

**ROLE OF COMMUNITY RADIO (CR) IN CLIMATE CHANGES ISSUES IN  
BANGLADES: A CASE STUDY OF RADIO NALTA, KALIGONJ, SATKHIRA**

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BANGLADES: A CASE STUDY OF RADIO NALTA, KALIGONJ, SATKHIRA**

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March, 2013**

Dedicated  
To  
My beloved parents

## **Statement of the Candidate**

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## LIST OF ABBREVIATION

ADB	: Asian Development Bank
AIS	: Agriculture Information Service
AMARC	: World Association of Community Radio Broadcasters;
BNNRC	: Bangladesh NGOs Network for Radio and Communication
CCHPU	: Climate Change and Health Promotion Unit
CCRU	: Coastal Community Radio Unit
CDC	: Centre for Development Communication
CR	: Community Radio
ECFC	: Empowerment of Coastal Fisher Communities for Livelihood Security
FAO	: Food and Agricultural Organization
FM	: Frequency of Modulation
ICT4D	: Information and Communication Technology for Development
IPCC	: Inter Governmental Panel of Climate Change
MDG	: Millennium Development Goals
MHz.	: Mega Hertz
MMC	: Mass Line Media Centre
NCRF	: National Community Radio Forum in South Africa
NGO	: Non Government Organization
PRIA	: Participatory Research in Asia
SPSS	: Statistical Package for the Social Sciences
UNDP	: United Nations Development Programme
UNESCO	: United Nations Educational Scientific and Cultural Organization
UNICEF	: United Nations Children's Fund
VOICE	: Voices for Interactive Choice and Empowerment
WB	: World Bank
WSIS	: World Summit on the Information Society
YPSA	: Young Power in Social Action

## ABSTRACT

Community radio is well recognized as a powerful vehicle for advocacy and social change in Bangladesh, but its use in the field of climate change has remained very limited. This dissertation discussed the role of Radio Nalta in climate changes issues in Satkhira district and the impacts of climate change on vulnerable communities in Satkhira. It also discussed in climate justice initiatives more broadly. Most initiatives linking Nalta Radio and climate change in developing countries currently focus on delivering information and messages to listeners about short and medium-term forecasts for farmers, alerts for extreme weather events, and messaging to discourage behaviour which degrades environmental assets. Nalta radio is broadcasting few programmes in 17 km from the station but 74% of listeners agreed the station is playing good role in awareness creation among the people about temperature rise. Highest 87% people believe that Radio Nalta is helping in very good way to create awareness among the people. About 65% listeners agreed that the Nalta Radio is playing good role in awareness creation about salinity in the locality. Radio Nalta is playing very good role in creating awareness among the people and 83% people believe it. 78% people seem that Radio Nalta is playing good role in increasing soil fertility while 82% listeners believe that it is playing very good role in awareness creation about river erosion among the listeners. But in case of overall performance Nalta Radio is playing good (78%) role in awareness creation among the listeners about climate changes issues in Satkhira District. Before launching Radio Nalta the listeners had little knowledge about climate change issues but the scenario is changing gradually. The quality and subject matter of the programmes of radio Nalta is good but the broadcasting time of climate change related programmes is not suitable for the relevant listeners. But the listeners have scope to give feedback about programmes through letter, telephone, mobile phone and short message service (SMS). It is also mentionable that the radio authority is broadcasting the programme in local language and they are trying to disseminate the information about climate change related programmes through advertisement.

## CHAPTER ONE: INTRODUCTION

### 1. Introduction

In this introductory chapter a brief media scenario and climate changes in Bangladesh has been discussed with the basic ideas of the research work. This research is a quantitative study based on primary data analysis and interview of Radio Nalta listeners regarding role of community radio in climate changes issues. Background, rational of the study, research objectives, research questions, methodology, limitations and few other basic things have been discussed in this chapter.

In many countries and regions of the world, Community Radio (CR) is recognized as a means of communication which has an important role to play in the development. CR has proven particularly useful as a tool to reach and give voice to the most disadvantaged sectors of society, which include the poor, women and children. Moreover, the United Nations, the Organization of American States, the African Commission on Human and People's Rights, and prestigious economists such as Amartya Sen, Joseph Stiglitz and Jeffrey Sachs, among others, have recognized the relationship between sustainable development and freedom of expression, reflected in a pluralistic and independent media sector. On March 8th, 2008, the Government of Bangladesh adopted the "Community Radio Installation, Broadcast and Operation Policy". The main thrust of the policy is to open up the radio spectrum to community broadcasting, in order to explore the potential of this unique form of media. The GoB is taking the decentralization of media, reflected in the granting of licenses for community broadcasting and the CR Policy, as a way to enable and promote people's empowerment, in order to build a platform for community-driven communication and sustainable development, through the mobilization and channeling of communities' energies, ideas, initiatives, and resources.

The GoB, through the Ministry of Information, has approved the establishment of 14 community radios in different districts. The stations are located in rural areas throughout the country, in districts considered to be the most backward in terms of their socio-economic development: Chittagong, Satkhira, Bogra, Moulivi Bazer, Naogaon, Chapai Nababgonj, Rajshahi, Jhinaidha, Munshiganj, Barguna (2), Kurigram, Khulna, Cox's Bazar. The first broadcasting licenses have already been issued to 13 NGOs and one government organization under the ministry of Agriculture.

The government of the People's Republic of Bangladesh has recognized climate change as an important issue and attempts are being made to incorporate potential response measures for reducing impacts of climate change into overall development planning process. It is being increasingly recognized that the adverse impacts of climate change in an already vulnerable country such as Bangladesh will put additional stress on overall development of the country. The issue has also been recognized at the higher political level of the country. CR can help to increase the awareness among the people about climate changes issues in our country.

Radio Nalta is a first generation community radio and one of the 14 Community Radios permitted by the Information Ministry of the Government of Bangladesh. The location of Radio Nalta station is in Nalta of Kaliganj Upazilla of Satkhira District at the South-East of Bangladesh. Radio Nalta achieved Government permission for transmission on 22 April, 2011. In cooperation with Climate Change and Health Promotion Unit (CCHPU) Nalta Hospital and Community Health Foundation runs Radio Nalta.

One of the major objectives of this community radio is to serve and benefit that community and also to broadcast special programs on public health of coastal area, climate changes, its affects, problems and solution as the community is on coastal area and very under develop.

### **1.1 Statement of the problem**

The rapid growth of FM radios and old Bangladesh Betar has raised concerns over whether they are serving the public interest or the interests of advertisers and their profit-minded owners. On the one hand, there are people who argue that the FM radios are conduits of Western cultural products like music and advertisements, which are suppressing development-oriented local content. On the other, there are those who believe that the newly started community radios have taken stations closer to the people in their community than in the days of only Bangladesh Betar, and therefore helped to raise the level of awareness among the rural people about climate changes, on government policies, national and international events, etc. I belong to the latter category, and my hypothesis is that the community Radio especially Radio Nalta are playing significant roles in the climate changes issues in Satkhira.

## **1.2 Justification of the research topic**

It is important that the community radios serve the interests of the most vulnerable people in the rural coastal belt areas. More than 80 percent of the people of Bangladesh live in the rural areas. According to the Third Assessment Report of IPCC, South Asia is the most vulnerable region of the world to climate change impacts (McCarthy *et al.*, 2001). The international community also recognizes that Bangladesh ranks high in the list of most vulnerable countries on earth. Bangladesh's high vulnerability to climate change is due to a number of hydro-geological and socio-economic factors that include: (a) its geographical location in South Asia; (b) its flat deltaic topography with very low elevation; (c) its extreme climate variability that is governed by monsoon and which results in acute water distribution over space and time; (d) its high population density and poverty incidence; and (e) its majority of population being dependent on crop agriculture which is highly influenced by climate variability and change. Despite the recent strides towards achieving sustainable development, Bangladesh's potential to sustain its development is faced with significant challenges posed by climate change (Ahmed and Haque, 2002). It is therefore of utmost importance to understand its vulnerability in coastal belt in terms of population and sectors at risk and its potential for adaptation to climate change.

Ministry of information has approved 14 community radio operations in Bangladesh On 20<sup>th</sup> May 2010. Radio Nalta has started broadcasting the programmes on 13<sup>th</sup> July 2011. The main objectives of community radio are to provide information to the rural communities in an understandable way. Awareness buildup of climate changes, agriculture, disaster management, education, health, women and children issues is covering in Radio Nalta for the coastal belt people in Satkhira. Since community radio is a new concept in Bangladesh and the Radio Nalta is in the coastal belt, so it has a great chance to create awareness among the people about climate changes. Besides this no research work has yet been done about the role of community radio in climate changes issues. For this reasons the researcher has taken the topic the role of Radio Nalta in climate changes issues in Bangladesh.

### **1.3 Research Questions**

To do the research work the researcher tried to remember the following questions.

1. What is the coverage area of Radio Nalta in Kaligonj satkhira
2. How the listeners getting benefit in climate changes issues from the programmes?

### **1.4 Research objectives**

The researcher examined the role of Radio Nalta in climate changes issues in Shyamnagar and Kaligonj upazilas under Satkhira district by creating awareness among the Radio Nalta listeners. The study aimed to:

1. To see the accessibility and coverage area of Radio Nalta
2. To know the influence of Radio Nalta on listeners in climate changes issues

### **1.5 Materials and Methods**

Research methodology is the way how we conduct our research. According to Aminuzzaman (1991, p. 33), “research method is a planned and systematic approach of investigation that denotes the detail framework of the unit of analysis, data gathering techniques, sampling focus and interpretation strategy and analysis plan”. This section aims to illustrate the methodology of this study.

A review of literature has carried out following the standard method where materials were collected and used from both primary and secondary sources. Primary data was brought together through interview and questionnaire. The relevant secondary information and data were collected from various books, journals, print and electronic media outlets, articles, documents, published and unpublished reports available, online contents etc.

#### **1.5.1 The Study Area and Radio Network**

The study was conducted at Radio Nalta area, a community Radio in Satkhira established in 2011. Radio Nalta, which broadcasts on a frequency modulation (FM) of 99.2, first began as a community demand in 2011. From an initial 17 kilometre transmission capacity, the station was given full recognition by the Ministry of Information. The station serves the listening needs of people within and around the Satkhira District, especially in Kaliganj and Shyamnagar Upazillas. I focused on Radio Nalta because it

was in coastal belt area and it had capacity to fulfill the demand about climate change in that area.

### 1.5.2 Sample Size and Sampling Method

Two basic sampling methods, random and purposive sampling techniques, were used. The former was employed to select 50 (fifty) participants to respond to a questionnaire, while the latter enabled me to interview 5 (five) management and staff of Radio Nalta. The aim of using purposive sampling in the present study was to enable me to obtain direction on the ground rather than speculate on the phenomenon under investigation. The sample was collected from eight villages from Kaligonj and Shyamnagar upazilla. For questionnaire the sample size was fifty. Due to short span of time only fifty samples was taken from the research area. Comparing the population of the area 50 sample was statistically correct.

Table of sample

Research methods	Number	Nature of respondents		Remarks
		Male	Female	
Questionnaire survey	50	41	9	Samples are collected from 8 villages from 4 unions under two upazilla
Interview	5	5	0	
Total	55	55		

### 1.5.3 Instrumentation

The questionnaire and semi-structured interview guide were used in collecting data. Given the large sample size of the study, the questionnaire was used to obtain quick and objective responses of listeners' views and perceptions of the role of Radio Nalta in broadcasting issues concerning climate change. Issues raised in the instrument include whether the radio station provides adequate information on climate change, the nature and duration of the programme(s) and the language used in broadcasting such programme(s). The semi-structured interview guide was also used for the management and staff of the station. This instrument was useful in the present study because of the sample size. Besides, the semi-structured interview guide enabled me to obtain detailed information from respondents on issues I had not anticipated. Concerns raised during the interview



were similar to those found in the questionnaire. I also investigated whether feedback is sought from the audiences as well as challenges faced by management and staff of the radio station.

#### **1.5.4 Data Analysis Procedure**

The collected data were processed and analyzed using statistical tools and techniques. SPSS (Statistical Package for the Social Sciences) and Microsoft Excel have been used for analyzing the data.

#### **1.6 Limitation of the study**

This research is based on empirical data collected from radio Nalta broadcasting area (Shyamnagar and Kaligonj Upazila under Satkhira district). According to Radio Nalta authority the listeners of Radio Nalta is more than four lac but due to time and resource constrains only fifty samples were taken from the listeners. Besides this, as community radio is a new concept in that area listener are not available everywhere comparing to whole population of the area. Climate change is a vast issue but due to time constrains only six issues (Temperature, Soil fertility, Salinity, River erosion, Crop production and Natural disaster) were taken.

#### **1.7 Chapter descriptions**

**Chapter One: Introduction-** This chapter consists of introductory discussion and it covers an overview of the discussion on the subsections such as : statement of the problem, justification of research topic, research questions and objectives, materials and methods, study area and radio network, sample size and sampling method, instrumentation, data analysis procedure and limitation of the study.

**Chapter Two: Literature review and analytical framework-** This chapter deals with the discussion on review of similar literature. Broadly the concept of community radio, how it works, aims of community radio and a brief account of community radio in the world has been discussed in this chapter. The name of community radio and overview of Bangladesh situation and how Nalta radio has started also discussed in this chapter.

