

**GHANA INSTITUTE OF JOURNALISM  
SCHOOL OF GRADUATE STUDIES AND RESEARCH**

**ASSESSING THE ROLE OF COMMUNITY RADIO IN PROMOTING  
ENVIRONMENTAL SUSTAINABILITY IN GHANA: A CASE STUDY OF  
DENKYEMBOUR DISTRICT**

**BY**

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**DECLARATION**

**CANDIDATE’S DECLARATION**

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

SIGNATURE.....DATE.....

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**SUPERVISOR’S DECLARATION**

I hereby declare that the preparation and presentation of this work were supervised in accordance with the guidelines for supervision of thesis laid down by School of Graduate Studies and Research, Ghana Institute of Journalism.

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NAME: DR. DANIEL ODOOM

## **DEDICATION**

To my elder brother Mr. Godfred Kofi Asare for his fatherly role and encouragement.

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## **ABSTRACT**

The study examined the role of community radio in promoting environmental sustainability in Ghana using Denkyembour district as a case. The study relied on the mixed methods approach, with questionnaire, interview schedule and focus group discussion as the research instruments. A total of 100 respondents made up of community members and staff of three radio stations were involved in the study using purposive and convenience sampling techniques. Quantitative data obtained was analyzed using frequencies, percentages, means and standard deviation whilst content analysis was done for the qualitative data. The study found that community radio stations contribute to the engagement in civic education and promotion of peace building consensus in the district. Also, community radio stations in the district have put in place measures such media discourses on environmental issues, public education on bushfires and public education on deforestation in promoting environmental sustainability in the district. However, financial constraints, poor technology, logistical challenges, unstable power supply in the region, among others hampered efforts of community radio stations to promote environmental sustainability in the district. This study recommends the introduction of awards by government, Ghana Journalist Association and corporate bodies to community radio stations that pay increased attention to environmental sustainability.

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## **CHAPTER ONE**

### **INTRODUCTION**

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

Communication is undoubtedly central to the development of every society. This shows that communication and development are inseparable. As a result, there is no progress without communication. It is noteworthy to convey development messages, using appropriate communication channels and techniques (Coldevin, 1987), in not only helping to improve the living condition of the people, especially the marginalized group, but also in increasing their participation in the development process (Omeonu et al, 2020). Mass communication medium such as radio has gone a long way in promoting relevant developments in society. Its importance to the communities and the nation as a whole can be experienced through the mode of delivery, nature and the impact on the general public.

This study explores the role of community radio in raising awareness, education and knowledge about the environment, since man is environment-dependent; there is need for all to be conscious about the environment. The challenges associated with the environment require urgent attention for man's benefit as well as generations to come. Therefore, there is an urgent need for a more structured and targeted communication approach to environmental issues, problems and challenges. Community radio works well when radio stations broadcast to different geographic communities, where different racial and social groups exist in that geographic area and there may be power imbalances in that area; and that the airwaves on a community radio station should be opened to those members of communities who are not heard on other media (Tucker, E. 2013).

Sustainability is defined to be "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations [UN], 1987). This involves three main pillars which are informally identified as people, planet and profit. More

coherently, these include social, which focuses on the interconnectedness of systems and processes that support the building of healthy, livable communities that can support each other. In business, sustainability initiatives often involve fair working practices, employee health, wages, diversity and equality. The economic pillar on the other hand refers to the idea of efficient and responsible use of resources for long-term benefits. In business, profitability can be equated with lifespan. In short, moving to a sustainable business can increase the viability of your business in the long run.

The third pillar of sustainability, which is environmental, shows that maximizing energy efficiency while reducing carbon dioxide emissions, waste, and business water use can provide environmental and economic benefits, while responding to community input. This pillar of sustainability gets the most attention as it dovetails well into the UN sustainable development goals. The issues of environmental degradation, conservation, protection, sanitation and management now take the centre-stage in the business development and survival policies of most corporate and non-corporate organizations. This global or environment-driven trend dates back to the 1972 United Nations Conference on the Environment in Stockholm, Sweden. It draws attention to the many unfortunate consequences that arise from human and corporate neglect or abuse of the environment, and cautioned that the environment can no longer be taken for granted and individuals and businesses must take specific and intentional actions to maintain, protect, regenerate and maintain a healthy environment for human existence, growth and sustainable development (UN, 1972).

Corporate Social Responsibility theory as propounded by Archie B. Carroll in 1991, embodies environmental sustainability as well as the other two pillars of economic and social sustainability and serves as vehicle in realizing the UN SDGs. It shows sound environmental management which is vital to many companies, and they reflect this value in their CSR

programmes with long term effect on the bottom-line. This theory therefore buttresses the point of ensuring that environmental sustainability is embraced and achieved by all.

There is also the Stakeholder theory popularized by Edward Freeman in his 1984 book, *Strategic Management*. He defines this as “any group or individual who can affect or is affected by the achievement of the organization’s objectives.” The basic principle of stakeholder theory is that the stronger the relationship with other external parties, the easier it is to achieve the business goals of the company. The worse your relationship, the harder it is. Lasting relationships with stakeholders are based on trust, respect and cooperation. Researchers have suggested that if you consider the global impacts of industry such as climate change or cultural changes due to marketing and advertising everyone is a stakeholder. Therefore, all are part of the process of making the environment a safe place to be.

Sustainability and Sustainable Development are interconnected and are used interchangeably. Whereas sustainability is a broad term showcasing the management of resources without depleting them for future generations, sustainable development is concerned with the processes for improving long-term economic well-being and quality of life without compromising future generations’ ability to meet their needs. The UN SDGs of 17 goals and 169 targets, are possibly the most inclusive universal agenda endorsed since the UN Charter in 1945. Its thematic set ranges from poverty, health, education, inequality, energy, infrastructure, climate change, marine resources, peace, security, and good governance (Langford, 2016).

The need to achieve environmental sustainability is crucial as businesses cannot be successful when the society around them fails. Environmental sustainability, as echoed by the UN sustainable and millennium development goals (SDG, 15; MDG, 7), can be greatly facilitated through initiatives on radio designed to educate stakeholders on practices that negatively impact the environment. For example, in developing countries such as Ghana, the government

has established the Environmental Protection Agency (EPA) and other related conservation or improvement organizations to redirect individuals, groups and corporate entities towards the attainment and sustenance of a healthy environment in the country at all levels. These organizations set guidelines to monitor and identify activities related to environmental protection and preservation. The government has enacted various legislation to empower individuals and businesses across the country to carry out these functions and to encourage healthy environmental habits. Today, more attention is geared towards the mining industry as most of the activities in this industry affect the environment. The fact remains that the environmental issue is a value to which citizens in every nation refers, on which public expresses judgments and opinions, and which requires decisions and attitudes from all social classes, governments, enterprises, unions and others.

The United Nations Environment Programme in Rio de Janeiro in 1992 is one of the valuable proofs that the environment is one of the most universally recognized values. Out of 178 countries, 118 of which embodied by Head of States, could deliberate environmental issues; where international agreements could be signed. Another proof is given by the many Green Directives originated by the European Union, in which most of them had already converted into national laws and regulations by the European countries. All these strategies and policies cannot achieve this goal without the full involvement of the mass media with community radio as a tool. It has the ultimate power for successful creation of environmental consciousness, conservation and preservation in Ghana and in Africa as a whole. The people therefore are encouraged and motivated to take appropriate actions that emancipate them from problems and improve overall living conditions which is the ultimate goal of society (Omeonu et al, 2020).

Community radio as a tool of mass communication, help educate, empower and equip citizens with adequate knowledge of events that unfold at particular periods. Community radio, as a mass communication medium, help establish interaction between people, communities and the

entire nation in championing development. Community radio should enable people participate in the environmental issues of society and take ownership, unlike the current situation where collective interest is nobody's business (Omeonu et al, 2020). Therefore, this study seeks to examine the role of community radio in promoting environmental sustainability in Ghana using Denkyembaour district of the eastern region as a case.

## **1.2 Problem Statement**

Mass communication mediums especially radio has become crucial in the delivery of development programmes in communities. Thus, for any development activity to be accomplished, community radio as a tool is indispensable. Many government efforts at reaching the various rural communities with decentralization benefits have proved futile due to poor coverage and information dissemination. Various governments have had turns through policies (EPA, 1995) to address the issues of environmental sustainability. This requires effective strategies from stakeholders to effectively deal with the menace undermining achievement of a sustainable environment. The achievement of development policies, programmes and projects is largely determined by the ability to marshal the masses for such programmes, policies or projects (Nwabueze, 2007); hence the need for mass communication medium of radio for campaigns on environmental sustainability. The usage of community radio for effective campaigns across the world, cannot be overemphasized.

Most of the recent studies focused on the use of mass media without emphasis on community radio to create environmental awareness. (Anatsui and Adekanye, 2015) postulated that if mass media tools like radio had not existed, they may not have been indispensable. Their persuasiveness cuts across behavioural, scientific, and even the environment. Studies on the use of community radio in promoting environmental sustainability in Ghana are limited with majority concentrating on all mass media tools including radio.

This study is intended to assess the role Community radio as a tool of mass media plays in promoting environmental sustainability among a selected section of the general public specifically within a district. The Denkyembour district presents one of the best places for this study as diamond mining and other activities have negatively impacted the environment. The District's natural environment is characterized by numerous problems, emanating from the rainfall pattern, nature of micro soils, use of wood as fuel energy for cooking, farming and other household activities. The relatively hilly nature of the northern part of the District, coupled with the intensive farming activities using traditional practices has led to severe erosion and deforestation. On the issue of Health, Doctor-Patient ratio is very low in the District. The ratio is 1:54. Malaria, Diarrhoea, Urinary Tract Infections, Anaemia, Hypertension and HIV& AIDS are among the top 10 diseases in the District. The total number of pregnant women tested for HIV in the second quarter of 2016 stands at 885 (66.11%) with 12 (14.21%) being positive. There is a lack of comprehensive knowledge of HIV and AIDS/STIs, especially among the vulnerable groups. The district has huge gaps in geographical access to quality health care (e.g. urban and rural). Among some of the critical problems encountered by the district which community radio can help resolve are inadequate and unreliable infrastructure, limited access to market information and low adoption of technology. Also, the district is confronted with poor quality and inadequate road transport networks, ineffective and inefficient spatial/land use planning and implementation particularly in the urban areas. There will be the need to know how this study will solve problems relating to community radio broadcast in the region and how that will translate into policy formulation by the various District Assemblies and or the Regional Coordinating Council and any other media related agencies like the Information Services Department. These and many other related issues provided the impetus for this study to be carried out so as to examine the role of community

radio in promoting environmental sustainability in Ghana using Denkyembour district of the eastern region as a case.

### **1.3 General Objective**

The main objective was to examine the role of community radio in promoting environmental sustainability in Ghana using Denkyembour district in the Eastern Region as a case.

#### **1.3.1 Specific Objectives**

Below are the specific objectives:

1. Ascertain the contribution of community radio stations to the development of the Denkyembour district
2. To explore the measures community radio stations have put in place in promoting environmental sustainability in the District.
3. Assess the level of environmental sustainability awareness amongst the people in the District.
4. Examine the challenges community radio stations in Denkyembour district face in their efforts to promote environmental sustainability in the District.

### **1.4 Research Questions**

The following questions will be explored:

1. What is the contribution of community radio stations to the development of the Denkyembour district?
2. What measures have been put in place by community radio stations to promote environmental sustainability in the District?
3. What is the level of environmental sustainability awareness amongst the people in the District?
4. What challenges do community radio stations in Denkyembour face in their efforts to promote environmental sustainability in the District?

### **1.5 Significance of Study**

This study will be of practical value to the efforts of enhancing community radio systems in Ghana. The results of this study will also contribute towards rural development as a whole. It serves as a source of encouragement to modern mass media programme planners. The study also emphasizes the vital need to adhere to community radio principles and effective communication systems in the development of a given community. Furthermore, the study will be of direct benefit to community radio stations in Ghana, since they will draw a deeper understanding of their main aim of establishment. It will also serve as a baseline for further research in the adherence of community radio principles.

The findings of the study are significant to three main groups; academia, individuals and policy makers. To academia, the outcome of this study contributed to bridging the existing gap in literature regarding the role of community radio in promoting environmental sustainability. The identification of this specific role can inform literature as to how environmental sustainability can be realized or achieved amongst the people.

Applications of the findings made by the study will help individuals to be able to know the significance of radio within their locality with regards to environmental awareness creation. Individuals can therefore make informed decisions about their environment and the need to be sustainable in their activities.

Finally, policy makers can find empirical basis to support policies that would enhance environmental sustainability. Policy makers and other stakeholders can develop appropriate strategies and programmes to achieve environmental sustainability. These can be included in the Environmental Protection Agency laws and activities concerning the environment to impact the rest of the country.

## **1.6 Limitations of the study**

There was reluctance and lack of commitment on the part of respondents to answering the questionnaires. Many difficulties such as time factor and budgetary constraints may be encountered by the researcher due to the time allocation to complete this study.

### **1.6.1 Delimitations of the Study**

The study focused on examining the role of community radio in promoting environmental sustainability in Ghana using Denkyembour district of the eastern region as a case. In order to work successfully within the limited time and available resources, the study only focused on the use of community radio to sensitize the people of Denkyembour district about environmental sustainability.

## **1.7 Outline of the Study**

This study is organized into five (5) chapters. Chapter one contains the background to the study, problem statement, significance of the study, scope and limitations of the study. Chapter two is devoted to the review of literature. It broadly contains a theoretical review and empirical evidence gathered on the subject of study.

Chapter three describes the methodology to be used for this study. This comprises the research strategy, sources and method of data collection, the type of data (primary and secondary) as well as description of the mode of the analysis and presentation of data.

Chapter four is devoted to discussing research finding resulting from the analysis of data while chapter five summarizes the research findings and conclude the study as well as suggest recommendations for policy change.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter seeks to review much of what already sets up the discussion on community radio operations. It looks at the theoretical framework, a review of concepts and key issues informing the study, and the empirical review. Other issues contained in the chapter are conceptual framework and the chapter summary. Specifically, issues such community radios, community radio; media role and radio in development have been reviewed in the chapter.

#### **2.2 Theoretical Framework**

The modernization theory, the participatory communication theory and the sustainability theory ground this study as discussed below.

##### ***2.2.1 Modernization Theory***

Literature on modernization is expansive and the highly cited and foundational works in the field are Lipset (1959), Inglehart and Welzel (2005), and Inglehart, Norris and Welzel (2002). Modernization premise is that industrialization and economic development has a potential to produce a trickle-down effect of profound social impact on living conditions through enhanced educational, socioeconomic, and political development. Lipset argues that "the more well-to-do a nation, the greater the chances that it will sustain democracy" (Lipset, 1959). According to him, rich countries are more likely to achieve the levels of education and urbanization, means of communication, social equality, and mobility to facilitate democracy. As a proponent of this thesis, Rostow (1960) sees Western countries as taking a leading progress and development for non-Western countries to imitate. He predicts that ultimately, the economies of less developed countries will be transformed into likenesses of industrialized Western countries, with high levels of consumption, democratic political institutions, technologies, and values, which are all considered core elements to be 'modern'.

From this interpretation, modernization is taken as a development process that occurs from a 'traditional' to a 'modern' society. Using this logic, he theorized a linear path to democracy through five phases of economic development: "The traditional society, the preconditions for take-off, take-off, the drive to maturity, and the age of high mass consumption" (Rostow, 1960). Modernization theory was well accepted, and by the 1950s, Western economists and sociologists were seriously concerned with modernizing newly independent ex-colonies, attempting to institute programs to assist them through the phases towards 'catching up' with industrialized countries. In the political context, this essay refers to modernization as a process of political development towards democracy and equality through legislation and administrative reforms. Considering that different countries are at different levels of economic and democratic transitions, a systematic linkage between the levels of economic development and democracy could not be established without critics. It soon became unclear whether economic development sustains democracy or establishes new democracies.

