



Communicating Climate Change Using Community Radios

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Abstract

Climate change is one of the serious threats that the humanity is facing during the twenty first century and mass communication channels should go beyond their conventional roles of providing education, information and entertainment at a time when the humanity is confronting a serious challenge. Rising carbon emissions leading to global warming is resulting in unexpected changes in the climate and it is responsible for rising temperature, rise in sea levels, shrinking of river beds, and frequent outbursts of cyclones or postponement of rains. At a time when the mainstream public and private media are abscessed with the market driven messages or sensational political news, the role of community media, voicing the concerns of unheard is gaining significance. At a time when the majority living at grassroots are vulnerable to the phenomena called 'climate change', alternative, community level medium goes a long way in delivering climate change messages to the people at local levels.

Keywords: Climate Change Communication; Media representation; Community Radio; people's participation

Introduction

Communication is the basic human right of the people of the universe. At a time when the globalization of means of mass communication is leading to concentration mass communication channels in the hands of few powerful and rich corporate houses, leading to gigantic media conglomerates, community radios offer an alternative platform to the people at the grassroots to express their aspirations freely.

Community Radio has emerged as a powerful tool of participatory communication in the 21st century, promoting sustainable development in many Asian and African nations. Community radio is powerful even in the developed world, fostering the interests of the people of a particular community. Having realized its potentialities, UNESCO endorsed community radio as a tool that ensures pluralism, diversity of content, representing the interests of diversified sections of people in the society [1].

A community could be a geographical territory, political or cultural entity or a religious group. In the social context, community represents the shared beliefs, interests, and values, demographic and psychographic traits of the people that identify with a particular socio-economic, ideological view.

Community radio thus is a participatory medium, built on the grounds of open dialogue and transparency, based on the principles of providing access to information, while sharing the community's interests and experiences. A community radio station thus operates within the community, is owned and operated by the people of a particular community prioritizing the interests of that group.

Community Radio Experiences

Community Radio has been used extensively as a tool for the dissemination of information in the rural communities across the globe. Simli is a community radio station in Tolon-Kumbungu District of the Northern Ghana. It is acting as agricultural extension agent by providing livelihood development to the community [2]. Community radios are prominently used in Nepal, Bangladesh and Philippines for rural development. They are equally popular in Canada, America, Australia and South Africa. Radio Goolari, for example is a community radio of Aboriginal people of Australia, catering to their interests [3]. The present initiative is to discuss the importance of climate change communication and the role of community radio in the Indian context.

Climate Change Communication in India

According to dictionary, climate change is a long term change in the earth's climate, especially a change due to an increase in the average atmospheric temperature: Melting glaciers implying that life in the Arctic is affected by climate change.

The United Nations defines climate Change as "the human development challenge of the 21st century." It says that issues pertaining to climate change amplify the development challenges by hindering the efforts of poverty alleviation and human suffering.

Despite low green gas emissions, India occupies the fourth position globally as far as the carbon emissions are concerned. 1% of wealthy Indian population living in the urban centers is contributing four and half times more carbon than the 28% of the poor in the country [4]. India's large Middle class contributes 2.5 tons of carbon per capita per annum), the carbon dioxide emission levels more than the total emissions of Australia. However, India's poorest poor are the worst affected due to unpredictable changes in the climate.

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India and Bangladesh are the most vulnerable countries as per the 2010 Maplecroft Climate Change Index. Starting from mount Himalayas to Humid Sub tropics of South Asia, 5700 Km of mainland coastal line and 40 crore people living below poverty line are exposed to the hazards of global warming [5]. The government of India has appointed the Indian Network for Climate Change Assessment (INCCA) to study the climate change effects on India. The reports are disturbing to the policy makers as it denotes that by 2030 the temperature in India may go up by 1.7°C on an average and rise in temperature would adversely affect the crop growing patterns and agricultural season. According to the eminent Agricultural scientist M.S. Swaminathan, each one degree Celsius rise in temperature reduces the wheat growing season by a week.

The report predicted that the sea levels may raise 1.33 mm per annum, which has the capability to displace over 70 crore people, threatening fresh water supply, devastating the industrial and other infrastructure in that area. The possibilities of more floods and droughts in future are on the cord, threatening the small and marginal farmers in the country. Three major cities: Mumbai, Chennai and Kolkata are prone to face the risks of climate change in the immediate future.

The study painted a disturbing picture on the future of the Himalayan Glaciers, the source of water for three major rivers in India. According to it, 5-20% of the region may melt away, threatening the water availability in summer for 500 million living in the catchment area of the river Ganges and its tributaries.

The Inter-Governmental Panel on Climate Change [6] reiterated the facts discussed above on the Himalayan eco system, denoting the massive loss of ice from glaciers. The reduction in the snow cover is projected to accelerate further changes in the climate throughout the 21st century, reducing water availability, hydropower potential, and drastic changes in the water flow in regions that depend on the snow melt of the major mountain ranges like Hindu-Kush, Himalaya, Andes etc., where more than one-sixth of the world population currently lives.