Analytical framework with relation to dependent and independent variable and corresponding indicators are presented in this chapter.

**Chapter Three: Major climate changes issues in Bangladesh** – this chapter describes the different climate change issues in Bangladesh such as temperature rise, heavy rainfall, sea level rise, salinity and water logging, flood, cyclone and coastal erosion. This chapter also describes the role of community radio providing information on climate changes.

**Chapter Four: Discussion and Result-** The main findings with corresponding analysis of the study have been describe in this chapter. To analyze the data of the survey, the findings of the qualitative survey and secondary literature have been used. All the findings have been presented in this chapter both graphically and literally.

**Chapter Five: Conclusion and Recommendation-**Concluding remark has been manifested in chapter five. The findings of the study have been summarized here. The study also presents some drawbacks of the study and scope of future improvement with recommendations.

## **CHAPTER TWO: LITERATURE REVIEW AND ANALYTICAL FRAME WORK**

### **2. OVERVIEW OF COMMUNITY RADIO**

#### **2.1. Introduction**

For several decades now, radio has been one of the most appealing tools for participatory communication and development in communities (Mtimde, 2000:6). Community radio in particular has become the most potentially participatory medium with its roots in the community which guarantees that communication processes take the central reality as a starting point in the development of communities (Bosch, 2007:5). As such, a number of literary works have been written about its activities, albeit in both convergent and conflicting perspectives. In that view, the chapter presents an overview of community radio with regard to its functions especially in climate change issues and place in the broad global media environment.

Furthermore, the chapter provides a description of the nature and character of community radio with respect to how it is perceived in relation to other media. Considerable detail is provided discussing community radio's conceptual definition, features or characteristics, its aims, historical development and its activities in different parts of the world. Particular attention is also given to the discussion of the climate changes issues in the coastal belt of Bangladesh.

The history of Community Radio is almost fifty years old and started in Latin America. Bolivia is the champion for pioneering the alternative media in 1948. In the same year Columbia also launched local broadcasting by setting up Community Radio. Europe and Africa were started it later on. The perception of community is important to consider before going to talk about community radio. Different types of media and their specific objectives and management system are also focused in this chapter. Community Radio is pro-people media, ideally it owned and operated by community. It is different than the public service and commercial media system from philosophical point of view. The chapter has also an epigrammatic narrative about the evolution of the advocacy coalition.

#### **2.2 Concept of Community Radio**

The concept of community radio varies in different region with the local reality. In Bangladesh, there are three tier media system, i.e., state run public service broadcaster,

commercial broadcaster and international broadcaster. These three media have been broadcasting for a long time, where rural poor are always neglected in terms of participation and consideration. They are top-down media organizations. A community radio is a local broadcasting system with very limited coverage area focusing community's needs and involvement. The ownership is in the hand of the community while they are the programme planner, performer, administrator, manager, broadcaster and evaluator of the station.

Community media are distinguished from their commercial and public service counterparts in three fundamental ways. First, community media provide local populations with access to the instruments of media production and distribution. Second, the organizational culture of community media stresses volunteerism over professionalism and promotes participatory management, governance and decision-making. Third, and perhaps most significantly, community media reject market-oriented approaches to communicative practices and are philosophically committed to nurturing mutually supportive, collaborative, and enduring communal relations.

In Bangladesh context, the definition of community radio is mentioned in the Community Radio Installation, Broadcast and Operation Policy 2008, "Community radio is a medium that gives a voice to the voiceless, serves as mouthpiece of the marginalized and is central to communication and democratic processes within societies [1(c)]" and "Community radio is a broadcasting system established by the efforts of a specific community, operated by the community for the purpose of the community's welfare [1(b)]" By nature it is a media system works as a public service broadcaster for local level. The ownership is an important issue here. Community is the owner and operator of this media. The form and format of the programmes follow the local context.

In different part of the world community radio concept follows different philosophical stand- points. In Latin America, community radio defines as, "When radio fosters the participation of citizens and defends their interests; when it reflects the tastes of the majority and makes good humor and hope its main purpose; when it truly informs; when it helps resolve the thousand and one problems of daily life; when all ideas are debated in its programs and all opinions are respected; when cultural diversity is stimulated over commercial homogeneity; when women are main players in communication and not simply a pretty voice or a publicity gimmick; when no type of

dictatorship is tolerated, not even the musical dictatorship of the big recording studios; when everyone's words fly without discrimination or censorship, that is community radio" (Vigil, 1997).

In African context, the historical philosophy of community radio is to use this medium as the voice of the voiceless, the mouthpiece of oppressed people and generally as a tool for development. Community radio is defined as having three aspects: non-profit making, community ownership and control, community participation. It should be made clear that community radio is not about doing something for the community but about the community doing something for itself, i.e., owning and controlling its own means of communication. (Africa and Panos Southern Africa, 1998)

In Asian context, community radio means radio in the community, for the community, about the community and by the community. There is a wide participation from regular community members with respect to management and production of programs. This involvement of community members distinguishes it from the dominant commercial media in the Philippines that are operated for PPPP- Profit, propaganda, power, politics, privilege, etc.

In South Asia, India is the first country who has a community radio policy prior to Bangladesh. Indian context has a more moderate view on community radio, which could be called a South Asian perspective. Firstly, Community Radio is characterized by the active participation of the community in the process of creating news, information, entertainment and culturally relevant material, with an emphasis on local issues and concerns. With training, local producers can create programmes using local voices. The community can also actively participate in the management of the station and have a say in the scheduling and content of the programmes. Secondly, it is essentially a non-profit enterprise. In these days of highly commercialized broadcasting, the ethos of community radio remains independence and responsibility to serve the community, not the advertiser. As the station is owned by the community, it also maintains some responsibility in the running of the station. Thirdly, community radio programming is designed by the community, to improve social conditions and the quality of its cultural life. The community itself decides what its priorities and needs are in terms of information provision.

So, the definitions of community radio differ with regional context. In Latin America, community radio movement was parallel to the revolutionary activities of the left political wings. Asian context community radio is a pro-development tool and South Asian consideration is more on development and promoting local culture.

Community radio is a social process in which members of the community associate together to design and produce programmes and air them, thus taking on the primary role of actors in their own destiny. Whatsoever community initiative, the emphasis should be on the ownership of democratic and development efforts by the members of the community themselves in relation to the use of media to achieve this. In essence, this is participatory communication which is above all a process, not a technology, nor merely a means. It is about the community speaking to each other and acting together for common goals (Fraser and Estrada, 2001).

A report on the Sixth World Conference of Community Radio Broadcasters (1995) presented various descriptions to explain community radio initiatives. Terms such as community radio, rural radio, cooperative radio, participatory radio, free radio, alternative, popular, educational radio were applied (Teer-Tomaselli and De Villiers, 1998). Hence, their practices and profiles are even more varied. Some are musical, some militant while some mix music and militancy. They can be located in isolated rural villages or in the heart of the largest cities in the world. Their signals may reach only a kilometer, cover a whole country or be carried via shortwave to other parts of the world. However, community radio's most distinguishing characteristic is its commitment to community participation at all levels. While listeners of commercial radio are able to participate in the programming in limited ways via open line telephone shows or by requesting a favourite song, community radio listeners are the producers, managers, directors, evaluators and even the owners of the stations (Girard, 2007).

In Girard (2007)'s view, community radio means radio in the community, for the community, about the community and by the community. There should be a wide participation from regular community members with respect to management and production of programmes. This involvement of community members distinguishes it from the dominant commercial media that are operated for profit, propaganda, power, politics, privilege, et cetera. Over and above these conditions, serving the people or the public becomes a token gesture mainly to justify existence in the government bureaucratic

licensing procedures. In the contrary, community stations should be collectively operated by the community, dedicated to development, education and people empowerment. They should adhere to the principles of democracy and participation (Jordan, 2006).

### **2.3 Principles of Community Radio**

Community radio is, in effect, a form of public-service broadcasting, which serves a community rather than the whole nation. Community radio is an own resource of a community, which will reflect the outlook and attitude, norms and culture and thought and ideology of the very community people. A non-profit service will be in charge of ‘Community Radio’ broadcasting activities. It should be owned by a particular community, usually through a trust, foundation, or association. Its aim is to serve and benefit that community and create opportunity of flourishing the folk culture, create awareness about climate changes, socio-economic practices and life-style of the community people.

Fundamental Principles of Community Radio:

- ❖ The organization/institution intending to operate a community radio must be explicitly constituted as a ‘non-profit’ organization.
- ❖ The institution / organization should have a proven record of providing service to local community for at least five years.
- ❖ The community radio station must serve the specified and defined community people.
- ❖ It should have a management structure that is reflective of the community that seeks to serve.
- ❖ The program contents should cover educational, health, social, women rights, economic, rural development, weather, environmental and cultural fields relevant to the needs and with the proper participation of that particular community.
- ❖ The institution/ organization must be a Legal Entity.
- ❖ Preference should be given to rural communities during the pilot phase. The focus must be for communities deprived of the reach of mainstream media outlets.

## **2.4 AIMS OF COMMUNITY RADIO**

Community radio in its very nature has inherent potential to foster social development for the communities it serves. Various studies conducted over the years by different scholars on the aims of community radio do concur on certain basic fundamentals that the sector should fulfill. Dunaway (2002); and Fairbairn, (2000) are agreed on the idea that community radio aims to serve particular communities with information, education and entertainment. In addition, community radio should embrace active community participation in creating awareness about natural disaster, salinity, production of agriculture, and temperature rise etc. The above-mentioned scholars maintain that stations must be characterized by being available to community residents to allow them to participate in the programmes, express their needs or discuss issues of interest relating to them. Stations must be accessible to members to enable them to reach the station and benefit from it. Furthermore, the station must be acceptable and accountable by catering for the listeners' diverse needs and respecting the languages, traditions, beliefs and cultures of the respective communities. Affordability to the community members serves to allow listeners to contribute what they can afford to help sustain the daily running of the station (Open Society Foundation, 1999; and Fairbairn, 2000).

Some of the specific aims of community radio are outlined below:

- To promote the right to communicate, assist the free flow of information and opinions, encourage creative expression and contribute to the democratic process and a pluralist society. Community radio should be part of the communication processes that contribute to social change facilitating inclusion, participation, and empowerment. As such, this should lead to good governance and accountability, democratization, poverty reduction, achieving development goals, environmental balance and peace building in local communities (Jordan, 2006; and Girard, 2007).
- To provide access to training, production and distribution facilities; encourage local creative talent and foster local traditions; and provide programmes for the benefit, entertainment, education and environmental development of their listeners. Community radio promotes the idea that broadcasting does not need experts but just people with commitment and certain basic skills. This is the key to sustainable community radio stations (Fairbairn, 2000).
- To attempt to establish an ownership representative of geographically recognizable communities or communities of common interest. This helps to build up a social society



characterized by multiplicity of social institutions that cater for both individual and group behaviour based on its own standards and values for harmonious co-existence (Fraser & Estrada, 2001; and Girard, 2007).

- To be editorially independent of government, commercial and religious institutions in determining their programme policy. Community radio, as independent and plural mass media are important means of providing access to public information, fostering public involvement and promoting societal development and social cohesion (Girard, 2007; and World Association of Community Radio Broadcasters; AMARC, 2003).
- To provide a right of access to minority and marginalised groups and promote and protect cultural and linguistic diversity. Community radio is an effective means to advance issues that affect target groups, generate debate by the community, and inform listeners of their rights and resources that are available. It mobilizes communities to action, and shapes the writing and the implementation of public policy (Mathews, 2000; and Fairbairn, 2000).
- To establish community radio stations as organisations which are not run with a view to make profit and to ensure their independence by being financed from a variety of sources. Community media provide a vital alternative to the profit oriented agenda of corporate media. They are driven by social objectives rather than the private, profit motive. Ownership and control of community media is rooted in, and responsible to the communities they serve. They are committed to human rights, social justice, the environment and sustainable approaches to development and remain a voice for civil society (Girard, 2007; and World Association of Community Radio Broadcasters (AMARC, 2003).

Community radio is a new global media sector whose content focus is deeply rooted on specific challenges facing human societies at the regional, country and local levels. Community radio's political, social, environmental and cultural recognition varies from region to region allowing for community radio and community media practitioners to enter on varying degrees in coalition building of different sorts including on development issues, civil society reinforcement (Jordan, 2006).

## **2.5 A BRIEF ACCOUNT OF COMMUNITY RADIO IN THE WORLD**

In spite of differences due to legal frames and regulations, community radio is universally built along key principles. In this regard, community radio must help in empowering

communities by redistribution of power. “Participation is the engine of democracy and community radio is a tool for participation” (Jordan, 2006). The strengths of community radio therefore lie mainly in the horizontality and diversity of its operational structure. Its organisational structure is an expression of the bottom up framework, which is reflective of a community network of universe of universes, multiple languages, and the expression of differences. This diversity actualises the representation of the excluded, the survival of historic memories, of cultural diversity and an equitable approach to addressing community radio issues (Girard, 2007; and Jordan, 2006).