Assessing variables that cause the emergence of democracies, Przeworski and Limongi (1997) concluded that economic development helps to sustain existing democracy, but it has no potential to change regimes and establish new democracies. By the late 1960s, Realist critics such as Samuel Huntington were able to point out the variations in levels of stability within rich and poor nations, arguing that not all societies experience similar peaceful changes as predicted by early modernization theorists. Like Przeworski and Limongi (1997), he had no doubt that economic development had the potential to unleash profound social changes. However, social transformation cannot occur in unstable and even violent societies where supportive political institutions are lacking. He was realistic in stating that it takes time for political institutions to develop, and become able to facilitate positive changes in society. More strongly, Huntington (1971) criticized that "modernization may be simply a peculiarity of Western culture; whatever changes are taking place in African and Asian cultures could be of

a fundamentally different character and have very different results from those changes in Western societies” (Huntington, 1971). This opened up a stage for questioning the timing and trajectories of development. Modernization theory stresses the functional necessity of efficient bureaucracy for welfare state development because, without it, effective taxation and administration of complex distributional programs is simply impossible.

### ***2.2.2 Participatory Communication Theory***

This study is guided by the Participatory Communication Theory. The aim of Participatory Communications Theory (PCT) for rural development is to give power to communities to take decisions which determine how they would reduce their suffering which could have been brought about by poverty. Participatory communication makes it possible for the disadvantaged people to voice their needs, plan what they can do (supported or not), decide how to go about it, choose to do it and envisage the outcome. According to White (2011a), all these activities can take place if the people coalesce into organizations. Studies show that when community members operate within groups, they tend to acquire strength and achieve more than when they work alone (Uphoff, Esman, & Krishna, 1998).

According to Kabubo, Mwabu and Ndenge (2009), many African countries after independence have had numerous anti-poverty policies and initiatives which have not achieved much. Poverty has remained a major problem, especially in rural areas (GOG, 2011). There was, and still is, in some quarters, a strong belief that economic growth could boost national wealth and, hence, result in the reduction of poverty (GOG, 2013). This may not be completely true, because, although economic growth is important, cases abound where the economy has grown but poverty has remained high or even increased. Despite the growth, there were still high rates of unemployment, poverty and inequality in development and in income distribution. In other words, economic growth did not translate automatically to economic development. This is so because according to Taylor and Mackenzie (1992), in reference to Ngumbu (1988), the

development strategies followed by African countries during the two to three decades of their political independence have gradually led the continent into its present destitution. Worse still, all plans designed by those concerned with development whether social or economic, indicated that without exception, the present policies, plans and strategies are incapable of bringing about any growth recovery in the foreseeable future (Ngumbu, 1988).

For Kamadi (2013), economic growth does not necessarily alleviate poverty because: first, poverty is a complex social phenomenon, yet most development programmes operate in a very general and superficial manner. Second, state-engineered programmes tend to concentrate on income as the panacea for the problem of poverty, which is not always the case. Third, the most impoverished people are often unaware of what their government is doing to ease their problems. Fourth, poverty reduction interventions do not usually target the hardest hit groups; these indicatives are quite general. Many government strategies often benefit those just below the poverty line and not those far below. So those who happen to be near the line are ‘crossed over’, but not ‘the faraways’. According to Wanyama (1983), economic growth is only a facilitating factor in the enhancement of the people’s living conditions at the household level. Thus, growth in GDP does not always result in improved living conditions. The best indicators of desirable change in people’s living conditions may manifest in employment opportunities, education, health, food security, shelter, clothing, socioeconomic infrastructure, etc. Finally, if economic growth is not in the small-scale agricultural sector, it will not reduce acute poverty, because the vast majority of the very poor are engaged in agricultural activities in rural areas, and it is mainly agriculture that is able to accommodate many of them. Rural development means community development where the economy is characterised by agricultural activities as opposed to industrial activities (Legum and Mmari, 1995).

Another strategy initiated, according to Kabubo, Mwabu and Ndenge (2009), besides direct economic growth, but which failed to create any positive impact, is the structural adjustment

programmes (SAPs), a creation of the World Bank and the International Monetary Fund which entailed, among other things, that was undertaken by some African countries governments including Ghana, to introduce cost-sharing in health facilities, privatize public enterprises, remove subsidies on public goods and services, liberalize internal and external trade, devalue its currency, restructure government institutions and retrench public staff. All these policies were devised basically to expand the economy and to help improve the lives of the poor, but most of them ended up aggravating the poverty situation. Among other things, they raised the prices of basic commodities and flooded markets with cheap imports. As a result, the people have remained or slide into backwardness, thus suffering from illhealth, malnutrition, low life expectancy and so on. What is interesting is that these policies have worked elsewhere; and the fact that they have worked in some countries in Asia has prompted Kabubo, Mwabu and Ndenge (2009) to wonder whether the failure of these measures to work in Kenya is due to lack of commitment in implementation, mismanagement of programmes, or/and corruption.

Despite these persistent failures, it is strange that nobody in decision-making position has ever initiated a paradigm shift. Not many people have ever figured out that emphasis should be laid on empowerment of the local people; that the focus should be on development from below; that the avenue of participation should be explored; that more should be done in the rural area since more people reside there than in urban areas; that people should be encouraged to join grassroots organizations; and that these organizations should be supported to be able to manage the people's problems (White, 2011b). Above all, not many have given a thought to the role of Community radio in rural development. The centre-bottom strategies have not worked in the past and are unlikely to work in future. What hold promise are the bottom-up strategies. According to White (2008), the time is ripe for the governments to realize this and re-orient their policies accordingly because the bottom-up strategies are basic needs-oriented, local resource-based, rural-centred.

White, as cited in Kyeremeh (2012), states, “the stagnation in African economies, the lack of vibrant indigenous cultural development, very little theoretical creativity, and the continual political dysfunction is due to the lack of building on the indigenous institutional roots of African societies”. So, the solution simply lies in the shift from centralized to decentralized communication. Whereas the latter mode of communication is accountable to the people, the former is not. An authentic Community radio is accountable to the people because they own it and so it has no option but to serve them. It exists because of the people (Egargo, 2008). On the other hand, public and commercial media have their own masters – the government and the entrepreneurs, respectively. And as the saying goes, he who pays the piper calls the tune. The communication approach of modernization theory of development emphasized that communication had to inform and persuade (Faure, 2000). An innovation had to be communicated to some people, and over time the information about the innovation diffused in the community. This kind of communication is now outdated and thus does not work. It is argued authoritatively that it is only the poor who can transform their own lives – not the government, not outsiders and not anybody else (Jallov, 2012). The government and outsiders can only offer a little assistance (the incentives of making the environment conducive); the main work (real work) has to be done by the people themselves.

Chambers (1983) notes that, outsiders are more often than not ignorant of the degree of poverty in the rural areas. They are ignorant, he adds, to an extent that they under-perceive poverty in the countryside. Outsiders who are usually urban-based also harbour a wrong feeling that the rural people are used to and are happy with the life they lead. These same outsiders also reckon that the rural poor are in their current state because of their laziness, ignorance, backwardness, and primitiveness and such like. People who think this way cannot be useful to the rural people. McNamara (1978) as cited in Chambers (1983) observes that the rural people are trapped in abject poverty epitomized by malnutrition, disease, squalid surroundings, high infant and child

mortality, and low life expectancy. They are constantly engaged in the struggle to get food. The inability of the African governments to increase small-scale agricultural production remains one of the main causes of poverty.

In summary, in order to alleviate poverty, people in the rural areas have to know how to send and receive information. In other words, they have to improve their system of communication. They have to also learn how to listen attentively and articulate their feelings in order to be able to define their problems, search for the solutions, plan and act collectively to improve their standard of living and disseminate information that promotes its audiences' cultural values. Genuine participation also increases the sense of ownership by local stakeholders, enhancing sustainability. Participatory communication is rare, but it can facilitate the empowerment of marginalised groups and have wider social and political effects.

### ***2.2.3 Sustainability Theory***

An overview of the literature on sustainability reveals that a variety of definitions has emerged. The definitions vary regarding the degree to which authors discuss the sustainability paradigm in light of corporate environmentalism (e.g., Banerjee, 2001) or corporate social responsibility (CSR) (e.g., McWilliams and Siegel, 2000), the degree to which the concept of sustainability is broadened to integrate and align economics with environmental and social concerns (e.g., Dyllick and Hockerts, 2002; Wagner, 2010), or the degree to which sustainability is discussed from the perspective of institutional theory (e.g., Bansal, 2002; Campbell, 2007). Therefore, in the literature, the term sustainability is used to refer to the triple bottom line and to the long-term profitability of organisations (e.g., Bansal, 2002; Dyllick and Hockerts, 2002). This can be understood as the successful market-oriented realisation and integration of ecological, social and economic challenges to an organisation (Schaltegger et al., 2013). According to Dyllick and Hockerts (2002), Sustainability consists of the following elements: 1) a sustainable corporation considers not only economic but also social and environmental aspects, which is

consistent with the triple bottom line concept; 2) Sustainability requires a long-term business orientation as a basis for satisfying stakeholders' needs now and in the future; and 3) a sustainable corporation follows the rule of living on the income derived from capital, not on the capital itself. Furthermore, Lozano (2008) suggests that different sustainability definitions can be distinct with respect to the following categories:

- 1) the conventional economists' perspective;
- 2) the non-environmental degradation perspective;
- 3) the integrational perspective, i.e., the integration of the economic, environmental, and social aspects;
- 4) the inter-generational perspective, i.e., the time dimension; and
- 5) the holistic perspective.

As reflected by Stavins et al. (2002), in economics, sustainability is often interpreted in terms of maintaining human well-being over intergenerational time scales. However, considering the viewpoint as given by the definition of sustainable development offered by the World Commission on Environment and Development (WCED), some have raised challenges regarding this definition, claiming that it is too vague (Stavins et al., 2002), while others emphasised a lack of compromise or trade-offs among the various goals of the triple bottom line sub-systems (environmental, social and economic) (Pezzey and Toman, 2002). Furthermore, the work of Chichilnisky (1996) provides a significant contribution and alternative to the 'traditional' sustainability literature (such as the studies based on discount utility criterion) by proposing axioms that imply a more symmetric treatment of generations in that neither the present nor the future should be favoured over the other.

There is a substantial body of knowledge on the environment in ecological economics (Hoepner et al., 2012). Costanza et al.'s (1997) premise that the 'value of the world's ecosystems and natural capital', for example, has shaped much of the literature regarding the human–economy–environment interactions. It can be argued that while both disciplines (environmental and ecological economics) share the common objective of understanding the human–economy–environment interactions, their approaches are profoundly different (Venkatachalam, 2007). Environmental economists utilize the neoclassical mainstream methodology with its strong focus on efficiency, while ecological economists strive to include broader socio-economic features into the scope of their analyses (Daly and Farley, 2004; Venkatachalam, 2007).

Recognition that economic development alone is not a sufficient condition for overall sustainability implies an integrative view in the context of simultaneous satisfaction of the triple bottom line (Dyllick and Hockerts, 2002). For instance, while focusing merely on the economic bottom line would lead to the economic viability of the organisation, such focus would not necessarily lead to sustainability in terms of environmental and social aspects (Lozano, 2008a). However, there is a tendency in recent literature to emphasise trade-offs in Sustainability that address situations in which the economic, environmental and social aspects of Sustainability cannot be achieved simultaneously (Hahn et al., 2010).

Intergenerational equity is inherent to sustainability. How shall resources be allocated over time to ensure that generations are treated equally, i.e., that no generation is favoured over another (Chichilnisky, 1996; Guest, 2010)? From this perspective, sustainability involves some concern for intergenerational equity and the recognition of the role of finite environmental resources in long-term decision making (Pezzey and Toman, 2002). Given that the holistic perspective explicitly combines the integrational and intergenerational perspectives (Lozano, 2008, 2008a), this perspective proposes two dynamic and simultaneous equilibria that

encompass the interactions of three dimensions (the economic, environmental, and social in the present) as well as the temporal aspects (i.e., short-, long- and longer-term perspectives) (Lozano, 2008, 2012). Sustainability improves the quality of our lives, protects our ecosystem and preserves natural resources for future generations. In the corporate world, sustainability is associated with an organization's holistic approach, taking into account everything, from manufacturing to logistics to customer service.

## **2.3 Review of Concepts and Key Issues**

### ***2.3.1 Understanding Community Radio***

Currently there is no consensus on the definition of community radio. According to the Guide for the Civil Society (2015), a community radio has been defined as a radio for the people in a community. It is a radio of the people because it is a two-way process that is considered to empower people in the community to have opportunities to identify various problems around them and also create solutions to those problems. It enables the most vulnerable to participate in decisions for positive change in their lives. Moreover, community radio allows people to collaborate in producing programs on the radio which focuses on their local concerns and priorities. Moreover, a vibrant community radio is expected to help the remotest communities to participate not only into the national and global economies, but also to the development of knowledge-based economies. It is known to sharpen and improve governance by empowering people to hold both local and governments leaders accountable.

One of the common components of community radio stations is that they are people centered radio stations whereby they are established to serve a specific community or area. Gray (2002) argues that vibrant community radios are normally established and operated by community members themselves. They are sometimes established by Non-Governmental Organizations, while others are started as developmental projects, and some are started by community radio activists and supporters for community discussion and participation in their communities.

Based on their nature, community radio stations serve a very significant role in providing various information in the areas they operate. According to AMARC Africa (1998), vibrant community radios in an ideal world allow members of a community to gain access to information, education and entertainment just like what the mainstream media does. Moreover, vibrant community radios which are well utilized by the communities can serve as a platform for debate, exchange of ideas and reactions to plans and projects in a given community. Apart from being used as platforms for debates, community radios are also able to accommodate people's ideas and satisfy their spiritual and psychological wellbeing much better than any other form of broadcasting such as mainstream media (AMARC Africa, 1998).

White (2013) observes that until 1985, there were fewer than 10 community radio stations in all of Africa but in 1990s Africa was shaken by rapid and profound political and social change whereby until 1998 they were hundreds of independent radio stations and community radio stations on the continent. It should be noted that amongst the first African countries to establish a community radio per se was Kenya where Homa Bay community radio station was established in May, 1982. One of the aspects which differentiate community radios from other mainstream radio station or commercial radio stations is the issue of community participation (White, 2013). Community radios have a sense of belonging whereby all members of a given community have a feel of ownership. Amongst the key requirement of community participation in community radios ensures that members of the community are involved in the running of the station. Thus, community members may be fully or partially involved in the board members or trustees, policy-making, management, selection and provision of programming, and production of programs on the stations.

The community can be territorial or geographical, a township, village, district or island. It can also be a group of people with common interests, who are not necessarily living in one defined territory (Tabing, 2002). For example, a community can be defined as any of the following: a

‘community of Church goers’ based on some shared characteristics of visiting the Church regardless of the geographical location of the Cathedral, or a community of football fans based on the shared passion for football. It could also consider the proximity of a group of people who live closer to each other and may be affected by the same social and geographical factors as for example the community of Kumbiehi to mean five square foot miles of settlement behind the Airstrip in Wa in the Upper West Region. Therefore, in relation to community radio, the term ‘community’ refers to the latter explanation: a group of people living within a particular area who would have to unite to participate in the decisions that affect them through the radio.

