservation should concentrate on and enhance strategies and tools that highly reach and benefit communities in forest zones. It was concluded that not all the means of communicating forest use and conservation policies to forest zone communities are effective. Some of these communication mediums such as using outdoor advertisements including billboards, newspapers and the internet do not reach the communities in forest zones. Concentrating on and enhancing policies that highly reach and benefit communities in forest zones will help protect and preserve more forests in Ghana.

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<https://www.unece>

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## APPENDIXES

### APPENDIX A – INSTRUMENTATION

#### Interview Guide for collecting data

#### **Objective 1. Examine the content of the policy framework on forest usage and conservation in Ghana;**

1. What are the policies that are used to regulate forest use and prevent forest depletion?
2. What are the main themes found in forest use and conservation policies?
3. Which institution(s) enact and/or the policies that regulate forest use and aid forest conservation in Ghana?

#### **Objective 2. Explore how communities in Pra-Anum forest area in Ghana are involved in the enactment and implementation of policies on forest use and conservation**

1. What is the process of enacting of policies on forest usage and forest conservation in Ghana?
2. Who is involved in the enactment of policies on forest use and forest conservation in the Pra-Anum forest zone?
3. What processes are involved in implementing policies on forest use and forest conservation in the Pra-Anum forest zone?
4. Who are the local people involved in the implementation of policies on forest use and conservation in Pra-Anum forest zone?

#### **Objective 3. Investigate the tools and strategies used in communicating policies on forest use and conservation to communities in Pra-Anum forest area in Ghana**

1. What Type of information on forest use is disseminated to people living in communities in the Pra-Anum forest-zones?
2. Who does the information dissemination on forest use and conservation to communities in Pra-Anum forest zone?

3. What are the tools/channels used in communication forest use and conservation policies to communities in Pra-Anum forest zone?
4. What are the strategies used in communicating policies on forest use to communities in Pra-Anum forest-zones?



**APPENDIX B- SOME SELECTED POLICIES ON FOREST  
CONSERVATION**



Global  
Forest  
Resources  
Assessment  
2020  
*Key findings*

This publication contains the main findings of the *Global Forest Resources Assessment 2020* (FRA 2020). The data in FRA 2020 – the “backbone” of the assessment – have been obtained through a transparent, traceable reporting process and a well-established network of officially nominated national correspondents. The application of a standardized reporting methodology enables the monitoring of change over time in parameters such as forest area, management, ownership and use and the aggregation of data at the regional and global levels.

The information provided by FRA presents a comprehensive view of the world’s forests and the ways in which the resource is changing. Such a clear global picture supports the development of sound policies, practices and investments affecting forests and forestry.

FRA is the mechanism for collecting data on two forest-related indicators of the Sustainable Development Goals (SDGs), which the United Nations General Assembly adopted in 2015. Specifically, data submitted to FRA contribute to reporting on SDG indicator 15.1.1 (forest area as a proportion of total land area in 2015) and indicator 15.2.1 (progress towards sustainable forest management).

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