### **2.5.1 Community Radio in Africa**

Radio is undoubtedly the most important and accessible medium in Africa. The high rate of illiteracy, environmental problem and distribution problems relating to print media means that newspapers are generally unavailable to the vast majority of the African population. Similarly, television is beyond the financial means of most people while national television does not extend to rural areas where much of the population lives. Radio on the other hand is available everywhere and radio sets are relatively inexpensive. As compared to other forms of media, radio programming is also not expensive to produce and distribute.

In virtually all African countries national radio services broadcasting from the capital and other major centres are the most important source of information (Wanyeki, 2000 and Girard, 2001). Although autonomous and participatory community radio does not exist in most part of the continent, rural radio stations do exist. There are many countries which have set up networks of rural radio stations that broadcast a mix of nationally and locally produced programmes. Although rural radio stations share certain characteristics with community radio, their management is usually based at their national broadcasting systems through a Department or production centre. The lack of autonomy often results in programming that ultimately affects the perspective of the central government rather than the local population. In addition, most of these stations often inherit the administrative and financial problems of the institutions that direct them. Traditionally, rural radio in Africa tends not to involve the population in either decision making or programme production.

However, dramatic political changes in the past decade have seen some remarkable developments which have necessitated a new paradigm in the media. Of late, some countries have agreed to a more liberal, decentralised and a multiplicity of participation in media control and ownership. These changes have been accompanied by a certain opening of communication policies and as a result, a number of community radio experiments in several countries (including South Africa) have taken form through the years to date (Majozi, 2000).

### **2.5.2 Community Radio in Asia**

The broadcasting system in Asia was greatly influenced by the centralized, state controlled traditions also common in Africa, a trend which was left behind by colonizers. Asian broadcasting systems were designed never to develop mechanisms to accept feedback or to provide the population with a means of articulating their aspirations and concerns. As such, Africa and Asia have the same characteristic with regard to the importance attached to radio. Radio forms a central part of communication systems throughout the third world. Although the continent has been slower to shed its colonial past than Africa, tentative steps started taking place in the early 1990s following a regional seminar on community radio held in Malaysia which described radio as being “in a state of ferment” (Girard, 2001).

The Mahaweli Community Radio Project in Sri Lanka is one of the initiatives that contributed to the state of ferment and to a growing understanding of the possibilities for local radio in the region. Even though the project is operated as a branch of the national broadcasting system rather than as an autonomous community radio project, it was an important step forward and provided a useful model that was later adapted in a number of Asian countries. In 1991 Vietnam undertook an important initiative that saw an establishment of a number of local community radio stations. These stations are operated by community representatives and enjoy a fairly high degree of local autonomy (Girard, 2001).

The situation in the Philippines has been different among other Asian nations. Their broadcasting system has been heavily influenced by the commercial tradition of the United States. However, there have been a number of rural radio projects established by universities and other institutions. The lack of autonomous community radio stations in

the Philippines has been partially compensated for by the ability of production groups to get airtime on commercial or public stations, for example, Radio Woman watch.

### **2.5.3 Community Radio in Australia**

Australia does have an active community radio movement with above one hundred stations on air and a dozen more groups waiting for licenses to be granted. The stations broadcast virtually from all parts of the country from large cities to small and isolated outback communities. Some of these stations are licensed to provide a special broadcasting service, such as ethnic or Aboriginal programmes, environment related or classical music or educational programmes. However, the majority of these stations are licensed to provide a broad based service and have a particular requirement to serve those groups in their community not served by national or commercial radio services.

Indigenous and ethnic minorities, women, the aged and unemployed youth are among the groups that have access to community radio in Australia. Australia's community broadcasters derive their funding from three main sources. The first is the direct community support in the form of membership, subscriptions and donations which contribute 40%; the second source is "sponsorship", which is a highly restricted form of advertising and contributes up to 30%; and finally a variety of grants from federal, state and local government programmes. As such, Australian community radio has remained a vibrant movement that continues to provide a sustainable model for the sector in many parts of the world including Southern Africa (UNESCO, 1989).

### **2.5.4 Community Radio in Europe**

The European model of centralised state-owned broadcast system was responsible for the establishment of state monopolies in its former colonies. This system did not serve Europeans any better than it did Africans or Asians. As a result, state monopolies lasted until the 1970s when the free radio movement swept through Western Europe. During this period, thousands of unlicensed pirate stations rebelled against state domination of the air waves. In the mid 1980s, only a handful free radio stations still existed following government's intention to break its monopolies and the introduction of high-powered commercial radio networks.

Despite the traditions of State monopolies and the heavy presence of foreign capital, European countries have shown strong interest in alternative models of radio including

community radio. Some of these examples are Radio One in Czechoslovakia which operates as a cultural alternative for Prague's youth and Echo of Moscow which offers a political alternative in Russia.

### **2.5.5 Community Radio in Latin America**

Latin America was arguably the area where the first community radio experiences were started more than five decades ago. These initiatives were for many years characterized by State, private commercial, church, university, trade union and indigenous peoples' radio stations. Combined together, these stations have made the region's radio the most dynamic and diverse in the world. In the past decade there has been an increase in the use of radio by popular groups such as Peru's Feminist Radio Collective who produce programmes and have them broadcast on commercial stations. Some use "bocinas", which are simple loudspeakers installed in shanty towns, over which the community is able to have an alternative voice. Thousands of tiny radio stations have sprung up in Argentina, with some so small that they fall through the cracks of telecommunication legislation (Brunetti, 2000).

Native people have their own radio stations throughout the region which broadcast in indigenous languages and are important mechanisms for cultural, environmental and political intervention. The structures of stations in Mexico do provide an example of how they take into account the wide variety of local traditions and conditions that exist among native peoples. Clandestine guerilla stations have also been instrumental in national liberation movements in many Latin American countries, for example, Radio Venceremos, in El Salvador. Other types of local radio do exist such as the trade union owned stations in Bolivia, stations run by peasant organisations in Ecuador, a women station in Chile, and over three hundred popular radio stations run by the Catholic Church. Despite the hostile political and media environment in Nicaragua, a handful of courageous stations are still struggling to survive the country (Girard, 2001).

### **2.5.6 Community Radio in North America**

In North America community radio began in 1949 when a California pacifist obtained a license for a Frequency Modulation (FM) station at a period when most people did not have FM receivers. Going by the name of KPFA, the station was being listened to by hundreds of thousands of people in the San Francisco area with an operating budget of

US\$ 1million in 2001. North America has almost as many different types of community radio stations as Latin America. Although these stations can hardly be comparable to the stations in Canada and the United States, there are however, a few generalizations that can be made about them. Urban community radio stations in North America tend to be more culturally and politically engaged and serve communities that are outside the mainstream due to language, race, cultural interests, or politics, for example, Vancouver's Co-op Radio. In contrast, rural stations tend to be more in tune with the majority of their community despite the rural majority's different operational ideals when compared with urban-based networks (Girard, 2001).

In the remote regions in Canada's north, more than one hundred native communities have stations that fill the role of telephone, post office, meeting hall, and teacher. These stations broadcast in their own languages and volunteer programmers provide entertainment and essential information to people who may be cut off the rest of the world for weeks at a time during winter storms. Examples of such stations are those of the Wawatay Radio Network. In the province of Quebec, there are 45 native and 23 non native community radio stations. Examples range from Monstreal's Radio Centre-Ville which broadcasts in seven languages to an inner-city mostly immigrant population, to CFIM, which broadcasts in French to a small population spread across the Magdalen Islands in the Gulf of St. Lawrence.

### **2.5.7 World Association of Community Radio Broadcasters (AMARC)**

AMARC is the French acronym for the World Association of Community Broadcasters, an international non-profit organisation started in 1983 and formalised in 1998. With more than 2000 members in the world, its international Secretariat is located in Canada with regional offices in Latin America, Europe and Africa. Its working languages are English, French, Spanish and Portuguese. AMARC supports and serves community radio broadcasters around the world through training, facilitating, networking and exchange of information among members. These involve facilitating access to new technologies, capacity building for women in the community radio networks, assisting new community radio initiatives, lobbying and advocacy on behalf of members (Girard, 2001).

AMARC Africa members number over 300 based in the sub-regions of the continent. The organization works through these regional and national community networks such as the

National Community Radio Forum in South Africa (NCRF). AMARC African network aims at implementing a four point plan of action to support the development of a legal, political and cultural environment conducive to participatory radio broadcasting. This is mainly to develop a pool of human resources and materials in the sector; promote African women's access to and participation in all aspects of community radio; co-ordinate the regional networks of community radio broadcasters to ensure transference of skills and finally to bring African affiliates to the international solidarity network (AMARC, 1998).

### **2.5.8 Community Radio: South Asian Experiences**

Community radio movement is very strong in South Asia, especially in Nepal. The country still doesn't have any community radio policy but it has 160 community radio stations. After the multi-party democracy was restored in 1990, the media environment changed dramatically. In 1997, Radio Sagarmatha started broadcasting as a community radio, and that was the first community radio in South Asia. Women, marginalized and rural communities are now enjoying their participation in media. Radio Sagarmatha, a venture of the Nepal Forum of Environmental Journalists, supported by three other NGOs. Community Radio emerged in Nepal as the most promising and cost-effective communication medium, where about half of its population cannot read and write.

In Sri Lanka, community radio has been broadcasting programmes through state patronage. Mahaveli Community Radio was the first such radio station initiated as a joint ventures between the Sri Lanka government and international development agencies in 1981. Because of the absence of community ownership and mode of controlled management system it was not enlisted as the first community radio in South Asia. It was started as a settlement information service for villagers uprooted from their lands by the mammoth Mahaveli river diversion and damming scheme. The service was located in the gill capital city of Kandy, from where producers of the government-owned Sri Lanka Broadcasting Corporation were send to the villages to spend a few days among the people record interviews and then bring it back to Kandy for editing and broadcasting back to the people via the regional service Using the "voice of the people" principle of radio production, it was mainly geared to let the villagers know about the experience of each other in settling into a new environment (Seneviratne, 1995). After the Taliban root-out, Afghanistan now has more than hundred community radio airing programmes on nation-building.

### **2.5.9 Community Radio: Overview of Bangladesh situation**

In Bangladesh, there is a community radio policy. According to that policy a Regulatory Committee, Technical Sub-Committee and Central Monitoring Committee have formed by the Ministry of Information. After declaring the policy government asked for application and subsequently received four hundred applications mostly from NGOs. The regulatory and technical committee short listed 119 of them for further consideration. The Ministry of Home primarily cleared 27 applicants for final approval. As a test case 23<sup>rd</sup> May government approved 12 organizations for installing community radio stations in their respective areas. Later another 2 organization received approval as part of the process. According to the Citizen Charter of the Ministry of Information, the licensing process mentioned as a continuous action reviewed in every six months.

There was a very small initiative taken by the Department of Fisheries of the Ministry of Agriculture in the coastal region of Cox's Bazar in 2000-2005, where a Coastal Community Radio Unit (CCRU) was established in collaboration with Bangladesh Betar, Cox's Bazar station. ECFC (Empowerment of Coastal Fisher Communities for Livelihood Security) project was funded by UNDP and assisted by FAO, where the CCRU ensured community participation for the fishers' community to broadcast their programme through national radio. That was small but a breakthrough in terms of community broadcasting in Bangladesh.

### **2.6 Evolution of advocacy coalition on community radio in Bangladesh**

The formation of Bangladesh NGOs Network for Radio and Communication (BNNRC) was one of the turning points for the coalition. BNNRC is a "national networking body on alternative mass media working for building a democratic society based on the principles of free flow of information, equitable and affordable access to Information and Communication Technology for Development (ICT4D) and Right to Communication of remote and marginalized population". The organization was registered with NGO Affair Bureau and Ministry of Law, Justice and Parliamentary Affairs, Government of Bangladesh as an ICT4D Network and established in 2000 as per Article 19 charter of Universal Declaration of Human Right, where freedom of speech and access to information was recognized as basic human rights. Community



radio was discussed as a national issue for the first time in 1999 in the first National Mass Media Conference in Dhaka, Bangladesh arranged by Centre for Development Communication (CDC). In 2002, Bangladesh NGOs Network for Radio and Communication was established as a centre point for that coalition, and started its advocacy activities.

In 2005, BNNRC, MMC, FOCUS, YPSA and VOICE jointly organized a three-day long 'National Consultation on Designing and Enabling Framework for Community Radio in Bangladesh'. Joining that consultation, UNICEF, UNESCO and UNDP officially enrolled into the advocacy coalition. In that event a numbers of civil society leaders, think tank organization, research organizations, iconic personality, media personnel, cultural activists, journalist, government officials, policy makers and other important persons assembled from home and abroad, and promote community radio issue from their point of views. That was a major ice- breaking event for the community radio movement in Bangladesh.

Dhaka Declaration of Community Radio 2006 was declared from that event which was a guideline for the activists for promoting community radio in the country (Hai and Rahman, 2009). That declaration was prepared by broadcast lawyers, university teachers, development communication expert, NGOs representatives, donor and development partner's representatives and civil society leaders in a three days conference. That declaration was recommended government to formulate a community radio policy in priority basis.