Community radio succeeds when it grows out of the community’s sense of internal cohesion and consciousness (Fraser and Estrada, 2002). A community that analyses its needs in detail and thinks about the causes of its problems and marginalization will often come to the conclusion that it requires communication to help people formulate common understanding and common goals. Community radio is the modern means of communication for social communication. It falls under general means of mass communication. This type of radio broadcasting has been acclaimed as the most appropriate medium for communicating for social change in grass-root communities, with the result that CR stations have multiplied by the thousands all over the world during the past five decades (Mainali, Chapagain and Subba, 2009).

Rural people need some encouragement, some information, a little bit of inspiration, skills, knowledge and to a certain extent entertainment. That is something, which cannot be ensured by highly bureaucratized and highly commercial government and private means of communication. This demands a means of communication, which is guided along by a different concept. Community radio is one of such means of communication, which has been pursued with a view to fulfil these needs (Mainali et al, 2009). Looking for self-respect of the local people should be the prime objectives of community radio. The local population is always

looking for fundamental identity that can supply element of self-respect. It is possible only in the perpetuation of culture. The concept governing program production in community radios should be centred on local social and cultural themes. Community radios should reproduce national and local culture and broadcast the same from the viewpoint of purveying information-oriented, informative and entertaining programmes. It will go a long way when it comes to have the listeners remaining in touch with their history, tradition, language, arts, religion and culture.

One must have more faith in producing local and national programmes. What this means is, efforts must be taken to see to it that the structure of the programmes, contents, expression and language have the local flavour. One has to be alert whether or not the programmes produced by community radio stations and broadcast by them are in the interest of their listeners or not. The editorial aspect of the community radio stations be such that rather than accusing someone or presenting someone as the victim while producing programmes, it should be centred on pointing out the wrong acts while encouraging exemplary ones at the same time (Mainali et al, 2009). Community radio as defined by Tabing (2002) is one that is operated in the community, for the community, about the community and by the community. The involvement of the community in the operations of the community radio cannot be emphasized enough. The repetition of the word “community” in almost every phrase is not mere expression, but serious emphasis on the role played by the community in a community radio (Tabing, 2002).

Since the advent of Africa's democratization process in the 1990s many communication activists now see it as the basis for popular participation by the majority of the people. Eugenie Aw, former President of AMARC Africa indicated that, democratization in Africa, raises a specific challenge. The challenge here is how is it possible for populations, in all their diversity to determine their future and the type of development they wish for themselves. He also questions how radio participation can create a democratic culture that enables the population

to take responsibility for political, economic and national management. Radio, the new tree of speech, is capable of rekindling the key tradition of oral expression in which speech ‘builds the village (AMARC Africa, 1998). Community Radio is still a growing concept in Africa, both in actual terms and in popularity. It has developed differently across the continent. However, there are many issues of common concern and a strong will to share views and experiences, which have been highlighted in several conferences and workshops throughout the continent.

Community radio signifies a two-way process, which entails the exchange of views from various sources and is the adaptation of media for use by communities. In an ideal world, community radio allows members of a community to gain access to information, education and entertainment. In its purest sense, it is media in which the communities participate as planners, producers and performers and it is the means of expression of the community, rather than for the community. This is because current media emphasis has been on the use of mass communications, with messages flowing from the capital cities to the periphery, where feedback from communities has been limited. Even though community radio should encourage access and participation by communities, it also has to address issues such as who is in control, whether it is democratically managed and whether there is a mechanism whereby it is accountable to those it serves.

Community radio thus can be defined as broadcasting which is for, by and about the community and whose ownership and management are representative of the community, which pursues a social development agenda, and which is non-profit (AMECEA-IMBISA, 2003). From this definition it is evidently clear that Community radio is the property of the community members and should therefore work in thrust for the community. This analogy is reaffirmed by the explanation of Community radio offered the guidelines for the operations of community radio, ‘the central purpose of a community radio is to offer the listening community a voice and help develop their community and build community life’. Also community radio facilitates

individuals, groups, and communities to tell their own diverse stories, to share experiences, and in a media rich world to become active creators and contributors of media, rather than passive consumers. It presents a unique vehicle for the community and voluntary sector, civil society, agencies, NGOs and citizens to work in partnership to make a difference (The Community Radio Forum of Ireland, 2010).

The African Charter on Broadcasting (2001) came out with a widely accepted definition of community radio in the Sub Saharan Africa. It defines community radio as a service, which is for, by and about the community, whose ownership, and management is representative of the community and pursues a social development agenda. Practitioners as well as policy makers in Ghana, Tanzania, Namibia, South Africa and Zambia, to name just a few, have adopted this definition as it emphasizes on content which is around the lives of the community, ownership, and well as social development aspects of community radio station (Banda, 2003). This study adopted the above definition of community radio as advanced by the African Charter on Broadcasting (2001) because it recognizes community radio as a service, which is for and about the community, and whose management or ownership draws from the community members.

### ***2.3.2 Radio and Development***

Radio is a fascinating medium among the various mass communication media because of its special characteristics. It continues to be as relevant and potent as it was in the early years despite the emergence of more glamorous media. As we know, radio is a blind or sightless medium, the performer (announcer, newsreader, discussant, narrator, etc.) has to creatively conjure up images of their listeners. The listeners too have to imagine the performance creatively but the performer must spark off the imagination of the listeners with expressive performance or communication. The role of the mass media is to provide the audience information, education or entertainment or all the three balanced in different proportions. The role of radio, as a medium of mass communication varies from country to country (Sharma and

Uniyal, 2016). With newspaper limited to literates and television and the internet limited to those who can afford expensive gadgets, the radio is no longer an alternative means of getting information but a viable option. It is the dominant media in Africa and has the largest audience and covers a larger geographical area as compared with other media outlets (Myers, 2008).

Consequently, it is the largest contributor to the efforts by the media at development since the explosion of radio stations across Africa in the last 30 years. Thirty years ago, in 1988, there were only three non-state radio stations across Sub-Saharan Africa (Girard, 2003 cited in Myers, 2008). She also adds that, if today they are numbering thousands even in countries where press freedom is curtailed, that should be attributable to the significant role the radio, particularly community radio, plays in development. According to Onyeka et al. (2013), rural radio stations serve to enlighten rural dwellers on the political, cultural, health and educational aspects of their living leading to self-actualization and national development.

### ***2.3.3 Characteristics of Community Radio***

A community radio station is characterized by its ownership and programming and the community it is authorized to serve. It is owned and controlled by a non-profit organization whose structure provides for membership, management, operation and programming primarily by members of the community at large. Its programming should be based on community access and participation and should reflect the special interests and needs of the listenership it is licensed to serve (Grey, 2002). Although there is a remarkable similarity in the way that community radio is theorized around the world, and in different particular projects, community radio stations themselves are quite diverse in the way that they operationalize what it is to be a community radio station. This section outlines the ways in which community radio stations differ (Grey, 2002).

#### ***2.3.4 Distinct Features and Functions of Community Radio***

Community radio has the demonstration of different groups and concerns in the community and inclusion of disadvantaged and minority groups. Some distinct features are described below:

##### *i. The audience as protagonists*

The particular focal point of community radio is to make its audience the main standard-bearer, by their association in all portions of its management, content and program production, and by providing them with programming that will help them in the comprehensive development of the particular community.

##### *ii. A special slant on News, Entertainment and Education*

News on a community station is not an isolated story or event alone; rather, it aims to be a part of an ongoing and future process which supports change and development in the community. Education and entertainment are provided in a form that is collective cultural expression as well as sharing of experiences (Pate, 2013).

##### *iii. Principles of Public Access and Participation*

It is citizen's democratic right to get accurate, reliable and timely information. A community radio's broadcast pattern reaches all members of community it aims to serve; the community is free to comment and criticize.

##### *iv. Representation of Different Groups and Interests in the Community*

Community radio broadcasts programmes that cater to vulnerable and marginalized groups in the community and encourage them to share their ideas and views on air. Disadvantaged and vulnerable groups in the community will be able through the broadcast of their programmes, problems and limitations, issues etc.

#### *v. Inclusion of Minority and Marginalized Groups*

The programmes of community radio encourage wide diversity of thoughts and views from different marginalized groups, such as women and youth or gypsy and dalit community. Besides, community radio promotes the cultural perspectives and interests of the minority groups (Fraser, 2001).

#### *vi. Promote Development and Social Change*

Sustainable development and positive social change of minority groups can be facilitated by community radio. It is community radio which can convey the sufferings and sorrows, difficulties and limitations of a community to the policy making authority. It can focus on the specific problems; arrange discussion on the remedies and mobilize collective action.

#### **2.3.5 The Roles of Community Radios in the Community**

Community radio stations play diverse roles and functions in our communities. Apart from the traditional roles of the media in community (educating, entertainment, warning, criticizing, just a few to mention), community radios perfectly serve as the means to promote democracy, sustainable development, and peace in communities they operate in (Gustafsson, 2013). This is because they (community radio) allow community members to share diverse information surrounding their communities. For example, citizens and non-citizens can develop their political understanding and work to take their problems to the attention of the bigger public. The establishment and existence of community radio stations have been very vital in the communities they operate because members in those communities have a greater chance to increase the partisan and social power, knowledge, and experience of those who participate (Sourou, 2013).

According to Sourou (2013), community radios have a significance role to play especially in the rural areas. This is because they have power to reach out to people in rural settings, people

who may not meet or converge in any other places. This is a very vital role played by the community radios bearing in minds that much of the population of Africa is rural, and this has been pointed out as a challenge for developmental projects. Furthermore, community radios act as voice of the voiceless by allowing community members to participate and use the radio stations to give out their views on issues affecting their communities. For example, they may discuss on how they can manage their natural resources, raw materials, community affairs and many other issues. Moreover, community radios are tools for social justice because they effectively respond to a real need to be informed, which is a fundamental right of all members in such communities (Sarr, 2014). Likewise, community radios have the power and influence to the listeners and participants in focusing on local issues especially those which affects their communities; they can as well mobilize listeners and participants to fully engage in their community developmental issues (Sourou, 2013).

In addition, community radios have a greater chance to empower marginalized groups by giving skills in political communication, helping them develop support networks, and programming for their basics needs or priorities in the community. Moreover, community radios play significant roles in providing civic education during election periods to the prospective voters. According to Gustafsson (2013), the community radios fully engage in civic education. Gustafsson gives an example of the 2016 general election in Ghana where community radios played a major role. During the election period the community radio stations in Ghana informed citizens about their civic rights and responsibilities and provided them with the knowledge and information necessary for them to make an informed and sober decision making during the voting process.

Apart from provision of civic education, community radios do also engage in peace building during election periods. Since most of the elections in African countries have been characterized by conflicts and instability, community radios have been fully engaged in airing

out peace messages, and sometimes they do invite and give airtime to any peace building agent on institution as a mechanism to restore peace and tranquility during the entire election process. In Ghana for example, during the 2016 general election, most of the community radios invited religious leaders and NGO representatives as an initiative to preach for a peaceful election in the country. In the same line, community radios play a remarkable role in preventing or minimizing hate speeches during election periods especially in countries where ethnicity is a major problem. Hate speeches are so dangerous and illegal in any democratic countries as they can cause destruction in society. A visible example resulting from hate speeches based on ethnicity was in Rwanda whereby because of hate speeches anchored by the media, thousands of civilians lost their lives in the 1994 genocide. As a result, many community radio stations have devoted themselves in fighting hateful speeches during elections. This move played an accredited and credible role throughout the election because the country witnessed a peaceful election.

In essence, the community radio stations are so powerful and essential communication tools to be recommended amongst community members. This is due to the fact that community radios operate and reach majority of the community members who mostly need and depend on such community radios to get informed of all matters affecting or likely to affect their communities. For example, through community radios, citizens are able to get diverse information about the performance of their leaders, developmental issues, participation in social or economic activities and many other opportunities surrounding their communities.

## **2.4 Sustainable Development**

Sustainable development does not have a long historical background, but the concept of sustainability has long historical connections either religious or socio-cultural belief on protecting natural settings and adapting natural way of life. Ene et al. (2011) defined sustainable development as a fusion between economics and ecology that is not considered as

doctrine or a theory. They further stated sustainable development as “a new term for an old idea: there is no viable economy without natural resources and no resources management without economic rationale” (Ene et al., 2011). After the rapid industrialization in the western countries, these countries started to observe the change in climatic variation and realized the change in natural environmental settings.

The publication of “The Limits to Growth” in 1972 by Donella H. Meadows and her team, the Club of Rome, was a great milestone to analyze the future predictability of environment and earth system. Using system dynamics theory and a computer model called “World3,” the book presented and analyzed 12 scenarios that showed different possible patterns and environmental outcomes of world development over two centuries, from 1990 to 2100 (Meadows et al. 2003). Scientifically, it introduced Jay Forrester's newly established computational approach of system dynamics modeling and quantitative scenario analysis into the environmental and sustainability analysis.

The theoretical framework for sustainable development developed through the series of international conferences on environment, nature conservation, bio-diversity, etc., to discuss and frame sustainability at the global and national scale between 1972 and 1992. In 1983, the UN organized the World Commission on Environment and Development (WCED) and formed the commission chaired by Norwegian Prime Minister Gro Harlem Brundtland. The commission comprised of representatives from both developed and developing countries, to address the growing concern over the “accelerating deterioration of the human environment and natural resources and the consequences of that deterioration for economic and social development” (WCED, 1987). The commission formally defined the term “sustainable development” through the landmark publication of “Our Common Future.” The report popularized the definition of sustainable development: “Development that meets the needs of current generations without compromising the ability of future generations to meet their own

needs” (WCED, 1987). Brundtland’s concept of sustainable development became popular and widely used in academic, experimental, organizational, global, national, and local level, although it is very much vague and not easily measurable. On this ground, UNECE/OECD/Eurostat’s joint report states that ‘Sustainable development is a popular and important concept, but one that is difficult to define with precision and, therefore, difficult to measure” (UNECE/OECD/Eurostat WGSSD, 2008). Bartonand Du Plessis (2000) explained the interconnectedness of three sectors: economic, social and environment as three pillars of sustainable development that could maintain the reasonable level of balance to achieve sustainable development.

The way and progress of sustainable development can be observed thorough the indicator sets available in global, national, regional, or local level either in quantitative or qualitative formats. Nevertheless, it is very difficult to measure the ultimate goal of sustainable development through absolute measurable terms. Therefore, a country or community has its set of indicators based on a predefined framework that will forecast the level of progress towards sustainable development, which is based on available national, regional, or local policies. Progress can be measured with a compilation of indicators that will give the possibility of formulating strategies to bring out priority areas of anxiety that will create attention on the pathway to achieving sustainable development goals in the future (Sorman, 2007).

#### **2.4.1 Using Community Radio for Promoting Environmental Sustainability**

The world has turned its face to the use of community radio to bring participatory economic development at a grass-root level in developing countries (Mathewos, 2006). The relevance of community radio in Ghana is undeniable, because of the low literacy level, the existence of more than nations and nationalities, poor infrastructure, the infancy of democratization as well as deep-rooted social problems of the nation (Getahun, 2006). Community radio plays important role in the development process and advancement of good governance practices, like

harmonious social interaction, economic development, political participation, and the existence of culture and language. Ghana as a country has several problems, the one expected from the media is producing informed citizens, bringing social development and technological transformation in the means of information dissemination, education, entertainment, and mobilization of the community (Getahun, 2006).

In line with the above assumptions, community radio gives the chance for the community to involve in all aspects of the station management and program production which provides and helps them in the development and social advancement of their community (Fraser and Estrada, 2001). It should create a holistic perception of the local reality and the options for improving it. Community radio in Ghana is serving small ethnic groups, which have a strong sense of local identity (Infoasaid, 2011); and it aimed to educate the community, fostering behavioral changes, and empowering the community. Community radio in Ghana has been used for integrated and sustainable development besides giving license for the sake of media coverage.