After the reformist caretaker government came into power, a letter campaign had taken by the BNNRC regarding community radio. The objective of the campaign was to open up the community radio as a pilot bases. As the outcome of the initiative, Chief Advisor sent a directive to the Ministry of Information to start scheme for community radio. Followed by that directive a high authority meeting was held in the ministry on community radio. In the meantime, concern ministry was asking for opinion from Bangladesh Betar authority on the issue. As the invited discussants former Advisor and Secretary of Information Mr. Abdul Muyeed Chowdhury, MMC Executive Director Mr. Kamrul Hasan Manju and BNNRC Chief Executive Director AHM Bazlur Rahman were presented as members of advocacy coalition representatives.

After a comprehensive discussion regarding community radio as a pilot basis the meeting takes decision to form a ministerial committee of 8 members convened by the Director General of Bangladesh Betar in May 2008, who prepared the concept paper, regulatory framework and application form in relation to community radio and submitted that to the ministry by a month. The Draft Committee officially presented the concept paper, policy and application form in October 2007. In that meeting, Mr. Abdul Mueyed Chowdhury was presented with other draft members of the committee. After a comprehensive discussion on the issue the meeting decided to send the copies to other concern ministries for ratification and comments. An inter-ministerial meeting was held in February 2008 before finalize the policy. At last, government formally announced the Community Radio Installation, Broadcast and Operation Policy 2008 on 12<sup>th</sup> March 2008.

Bangladesh NGOs Network for Radio and Communication (BNNRC), since its inception, has been advocating with the government and with other organizations for the promotion of Community Radio to address critical social issues at community level, such as poverty and social exclusion, empowerment of marginalized rural groups, creating awareness of climate changes and catalyze democratic process in decision making and ongoing development efforts.

Initially government approved 14 Initiators like Young Power in Action(YPSA) for Sitakunda, Chittagong, Nalta Community Hospital for Satkhira, LDRO for Bogra, BRAC for- Moulivi Bazer, Barandro Community Radio for -Naogaon, Proyas for -Chapai Nababgonj, CCD for - Rajshahi, Srizoni for - Jhinaidhah, EC Bangladesh for - Munsihigonj, MMC for - Barguna and RDRS for- Kurigram, Sundarban Community Radio for Koyra(Khulna), ACLAB for - Telnaf (Cox's Bazer) and Agriculture Information Servics(AIS) for - Community Rural Radio for Amtoli (Barguna)

In Bangladesh, the Community Radio movement is at a very promising yet critical stage. Different NGOs, civil society groups, journalists, intellectuals and other concerned entities of this country are putting continuous and ardent effort in order to come up with a Community Radio friendly regulatory environment through appropriate government regulations. Their plan is to initiate any Community Radio project addressing the issues related with fulfilling Millennium Development Goals (MDG), World Summit on the Information Society (WSIS) Action Plan, PRSP and knowledge based society. In Bangladesh, there are 14 Community Radio stations namely

- ❖ Community Radio Padma 99.2MHz,
- ❖ Community Radio Nalta 99.2MHz,
- ❖ Community Radio Loko Betar 99.2MHz,
- ❖ Community Radio Pollikantha,
- ❖ Community Radio Sagar Giri 99.2MHz,
- ❖ Community Radio Mohananda 98.8MHz,
- ❖ Community Radio Mukti 99.2MHz,
- ❖ Radio Chilmari 99.2MHz,
- ❖ Community Radio Jhenuk 99.2MHz,
- ❖ Community Rural Radio (Krishi Radio) 98.8MHz,
- ❖ Community Borendro radio 99.2MHz,
- ❖ Community Radio Naf 99.2MHz ,
- ❖ Community Radio Sundarban 98.8MHz and
- ❖ Community Radio Bikrampur 99.2MHz.

# Community Radio in Bangladesh



Community Radio Station (CR) in Bangladesh up to 20.05.10

Source: Ministry of Information, Government of the People's Republic of Bangladesh

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## **2.7 Radio Nalta: Voice of the voiceless**

A few days back, 15 fishing boats with 70 fishermen from Shyamnagar Upazilas Koikhali union retreated safely from sea after hearing news of inclement weather on Radio Nalta. Returning safely the fishermen said their lives were saved by Radio Naltas weather forecasts. This community radio has become a friend to the people of Satkhira's coastal belt in disaster and distress. The station is airing news on natural disaster regularly. Around 4 lakh people regularly listen Nalta Radio's news and programs. The most striking fact is that about 80 thousand fishing labour of the area regularly listen to the radio.

Local residents are planting trees which can adjust with climate change and getting directions on how to take preparations for natural disasters through Radio Nalta's programs. In addition farmers are receiving information on the use of fertilizers and insecticides, as well as how to get more profit for fish cultivation. Residents of the community are also receiving primary health care suggestions by taking to doctors through the radio station.

Suprova Satkhira a morning show marks the beginning of everyday, while several other programs on agriculture, rural community development, adult and children education, health care of coastal people, mother and children's health care and family planning are also broadcasted. During natural disaster, the radio broadcast cautionary forecast and healthcare related programs. Moreover Nirapod Jibon programs on environment and climate change are also broadcasted. The people of the community are also provided with news on other issues, like demand of agricultural products and regular market prices, social development and recent upcoming issues. Above all different programs, featuring, songs, literature, education and entertainment remain in the radio's regular program schedule. Radio Nalta airs development news 4 times every day at 2.30pm, 4.30pm, 6.30pm and 11pm.

Radio Nalta is a first generation community radio and one of the 14 Community Radios permitted by the Information Ministry of the Government of Bangladesh. The location of Radio Nalta station is in Nalta of Kaliganj Upazilla of Satkhira District at the South-East of Bangladesh. Radio Nalta achieved Government permission for transmission on 22 April, 2011. In cooperation with Climate Change and Health Promotion Unit (CCHPU) Nalta Hospital and Community Health Foundation runs Radio Nalta.

One of the major objectives of this community radio is to serve and benefit that community and also to broadcast special programs on public health of coastal area, climate changes, its affects, problems and solution as the community is on coastal area and very under develop. People of this area are suffering and facing a lot of problems of climate changes. As per Government rule Radio Nalta Station covers a range of 17 km from its centre. Maximum limit for transmitter power is 100 watts and the antenna tower's height from ground level is 32 meters.

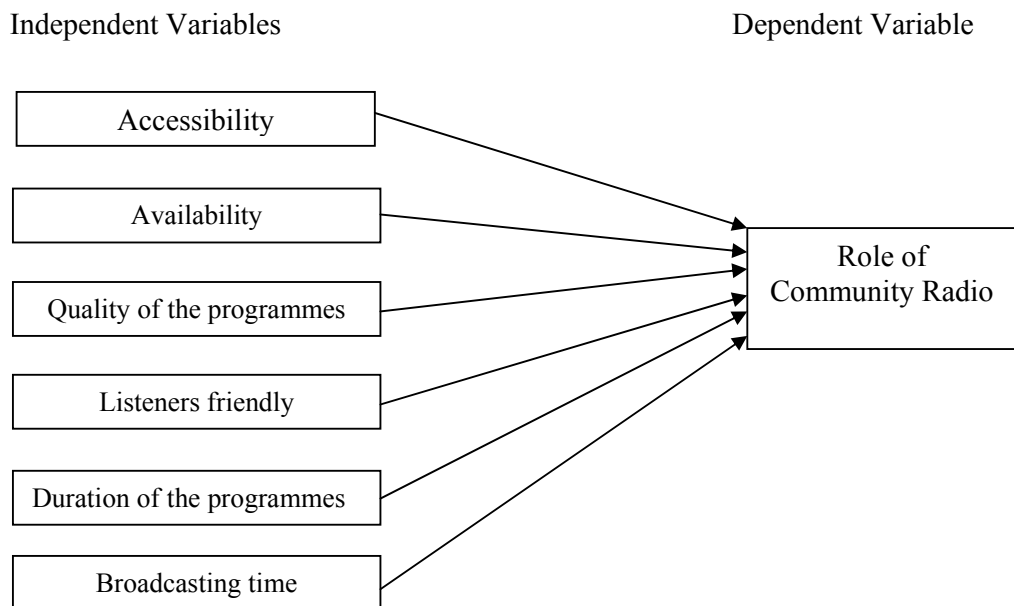
Radio Nalta broadcasts everyday from 8 am-11 am in morning and 2 pm-11pm at evening. Along with other programmes it broadcasts programmes produced jointly by Climate Change and Health Promotion Unit (CCHPU) and Nalta Hospital and Community Health Foundation Radio Nalta 2 hours and 35 minute's everyday. Among these programmes 'Apnar Daktar' is broadcasted live every day. Paribesh o Shastha Sangbad (Environment and Health news), programme on climate change, weather forecast and disaster management suggestions named 'Nirapad Jibon' and a part of 'Fashaler Math' programme named 'Pratidin Mather Shasthya' are the other programmes produced jointly by Climate Change and Health Promotion Unit (CCHPU) and Nalta Hospital and Community Health Foundation.

## **2.8 Analytical Framework**

The objective of this chapter is to establish an analytical framework which is composed of independent and dependent variables. In developing the analytical frame work, the relevant concepts are explained with elaboration in the literature review and tried to relate these concepts with this research work. Analytical framework has been developed containing six independent variables that likely affect the only dependable variable '*Role of Radio Nalta in climate changes issues*'. The independent variables are *Accessibility to the coverage area, Availability of radio, quality of the programme, listeners friendly, Duration of the programme* and *broadcasting time*.

To do the research work the researcher has found some indicators of independent variables. These indicators indicate the success of dependent variables and research work. First the listener has to be stay in Nalta Radio coverage area and they have to have sufficient knowledge to operate radio or mobile. The listeners should have radio and mobile with FM facilities. The announcer and the speaker should be knowledgeable about

the climate changes. The programme should be noise free with suitable words for the listeners. Standard time duration and suitable time of the programmes also affects the dependent variables.



**Fig 1.1:Independent and Dependent variables**

**Table 1.1: Measurable indicators for independent variables**

SL	Independent Variables	Indicators
1	Accessibility	<ul style="list-style-type: none"> <li>• Coverage area</li> <li>• Technological knowledge</li> </ul>
2	Availability	<ul style="list-style-type: none"> <li>• FM radio</li> <li>• Mobile phone with FM radio</li> <li>• Computer with network connection</li> </ul>
3	Quality of the programmes	<ul style="list-style-type: none"> <li>• Noise free</li> <li>• Resource person</li> </ul>
4	Listeners friendly	<ul style="list-style-type: none"> <li>• Less technical words</li> <li>• Local language</li> </ul>
5	Duration of the programmes	<ul style="list-style-type: none"> <li>• Standard time duration</li> <li>• No commercial break</li> </ul>
6	Broadcasting time	<ul style="list-style-type: none"> <li>• Suitable time for listeners</li> </ul>

## 2.9 Operational definitions of major concepts

**Role:** Role means a prescribed or expected behavior associated with a particular Position or status in a group or organization. It is a set of connected behaviours, rights, obligations, beliefs, and norms as conceptualized by actors in a social situation. It is an expected or free or continuously changing behaviour and may have a given individual social status or social position. It is vital to both functionalist and integrationist understandings of society. Social roles included appropriate and permitted forms of behaviour, guided by social norms, which are commonly known and hence determine the expectations for appropriate behaviour in this role. In this study role means the change of activities among the people. Radio Nalta is changing the awareness level of people about climate change by broadcasting programme through radio. Here the change of behaviour among the listeners is called role of radio.

**Accessibility:** Accessibility is the degree to which a product, device, service, or environment is available to as many people as possible. Accessibility can be viewed as the "ability to access" and benefit from some system or entity. In this study accessibility means to stay within the network coverage area and the technological knowledge to use the FM instrument.

**Availability:** Availability, in the context of a community radio, refers to the ability of a user to access information or resources in a specified location and in the correct format. In this study mobile phone with FM facilities and Radio set with FM also included in the list of availability.

**Broadcasting time:** Broadcasting time is the suitable time for listeners in which the programme broadcast.

**Climate change:** Climate change is a long-term change in the statistical distribution of weather patterns over periods of time that range from decades to millions of years. It may be a change in the average weather conditions or a change in the distribution of weather events with respect to an average, for example, greater or fewer extreme weather events. Climate change may be limited to a specific region, or may occur across the whole Earth. In this study climate change issues include temperature rise, salinity increase, crop production, river erosion, soil fertility and natural disaster.



**Community radio:** Community radio is a public-service broadcasting, which serves a community. It is an own resource of a community, which will reflect the outlook and attitude, norms and culture and thought and ideology of the very community people.

Programme duration.

**Programme duration:** Programme duration refers to the standard number of minutes in which a programme can complete all the contents of the programme.

**Quality of the programme:** Quality in programme, business, engineering and manufacturing has an interpretation as the non-inferiority or superiority of something; it is also defined as fitness for purpose of listeners. Quality is a perceptual, conditional and somewhat subjective attribute and may be understood differently by different people. Listeners may focus on the specification quality of a product/service especially noise free programme, rich content, and present of resource person in the programme.

**Coverage Area:** Coverage area of radio means the surrounding area of radio from where one can listen radio clearly. Coverage area of radio Nalta is 17 km areal distance from the station.

**Noise free:** Noise free refers free from unwanted sound in the programmes.

**Resource person:** Resource person are those peoples who takes part in the programmes and they are expert in related field. In case of Radio Nalta resource persons are Government officials, NGO workers, teachers, students, farmers etc.

**Standard time duration:** Standard time duration is the minimum time of the programmes which is suitable for the listeners.