The sense of community radio is interested in holistic approaches: “In the community, for the community, about the community and by the community” (Tabing, 2002, p. 9). It is a medium for the voiceless, to voice their issues, concerns, cultures, traditions, and languages. So that it gives access to voices in the community and encourages diversity, creativity, and participation (Jemal, 2013). The expansion of community radio is one of the best opportunities to use radio for development purposes at the grass-root level (Ibid). Moreover, the community media essence and the holistic approach have similar intentions, applications, and practices. Community radio helps the community to identify their goals, create holistic plans, monitor the progress of the community development activities, and guide sustainable development. The plan helps to create a shared common understanding of sustainable community success, and it determines and analyzes effective strategy areas for community success (Baxter and Purcell,

2007). This planning will help in bringing the whole community together with capacity development and productivity enhancement of the community.

Most of the community radio stations disseminated social development messages that promote the local language and culture (Jemal, 2018; Kasshun, 2012). The program format of the stations was mainly focused on infrastructure projects like health, education, agriculture, good governance, and other social development activities (Ibid). Community radio strives for the development of cultures, languages, education, agriculture, health, democracy, good governances, gender, and youth development. It also can create awareness and motivate the community on development activities. Jemal (2018) points out that community radios are the best alternative to assist sustainable development efforts by helping the self-expression of local people who are often left as voiceless with the mainstream media. It plays an important role by providing public platforms for the advancement of community and set governance agendas that focused on social, political, and economic development. Community media prioritize the local community agendas (IMS, 2019) because the beholder of the station community agenda's gets priority.

Ghanaian community radio stations have the potential to play a significant role in providing quality information to citizens and driving public accountability and governance issues through 'citizen-oriented journalism' (Ibid). In the spirit of this, capacity development and sustainable development are the core for an integrated model which includes education, health, nutrition, agriculture, housing, security, infrastructure, politics, culture/religion, and recreation. To be effective in the holistic development of the community, the stations' program schedule has to consider the holistic approach principles: plain communication strategies, seminar/workshop format, live-service job training, sensitization, research, and documentation. Based on the elements, the output of the integrated community development aimed to improve and sustain the livelihoods of the community. The living standard of the community must be improved in

terms of accessible roads, constant electricity, and power supply, portable drinking water, access to education and health care service, employment opportunities, affordable and comfortable housing, advanced cultural beliefs, good governance, and empowerment of the community members, improved environmental conditions and available and affordable food supply.

Development agents and government sectors have to create interaction or coordination for integrated development. To sustain the development, they have to prepare the road map for integrated development with a holistic approach that takes into account the interests, values, ways of thinking, experiences, skills, etc. of all the community members. Accordingly, it requires a need assessment survey to redefine the predominant patterns of distribution of wealth of the community. It helps to know what type of scarcity has and prepare an appropriate plan to fulfill it. Integrated and sustainable development will determine the approaches that we use and the plans we applied. As seven D approach principles approached, appreciating the existing capacities of the community values and cultures is essential. Processing and creating avenues to increase the participation, knowledge, and reflection of the community develop capacities to initiate and manage changes. These functions are important in community radio stations for holistic development (Dhamotharan, 2009). Different development frameworks for strategic sustainable development have to address to the community. As Robert, et-al (1997) stated the five levels (system, success, strategic, action, and tools), the community radios have to address and have to create a holistic understanding in the community. To clarify the above ideas, the community has to understand the system level with the innovative approach, the strength of creating community awareness and allowing for social mechanisms, self-organization, interdependence, and diversity, through participation, equal representation, and collaboration (Dhamotharan, 2009). The media have to create a broad and common vision of community development where a community can manage and allocate their resources to achieve identified

needs. Developing community members' capacity to identify and meet their own needs through diverse participation and representation are other mechanisms. This approach establishes a transparent democratic atmosphere that provides a positive attempt towards changing community members' mindsets.

The open participatory process can allow the community members to freely elect their representatives, and they can discuss the community's needs in democratic ways. This action can build the democratic process and create a sense of community ownership for the community project which is subsequently completed, monitored, and evaluated. The approach also clusters communities together to share resources and exchange benefits among communities. The tools level assessing completed community projects and evaluating the effectiveness project. These levels have to support by the media in form of development advocacy. The holistic approach emphasized the involvement of the community members in participating programs and activities for the provision of human needs of physical infrastructures, emotional, socio-political, economic, and technology enterprise of the people concerned (Akinyemi, 1997). According to Imhabekhai (2009), integrated community development is an effective tool for promoting peace, justice, equality, and happiness. Thus, all people have the chance to participate equally in their development and societal growth. Sustainable development requires the recognition of intergenerational equality, which implies the assumption as an ethical imperative of respect the generation in consider of a healthy environment, but it also the right of forthcoming generations to inherit from present generations, a healthy and ecologically balanced environment. In sustainable development, the community livelihood options have to be making balanced in consideration of their natural resources. It requires that communities be self-sufficient, that people's control over their own lives is increased, and that the social and cultural identity and decision-making capacities of societies be preserved and reinforced. As a holistic process, sustainable development requires

an indissoluble dialectic union between theory and practice. This, in turn, implies a dynamic process undergoing constant progression and modification (Kapur, 2015).

#### **2.4.2 Measures used by Community Radio to achieve environmental sustainability**

Many principles underpin the activities of every community radio for effective and efficient delivering of service to its audience. According to Ngugu and Kinyua (2014), there is a general agreement on four principles that are seen as pillars of community broadcasting. These are access, diversity, localism, and independence. These principles serve as mechanism for community radio characteristics. Again, the above principles are embodied in the programming, management, participation and revenue generation procedures of community radio stations. Ngugi and Kinyua (2014) explained the first principle access to be that, community broadcasting has to promote proactive voluntary participation in media production rather than passive consumption of media. The sector provides facilities (including skills and training) that ensure access to the media for all parts of the community. At the core of community radio or television is the relationship between the station and the community in which it is situated. Easy access allows local people to focus on local issues, giving voice to groups and individuals who otherwise have no choice but to remain silent.

Similarly, Fraser and Estrada (2001) stated that, community radio stations programming should be based on community access and participation and should reflect the special interests and needs of the listenership it is licensed to serve (Fraser & Estrada, 2001). This is to emphasize that, the people that community radio station intend to serve should have full access to the day-to-day activities of the station. Another principle of Community radio is to create a diversity of voices and opinions on the air through its openness to participation from all sectors. Some discord is present in all communities, but the acknowledgement of conflict is necessary for democracy and for democratic communities. Community radio tries to air objectively all sides of a discussion without itself taking sides.

Similarly, Community radio as a matter of principle is to encourage open dialogue and democratic process by providing an independent platform for interactive discussion about matters and decisions of importance to the community. In essence, the core of democratic process is the ability of people to hear and make them heard. Community radio provides the forum for that to happen. This is consonant with the decentralization process in many countries that aims to bring democratic decision-making closer to the people concerned. And what is happening at the grassroots level as portrayed by the community (Fraser and Estrada, 2001). Therefore, Community broadcasting should promote innovation, creativity and diversity of content. In its structure and output, community broadcasting must reflect community's cultural diversity and by doing so support greater tolerance, understanding and social cohesion. The third principle, according to Ngugi and Kinyua (2014), is localism. Community broadcasting by definition should rely on programming generated by local communities. Thus, the local people should be allowed to produce programmes locally in the language and style which is recognised and accepted by the community. Moves by the government to force minimum levels of local programming to all broadcasting illustrate the extent to which private and public broadcasters opt for networking (in news and entertainment). Ngugi and Kinyua (2014) give the last principle as independence. Community broadcasting stations, in principle, should be owned and operated by individuals or group (not-for-profit groups). Each licensed group has open membership and democratic decision-making practices. All stations must adhere to a sector code of practice that embodies the sector's philosophy and secures their independence to serve a particular community, encourage members of the community served by it or persons associated with or promoting the interest of such community to participate in the selection and provision of programmes to be broadcast in the course of such broadcasting service.

In the views of Fraser and Estrada (2001), the principal functions of community radio are to reflect and promote local identity, character and culture by focusing principally on local

content. Culture is how the people of a community talk about their past and their future. It is what they care about. Like life itself, culture is infinitely variable and constantly evolving. Community culture is also an artistic expression through local music, dance, poetry, theatre and storytelling. Local performers are encouraged to go on air uninhibited by considerations of the 'professional standards' they may have acquired from mainstream media. Culture is also language, so programming includes the languages of any minority groups in the community. The objectives of a community radio station are not restricted to purveying information but include tasks like looking for legitimacy in different languages and dialects while also bringing about cultural uniformity by integrating it. Time has testified to the accuracy of the claim that development is bringing about positive changes in the capacity of man. Development of man implies development of knowledge. That is possible only through means of mass communication. Community radios must preserve the history, achievement, local values and norms apart from conceding to the changes and transferring the past knowledge to future generations. They should be helping to move society onward by reflecting the best practices of the past while integrating the best practices taking place in society around them. Another task of community radios is to ensure knowledge management (Mainali et al., 2009). Mainali et al. (2009) list the following as the objectives of community radio stations:

- To evolve a progressive and disciplined culture in support of justice and democracy by boosting the cause of national unity, pride and self-respect;
- To identify and promote national language, arts, culture, and folk tradition;
- To promote and mobilize traditional wisdom, knowledge, skill and competence;
- To work as a dependable medium between people and government;
- To evolve entrepreneurial culture by encouraging national industry and domestic market;

- Impress upon the need to evolve a culture of collective responsibility to uphold the rights of women and children;
- To evolve consensus on the agenda of the development of the backward and marginalized section of people by prioritizing their voices and concerns;
- To raise widespread awareness on issues like education, health, environment, sustainable development, human rights and community development;
- To extend help in the marketing of agricultural produce by contributing to packaging and product development processes; and
- To enhance the reach of the people vis-à-vis modern agricultural practices, science and technology, among others (Mainali et al., 2009).

### **2.4.3 Contribution of community radio stations to the development**

#### ***2.4.3.1 Promoting Participatory Democracy***

Local/community radio gives community members access to information because as local radios provides access to the means of communication them. Local radios work as a common forum where people are given the opportunity to express themselves socially, politically and culturally. These radios prioritize important local issues. Mostly educational and developmental information are disseminated and exchanged. Further, it informs about the development activities in rural areas and exposes rural problems to government agencies and NGOs strengthening democratic practices in rural areas. Local radio/community radio encourage community members take the lead for their own cause. They can reinforce traditional forms of communication such as storytelling and group discussion enabling grassroots participation in policy-making and democracy. It also supports community members in introduction of income-generating activities (Banjade, 2007).

#### ***2.4.3.2 Voice of Voiceless***

Local/community radios are known as small community owned and locally managed. The philosophy of community radio is considered as the voice of the voiceless. It is considered as the medium which help raise voice of socially and economically deprived people and generally as a tool for development (AMARC, 1981). These radios serve people, encourage expression and participation and value local culture increasing access to information and empowering the communities. It works as a tool for highlighting their fundamental rights of marginalized communities and became the voice of the poor and the voiceless, the landless peasants and impoverished indigenous people (Wabwire, 2013). They demystify the scientific jargon and help explain the research and scientific information in simpler and ordinary language that people can easily understand. They assist the development of local communities by providing relevant information in local languages. One of the major benefits of such radio is empowering local people to speak up for themselves. Since local radios are one and only source of information in rural areas, these radios provide a forum for the exchange of knowledge, information and experiences. Therefore, it gives voice to rural people. These local radios could also expose rural people and local talents, local champions who are serving their communities in various ways.

#### ***2.4.3.3 Information/ Discussion Forum on Local Issues***

Since, local radios are set up in the community and for the community members, these radio become well aware about needs and problems of community people due to proximity to the listeners. They know community members and they are always sensitive to what their listener wants. Therefore, local radio stations talk about every specific problem in the communities they serve (Banjade, 2007). They emphasize contents, namely, political and economic news that facilitates community dialogue and involvement, community and personal messages, information programs, and culturally relevant entertainment. It provides the platform for

debates in communities (Patel, 1998). Through access of relevant information and debate, these radios contribute for community empowerment.

#### ***2.4.3.4 Empowering Unprivileged Rural People***

Empowerment is a process where people become aware of how power relations operate in their lives (Nirmala, 2015). With more awareness, people gain self-confidence and strength to challenge various social injustices, problems and inequalities within society. The information provided by newspapers, radio, and television shapes their opinions. In rural context, local/community radios work as a substitute for formal education. It contributes on rising awareness regarding women's development, environment conservation, scientific farming, entrepreneurship, employment options and many more. By providing timely and relevant information on injustice, opportunities, experiences, skills, development issues and public interests, local radios have the ability to involve rural communities, women, dalits, indigenous people and underprivileged people in an interactive social communication process. By providing debate and discussion on the various local issues, it empowers locals on various issues. The process of empowerment enables people to develop in them self-dignity. It enables them to raise voice and fight against injustice, exploitation, abuse, and violence done to them. It contributes to sustainable development by enabling people to take control over their own livelihoods, identifying their needs and problems and providing access to knowledge and information to enable informed choices.

#### ***2.4.3.5 Contribution on Good Governance***

In a democracy, the watchdog role of media is vital where it let people know about what is happening in the society (Ashraf, 2014). Media check on the state which is considered as its primary democratic function. Media has an important role to play in shaping a healthy democracy and ensuring good governs. According to Norris, the media has three key roles in contributing to democratization and good governance. Watchdog over the powerful, promoting

accountability, transparency and public scrutiny are often credited for mass media in terms of its very vital function. Local radio too serves as a watchdog on power holders in the society, affording active relationships between local leaders and the members in the society. Highlighting the policy failures, maladministration, corruption and scandals of the local government, local radio fulfils the watchdog role. Buckley (2006) argues that community media can contribute to good governance by identifying corruption and holding leaders to account.

## **2.5 Environmental Awareness**

### ***2.5.1 Global perspective***

According to Gore (2006), environmental problems are global in origin and therefore require collective local actions to solve them. Scientific evidence has shown that ecosystems are under unprecedented pressure threatening prospects for sustainable development. Welford (1998) notes that humankind uses more than 67% of the planet for primary productivity. Samalisto (2007) states that people are using the earth's resources faster than they can be renewed. Samalisto (2007) further adds that in addition to these problems and their adverse effects, there is the greenhouse effect, global warming and global climate change which have captured the attention of the whole world at the moment. Burgess (1990) observes that the accumulation of greenhouse gases, mainly carbon dioxide, is irreversible for periods covering hundreds of years. He also notes that global environmental problems like deforestation, global warming and pollution of water bodies are public evils and have a globally negative effect on the economy causing multiple costs. Yet as UNEP (2007) observes, while these challenges are daunting, they also provide opportunities for local communities, governments and businesses to innovate for the benefit of communities, economies and the global environment.

In less developed countries natural resources are the backbone of the economy and provide the life support system for most of the people. Majority of the population in these countries directly

depend on the environment for their livelihoods and are particularly vulnerable to the effects of environmental change. Over the past three decades, in many countries of the world, the environment has continued to deteriorate and poverty has increased despite attempts by governments to try halt and reverse degradation (Ajeyalemi, 1998). These problems are likely to intensify over the next three decades as population continues to grow and the climate becomes more variable (Ekaete, 2001). To help curb the spread of these environmental problems, several global level conferences on the environment have been organized to discuss the importance of awareness creation through education and media as means to attaining sustainable development in the long run. Ekaete (2001) notes that recent concerns about environmental degradation in western societies and modern lifestyles have been preceded for centuries by global distraction of warning from other cultures, in particular indigenous cultures. These warnings have led to the current mandate for global organizations to promote sustainability as pivotal to social and cultural change at national, regional and local levels (UNESCO, 1992). The concern about environmental degradation has increased steadily. These days it is common to talk about the earth, the globe and the global environment and a lot of news and debates which can be labeled under the umbrella concept of global environmental change are found in the media (Ingold, 2000). This is an encouraging trend and portrays a radical change in the level of awareness and concern for environment among citizens.