## **CHAPTER THREE: MAJOR CLIMATE CHANGE ISSUES IN BANGLADESH**

### **3.1 Introduction**

Climate change is a global issue that should be handled seriously. In the past decade, there have been various discussions, conferences and conventions held in its name. Hundreds of politicians, environmentalists and governments have discussed, debated and even come to agree on possible solutions with which the world might face its impending challenge.

Climate change is a change in the world's climate; it is any long term significant change in the "average weather" that a given region experiences. Average weather may include temperature, precipitation and wind patterns. The term climate change is used interchangeably with "global warming" and "greenhouse effect" but is a more descriptive term. It refers to the buildup of manmade gases in the atmosphere that trap heat, causing changes in weather patterns on a global scale.

Bangladesh has been described by the Asian Development Bank (ADB) as the world's most vulnerable country to climate change related risk factors. This vulnerability is due, amongst others, to its disadvantageous geographic location, flat and low-lying topography, high population density and reliance of many communities on agriculture and fishing, which are vulnerable to changes in the environment, for their livelihoods. With rates of malnutrition in Bangladesh running at around 35%, the threat to agricultural production from climate related events could have devastating impacts on populations already vulnerable to food shortages and poverty.

Current and projected future climate change impacts on Bangladesh include:

- (a) A rise in sea levels that could inundate a significant portion of low-lying coastal areas of Bangladesh. The rise in sea level is predicted at 88 cm and 89 cm along the coastline of Bangladesh. Roughly 25% of landmass is likely to be inundated permanently if sea level rises by 89 cm which might create 18 million climate refugees.
- (b) More intense storm surges, particularly on top of sea level rise that could result in more death and elimination or loss in low-lying coastal areas of Bangladesh.

(c) Increased precipitation, particularly in the monsoon period, that could increase flood depth and extent. There is a potential for drier conditions during the dry season (winter), which could make droughts worse.

(d) Climate change poses a threat to ecosystems in Bangladesh. At particular risk is the Sundarbans, the coastal mangroves that straddle the coasts of western Bangladesh and neighbouring India, which could be inundated with sea level rise.

(e) Climate change is associated with hotter summers and colder winters, which may have adverse impacts on human health. Temperatures in Bangladesh have increased by about 1°C in May and 0.5 °C in November between 1985 and 1998, and further temperature increases are expected. However, although the overall climate is warming, temperature extremes are increasing, and winter temperatures as low as 3.2°C have been recorded in January 2013, reportedly the lowest in 44 years.

The coastal areas of Bangladesh is different from rest of the country not only because of its unique geo-physical characteristics but also for different sociopolitical consequences that often limits people's access to endowed resources and perpetuate risk and vulnerabilities. This coastal area represents an area of 47,211 km<sup>2</sup>, 32 percent of the country's geographical area, wherein 35 million people i.e. 28 percent of the country's total population live at 6.85 million households. In terms of administrative consideration, 19 districts out of 64 are considered as coastal district. A study of IPPC (Inter Governmental Panel of Climate Change) in 2001 reveals that 20 percent and 40 percent of the world population live within 30 kilometers and 100 kilometers of the coast respectively, which is very true in regards to Bangladesh's perspective. Last two years community radio in Bangladesh is broadcasting programme on climate change to create awareness among the people.

### **3.2 Temperature rise**

Latest IPCC predictions from their Fourth Assessment Report reveal that for the next twenty years warming at a rate of 0.2° C per decade is expected. While by the year 2100 best estimates predict between a 1.8° C and 4° C rise in average global temperature, although it could possibly be as high as 6.4°C (Alley *et al*, 2007). How high exactly depends on whether tough action is taken to stop greenhouse gas pollution now or if very little action is taken as at present. However, if current trends are followed, it can be

expected that average global temperatures will rise by 1 - 3°C within the next fifty years or so and the Earth will be committed to several degrees more warming if greenhouse gas emissions continue to grow (Stern, 2006).

However, most countries in the world will immediately find global warming a major problem with higher maximum temperatures, more hot days and heat waves, as well as higher minimum temperatures and fewer cold days over nearly all land areas. As well as indirect effects, hotter weather will increase the amount of deaths and illness due to heat, particularly in older people and urban poor (Depledge and Lamb 2005).

### **3.3 Heavy Rainfall**

Warming may induce sudden shifts in regional weather patterns such as the monsoon rains in South Asia or the El Niño phenomenon - changes that would have severe consequences for water availability and flooding in tropical regions and threaten the livelihoods of millions of people (Stern, 2006). Heavy rainfall will become more common, and this may cause damage to crops and to farms through soil erosion, and inability to cultivate land due to water logging of soils. It may also cause contamination of drinking water supply, causing various water related illnesses (Adger *et al*, 2007). Landslides and avalanche damage, loss of life and damage to buildings and property, and loss of livelihoods due to longer periods of flooding will be other effects of heavier rainfalls (Depledge and Lamb 2005).

### **3.4 Agriculture Crop Production**

Rice is by far the most important crop in Bangladesh. Together with the possible reduction in Aman rice area (as a result of greater spread of flood waters, and longer duration of flooding) and a reduction in the Boro rice area (which will be limited due to constraints in irrigation), the total area suitable for rice production may in the future stagnate or possibly decrease (WB, 2000). CEGIS (2006) has shown that due to sea level rise along the southwestern region of Bangladesh Aman suitable areas would decrease significantly.

Floods affect agriculture production considerably. Karim *et al.* (1996) reported that the 1988 flood caused reduction of agricultural production by some 45 per cent. In the case of

the most devastating flood of recorded history, in 1998, Aman production potential of some 2 to 2.3 Mha could not be realized. The prolonged flood of 1998 did not allow the farmers to transplant seedlings in appropriate intensity floods; it may be argued that Aman production is likely to suffer heavy damages under climate change.

A GCM-coupled crop modeling exercise was carried out by Karim *et al.* (1998). The model took into consideration a variety of soil, edaphic and agronomic parameters and examined their sensitivity to climate regime under different scenarios. It is reported that, Aus production would suffer by 27 per cent while wheat production would decline by 61 per cent under a moderate climate change scenario. Under a severe climate change scenario which is associated with 60 per cent moisture stress, yield of Boro might reduce by 55 to 62 per cent.

Fisheries may be initially boosted by warmer waters, but again in the longer term it is bad news as increased Carbon-dioxide in the air will cause more carbon-dioxide to become dissolved in the oceans and seas which will make them more acidic, this will reduce the number of fish in them (Stern, 2006). Livestock farming will be threatened by increased animal diseases and the cost of straw or grain to feed them as crop harvests decrease (Williams, 2002).

### **3.5 Sea Level Rise**

Being a low lying deltaic country, Bangladesh will face the serious consequences of sea level rise including permanent inundation of huge land masses along the coast line. There is a clear evidence of changing climate in Bangladesh which is causing changes in the precipitation, increasing annual mean temperature and sea level rise. During a period from 1961 to 1990 the annual mean temperature increased at the rate of 0.0037 degree Celsius but during 1961 to 2000 the rate was 0.0072. This mean, in the last decade, annual mean temperature rise was almost double than the previous years.

Over the last 100 years Bangladesh has warmed up by about 0.5 oC and 0.5 m rise of sea level in the Bay of Bengal (BUP 1994). In the South western Khulna region 5.18 mm/year sea level rise is recorded which may reach to 85 cm by 2050. World Bank's study on the impact of Sea level rise in Bangladesh reveals that, 100 cm sea level rise within next 100 years will inundate 15 to 17 percent of country's land area i.e. 22135 to 26562 square kilometers, which will make 20 million people environmental refugee and a

country like Bangladesh might not be able to accommodate such huge uprooted people. Again, 2 degree temperature and 45 cm sea level rise would increase 29 percent risks of flooding of country's low laying areas and may cause permanent inundation of 145 km long coastline stretches from Cox'sbazar to Badar Mokam. Considering above risk Radio Nalta broadcast different programmes about climate change especially what will be the effect of sea level rise on coastal belt.

### **3.6 Salinity and Water Logging**

The coastal areas of Bangladesh have already been facing salinity problem which is expected to be exacerbated by climate change and sea level rise, as sea level rise is causing unusual height of tidal water. In dry season, when the flows of upstream water reduce drastically, the saline water goes up to 240 kilometers inside the country and reaches to Magura district. Presently around 31 upazillas of Jessore, Satkhira, Khulna, Narail, Bagerhat and Gopalganj districts are facing severe salinity problem. Agricultural activities as well as cropping intensities in those upazillas have been changing; now farmers can't grow multiple crops in a year.

Salinity ingress also causes an increase in soil salinity, especially when farmers irrigate their lands with slightly saline surface water at the beginning of the low flow period. Soil Resource Development Institute of the Government of Bangladesh reported that, soil salinity levels south of Khulna and Bagerhat towns ranged between 8 to 15 dS/m during the low flow season. It is also reported that, several sub-districts (such as Kachua, Mollahat, and Fultali) south of the Sundarbans „,“ known to be non-saline in the pre-Farakka period „,“ have began to develop soil salinity during the low flow seasons of 1980s. The anticipated results of salinity ingress will be, at a minimum, of the same order for climate change induced low flow regime compared to similar effects shown by deliberate withdrawal of flows at Farakka barrage.

The anticipated sea level rise would produce salinity impacts in three fronts: surface water, groundwater and soil. Increased soil salinity due to climate change would significantly reduce food grain production. Even at present, some parts of coastal lands are not being utilized for crop production, mostly due to soil salinity; and this situation would aggravate further under a climate change scenario. A modeling exercise has

indicated that, under the changed climate conditions, the index of aridity would increase in winter (Huq, *et al.* eds.1998).

Consequently, higher rates of capillary action from an increased rate of topsoil desiccation would accentuate the salinity problem. Impacts of Salinity

- 10% more land (relative to 1990) will be saline-affected and intensity will be increased by 10 %

- Decreases availability/productivity of agricultural land;

- Increased food insecurity as naturally-growing species disappear;

- Serious scarcity of safe drinking water;

- Loss of biodiversity, e.g. decrease in tree species and freshwater fish;

- Creates socioeconomic problems, generally women will be more vulnerable.

Radio Nalta has a special programme in which the farmers are given different solutions on the effect of salinity in the field.

### **3.7 Flood and Water Logging**

Due to geographical setting Bangladesh has to receive and drain-out huge volume of upstream waters. The flows of mighty rivers the Meghna, Padma and Brhammaputra, originated from the Himalayans, drain-out in the Bay of Bengal flowing through-out the country. In the summer, from May to August, the melting of glaciers in the Himalayans makes the rivers in Bangladesh live. The rainy season, which is strongly influenced by monsoon wind from the South- West, also sets on at the same period and causes huge precipitation.

Therefore, the combined effect of upstream flows, precipitation and terrestrial run-off resulted to over flooding, causing water logging and prolong flood almost every year. But the worsening condition is that the trend of melting ice along with rainfall has been increasing due to rising temperature in the Himalayans. As result the frequent floods are happening causing devastating effect to the people live and livelihoods. On the other hand, rising sea level is causing water level rise in the rivers and thereby accelerating risks of flood and water logging. Again, as the elevation our coastal plain is only 3-5 meter from the mean sea level, a vast coastal areas, approximately 18% of total land, would submerge by 1 meter sea level rise. The major reasons behind these assumptions are

- a) No defense mechanism for the protection of coastal plain land and

- b) Sea level will rise following the contour line. But in fact, the coastal plain lands in central zone, the sediment rich and fresh water flow dominated areas are naturally well protected. Nonetheless some areas are remaining under risk of over flooding due to back water effect.

The problem of water logging might be more dangerous than flooding. Already many coastal places, where sustainable drainage network system hasn't developed, are facing water logging problem and the intensity of problem is appearing as a catastrophe day by day. To face this problem effective measure should be taken, especially in the coastal areas. Likewise densely populated coastal areas, Sundarban, the world's largest stretch of mangrove forest, is also vulnerable to the consequences of global warming and sea level rise. As the tidal flow and wave action is high in the mangrove forest area so only 45 centimeters sea level rises would inundate about 75 percent of forest area and 67 centimeters rise in sea level would submerge the entire Sundarbans. Though, in congruence with sea level rise, siltration process would cause relative elevation of Sundarban but this relative elevation might not be enough to combat the risk of sea level rise. In fact the risk of over flooding and inundation of Sundarban is still a concern.

### **3.8 Cyclone and Bangladesh's Coast**

The entire coastal zone is prone to violent storm and tropical cyclones during pre monsoon and post monsoon season. Therefore, the Bangladesh coastal zone could be termed a geographical 'death trap' due to its extreme vulnerability to cyclones and storm surges. Nearly one million people have been killed in Bangladesh by cyclones since 1820. As many as 10 percent of the world's cyclone develop in the Indian Ocean but they cause 85 percent of the world's cyclonic havoc. The massive loss of life from cyclones is due to the large number of coastal people living in poverty within poorly constructed houses, the inadequate numbers of cyclone shelters, the poor cyclone forecasting and warning systems and the extremely low laying lands in the coastal zones.

Sometimes cyclone associated with tidal waves caused great loss of lives and property. The physiology, morphology and other natural conditions have made it vulnerable to disaster, cyclonic storms and floods which are very devastating and cause immense suffering and damage to people, property and the environment.