## **2.6 Media and Environmental awareness**

Sullivan (2007) states that media hold tremendous potential to transform lives by improving the quality of education, informing the public about health threats and safe practices to avoid them, serving local communities by bringing attention to their needs and in times of disaster, providing information and sources of assistance to people displaced from their homes. It therefore follows that media can be used as an effective tool for raising awareness on environmental issues. According to Morgan (1997), a significant amount of the public's

knowledge of environmental issues is likely to come from the media. Morgan (1997) further postulates that much of what people hear about issues such as greenhouse effect, global climate change, ozone depletion, water and air pollution, and other environmental threats is likely to come from the media (or from others who have heard it from the media) since our first-hand knowledge of the state of the environment is likely to be minimal.

Kapur (2011) states that different information tools like radio, television, internet and newspapers spread awareness on climate change and environment protection among people faster than personal contact. Shanahan (2011) notes that high quality media coverage of climate change can inform vulnerable communities of potential impacts and how they can adapt to them, and can promote mitigation activities that limit the amount of warming the earth experiences. McCombs (1995) adds that the media could take up a crucial role by providing technical information about relevant environmental problems and possibilities. Hansen (2007:50) further states that “media discourses help to shape and set parameters of discussion and understanding of environmental issues” resulting in social and policy responses. However, this immense potential of the media in raising awareness is hardly realized by many countries due to various factors. Despite the public dependence on the media for information, there are salient aspects of press behavior that are negative (PMC, 2006).

Baker (2007) observes that media organizations are ideologically biased and selectively pick environmental movements that best capture their corporate demands for newsworthiness. This in turn encourages environmentalist movements to make concession to their causes by becoming more media savvy (Davis 2002:81). As Cohen (1994) notes whereas these efforts to improve their media visibility are laudable, by making tactical concessions, environmental movements may paradoxically render their longer-term objectives invisible to their audience. According to Shanahan (2011) media coverage of environmental issues still only occupies a small proportion of total media reporting relative to the scale of the problem. Environmental

reporting is marginalized in the news. Banterer (2002) study of the globe concluded that lip service was paid to environmental concerns and those environmental issues were never addressed in their full range and seriousness. This lip service diverts attention from the overall thrust of reporting, which is one sided and hardly environmental. There are cases where senior editors who are the gatekeepers and essentially decide what goes on air and what does not do appreciate and thus pay limited attention to environmental news.

Shanahan (2011) asserts that many journalists want to report on climate change but struggle to convince their editors that such stories are worthwhile. Shanahan (2011) further states that many editors see climate change as an international story. So they do not prioritize local reporting, instead using stories from Western news agencies or reprinting press releases without adding any local context or information. Dobson (1997) observes that sometimes major environmental issues are underreported in the country of origin until the foreign media picks it up and gives international coverage. Nelkin (1987) states that most world citizens will not learn about climate change research directly from the complex lexicon in scientific journals, but rather from the mass media. It is therefore the media's responsibility to translate complex, scientific concepts to the lay language. It is a large responsibility; one that modern media bereft of environmental reporters and specialists is challenged to meet.

As a result, instead of portraying carefully worded scientific findings, dramatic, eye catching entertaining stories aimed to attract audiences and not enlighten them about risks of environmental change end up in the media (Wilson 1995; Bell 1994). Another difficulty faced by journalists and producers covering the environment is access to reliable sources of information and having technical information interpreted by experts. The restriction of access to information by the public and media still prevails in some countries and inhibits open coverage, discussion and debates of issues that are of public interest (MoI, 2006). Shanahan (2011) notes that even where there is a will to report local stories; journalists often struggle to

access relevant information from domestic policy makers. Despite these many hurdles, countries in the world can still use media to raise awareness on environmental issues. UNESCO (1993) notes that a key strategy for many countries would be to integrate environment into development policy, and to use communication and education in an integrated way as an instrument of policy.

According to Shanahan (2011) many government initiatives fail precisely because they do not invest in effective communication as a priority, and many policy makers still see media only as a “public outreach” channel for promoting their own messages. Governments therefore need to embrace use of media as a key channel for raising environmental awareness. In December 2011, parties to the UN Framework Convention on Climate Change (UNFCCC) agreed – under article 6 of the convention-to promote public access to information on climate change; and public participation in addressing climate change and developing adequate responses. To do this, parties agreed to train relevant personnel including government employees; scientists and journalists to enable them interpret the complex mix of climate science and policy for their audiences.

## **2.7 Challenges Facing Rural Community Radio**

Rural community radio is established within the village of a specific community that the station serves. Such stations face environmental as well as other forms of challenges faced by community radio in general. While it is easier to establish for instance campus broadcasting because of the organized nature and financial capability of the academic environment, rural broadcasting must rely on the patronage and support of the government, county government and the local community the station is serving. Fardon and Furniss (2000) revealed that the biggest problem that community radios face is that most of community radio stations hardly know their audience and lack the methodological or material resources to get to know them.

He argues that rural radio has not been in practice as participatory as it is in principle and rhetoric and this has hindered fulfillment of its true potential.

Globalization, access to training, quality equipment that are durable and easy to maintain, and legislative framework are among challenges that rural community radio face. Frequent audience research is a requirement for rural community radio since it helps the broadcaster to know the kind of audience the station reach out to and adopt the programs to the aspiration and expectations of the listener. Fardon and Furniss (2006) insist that lack of research has made the broadcaster to address themselves to the potential public they imagine sharing their own tastes and preoccupations.

Howey (2005) has different views and he is concerned about competing interests on community radio that leads to demand on the station to address issues or concerns that are important to different people within the community. As a result, the scarce resources available to the organization for instance equipment, air-time, finances, personnel etc. become a site of intense struggle within and between competing groups. Therefore, “the strength that listener support brings to community radio has the potential to undermine stations ability to serve the disparate tastes and interests within community” Howey (2005). CIMA report also revealed that lack of finance, inability to maintain equipment and other factors such as stations being unable to pay electricity bill led to the closure of some stations. Although community radio is for people and by people, Mefalopulos (2008) challenges this concept and argues that local news can at a time be marginalized in favor of larger national news because of time or resources constraint whereby community broadcaster will just focus on general issues. Therefore, community radio should give priority to local new/events especially those affecting the community. A two-day seminar held in Ghana (2008) dubbed The Way forward for community radio in Ghana, identified challenges facing community radio in the country.

These challenges include licensing whereby there has been no consistent policy to encourage a vibrant sector. Some communities may want to own a station however they are not able to afford license fee. The society has not been able to distinguish community radio from Vernacular commercial radio stations. Therefore, there is need for awareness creation by the relevant authority concerning community radio. Another issue that was raised during that seminar was sustainability of community radio stations. There was need to address this issue to enhance the success of community radio stations in the country. Other challenges include lack of proper training, especially of the volunteers, local partisan politics, competition from commercial radio stations, poor technology, inadequate funding, ownership aspect of community radio, where the community should be encouraged to own community radio. Community radio stations to improve on technology and embrace new technology for better transmission as well as careful selection of words to be used on these stations to avoid creating tension or promote hatred (Bessette, 2006).

## **2.8 Empirical Review**

Several studies have been conducted on the subject matter with varying results. For example, Ciboh (2007) found that communication media are the different technological process that facilitate communication between and are in the middle of the sender and the receiver of that message. The same media message might mean different thing to different people. Therefore, there is need to bridge the gap between the knowledgeable persons and illiterates as Ciboh (2007) illustrates that only” a study of media campaign to promote awareness on environmental pollution which found that people learned very few facts highlighted in the campaign here was an unintended effect”. The function of media has long time gone beyond that of educating, informing, entertaining and transmitting culture as traditionally ascribed to them. They are also now used to create awareness, stimulate interest and raise expectations as well as enlighten people on how to effectively manage their environment for national development.

Wong and Wong (2017) uncovered that natural training has turned out to be nonexistent in the educational programs of universities and schools. As indicated by Wong and Wong (2017), the beginning of ecological instruction in Libyan schools and instructors preparing foundations is inseparable identified with the endeavors made by the legislature and nongovernmental associations to control the rate of natural corruption. This circumstance accordingly makes the media to be a huge instrument in raising the attention to individuals to natural issues.

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Bakkes (2012) analyzed BallagioSTAMP as policy-oriented sustainable development assessments in a large variety of application area, policy phase, and methodological approach. The benefit of BallagioSTAMP is to bring these insights easily available for any group assessing societal progress, considering policy options or advocating change (Bakkes, 2012). It shows that the BallagioSTAMP principles provide a wide angle for assessment of sustainable development indicators in local, national, and global scale.

Shi and Gill (2005) explored the overall sustainability of ecological agricultural development in local level through the case study of Jinshan County in China. They developed a system dynamics model, the ‘Agricultural-Institutional-Social-Ecological-Economic Model’ (AISEEM), to assess long-term relations and dynamics of politics, economics, and environment involved in the ecological agricultural development (Shi and Gill, 2005).

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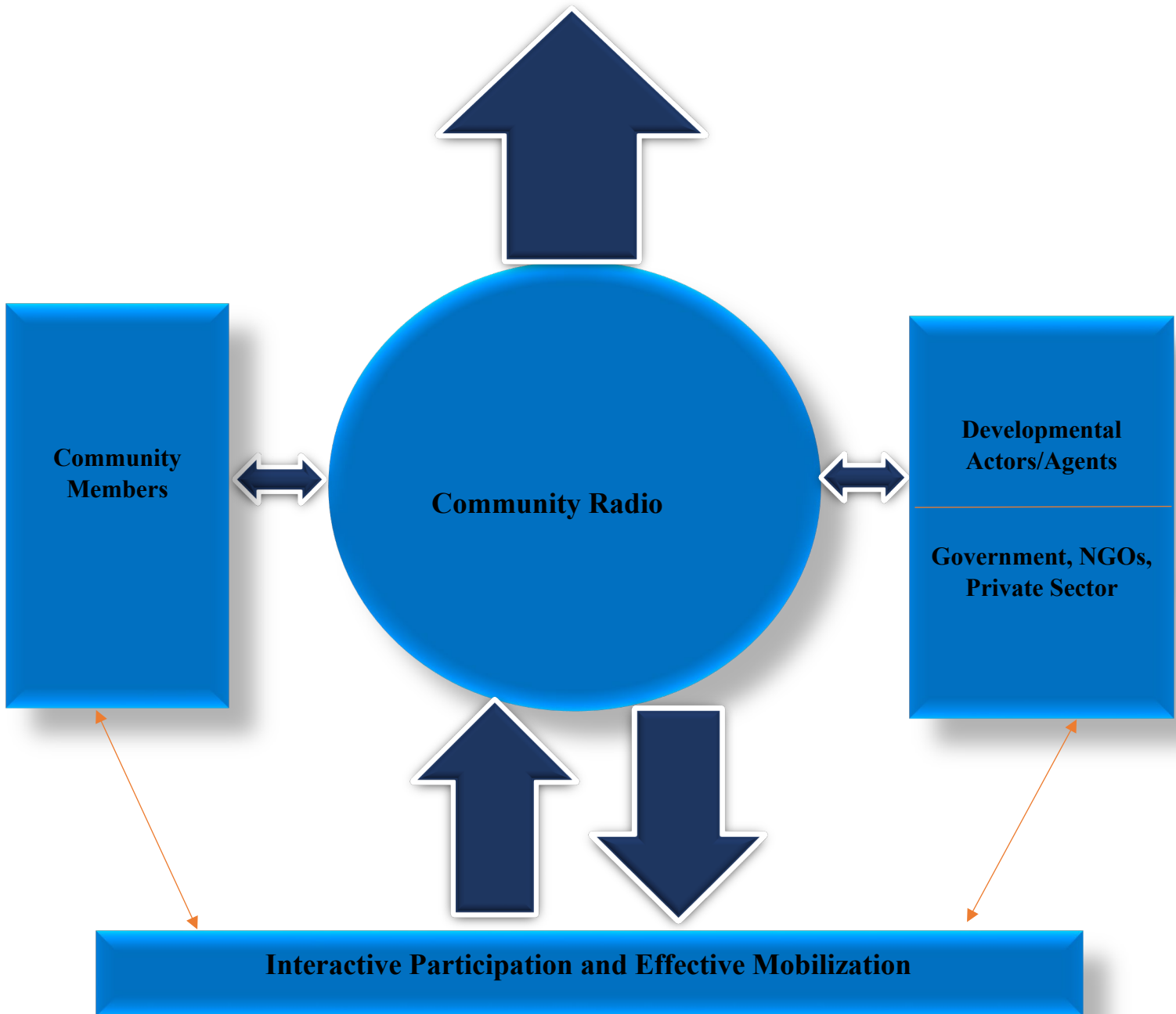
Lush and Urgoiti (2012) studied the issue of community participation and access and they agree that community participation in programming seems to go hand in hand with community ownership. They question the assumption by the community stations that participation through interaction with their audiences through phone-ins, SMS lines and interviews is enough. However, participation in programming can and should involve much more than this. Stations can and should involve community members other than volunteers and station staff in the production of programs, and this should be done on a regular basis. They conclude that greater participation in programming can result in greater community ownership of the station, as communities will identify more closely with their stations.

### **2.8.1 Conceptual Framework**

The framework is premised on the fact that to ensure effective community radio in promoting environmental sustainability, community members who are the beneficiaries must be at the forefront of designing, launching, running, monitoring, and evaluating development programmes focused at alleviating their concerns if sustained rural development is to be realized. For this to work, development information must flow from the people at the grassroots to the government (bottom-up) and back to the people from the government (top bottom). Again, other external development agencies such as NGOs, donors, and the government are also required to assist or partner with community radios in order to facilitate environmental sustainability in the locality.

An ideal situation Community radio provides a venue for people to communicate their traditional knowledge. This type of information is critical not only for rural development but also for environmental sustainability. Community radio is also a good source of environmental, agricultural and health-related information. Furthermore, everyone, or at least the vast majority, must be participating for development to be sustainable. As the voice of the voiceless, community radio can be used to increase engagement among the disadvantaged, such as the marginalized. People who engage in activities that have an impact on their lives must ensure that what they do is sustainable and benefits future generations, since environmental challenges have become increasingly important in development. And, in this instance, community radio plays an important role? Governments, whether local, regional, or national, play a critical role in rural development, and an effective Community radio station can help with good governance. Community Radio recognizes the necessity for assistance from development partners such as the government, non-governmental organizations, and the private sector, but it also emphasizes the importance of local people in the discussions that surround and set the agenda for their development. Through the transmission of local ideas and local interest in the community development process, community radio provides a rallying point to seek information from various development agents (both internal and external) as seen in Figure 1.

## Community Development Action



*Figure 1: A framework for promoting environmental sustainability through community radio*

Source: Author's construct, 2021

### 2.9 Chapter Summary

Raising the awareness of a society through media is one of the strategies required for the effective realization of environmental objectives and goals. It is truly crucial to raise public

awareness of environmental issues. Media's efforts to sensitize the public about environment issues and its continuing central role in the struggle against the cause of environmental problems are indispensable. The lesson drawn from the literature review is that Community radio stations are effective for the sustainable development of the community. It was also learnt from the literature that Community radio serves as eye, ear, and mouth of a community to lead them on the right track of the development. The communication nature must be indigenous and need based which motivates and enhances the community to increase productivity. Community radio has a great contribution to sustainable development with holistic approaches in a collaborative and creative process that cultivates the social, economic, political, cultural, spiritual, and environmental conditions needed for the entire community to succeed. It can be used for development, social participation, information, and advice on literacy, health, childcare, improved agricultural methods, vocational training, and protection of the environment in local communities.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter of the study presents the methodology that was applied in obtaining and analyzing information for the study. It indicated the source of data collection in relation to primary and secondary data sources, the study design, population, sample and sampling procedure and research instruments. Other areas are the data collection procedure and data analysis procedure.