### **3.9 Coastal Erosion**

River erosion and loss of coastal habitable and cultivable land is an acute national problem and one of the major natural hazards. Mr. Bob Makenro, the regional chief of the International Federation of the Red Cross and Red Crescent Societies identified the river erosion as the largest concern of Bangladesh. But very few people concerned about it. He mentioned that the complexity of the issue is critical enough to be addressed in the mass media properly. According to him, this is a slow, silent disaster caused by climate change. Another report (DFID, in association with Disaster Forum) identified the river erosion as the country's topmost disaster concerning the losses.

### **3.10 Climate Change and Communication rights**

As climate change intensifies through increased temperatures and precipitations, many Bangladeshi farmers with majority living in rural areas are not adapting to global warming. Scarcity of information on climate change is one of the major obstacles for the vast majority of Bangladeshi farmers in adapting to the situation.

Community radio is a medium that gives voice to the voiceless, serves as the mouth piece of the marginalized and is central to communication and democratic processes within societies. Communication is recognized as an essential human need and therefore a basic human right. Communication and media contribute to development goals in the economic, political, environmental, social and cultural spheres. It is imperative to communicate on the issue of climate change.

### **3.11 Providing Information on Climate Change: The Role of Community Radio (CR) in Bangladesh**

In book entitled "Fighting Poverty-Utilizing Media in a Digital Age," page 56, Grace Githaiga said "Community radios have facilitated on improved livelihoods through information in different important areas such as trading and business development, breaking myths on HIV/AIDS, improving health, agriculture etc." It is expected therefore that the same medium would be used to disseminate information on climate change in the language of the people and bring it down to their level. Indeed community radio can serve

as effective channel through which farmers, economic operators and other citizens can access information on global warming

As a means of information and communication, community radio in Bangladesh has a great role to play in information dissemination on climate change. It has the duty to promote the rights of the people to communicate, assist the free flow of information and opinions on climate change. The Community radio can focus discussions on environmental degradation and harmful local practices like bush burning and deforestation, which worsen global warming. The CR should provide the right access to information and serve as interactive medium where the citizens can ask questions and raise their concerns about climate change.

The Community radio should serve as a medium to speed up the process of informing the people about climate change thereby serving as a catalyst for change. The Community radio should in partnership with national, regional and international research institutions design programmes that will provide the required information on weather variability such as change in rainfall pattern and increase in temperature as well as offer suggestions to farmers and the citizens on climate change, what actions to take to safe guard the environment and how to cope with the situation. Since agricultural extension workers are primary sources of information for farmers, the Community radio should liaise with them to reach farmers with relevant information on droughts, flooding, the intensity or severity of storms actions they can take to ensure good farming practices for improved harvest. When all these have been accomplished, the CR would have played its expected role in taking information on climate change to the people.

## CHAPTER FOUR: DISCUSSION AND RESULT

### 4.1 Introduction

Radio Nalta broadcasts the programme everyday from 8 am-11 am in morning and 2 pm-11pm at evening. Along with other programmes it broadcasts programmes produced jointly by Climate Change and Health Promotion Unit (CCHPU). Among these programmes 'Apnar Daktar' (Your Doctor) is broadcasted live every day. Paribesh o Shastha Sangbad (Environment and Health news), programme on climate change, weather forecast and disaster management suggestions named 'Nirapad Jibon' (Safe Life) broadcast Saturday-Tuesday every week at 4.45 pm and a part of 'Fashaler Math' (Crop Field) programme named 'Pratidin Mather Shasthya' (Everyday Fields condition ) are the other programmes produced jointly by Climate Change Unit under ministry of Forest and Environment and Health Promotion Unit (CCHPU) and Nalta Hospital and Community Health Foundation.

In Nirapod Jibon and Fosholer Math programmes Radio Nalta mainly focused on creating awareness about Temperature rise, soil salinity, land fertility, river erosion, crop production and natural disaster due to climate change. Since the station is on coastal belt these programmes are directed by ministry. As community radio is non-profit media, they face many different problems in broadcasting programme. Fosholer Math is a live phone in programme for the farmers. In the programmes as a specialist Upazila Agriculture Officer, Fisheries officer, Livestock officer, Fish technologist, Fish and agriculture specialist, and Sub Assistant Agriculture officer comes to the studio to attend the phone in programmes. Farmers of the Nalta Radio area direct phone to the studio and ask their query to the specialist and get answer from them.

In Nirapod Jibon programmes climate change specialist come to the studio and discuss different issues on climate change. They play a vital role to create awareness among the listeners about climate change. It is a magazine format programme so some songs and drama related to awareness also broadcasts in the programmes. They discuss the bad effect of temperature rise in the atmosphere, how the coastal belt will be affect by the temperature rise and how can we adapt with it. Soil salinity is a major problem in Satkhira. How salinity increased due to climate change and how can produce more food by soil tolerance species also discussed in the programmes. The specialist talkers discuss

the preparedness about flood and cyclone. Not only in that programmes but also in the news, in the songs programme at night and other times weather signal are broadcasted every day. Besides these, listeners can call to the hot number of the radio for any queries any time. From starting the programmes of Radio Nalta the listener's knowledge and awareness is increasing day by day. The awareness level of the listeners about climate changes and other information are presented below both in table and graph.

#### **4.2 Listeners' information and network coverage of Radio Nalta**

Nalta Radio has become a friend to the people of Satkhira's coastal belt in disaster and distress. The station is airing news on natural disaster regularly. According to radio authority around 4 lakh people regularly listen Nalta Radio's news and programs. It is mentioned in previous chapter that about 80 thousand fishing labour of the area regularly listen to the radio.

As per Government rule Radio Nalta Station covers a range of 17 km from its centre. Maximum limit for transmitter power is 100 watts and the antenna tower's height from ground level is 32 meters.

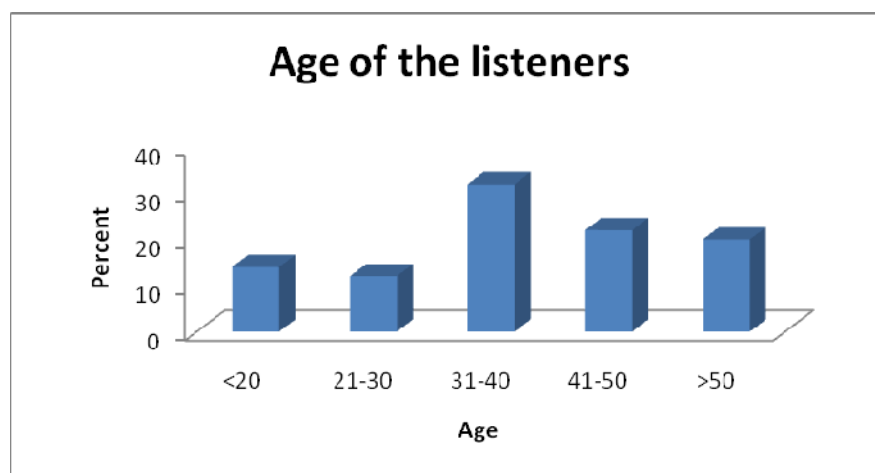
But according to questionnaire survey the people of Shyamnagar can also hear the Radio Nalta programmes, i.e. from minimum 40km distance, people can listen the programmes. The table 4.1 shows that the listeners of the radio are mostly men. Among the listeners 82% are male and 18% are female. The female listeners are less than male because the area is very much religious and female are not interested before male for interview. Another reason is that they are not interested in agriculture or climate related programmes.

**Table 4.1: Male/Female ratio of the Listeners of Radio Nalta**

Gender	Frequency	Percent
Male	41	82.0
Female	9	18.0
Total	50	100.0

Nirapod Jibon, Fosholer Math programmes is attractable for farmers. The graph illustrates that the large number listener's age of the climate change related programmers is between

31-40 years i.e. 32%. Others ages are 41-50 years, 22% and 20% listeners are above 50 years. The climate related programmes listeners are mostly mid age people. This indicates that the mid age people are engaged in profession and they are getting benefit from community radio in their profession. They listen community radio according to their needs.



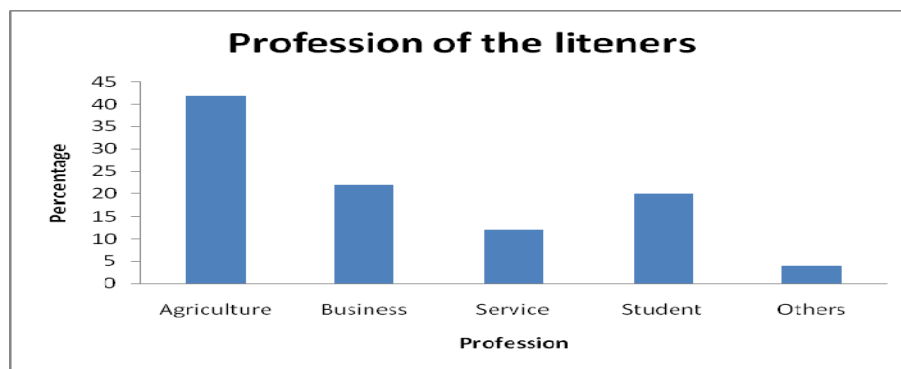
**Fig 4.1 : Age of the listeners**

The table gives the information about the listener’s educational qualification. We see that the qualification of maximum listeners is between class six to eight and the percentage is 44%. It indicates that this type of people is getting help from the radio programmes and they have limited scope to go other places for their professional help.

**Table 4.2: Educational Qualification of the listeners**

Education	Frequency	Percent
< Class V	12	24.0
Class VI-X	22	44.0
Class XI-XII	12	24.0
> Graduate	4	8.0
Total	50	100.0

According to questionnaire survey of climate change 42% listeners are lives on agriculture followed by business 22%, student 20%, service 16% and others 4%. Here we see that most of the listener is engaged in agriculture and they are using climate related programme as their better crop production tool. Most of the listeners (54%) is listening radio irregularly and rest of the listeners tune Radio every day.

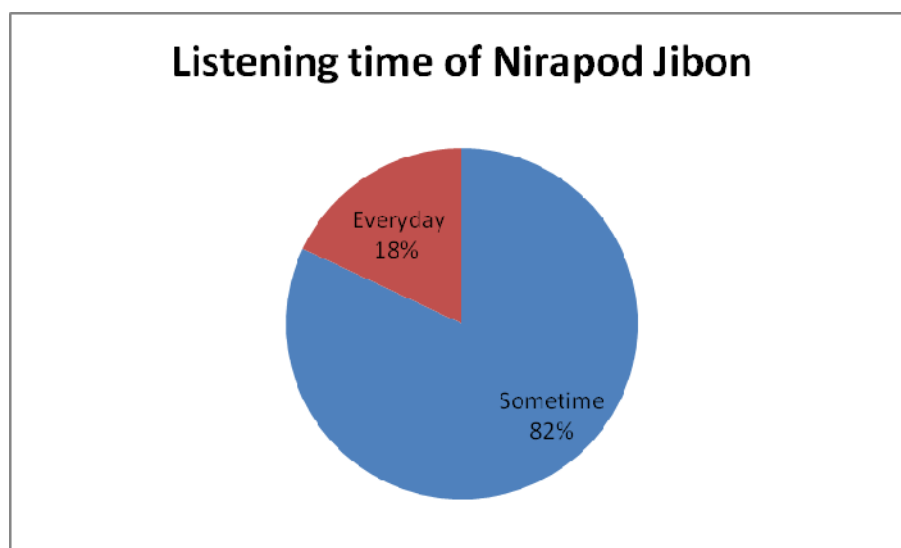


**Fig 4.2: Profession of the listeners of Radio Nalta**

Among the listeners 56% listen Radio Nalta by mobile phone and the rest 44% listen the radio programme in radio. Among the listeners 82% listen Nirapod Jibon and other climate change related programmes sometimes and 18% listeners listen that programmes regularly. According to the questionnaire it is found that 46% listeners is totally ignorant about climate change, another 46% has little knowledge about climate change and 8% listeners has good knowledge about climate change before listening Radio Nalta.

**Table 4.3: Media of listening Radio Nalta**

Medium	Frequency	Percent
Radio	22	44.0
Mobile phone	28	56.0
Total	50	100.0



**Fig 4.3: Listen frequency of "Nirapod Jibon" programme regarding climate change**

### 4.3 Role of Radio Nalra regarded Temperature rise

Radio Nalra is playing role in creating awareness about climate change among the listeners of the community. It is helping the people by providing information about temperature rise and its effect on environment, agriculture and other sectors. The below table gives a breakdown of different types of awareness level of Radio Nalra listeners about temperature rise. On average 58% listeners, comprising 29 people out of 50 think that Radio Nalra is playing good role in creating awareness about temperature rise. 26% people think that Radio Nalra playing fair and 10% think radio playing very good role in creating awareness about temperature rise.

If we calculate the total possible value, summation of respondent answer and make a percentage then we get 74.4%. The percentage indicates that Radio Nalra is playing good role in awareness creation about temperature rise among the listeners in the community.

**Table 4.4: Role of Radio Nalra in creating mass awareness about temperature of the atmosphere**

Awareness level	Frequency	Percent
Not at all	0	0.0
Little	3	6.0
Fair	13	26.0
Good	29	58.0
Very Good	5	10.0
Total	50	100.0

(Source: Survey data)

q. evqgd†j i Zvcgv†v ew†iv†a Rbm†PZbZv evov†Z ti w†I bj Zv †Kgb f†gKv i vL†Q?

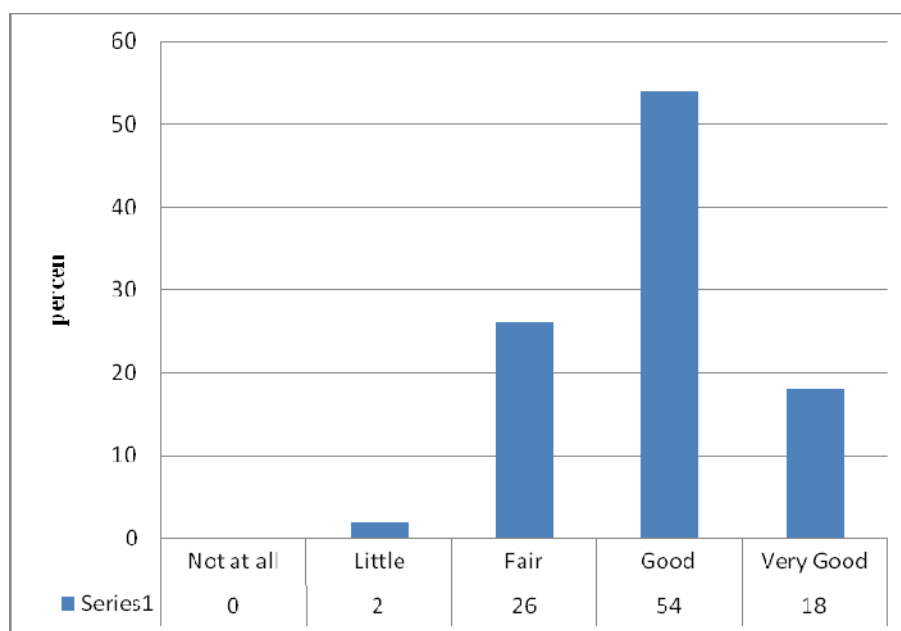
1	2	3	4	5
†gv†UB bv	A†	†gv†Uvg†U	f††j v	L† f††j v

**Table4.5: Overall Role of Radio Nalta in creating mass awareness about temperature rise.**

Respondent No (a)	Total possible value of respondent answer (b)	Summation of respondents answer ©	Percentage (c*100/250)	Remark
50	250	186	74.4	Good

#### 4.4 Role of Radio Nalta in Soil fertility

Soil fertility of the coastal area is decreasing day by day due to increase of temperature and salinity. Radio Nalta is helping the listeners to maximizing soil fertility controlling temperature and salinity. Nirapod Jibon and fosholer math programme is broadcasting different content of fertility to increase the awareness among the listeners. The table shows that 54% people think radio is playing good role, 26% fair role and 18% people think that Radio Nalta is playing very good role in creating awareness among the people about soil fertility. If we calculate the total possible value, summation of respondent answer and make a percentage then we get 77.6%. The percentage indicates that Radio Nalta is playing good role in awareness creation about soil fertility among the listeners in Radio Nalta area.



**Fig4.4: Role of Radio Nalta in creating mass awareness about soil fertility**

Q. Rigi DePZv kii³ evovtZ wbi vc` Rxeb AbpivbiUi figKv tKgb?



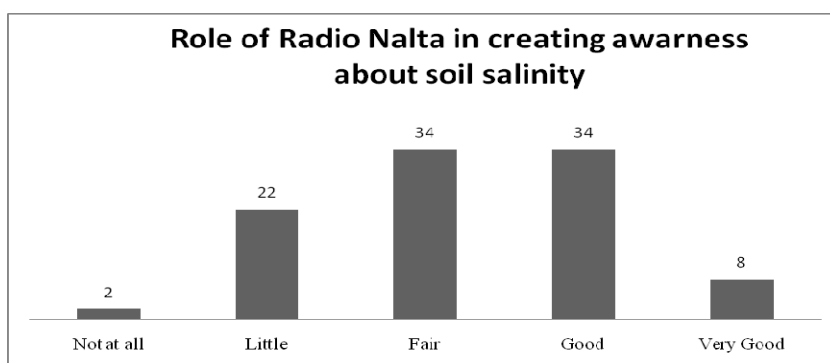
1	2	3	4	5
ħgv†UB bv	Aí	†gv†vgj†	fv†j v	Lp fv†j v

**Table4.6: Overall role of Radio Nalta in creating awareness about soil fertility**

Respondent No (a)	Total value of respondent(b)	Summation of respondents answer ©	Percentage (c*100/250)	Remark
50	250	194	77.6	Good

#### 4.5 Role of Radio Nalta against Soil salinity

Radio Nalta is broadcasting climate change live programme ‘Fosholer math’ everyday 3.15pm. In the programme a resource person come to the radio and discusses different climate related issues. She/he discuss how salinity in soil and water increasing day by day. It is also discuss how salinity is related to climate change and how can we control it. According to questionnaire survey the table shows the different awareness level of people in the Radio Nalta area. We can see that 34% people think Radio Nalta is playing good role and another 34% think fair role in creating awareness about soil salinity. 22% people say that Radio Nalta playing little and 8% think that Radio Nalta playing very good role in creating awareness about soil salinity. If we calculate the total possible value, summation of respondent answer and make a percentage then we get 64.8%. The percentage indicates that Radio Nalta is playing good role in awareness creation about soil salinity among the listeners in the community.



**Fig4.5: Role of Radio Nalta in creating mass awareness to stop soil salinity**

Q. gvwUj j ebv<sup>3</sup> Zv ewx<sup>†</sup> v<sup>†</sup> Rbm<sup>†</sup> PZbZv evov<sup>†</sup> Z ti wvI bj Zv tKgb fvgKv i vL<sup>†</sup> Q?

1	2	3	4	5
†gv†UB bv	Aí	†gvUvgvU	fvtj v	Lp fvtj v

**Table4.7: Overall role of Radio Nalta in creating awareness about soil salinity**

Respondent No (a)	Total value of respondent(b)	Summation of respondents answer ©	Percentage (c*100/250)	Remark
50	250	162	64.8	Good

#### 4.6 Role of Radio Nalta about Soil erosion

The World Disaster Report 2001 published by International Federation of the Red Cross and Red Crescent Societies (IFRCs), reveals that in Bangladesh annually 1 million people displaced and 9 thousand hectares of land inundated by river erosion. Coastal area is one of the regions of river erosion. Radio Nalta is broadcasting programme on river erosion to create the awareness among the people of Kaligonj and Shyamnagar. According to questionnaire survey the following table shows that 40% listeners think Radio Nalta is playing good role to create awareness among them about river erosion. Another 36% people think radio playing very good, 20% fair and only 4% think Nalta radio contributing little in awareness creation about river erosion. If we calculate the total possible value, summation of respondent answer and make a percentage then we get 81.6%. The percentage indicates that Radio Nalta is playing very good role in creating awareness about river erosion among the people in the Radio Nalta area.

**Table4.8: Role of Radio Nalta in creating awareness to prevent river erosion**

Awareness level	Frequency	Percent
Not at all	0	0
Little	2	4.0
Fair	10	20.0
Good	20	40.0

Very Good	18	36.0
Total	50	100.0

(Source: Survey data)

Q. b`x fivsMb tivta RbmPZbZv evovZ tiWlI bj Zv tKgb fwgKv ivLQ?

1	2	3	4	5
tgvtUB bv	Aí	tgvtUvgjU	fvvj v	Lp fvvj v

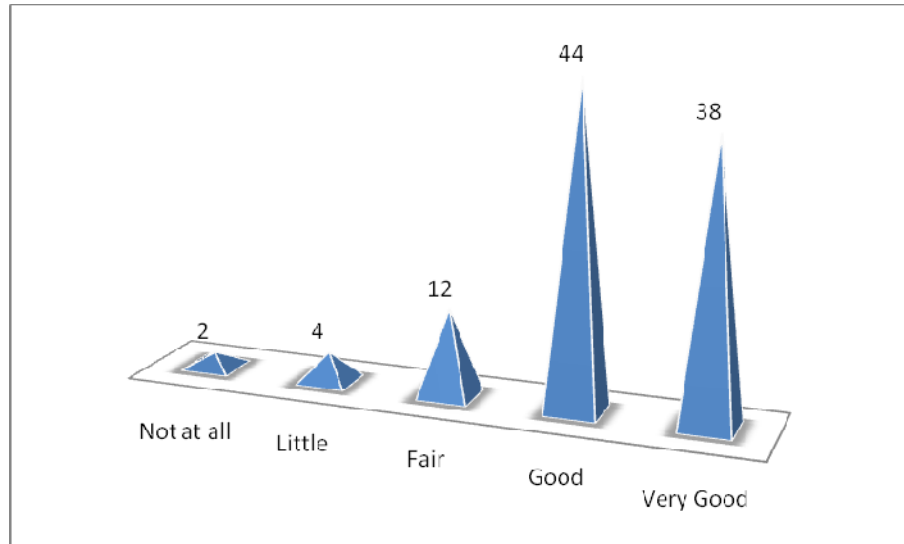
**Table4.9: Overall Role of Radio Nalta in creating awareness to prevent river erosion**

Respondent No (a)	Total value of respondent(b)	Summation of respondents answer ©	Percentage (c*100/250)	Remark
50	250	204	81.6	Very Good

#### 4.7 Role of Radio Nalta in Crop production

Crop production is particularly sensitive to climate change, because crop yields depend directly on climatic conditions (temperature and rainfall patterns). In tropical regions, even small amounts of warming will lead to declines in the amount of crops harvested. In cold areas, crop harvests may increase at first for moderate increases in temperature but then fall. Higher temperatures will lead to large declines in cereal (e.g. rice, wheat) production around the world. Radio Nalta broadcast programmes on how to increase the crop production by controlling temperature, rainfall and other climate change factors. The chart shows that 44% people think Radio Nalta is playing good role in crop production, 38% think very good role in crop production and 12% of people think that Radio Nalta is playing fair role in creating awareness about crop production in Satkhira district.

If we calculate the total possible value, summation of respondent answer and make a percentage then we get 82.4%. The percentage indicates that Radio Nalta is playing very good role in creating awareness about crop production among the listeners in the Radio Nalta area.



**Fig4.6: Role of Radio Nalta in crop production**

Q. দ্রষ্টব্য চিত্রটি দেখে নিচের প্রশ্নের উত্তর দিন।

1	2	3	4	5
খুবই কম	কম	সাধারণ	ভাল	খুবই ভাল

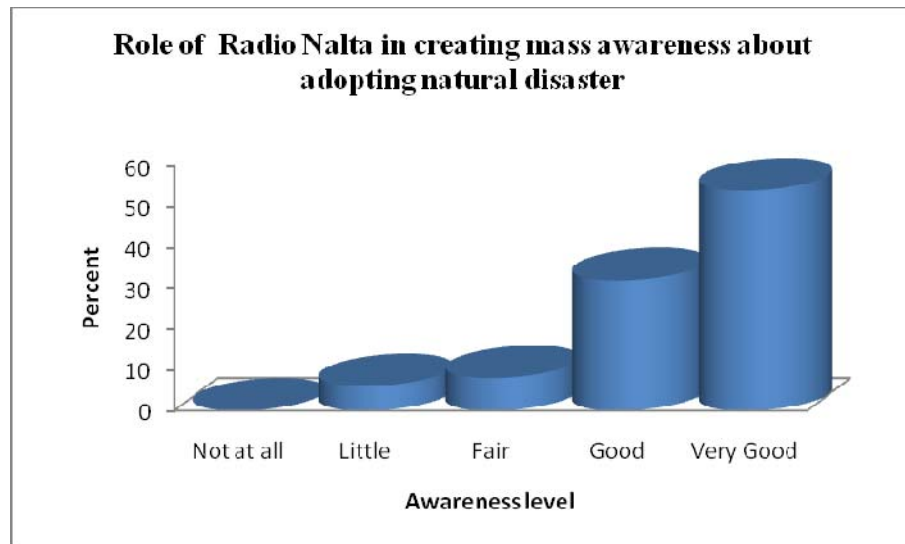
**Table4.10: Overall role of Radio Nalta in crop production**

Respondent No (a)	Total value of respondent(b)	Summation of respondents answer ©	Percentage (c*100/250)	Remark
50	250	206	82.4	Very Good

#### 4.8 Role of Radio Nalta about Natural disaster

Cyclonic storms have always been a major concern to coastal plains and offshore island of Bangladesh. Usually, cyclone is a vortex of low Risk of Cyclone: Bangladesh is in number 1 in Asia. Radio Nalta is playing a great role in broadcasting cautionary signal in advance and the duties of people before, during, and after the storm on different programmes. The chart shows that 54% listeners think Radio Nalta is playing very good role, 32% good role, 8% fair role and 6% listeners think that this community radio is playing little role in creating awareness about natural disaster among the listeners.

If we calculate the total possible value, summation of respondent answer and make a percentage then we get 86.8%. The percentage indicates that Radio Nalta is playing very good role in creating awareness about natural disaster among the listeners in locality.