#### **3.2 Study Approach**

Research is the systematic investigation and study of materials and sources to establish facts and reach new conclusions, so it shapes people's understanding of the world around them. Through research findings, researchers can explain individuals' behaviours, including how people think and act in certain ways (Kabir, 2018). Research methods include the qualitative, quantitative, and mixed methods and the qualitative methods will be used in this study. This study will employ a mixed approach. Qualitative research according to Shank (2002:5) is "a form of systematic empirical inquiry into meaning". "This means that qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them", (Lincoln, 2000:3). Qualitative research includes a small selection of participants, based on criteria defined by the researcher. Qualitative methods, usually yield a lot of specific information about a small number of people and circumstances. Quantitative methodology was chosen because, as Quinn (1990) explains, it allows for the measurement of the reactions of a large number of people to a small number of questions. As a result, data comparison and statistical aggregation are made easier, and a broad, illustrative set of findings is presented in a straightforward and cost-effective manner. The quantitative approach on the other hand, serves as a foundation for hypothesis testing. This study relied on the mixed methods approach.

### 3.3 Study Design

Research design is considered as a "blueprint" for research, dealing with at least four problems: what questions to study, what data are relevant, what data to collect, and how to analyze the results (Robson, 2003). The research design was descriptive. This was used because the research was aimed at getting respondents to answer the same questions which involved many variables. The descriptive survey design is directed towards determining the nature of a situation as it exists at the time of the study. It is practical, in that it identifies present conditions.

Among the different methods of data gathering for research purposes, the survey method is preferred by many researchers due to its various advantages, strengths, and benefits. Surveys provide a high level of general capability in representing a large population. Due to the usual huge number of people who answer surveys, the data being gathered possess a better description of the relative characteristics of the general population involved in the study. Surveys can be administered to the participants through a variety of ways. The questionnaires can simply be sent via e-mail or fax or can be administered through the Internet. Because of the high representativeness brought about by the survey method, it is often easier to find statistically significant results than other data gathering methods. Multiple variables can also be effectively analyzed using surveys.

However, surveys also have their disadvantages and weak points that must be considered. The survey that was used by the researcher from the very beginning, as well as the method of administering it, cannot be changed all throughout the process of data gathering. Questions that bear controversies may not be precisely answered by the participants because of the probably difficulty of recalling the information related to them. Questions in surveys are always standardized before administering them to the subjects. The researcher is therefore forced to create questions that are general enough to accommodate the general population. However, these general questions may not be as appropriate for all the participants as they should be.

### **3.4 Study Area**

The Denkyembaour district presents one of the best places for this study as diamond mining and other activities have negatively impacted the environment. The District's natural environment is characterized by numerous problems, emanating from the rainfall pattern, nature of micro soils, use of wood as fuel energy for cooking, farming and other household activities. The relatively hilly nature of the northern part of the District, coupled with the intensive farming activities using traditional practices has led to severe erosion and deforestation. On the issue of Health, Doctor-Patient ratio is very low in the District. The ratio is 1:54. Malaria, Diarrhoea, Urinary Tract Infections, Anaemia, Hypertension and HIV& AIDS are among the top 10 diseases in the District. The total number of pregnant women tested for HIV in the second quarter of 2016 stands at 885 (66.11%) with 12 (14.21%) being positive. There is a lack of comprehensive knowledge of HIV and AIDS/STIs, especially among the vulnerable groups. The district has huge gaps in geographical access to quality health care (e.g. urban and rural). Among some of the critical problems encountered by the district which community radio can help resolve are inadequate and unreliable infrastructure, limited access to market information and low adoption of technology. Also, the district is confronted with poor quality and inadequate road transport networks, ineffective and inefficient spatial/land use planning and implementation particularly in the urban areas. There will be the need to know how this study will solve problems relating to community radio broadcast in the region and how that will translate into policy formulation by the various District Assemblies and or the Regional Coordinating Council and any other media related agencies like the Information Services Department. These and many other related issues provided the impetus for this study to be carried out so as to examine the role of community radio in promoting environmental sustainability in Ghana using Denkyembaour district of the eastern region as a case.

### **3.5 Population**

A population can be defined as including all people or items with the characteristic one wish to understand (Hayn, 2009). The population represents the total number of people targeted as possible respondents for the research. The Denkyembour district of the eastern region of Ghana was chosen as the main research site, where a total of five hundred (500) constituents were targeted as the population.

#### **3.5.1 Sample and Sampling Procedure**

The sample size is a significant feature of any empirical study which aims at making [rational](#) reasoning about a [population](#) from a sample. In effect, the sample size to be used in a study is determined based on the expense of statistics collection, and the need to have enough [statistical power](#) (Forson and Morgan, 2008). The sample size is the number of respondents selected for the survey. In all, one hundred (100) respondents were sampled for this study. According to Fin (2007), sampling procedure involves all the methods involved in sampling respondents from a particular population for a research work. One of the great advantages of simple random sampling method is that it needs only a minimum knowledge of the study group of population in advance. It is free from errors in classification. This is suitable for data analysis which includes the use of inferential statistics. Simple random sampling is representative of the population. It is totally free from bias and prejudice. In simple random sampling, the selection of sample becomes impossible if the units or items are widely dispersed. Whilst simple random sampling is one of the 'gold standards' of sampling techniques, it presents many challenges. One of the major disadvantages of simple random sampling method is that the selection of sample becomes impossible if the units or items are widely dispersed. This method lacks the use of available knowledge concerning the population.

In general, one major advantage of purposive sampling is that it's easier to make generalizations about your sample compared to, say, a random sample where not all

participants have the characteristic you are studying. In such instances different types of sampling techniques may be required at each phase. Purposive sampling is useful in these instances because it provides a wide range of non-probability sampling techniques for the researcher to draw on. For example, critical case sampling may be used to investigate whether a phenomenon is worth investigating further, before adopting an expert sampling approach to examine specific issues further. Purposive samples, irrespective of the type of purposive sampling used, can be highly prone to researcher bias. The idea that a purposive sample has been created based on the judgment of the researcher is not a good defense when it comes to alleviating possible researcher biases, especially when compared with probability sampling techniques that are designed to reduce such biases. However, this judgmental subjective component of purpose sampling is only a major disadvantage when such judgments are ill-conceived or poorly considered; that is, where judgments have not been based on clear criteria, whether a theoretical framework, expert elicitation or some other accepted criteria.

### **3.6 Research Instruments**

The questionnaire was the main research instrument to be used to gather data for this study. The questionnaires were designed for the constituents of Denkyemba district of the eastern region of Ghana. The questions involved personal information and questions related to the research questions. According to Punch (2000), questionnaire is regarded as a series of questions, each one providing a number of alternative answers from which the respondents can choose. This is one of the common instruments used in social sciences research because they provide an efficient means by which statistically quantifiable information can be collected. The study also made use of questionnaires because many of the respondents were easily reached and this also made data analysis very simpler and easier. A semi-structured questionnaire that is, (open and close-ended questions) will be employed to obtain information from the respondents because it offers sufficient flexibility to approach different respondents differently

while still covering the same areas of data collection. The questionnaire employed both open and closed ended questionnaires to be filled by constituents of Denkyembour district of the eastern region of Ghana. A structured interview schedule was designed and administered as a means of obtaining information from respondents. An interview took the form of interaction in which the researcher tried to ask questions in connection with the objectives of the study. In this very research, personal interviews were conducted. The researcher also relied on focus group discussion.

### **3.7 Data Collection Procedure**

The questionnaire was given to radio station staff of Denkyembour district of the eastern region of Ghana. The respondents were selected at random and with convenience as they go about their normal businesses. Additionally, a random sampling of some staff was done via of soliciting responses. Additionally, an interview schedule was used to solicit information via a structured interview questions from randomly selected community members whilst a Focus Group Discussion was also organized for randomly selected community members. These were transcribed to gather the responses provided.

### **3.8 Data Analysis Procedure**

To draw a meaningful, valid and reliable conclusion, and make relevant recommendations, descriptive statistical analysis such as frequencies, percentages, means and standard deviation for the quantitative data whilst content analysis was done for the qualitative data. Tables, charts and graphs were used to present the quantitative results after processing the data using Statistical Product and Service Solutions (SPSS) research software.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

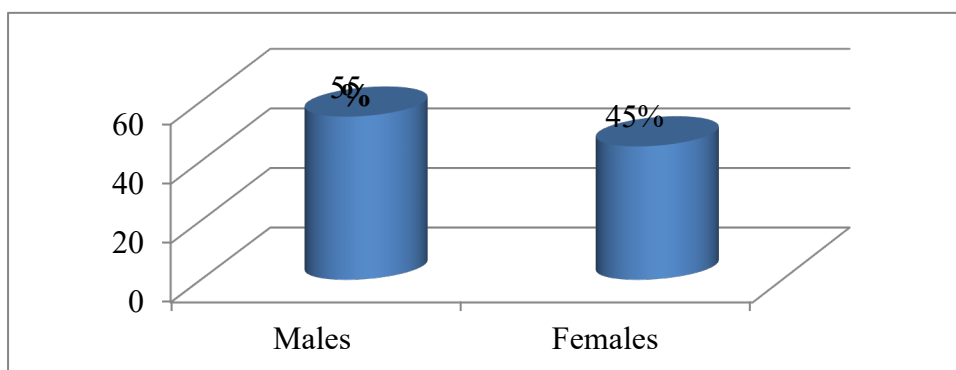
#### 4.1 Introduction

This chapter presents findings of the study. It provides data analysis and interpretation of results on respondents' awareness of environmental issues around them, their access to and use of radio and their perception on the actual versus potential role of radio in promoting environmental sustainability. For the study, the researcher used both quantitative and qualitative data to achieve the objectives of the study. The responses obtained from survey participants were analyzed using quantitative methods while those from in-depth interviews with key informants were analyzed using qualitative methods. The researcher made use of frequency tables and percentages to present data. Direct quotes of some of the research respondents are given depending on the degree of relevance.

#### 4.2 Results from Questionnaire (Radio Station staff)

##### Demographic features of respondents

Figure 2 shows the gender distribution of respondents. It can be seen from the table that majority (55%) of the sampled respondents were males.

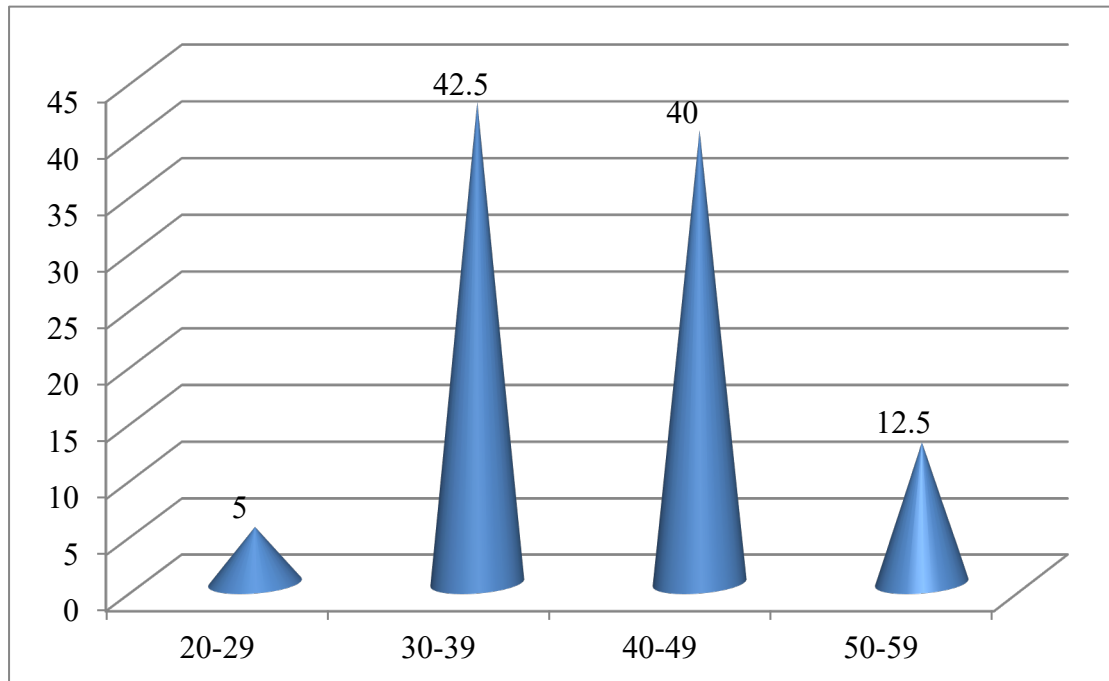


*Figure 2: Sex of respondents*

Source: Field data, 2021

This means that the community radio stations are dominated by males. However, the study will not be gender bias as the percentage of females is very significant.

From Figure 3, 42.5% of the respondents were in the age bracket of 30-39. This is represented by 42.5% of the respondents. This means that most of the staff are thirty years and above. Therefore, staff respondents are in their active working ages and quite youthful.



**Figure 3: Age of Respondents**

Source: Field Data, 2021

It can be seen in Table 1, majority (75%) of the respondents had a Tertiary certificate. This is followed by respondents with Secondary certificate who are represented by 15%. The responses reflect that the respondents are academically sound and this can enhance the credibility of the study in terms of understanding the questions.

**Table 1: Academic qualification of respondents**

Academic	Frequency	Percentage
Basic	2	10.0
Secondary	3	15.0
Tertiary	15	75.0
No Formal Education	-	-
Total	20	100

Source: Field data, 2021

From Table 2, majority (60%) of the respondents had worked with the community radio stations for between 2-3 years, while 35% had been workers of the community radio stations less than 1 year. This shows that the staff and management of the three community radio stations have good years of working experience since most of them have been workers for more than 3 years.

**Table 2: Years of Experience with Radio Station**

Years	Frequency	Percentage
Less than 1 year	7	35.0
2-3 years	12	60.0
4-6 years	1	5.0
7-10 years	-	-
Above 10 years	-	-
Total	20	100

Source: Field data, 2021

Table 3 reveals the current positions of the respondents, it was found that 50% of the respondents are in the supervisory position and 25% are in other positions such as officers. Majority of the sampled respondents are supervisors.

**Table 3: Current position of respondents**

Position	Frequency	Percentage (%)
Supervisor	10	50
Senior staff	2	10
Middle staff	3	15
Other officers	5	25
Total	20	100

Source: Field data, 2021

#### **4.2.1 Contribution of community radio stations to the development of the Denkyembaour district**

The first objective of the study sought to establish the contribution of community radio stations to the development of the Denkyembaour district. Table 4 shows a Likert scale analysis that was used. The respondents were given a set of statements regarding the contribution of community radio stations and asked to indicate the extent to which they agreed with each one of them in a scale of 1- 5, where 1= Strongly Disagree 2= Disagree, 3= Undecided, 4= Agree, 5= Strongly Agree. Means for the factors were established to provide a generalized feeling to all the respondents. The study showed that community radio stations contribute to the engagement in civic education (M=4.80) and promotion of peace building consensus (M=4.75). This can be measured by the highest mean is (M=4.80, SD=0.79) and the least mean is (M=2.75, SD=0.83).

The study again indicated that community radio stations contribute more to promotion of political awareness (M=4.6, SD=0.50) and allow members to share diverse information most times (M=4.50). Furthermore, the study showed that community radio stations contribute to giving voice to the voiceless many times (M=4.00) and promotes social development on its platform (M=4.26). From the data gathered, the study showed that community radio contributes to reaching out more to rural settings (M=4.25) and creates platform for empowerment of the community members (M=4.19).

**Table 4: Contribution of community radio stations to the development of the Denkyembaour district**

<b>Statements</b>	<b>Mean</b>	<b>Standard deviation</b>
Promotion of good governance	4.26	0.44
Promotion of political awareness	4.56	0.50
Promotion of peace building consensus	4.75	0.44
Allows members to share diverse information	4.50	0.50
Gives voice to the voiceless	4.00	0.00
Tools for social justice	4.38	0.49
Engagement in civic education	4.80	0.79
Power to reach out to rural settings	4.25	0.44
Empowerment of community members	4.19	0.39
Economic development	4.13	0.60
Social development	4.26	0.44
Mobilization of community members	2.75	0.83
Promotion of healthy measures	3.88	0.79
Employment opportunities	4.13	0.49

Source: Field data (2021) N=20

#### **4.2.2 Measures community radio stations have put in place in promoting environmental sustainability in the district**

For the second objective, the study looked at the measures community radio stations have put in place in promoting environmental sustainability in the district, most of the respondents strongly agreed on media discourses on environmental issues and this response represent the highest mean of (M=4.90, SD=0.30). This is followed by education on bushfires and education on deforestation as a result of mining activities. However, respondents were indifferent about proper waste management as a way of improving promoting environmental sustainability in the district. The study showed that community radio stations, as part of its measures, provide information on issues with water bodies (M=4.75, SD=0.55) and created avenue for education on global warming (M=4.70, SD=0.47) to the benefit of community members. Furthermore, community radio stations educate members on issues with effects of illegal mining activities (M=4.80, SD=0.41) with more information also on effects of air pollution (M=4.35, SD=0.48). The study also showed that community radio stations put measures in place to educate members on environmental protection (M=4.35, SD=0.49).

**Table 5: Measures community radio stations have put in place in providing environmental sustainability in the district**

<b>Statements</b>	<b>Mean</b>	<b>Standard deviation</b>
Provision of information on climate change	4.15	0.88
Provision of information on water bodies	4.75	0.55
Provision of information on global warming	4.70	0.47
Provision of information on air pollution	4.40	0.68
Provision of education on land use for illegal mining activities	4.80	0.41
Provision of education on environmental problem	4.40	0.72
Education on effects of air pollution		
Awareness creation on impact of illegal mining	4.35	0.48
Education on environmental protection	4.80	0.41
Education on effects of pollution of water bodies	4.35	0.49
Media discourses on environmental issues	4.13	0.60
Proper waste management	4.90	0.30
Education on deforestation	3.60	0.60
Education on Bushfires	4.80	0.41
	4.85	0.37

Source: Field data (2021) N=20

#### **4.2.3 Challenges community radio stations in Denkyembour district face in their efforts to promote environmental sustainability in the district**

On the challenges community radio stations in Denkyembour district face in their efforts to promote environmental sustainability in the district, table 6 reveals that all the listed statements affect community radio stations in Denkyembour district in their efforts to promote environmental sustainability. The staff and management agreed that financial challenge is a major issue coupled with poor technology. Inadequate funding or revenue generation is another challenge facing the station and this has resulted in the financial challenges indicated above. This is characteristic of many community radio stations and it makes it difficult for them to employ more permanent staff. The finance officer said the station relies largely on advertisements, announcements and sponsorships to run the station which is woefully inadequate. This was also evident in the station's unaudited financial reports from 2018-2020. Another challenge the study discovered is serious technical problems as a result of poor

technology. One Station Manager and the Project Coordinator complained about the frequent breakdown of machines used for the running of the station. They attributed this to the unstable power supply in the region. The Project Coordinator emphasized that, “unstable electricity renders our equipment faulty”. He said currently, the station’s transformer which cost over GHC 50,000 was in Accra for repairs and they were not even sure if it could be repaired. These responses recorded the highest means of (M=4.58, SD=0.50) and (M=4.49, SD=0.05) respectively. This indicates that community radio stations in Denkyembour district are going through financial challenges which can badly affect their efforts to promote environmental sustainability in the district.

The study, furthermore, showed that community radio stations face logistical challenges (M=4.33) and stations have low level of motivation amongst staff (M=4.05, SD=0.65) which affect the effective coverage of activities and programmes. Another finding was that licensing regimes pose challenges (M=4.33, SD=0.47) and radio stations are faced with lots of local partisan politics (M=4.39, SD=0.49) which dominates programming. The study showed that ownership issues (M=4.24, SD=0.64) posed challenges just like issues with regulation from authorities (M=4.43, SD=0.50).

**Table 6: Challenges community radio stations in Denkyembour district face in their efforts to promote environmental sustainability in the district**

Statement	Mean	Standard deviation
Financial challenges	4.58	0.50
Lack of logistics for effective coverage	4.33	0.47
Poor technology	4.49	0.05
Low level of personnel motivation	4.05	0.65
Licensing regime	4.33	0.47
Language issues	4.41	0.50
Local partisan politics	4.39	0.49
Ownership issues	4.24	0.64
Inadequate volunteers	4.14	0.65
Competition from commercial radio stations	4.29	0.53
Regulatory challenges members	4.43	0.50
Promotion of healthy measures	4.48	0.50

Source: Field data (2021) N=20

#### 4.3 Results from Interview schedule (Community Members)

On gender distribution of community members as seen in Table 7 below, it was found that 75% of respondents were males whilst 25% constituted females. The smaller percentage of female respondents is as significant as that of males who are in the majority and therefore takes away any form of bias with gender. The district attracts more men who engage in mining and farming.

**Table 7: Gender distribution of community members**

Gender	Frequency	Percentage
Male	60	75.0
Female	20	25.0
Total	80	100%

Source: Field data, 2021

Regarding age distribution of community members, the study observed that those in the age range of 30-39 were the majority with 37% as respondents whereas the ages of 50-59 had the least percentage of respondents with 12.5% sampled. The age ranges of the 30-39 is the most active working group who predominantly are into mining and farming. The age ranges of 20-29 and 40-49 had 25% of respondents each for the study as shown in Table 8.

**Table 8: Age distribution of community members**

Age	Frequency	Percentage
20-29	20	25.0
30-39	30	37.5
40-49	20	25.0
50-59	10	12.5
Total	80	100%

Source: Field data, 2021

Table 9 presents the educational level of community members. It can be seen that majority of respondents comprise community members with at least basic education. This shows 43.75% of the sample size whereas a few of them had no formal education at 12.5%. A significant number have at least secondary education, representing 25% with 18% of respondents attaining tertiary level of education. There is more credibility in responses due to levels of education attained by many of them.

**Table 9: Educational level of community members**

Level	Frequency	Percentage
No formal education	10	12.5
Basic education	35	43.75
Secondary education	20	25.0
Tertiary education	15	18.75
Total	80	100%

Source: Field data, 2021

### **Contribution of community radio stations to the development of the Denkyembaour district**

From Table 10, contribution of community radio stations to the development of the Denkyembaour district are stated. The responses show the highest mean with its corresponding standard deviation is (M=4.45) and the least mean is (M=4.05). As seen from the table, majority of the respondents agreed that all the listed statements are contribution of community radio stations to the development of the Denkyembaour district. However, most of the community members agreed on community radio giving voice to the voiceless and empowerment of community members.

The study indicated that community members agree to political awareness as a contribution by radio stations on their platforms (M=4.24). Community members also agree to peace building consensus (M=4.39) and giving of voice to the voiceless (M=4.45) as key contributions by community radio stations. Additionally, community members see radio stations contributing to social justice (M=4.20) and promoting social development (M=4.26). Community members agreed that radio stations help contribute to employment opportunities (M=4.14) and help in community mobilization of members (M=4.31).

**Table 10: Contribution of community radio stations to the development of the Denkyembour district**

<b>Statements</b>	<b>Mean</b>	<b>Standard deviation</b>
Promotion of good governance	4.14	0.65
Promotion of political awareness	4.24	0.64
Promotion of peace building consensus	4.39	0.49
Allows members to share diverse information	4.05	0.65
Gives voice to the voiceless	4.45	0.50
Tools for social justice	4.20	0.60
Engagement in civic education	4.13	0.60
Power to reach out to rural settings	4.14	0.63
Empowerment of community members	4.41	0.50
Economic development	4.13	0.60
Social development	4.26	0.49
Mobilization of community members	4.31	0.59
Promotion of healthy measures	4.19	0.60
Employment opportunities	4.14	0.63

Source: Field data (2021) N=80

**Measures community radio stations have put in place in promoting environmental sustainability in the district**

On the measures community radio stations have put in place in promoting environmental sustainability in the district, Table 11 reveals that all the listed statements are measures community radio have put in place to promote environmental sustainability. The community members agreed that the media discourses on environmental issues was a laudable measure and also proper waste management measures. These responses recorded the highest means of (M=4.58, SD=0.50) and (M=4.49, SD=0.50) respectively (Table 8). Also, provision of education on use of land for illegal mining activities was another measure the community members agreed was very good.

The study showed that community radio stations provide information on issue with water bodies (M=4.33) and education on global warming (SD=4.29) as key measures. Community members showed that information on air pollution (M=4.40), education on illegal mining

activities effects (M=4.48) and environmental pollution (M=4.43) are key measures put in place by community radio stations. Waste management education (M=4.41) and that on water bodies (M=4.58) are key measures.

***Table 11: Measures community radio stations have put in place in promoting environmental sustainability in the district***

<b>Statement</b>	<b>Mean</b>	<b>Standard deviation</b>
Provision of information on climate change	4.13	0.62
Provision of information on water bodies	4.33	0.59
Provision of information on global warming	4.29	0.53
Provision of information on air pollution	4.40	0.72
Education on land use for illegal mining activities	4.48	0.50
Provision of education on environmental problem	4.43	0.50
Education on effects of air pollution	3.94	0.66
Awareness creation on impact of illegal mining	4.38	0.49
Education on environmental protection	4.13	0.49
Education on effects of pollution of water bodies	4.58	0.60
Media discourses on environmental issues	4.49	0.50
Proper waste management	4.41	0.50
Education on deforestation	4.33	0.50
Education on Bushfires	4.30	0.47

Source: Field data (2021) N=80

### **Level of environmental sustainability awareness amongst the people in the district**

To find out the level of environmental sustainability awareness amongst the people in the district, most of the respondents showed very high level of awareness of issues on environmental protection and this response represent the highest mean of (M=4.80, SD=0.79). This is followed by awareness of impact of illegal mining on environment and awareness of media discourses on environmental issues. Table 12 captures the level of environmental sustainability awareness amongst the people.

The study showed that mitigation measures awareness (M=4.26, SD=0.44) is represented well on radio station platforms, according to community members. Additionally, awareness creation on environmental pollution (M=4.50, SD=0.50), proper waste management (M=4.00), deforestation (M=4.19, SD=0.39) and bushfires (M=4.13) are conspicuous on radio station platforms at high levels.

***Table 12: Level of environmental sustainability awareness amongst the people in the district***

<b>Statement</b>	<b>Mean</b>	<b>Standard deviation</b>
Awareness of mitigation issues on environment	4.26	0.44
Awareness of media discourses on environmental issues	4.56	0.50
Awareness of impact of illegal mining on environment	4.75	0.44
Awareness of issues on environmental pollution	4.50	0.50
Awareness of issues on proper waste management	4.00	0.00
Awareness of issues on air pollution	2.75	0.83
Awareness of issues on deforestation	4.19	0.39
Awareness of issues on bushfires	4.13	0.33
Awareness of issues on environmental protection	4.80	0.79
Awareness of issues on climate change	3.88	0.79
Awareness of issues on global warming	3.88	0.49

Source: Field data (2021) N=80

## **4.4 Results based on Focus Group Discussion with Community Members**

### **4.4.1 Contribution of community radio stations to the development of the Denkyembaour district**

The community radio station is serving the communities well, from the perspective of the selected community members. Speaking on the contribution of the community radio station in the Denkyembaour district, the community members acknowledged the work being done by the community radio. But also admitted that more needs to be done to properly integrate it into the lives of the people. They said in the future they would like to see equal attention being paid to environmental sustainability in the district and also all kinds of livelihoods.

*We are not saying their focus is bad, but we will love to see the station introduce more programmes to cover various aspects of the citizens' lives. We love the fact that they concentrate mostly on agriculture and its related activities but certain things like environmental sustainability, security and business development cannot be ignored because they all affect the livelihoods and development of the people.*

Community radio stations make various contributions in our communities. Apart from the traditional roles of the media in community (educating, entertainment, warning, criticizing, just to mention a few), community radios perfectly serve as the means to promote democracy, sustainable development, and peace in communities they operate in (Gustafsson, 2013). This is due to the fact that they (community radio) allow community members to share diverse information surrounding their communities. According to Sourou (2013), community radios have a significance role to play especially in the rural areas.

The FGD also showed, *“since galamsey took centre stage as a national issue, discussions on politics have reduced a bit but we want to see more on environmental changes”*.

The responses are in agreement with Fraser and Estrada (2002) who assert that the programme of community radios is geared towards promoting community development and social empowerment of its audience.

#### **4.4.2 Measures community radio stations have put in place in promoting environmental sustainability in the district**

Speaking on how the radio stations have put in place measures in promoting environmental sustainability in the district, it was important to find out the kind of information the community radio stations provide to households. All the discussant identified news as the kind of information provided by the stations. They added that programmes by the community radio stations provide them information on impact of illegal mining. They said further that the radio stations provide them with information on environmental problem in the community. In their views, *“all discourses on tackling environmental challenges in the district, have been mere talk shop. We have not seen any change in black and white and our congregation is also affected negatively. This is not pleasant, so I urge the radio stations to do more for us.”*

On the other hand, respondents said the programmes of the community radio stations provides them with information on local development issues. They concluded that community radio stations provide them with information on deforestation and waste management information.

#### **4.4.3 Level of environmental sustainability awareness amongst the people in the district**

According to the representatives of some mining groups, they and their organizations participate in radio programmes. They participate in production of radio programmes and also participate by giving feedback. They also avail themselves to the radio station anytime they are called upon for a capacity building workshop or in studio discussion. This helps them understand and appreciate the awareness creation by the radio stations. They remarked, “*we are massively contributing our quota in many ways and our voices have been strong on the airwaves lately.*”

When small scale miners present themselves for studio discussions, there are usually Environmental Protection Agency (EPA) officers from the district assembly who also come to make input. Sometimes experts from other institutions within the district assembly are present to share ideas and make inputs on specific subjects. Giving his testimony in support of the impact of community radio programmes to community consciousness, the discussants disclosed, “*There is a remarkable attitudinal change among our people especially towards environmental issues. The stations’ broadcast influences both the allocation of development projects and peoples’ attitude towards environmental sustainability*”.

These field testimonies sum up the power that community radio broadcast wields and how apt it is in facilitating development and leading the charge in promoting successful behavioural and attitudinal changes especially among the youth in rural communities in Ghana.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents summary of the findings and conclusions drawn from the study. Further, recommendations were made to help improve the environmental sustainability in the community.

#### 5.2 Summary

The study sought to examine the role of community radio in promoting environmental sustainability in Ghana using Denkyembour district of the eastern region as a case. Specifically, the study sought to ascertain the contribution of community radio stations to the development of the Denkyembour district, explore the measures community radio stations have put in place in promoting environmental sustainability in the District, assess the level of environmental sustainability awareness amongst the people in the District and examine the challenges community radio stations in Denkyembour district face in their efforts to promote environmental sustainability in the District. Primary data was used and this was obtained through questionnaire, interview schedule and focus group discussion as the research instruments. A total of eighty (80) community members and twenty (20) staff of three radio stations were involved in the study using purposive and convenience sampling techniques. Quantitative data obtained was analyzed using frequencies, percentages, means and standard deviation whilst content analysis was done for the qualitative data.