**Fig 4.7: Role of Radio Nalta in creating awareness about adopting natural disaster like flood, cyclone etc.**

Q. eb"v,mvBtKvb cFwZ c0KwZK `thv0 tgvKvtej vq RbmtPZbZv evovtZ tiwWl bj Zv tKgb fvgKv ivLt0?

1	2	3	4	5
tgvtUB bv	Aí	tgvUvgjU	fvttj v	Lpe fvttj v

**Table4.11: Overall Role of Radio Nalta in creating awareness about adopting natural disaster**

Respondent No (a)	Total value of respondent(b)	Summation of respondents answer (c)	Percentage (c*100/250)	Remark
50	250	217	86.8	Very Good

#### 4.9 Findings of the research

Radio Nalta FM 99.2, with the slogan "Voice of the voiceless," broadcast a wide range of programmes on agriculture, fishery, health, social awareness, local songs and folk stories.

It is a non-profit, non-political radio station run by local volunteers who collect and share knowledge among many different types of people such as farmers, fisherman, women and students. It operates programmes in local language and also broadcasts news and weather updates. The current programme includes a variety of subject material. Agriculture, fishery and livestock programmes consider modern technology as part of agriculture livelihood and shrimp cultivation. Disaster based broadcasts discuss climate change and nutritional programmes encourage a balanced diet with healthy food choices.

As per Government rule Radio Nalta Station covers a range of 17 km from its centre. Maximum limit for transmitter power is 100 watts and the antenna tower's height from ground level is 32 meters. But according to survey it is seen that the listeners can hear Radio Nalta programmes from near Sundarban forest under Shyamnagar upazila. This area is about 40 km far from the radio station. The people can clearly hear Radio Nalta for good soil condition and absence of high rise buildings and other obstacles. In this coverage area 100% people can hear Radio Nalta. From the survey report it is seen than 56% listeners listen Radio Nalta using mobile phone and the rest 44% listeners listen Radio Nalta by radio set.

The table 4.12 presents the simple percentage of different climate changes issues, how many listeners of Radio Nalta getting benefit from Nalta radio. It is clear 74% of listeners agreed that Radio Nalta is playing good role in awareness creation among the people about temperature rise. According to survey findings the highest 86.8% people believe that Radio Nalta is helping in very good way to create awareness among the people in the community. Again Radio Nalta is trying to create awareness about salinity by broadcasting Nirapod Jibon and other programmes. 64.8% listeners seem that the radio is playing good role in awareness creation about salinity in the locality. Radio Nalta is playing very good role in creating awareness among the people and 82.4% people believe it. We also see that according to survey findings 77.6% people think that Radio Nalta is playing good role in soil fertilelely where 81.6% listeners think that the radio is playing very good role in awareness creation about river erosion among the listeners.

But if we see the overall performance of Nalta radio about climate change, the result is satisfactory. From the table we can conclude the findings that Radio Nalta is playing good (77.93%) role in creating awareness among the listeners about climate changes issues in the community.

**Table4.12: Overall performance on climate changes issues**

<b>Climate issues</b>	<b>Percentage</b>	<b>Grand Percentage</b>	<b>Remark</b>
<b>Temperature rise</b>	74.4	77.93	Good
<b>Soil fertility</b>	77.6		
<b>Salinity</b>	64.8		
<b>River erosion</b>	81.6		
<b>Crop production</b>	82.4		
<b>Natural disaster</b>	86.8		

(Source: Survey data calculation)

## CHAPTER FIVE: CONCLUSION AND RECOMMENDATION

### 5.1 Conclusion

Radio Nalta has really served as one of the communication channels in Satkhira District that has encouraged target communities to participate in programme activities and replicate skills acquired. Nalta Radio should continue to play its role well by encouraging its listening communities in Satkhira District to keep faith and support to the station. The Radio has had social, economical, political, environmental and cultural impact in the programme districts. The station has largely been used as a tool for integrated rural development. The station has operated within its mandate as a community radio with a social responsibility of providing community news bulletins, current affairs, sporting, culture, environmental and health programmes. There is a very high degree of listener participation in the programmes, and the rural audience likes to hear themselves and their neighbours. Although listeners in Satkhira District said they have limited choice of radio services related to climate changes Nalta Radio has become a popular radio FM station for many people in the Southern Region. The radio is highly praised. Started as a small radio programmes production with the help of community people, today Nalta Radio has achieved the goal of becoming a community radio. In terms of ownership community members feel they are part of the ownership because their suggestions or recommendations have been heeded to by staff of the station. They also participate in the programme by way of making announcements and advertisement. After the research work it is found that radio Nalta is covering more than 17 km from the station and the listeners are very much sound about radio operations and they have accessibility in community radio network. Among the listeners 56% listen the programme in mobile phone and 44% people listen radio in fm radio set. 52% listeners is agreed that the quality of the programmes of radio Nalta is good and 68% listeners seems that the resource persons of the programme are good. The research also express that 96% people think the programme is broadcasting in local language with no or less technical words. It is seen from the research that 60% people think that radio Nalta is maintaining standard time duration with no commercial break. Among the listeners 64% think that the broadcasting time of the programme should be shift from afternoon to evening. Among the listeners 78% believe that radio Nalta is playing good role in climate changes issues through the climate change related programmes and they hope that the community radio will change their life status through climate change related programmes.



## 5.2 Recommendations

- ❖ Regular feedback from the listening public is essential in order to identify listeners' preferences.
- ❖ The taste of various listeners (youth, women, men, aged, farmers, etc) should be taken into consideration.
- ❖ Programmes should be designed to include more environmental issues.
- ❖ The listening public needs education on environmental protection. Particularly, programmes related to environmental issues should stress on land degradation, indiscriminate tree felling, waste management, soil erosion, desertification and different dimension of climate change and how all these impact on peoples' livelihood.
- ❖ Missed out programmes should be brought back.
- ❖ Listeners do not like interruptions in programmes they term as very entertaining and educative. There should be less interruption by radio presenters so as to improve upon programme quality.
- ❖ News or announcement about climate changes must be properly edited before they are broadcast.
- ❖ There is need to re-organize the listeners clubs and strengthen community based peoples.
- ❖ The network of these community groups is a reflection of the character of a community radio by its legal status. For Community Radio to be able to play this important and significant role in community development, it must keep out of politics and religion and highlight on gender issues.
- ❖ The radio authority is broadcasting Fosholer Mat and other climate change related programme in the afternoon. But most of the farmers work till afternoon. So climate change related programme should be broadcast at night and the time duration of these programmes should be increased.
- ❖ The authority should include more resource person in the programmes.
- ❖ The programme should be broadcast in convenient time of the relevant listeners.

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**Appendix-1**

**Role of Community Radio (CR) in climate changes issues in Bangladesh: a case study of Radio Nalta, Kaligonj, Satkhira**

Rj evqycwi eZ<sup>8</sup> Bm<sup>7</sup>Z ti wWI bj Zv f<sup>7</sup>gKv

c<sup>8</sup>k<sup>8</sup>wi c

(Avcbvi gj `erb gZvgZ i agv<sup>7</sup> M<sup>7</sup>el Yv Kv<sup>7</sup>R e<sup>7</sup>envi Kiv n<sup>7</sup>e)

tk<sup>8</sup>Zvi b<sup>7</sup>gt.....

wj sMt..... eqmt..... M<sup>7</sup>gt.....

Dc<sup>7</sup>tRj vt.....

tRj vt mvZ<sup>7</sup>xi v                      wk<sup>7</sup>vMZ thvM<sup>7</sup>Zvt                      tckvt

1. Avcwb wK ti wWI tkv<sup>7</sup>bb?

n<sup>7</sup>v     bv

2. Avcbvi GLvb t<sup>7</sup>tK wK ti wWI bj Zv tkv<sup>7</sup>bv hvq?

n<sup>7</sup>v     bv

3. Avcwb wK bj Zv ti wWI tkv<sup>7</sup>bbt

n<sup>7</sup>v     bv

4. KLB ti wWI tkv<sup>7</sup>bbt

gv<sup>7</sup>S gv<sup>7</sup>S     c<sup>8</sup>Zw<sup>7</sup> b

5. ti wWI bj Zv wKfv<sup>7</sup>te tkv<sup>7</sup>bb?

ti wWI tZ     tgv<sup>7</sup>vBj t<sup>7</sup>dv<sup>7</sup>b

6. Rj evqycwi eZ<sup>8</sup> w<sup>7</sup>btq Ab<sup>7</sup>pvb <sup>0</sup>w<sup>7</sup>b<sup>7</sup>vc` R<sup>7</sup>xb<sup>0</sup> Ab<sup>7</sup>pvb w<sup>7</sup>U tkv<sup>7</sup>bb wK?

bv                       gv<sup>7</sup>S gv<sup>7</sup>S     c<sup>8</sup>Zw<sup>7</sup> b

7. bj Zv ti wWI i Ab<sup>7</sup>pvb tkv<sup>7</sup>bvi c<sup>7</sup>e<sup>7</sup>Rj evqycwi eZ<sup>8</sup> w<sup>7</sup>el t<sup>7</sup>q Avcbvi avi Yv tKgb wQj ?

tKvb avi bv wQj bv     A<sup>7</sup>i     fv<sup>7</sup>tj v avi bv wQj

8. evqg<sup>0</sup>tj i Zvcgv<sup>7</sup>v e<sup>7</sup>w<sup>7</sup>ti v<sup>7</sup>ta Rbm<sup>7</sup>PZbZv evov<sup>7</sup>Z ti wWI bj Zv tKgb f<sup>7</sup>gKv i vL<sup>7</sup>tQ?

1	2	3	4	5
tgv <sup>7</sup> UB bv	A <sup>7</sup> i	tgv <sup>7</sup> Uvg <sup>7</sup> U	fv <sup>7</sup> tj v	L <sup>7</sup> e fv <sup>7</sup> tj v

9. R<sup>7</sup>gi De<sup>7</sup>Zv k<sup>7</sup>v<sup>3</sup> evov<sup>7</sup>Z w<sup>7</sup>b<sup>7</sup>vc` R<sup>7</sup>xb Ab<sup>7</sup>pvb w<sup>7</sup>U f<sup>7</sup>gKv tKgb?

1	2	3	4	5
tgvtUB bv	Aí	tgvlvgylJ	fvvj v	Lp fvvj v

10. gwUi j ebr<sup>3</sup> Zv epix<sup>3</sup> tivta RbmPZbZv evovZ ti wvi bj Zv tKgb fvgKv ivL<sup>0</sup>?

1	2	3	4	5
tgvtUB bv	Aí	tgvlvgylJ	fvvj v	Lp fvvj v

11. b`x fvsMb tivta RbmPZbZv evovZ ti wvi bj Zv tKgb fvgKv ivL<sup>0</sup>?

1	2	3	4	5
tgvtUB bv	Aí	tgvlvgylJ	fvvj v	Lp fvvj v

12. dmtj i Drcv`b evovZ ti wvi bj Zv tKgb fvgKv ivL<sup>0</sup>?

1	2	3	4	5
tgvtUB bv	Aí	tgvlvgylJ	fvvj v	Lp fvvj v

13. eb`v, mvBtKvb cFvZ cOkvZK`hvM tgvtvj vq RbmPZbZv evovZ ti wvi bj Zv tKgb fvgKv ivL<sup>0</sup>?

1	2	3	4	5
tgvtUB bv	Aí	tgvlvgylJ	fvvj v	Lp fvvj v

14. bj Zv ti wvi i Abpvb tkvbi ci Rj evqvcwi eZ<sup>0</sup> mel tq Avcbvi avi Yv tKgb ?

Aí       fvvj v       Lp fvvj v

15. bj Zv ti wvi i Abpvb tkvbi ci Rj evqvcwi eZ<sup>0</sup> mel tq RbmPZbZv tetotQ wK?

bv       tgvlvgylJ       fvvj vB tetotQ

16. Omibvc` Rxeb<sup>0</sup> AbpvbUi mel qe` Avcwb eStZ cvi tQb wK?

1	2	3	4
bv	tgvlvgylJ	fvvj vB	Lp fvvj v

17. Omibvc` Rxeb<sup>0</sup> AbpvbUi mel qe` h<sub>t</sub> ô wK?

1	2	3
---	---	---

bv	ṭgvUvgwU	fvtj v
----	----------	--------

18. 0wbi vc` Rxeb0 AbpnbwUi k0b gvb tKgb?

1	2	3	4
fvtj v bv	ṭgvUvgwU	fvtj v	Lp fvtj v

19. 0wbi vc` Rxeb0 AbpnbwUi Dc`rcbvi / Avtj vPKetj` i Avtj vPbvi gvb tKgb?

1	2	3	4
fvtj v bv	ṭgvUvgwU	fvtj v	Lp fvtj v

20. AbpnbwU Avcbvi Dc`thvMx mgtq cPvi nt`Q wK?

1	2
bv	n`v

21. Abpnb m`utK`Avcb gZvgZ cKvk Ki tZ cvi tQb wK?

1	2
bv	n`v

22. AbpnbwU Avcbvi Dc`thvMx fvlvq cPvi nt`Q wK ?

1	2
bv	n`v

23. Rj evqycwi eZ0 wcl tq RbmtpZbZv evotZ ti wwl bj Zv tKvb cPvi bv Pvj vt`Q wK?

1	2
bv	n`v