The following were the findings of the study:

The study found that community radio stations contribute to the engagement in civic education (M=4.80) and Promotion of peace building consensus (M=4.75). This can be measured by the highest mean which is (M=4.80, SD=0.79) and the least mean which is (M=2.75, SD=0.83).

Additionally, the study found out that radio stations contribute to giving voice to the voiceless

(M=4.0, SD=0.00), promotion of social development (M=4.26, SD=0.44), reaching out to rural settings (M=4.25, SD=0.44) and empowerment of community members (M=4.19, SD=0.39). Respondents however, disagreed that radio stations do contribute to mobilization of community members (M=2.75, SD=0.83) and they also were undecided on radio stations promoting healthy measures (M=3.88, SD=0.79).

To find out the measures community radio stations have put in place in promoting environmental sustainability in the district, the study found that most of the respondents strongly agreed on media discourses on environmental issues and this response represent the highest mean of (M=4.90, SD=0.30). This is followed by education on bushfires and education on deforestation as a result of mining activities. However, respondents were indifferent about proper waste management (M=3.60, SD=0.60) as a measure by radio stations to promoting environmental sustainability

The study also found that staff and management agreed that financial challenges is a major challenge coupled with poor technology. Inadequate funding or revenue generation is another challenge facing the station and this has resulted in the financial challenges indicated above. This is characteristic of many community radio stations, and it makes it difficult for them to employ more permanent staff. The study again discovered that the station relies largely on advertisements, announcements and sponsorships to run the station which is woefully inadequate. This was also evident in the station's unaudited financial reports from 2018- 2020. Another challenge the study discovered is serious technical problems as a result of poor technology. The study also found about the frequent breakdown of machines used for the running of the station. This was attributed to the unstable power supply in the region. This indicates that community radio stations in Denkyembour district are going through financial challenges which can badly affect their efforts to promote environmental sustainability in the district.

There were other challenges including personnel motivation, local partisan politics, ownership issues, competition from other commercial radio stations and regulatory issues.

### **5.3 Conclusions**

The study concluded that community radio stations contribute to the engagement in civic education and promotion of peace building consensus. The study also established that most of the respondents strongly agreed on media discourses on environmental sustainability promotion. There were favourable responses also on political awareness and good governance as contribution by radio stations in promoting environmental sustainability.

The study also concluded that staff and management agreed on financial challenges as a major issue coupled with poor technology. Inadequate funding or revenue generation is another challenge facing the station and this has resulted in the financial challenges indicated above.

This is characteristic of many communities' radio stations and it makes it difficult for them to employ more permanent staff. The study concluded that the station relies largely on advertisements, announcements and sponsorships to run the station which is woefully inadequate. The study also established the frequent breakdown of machines used for the running of the station. This was attributed to the unstable power supply in the region.

Radio is popularly known as the mass media which has the maximum number of listeners. It has significant effect on the societal condition of our country till now. In today's world, people are acquainted with radio and community radio has the capacity to reach the local level rural population. Community radio can focus the voice of vulnerable and marginalized population of our community, facilitate rural development and agricultural promotion, ensures local level good governance and accountability, disaster preparedness and management, ensuring gender equality, community empowerment as well as protect the local and community culture. Community radio station can be a blessing for local level population. Community radio will help, inter alia.

- To facilitate the social advancement especially for hard-to-reach areas
- Setting up more community radio station is necessary to spread the voice of marginalized and vulnerable group to the policy makers, social scientist and others
- To build up awareness about environmental issues, social issues, social problems like child marriage, poverty and unemployment problems can be ensured through community radio station
- Any area based upcoming natural calamity could broadcast towards the focused group of people
- Education and training could be provided easily
- Community broadcasting would be sustained by the principles of access and participation, volunteerism, diversity, independence and locality.

#### **5.4 Recommendations**

Hard to reach areas will benefit from the programmes of community radio stations. Hard to reach people/community of Ghana can be developed and express their problems and demands through establishing community radio stations that will ensure their socio-economic development. The following recommendations we made by the researcher:

- Train-up people to manage the system and create contents/programs which will express the views and sufferings of marginalized and vulnerable groups
- Ensure access and participation, diversity, independence, and locality, so that members of marginalized group can express their problems and difficulties through community radio station
- Ensure multi-use of community radio i.e. spreading information of education, health and other nationally important issues.
- There should be introductions of programs that reach out to different age class with diverse environmental related topics such as cartoon programs centered on environment

for children, environmental documentaries and movies for adults and youths as well, talk shows on environment for less busy individuals. This will help different people at different age groups to understand environmental related issues in the way they understand it best.

- This study recommends the introduction of awards to media houses that air environmental talk and show the most. This is due to the research findings that more airtime should be giving to environmental related shows. The study also recommends that media houses and journalist that are reporting environmental issues should be given incentives. Hence, creating a spirit of competition which will inferably lead to more airing of environmental content.
- Based on the findings of the study, there is lack of quality in most of the environmental shows as a result of lack of environmental reporting knowledge by most journalists. Hence, there is a need to train journalist on proper ways of reporting environmental related issues.
- The internet has proven to be a promising and fastest way of disseminating information. Hence, this study recommends that more study should be done on ways to create effective environmental awareness using the internet.
- Radio stations should increase their coverage on environmental related issues by designing more relevant and educative programs aimed at raising or educating the local communities in terms of the need to imbibe the spirit of proper waste management practices
- The Ministry of Health, Environment as well as other related NGOs should support and encourage the Radio stations to provide more airtime to waste management practices especially by sponsoring such programs.

- Some of the Radio stations do not have direct programs on environmental related issues and for those who have, the time allocated for such programs were short such that the programs are broadcast weekly and even occasionally. Hence, Radio stations should strengthen the enlightenment campaigns on solid waste management practices by creating more programs on that aspect.
- Radio enlightenment campaigns should focus on the dangers of indiscriminate waste disposal on the health of the residents of the community and redesign their programs to encompass discussions, interviews with experts on environmental issues.
- The NMC, the NCA and other regulatory authorities should take steps to review the broadcast policy on CR to ensure strict adherence and compliance to lay down rules and regulations as well as the principles on the establishment of CR stations. It is critical for such policy review to take into consideration organizations that establish CR on behalf of the listening community. Specifically, a limitation to their control and ownership should be enshrined or stipulated in any of such policy review.

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## APPENDIX A

### RESEARCH QUESTIONNAIRE

#### QUESTIONNAIRE FOR STAFF OF COMMUNITY RADIO STATION

##### Introduction

The questionnaire seeks to obtain data on the role of community radios in promoting environmental sustainability in Ghana. The work is only for academic purposes and confidentiality is assured. Accordingly, due care shall be exercised to ensure that information provided is not used for other purposes. Please read through carefully and provide the relevant responses. Thank you for your cooperation.

##### Section A: Demographic features of respondents

###### PERSONAL DATA

1. Sex                      Male (    )                      Female (    )
2. Age
  - a. 20-29 years                      (    )
  - b. 30-39 years                      (    )
  - c. 40-49 years                      (    )
  - d. Above 50 years                      (    )
3. What is your educational background?
  - a. Basic
  - b. Secondary
  - c. Tertiary
  - d. No formal education
4. How long have you worked at the radio station?
  - a. Less than 1 year
  - b. 2-3 years
  - c. 4-6 years
  - d. 7-10 years
  - e. Above 10 years .....
5. What is your position at the radio station? .....

**Section B: Contribution of community radio stations to the development of the Denkyembour district**

The following statements relate to the contribution of community radio station to the development of communities. Using the scale below, to what extent do you agree or disagree to each of these statements as the contributions of community radio stations to the development of Denkyembour district?

1=Strongly Disagree (SD) 2= Disagree(D) 3= Undecided (U) 4 = Agree (A) 5=Strongly Agree (SA)

<b>Issue</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Undecided</b>	<b>Agree</b>	<b>Strongly Agree</b>
Promotion of good governance					
Promotion of political awareness					
Promotion of peace building consensus					
Allows members to share diverse information					
Gives voice to the voiceless					
Tools for social justice					
Engagement in civic education					
Power to reach out to rural settings					
Empowerment of community members					
Economic development					
Social development					
Mobilization of community members					
Promotion of social language & culture					
Promotion of healthy measures					
Employment opportunities					

**Section C: Measures community radio stations have put in place in promoting environmental sustainability in the district.**

The following statements relate to the measures community radio stations have put in place in promoting environmental sustainability in the district. Using the scale below, to what extent do you agree or disagree to each of these statements as measures community radio stations have put in place in promoting environmental sustainability in the development of Denkyembaour district?

1=Strongly Disagree (SD) 2= Disagree(D) 3= Undecided (U) 4 = Agree (A) 5=Strongly Agree (SA)

<b>Measure</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Undecided</b>	<b>Agree</b>	<b>Strongly Agree</b>
Provision of information on climate change					
Provision of information on water bodies					
Provision of information on global warming					
Provision of information on air pollution					
Provision of education on use of land for illegal mining activities					
Provision of education on environmental problem in the community					
Education on effects of air pollution					
Awareness creation on impact of illegal mining					
Education on environmental protection					
Education on effects of pollution of water bodies					
Media discourses on environmental issues					
Proper waste management					
Education on deforestation					
Education on Bushfires					

**Section D: Challenges community radio stations in Denkyembaour district face in their efforts to promote environmental sustainability in the district.**

The following statements relate to the challenges community radio stations face in the promotion of environmental sustainability in the communities. Using the scale below, to what extent do you agree or disagree to each of these statements of the challenges of community radio stations face in promoting environmental sustainability in Denkyembaour district?

1=Strongly Disagree (SD) 2= Disagree(D) 3= Undecided (U) 4 = Agree (A) 5=Strongly Agree (SA)

<b>Challenge</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Undecided</b>	<b>Agree</b>	<b>Strongly Agree</b>
Financial challenges					
Lack of logistics for effective coverage					
Poor technology					
Low level of personnel motivation					
Licensing regime					
Language issues					
Local partisan politics					
Ownership issues					
Inadequate volunteers					
Competition from commercial radio stations					
Regulatory challenges					
Competing interest					

## APPENDIX B

### INTERVIEW SCHEDULE FOR COMMUNITY MEMBERS

#### Introduction

The interview seeks to obtain data on the role of community radios in promoting environmental sustainability in Ghana. The work is only for academic purposes and confidentiality is assured. Accordingly, due care shall be exercised to ensure that information provided is not used for other purposes. Please listen carefully and provide the relevant responses. Thank you for your cooperation.

#### Section A: Demographic features of respondents

##### PERSONAL DATA

3. Sex                      Male (    )                      Female (    )
4. Age
  - e. 20-29 years                      (    )
  - f. 30-39 years                      (    )
  - g. 40-49 years                      (    )
  - h. Above 50 years                      (    )
3. What is your educational background?
  - e. Basic
  - f. Secondary
  - g. Tertiary
  - h. No formal education
4. How long have you worked at the radio station?
  - a. Less than 1 year
  - b. 2-3 years
  - c. 4-6 years
  - d. 7-10 years
  - e. Above 10 years .....

**Section B: Contribution of community radio stations to the development of the Denkyembour district**

The following statements relate to the contribution of community radio station to the development of communities. Using the scale below, to what extent do you agree or disagree to each of these statements as the contributions of community radio stations to the development of Denkyembour district?

1=Strongly Disagree (SD) 2= Disagree(D) 3= Undecided (U) 4 = Agree (A) 5=Strongly Agree (SA)

<b>Issue</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Undecided</b>	<b>Agree</b>	<b>Strongly Agree</b>
Promotion of good governance					
Promotion of political awareness					
Promotion of peace building consensus					
Allows members to share diverse information					
Gives voice to the voiceless					
Tools for social justice					
Engagement in civic education					
Power to reach out to rural settings					
Empowerment of community members					
Economic development					
Social development					
Mobilization of community members					
Promotion of social language & culture					
Promotion of healthy measures					
Employment opportunities					

**Section C: Measures community radio stations have put in place in promoting environmental sustainability in the district.**

The following statements relate to the measures community radio stations have put in place in promoting environmental sustainability in the district. Using the scale below, to what extent do you agree or disagree to each of these statements as measures community radio stations have put in place in promoting environmental sustainability in the development of Denkyembour district?

1=Strongly Disagree (SD) 2= Disagree(D) 3= Undecided (U) 4 = Agree (A) 5=Strongly Agree(SA)

<b>Measures</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Undecided</b>	<b>Agree</b>	<b>Strongly Agree</b>
Provision of information on climate change					
Provision of information on water bodies					
Provision of information on global warming					
Provision of information on air pollution					
Provision of education on use of land for illegal mining activities					
Provision of education on environmental problem in the community					
Education on effects of air pollution					
Awareness creation on impact of illegal mining					
Education on environmental protection					
Education on effects of pollution of water bodies					
Media discourses on environmental issues					
Proper waste management					
Education on deforestation					
Education on Bushfires					

**Section D:**

**Level of environmental sustainability awareness amongst the people in the district.**

The following statements relate to the level of awareness community radio stations have put in place in promoting environmental sustainability in the district. Using the scale below, to what level do you relate with each of these statements as level of awareness community radio stations have put in place in promoting environmental sustainability in the development of Denkyembour?

1=Very Low (VL) 2= Low (L) 3=Undecided (U) 4=High (H) 5=Very High (VH)

<b>Level of Awareness</b>	<b>Very Low</b>	<b>Low</b>	<b>Undecided</b>	<b>High</b>	<b>Very High</b>
Awareness of climate change issues					
Awareness of mitigation issues on environment					
Awareness of media discourses on environmental issues					
Awareness of impact of illegal mining on environment					
Awareness of issues on environmental pollution					
Awareness of issues on proper waste management					
Awareness of issues on air pollution					
Awareness of issues on deforestation					
Awareness of issues on bushfires					
Awareness of issues on environmental protection					
Awareness of issues on climate change					
Awareness of issues on global warming					

## APPENDIX C

### FOCUS GROUP DISCUSSION GUIDE

#### **I. Opening Remarks (2 Minutes)**

Thanks for coming today. The goal of today's meeting is to discuss *the role community radio plays in promoting environmental sustainability in Ghana using Denkyembaour district as a case.*

There are only a few basic rules to keep in mind while participating today:

- a) Everyone is expected to be an active participant.
- b) There are no "right" or "wrong" answers.
- c) Speak freely but remember not to interrupt others while they are talking.
- d) Note taking or recording is for reporting purposes only and will be used for analysis. Names are not attached to the notes.
- e) All information gathered will be analyzed to determine trends and make recommendations to academia, industry, government, and individual stakeholders.
- f) All feedback today will remain anonymous. To maintain anonymity, I just ask that anything that is said during our session is not repeated outside of our session.

#### **II. Introductions (2 Minutes)**

Before we start, I'd like to go around the room and have everyone introduce themselves and tell us what you do as an occupation and how long you've done that.

#### **III. Interactive Exercise (1hour)**

##### **Contribution of community radio stations to the development of the Denkyembaour district**

1. How often do radio stations promote good governance with programmes?
2. How often are radio stations concentrated on political discourse?
3. In what ways do radio stations promote peace on air?

##### **Level of environmental sustainability awareness amongst the people in the district.**

1. What do you know about environmental sustainability?
2. What do you know about impact of illegal mining?
3. What do you know about deforestation and its impact?
4. Other areas of environmental sustainability.

##### **Measures community radio stations have put in place in promoting environmental sustainability in the district.**

1. Radio stations' programmes on environmental sustainability?
2. Radio stations' education or awareness creation on illegal mining effects?
3. Education on deforestation issues a programme for discussion on radio?
4. Other programmes

**Closing**

Thank you for taking the time to participate today. Your feedback will be collected and included in a report (all feedback is reported anonymously). Again, thanks for your time.