The future generations in the developing and less developed countries are least responsible for the present situation. However, they would be paying a huge penalty for the ecological debts of the industrialized nations. Particularly, the poor and the marginalized sections of the society are least informed of the threats the climate change is going to offer them.

From time immemorial, media of mass communication have been playing a prominent role in communicating and informing people about the happenings in the society in the fields of polity, economy, science and technology on a regular basis.

Media plays two important and crucial roles while communicating complex and risky information like climate change: Media sets the agenda by prominently focusing its attention on certain issues, through newspaper articles, TV debates and Radio campaigns and tries to educate people about the gravity of the situation. Media's agenda setting role has been proved in a year-long, nine-wave panel study during the 1976 U.S. presidential election, which found strong evidence of media effect on the electoral population.

Media also diffuses the innovation in arts, science and technology and evokes public reaction in adapting to this innovative knowledge.

Diffusion research centers operate on the conditions which increase or decrease the likelihood that a new idea, product, or practice will be adopted by members of a given culture. [7] proposed a four step theory on how a particular innovative idea reaches the public through networks (media) and social system with consequences. He also stressed the role of opinion leaders like celebrities or reputed (Political or religious) leaders propagating for a particular cause, in reaching the public effectively.

Hence, media sets the agenda on issues related to climate change and also diffuses the information on how to mitigate (how to reduce the greenhouse gas diffusion) it effectively. Mass media also defuses information or strategies on how to adapt (measures to fight against) to it. Mass media representational practices have broadly affected translations between science and policy and have shaped perceptions of various issues of environment, technology and risk [8].

There are many criticisms on the way media in general and the Indian media in particular cover the issues related to climate change. The reasons are far and wide: a) Climate change is a complex scientific phenomenon and journalists are not well informed about the causes and consequences of the climate change.

b) NGOs, politicians and the scientific community are the primary source of information on climate change and these communities equally share the responsibility on the poor quality of communication on climate change.

c). Journalists must be trained and geared up to face a situation that they must be able to prepare messages for audience with diversified backgrounds.

As per the scientists, it is the greatest threat that the humanity ever faces and media has a crucial role to play in combating it. Although the coverage on climate change has been on rise in Asia, Africa, and Latin America, they are reaching only a section of educated urban population. According to the studies of James Painter at the Reuters Institute for the Study of Journalism, the prime-time evening news on the main TV stations in China, India, Mexico, Russia and South Africa made no mention of the IPCC report on how to mitigate climate change when it was released in May 2007.

Issues on climate change are always confined to science and eco-columns and there are very few trained journalists on this area due to few science graduates available to cover these events [9]. The study highlights certain important aspects regarding climate change coverage across the globe. Climate change was never on the high agenda of media and it is not thoroughly funded. Media is obsessed with sports, celebrities, economy, crime and politics and very little attention is paid on climate change across the globe. As the media coverage is not up to the expectation, so also is the awareness among the general public on this issue.

For example, a study by communications consultancy Futerra [10], in 2005 showed that Financial Times with a circulation: 450,000 had 23 per cent of climate-change stories while the Sun (circulation: 3.1 million) had just 1.5 per cent space allotted for this purpose.

Media organizations are confronting with certain challenges while reporting issues on climate. Not many science graduates are opting journalism as their career and majority arts graduates that work for media perceived reporting Climate Change as difficult task. Developing and developed nations are again confronting with the non-availability of trained journalists in this area. As a result, we often come across confusing and false reports on climate change. Several

lobby groups are also working against the climate change reports on media.

For example, a study by IPSOS/Mori in the UK in 2007 states that 56% of the respondents are not supporting the view that human activities are responsible for the climate change and many experts are also backing this view.

At a time when the media is expected to play a crucial role in unearthing the realities, it is unfortunate to note that media is dancing to the tunes of lobbyists, particularly from the industrial sector that does not want to be identified as the root cause of this problem. For example, scientific community is unanimous in declaring the root cause of the climate change and the disaster that may follow it. However, the industrial and the political lobbyists are skeptical in making these findings open to the general public with a fear that it may affect their positions. They are influencing the media to a considerable extent to maintain silence and preventing them from speaking the truth [11].

The media must also be able to communicate this complex message to audience with varied backgrounds. A nomad in Rajasthan or fishermen in Kerala is able to understand the messages only if it is delivered in a style and manner they are able to understand it. Media reports often sensationalize these messages and create panic among the ordinary men that we are going to die as the earth is going to collapse. Media is reporting more problems than solutions, resulting in no action from the despaired common men. Media should play a proactive role in reporting messages on climate change that encourage citizens to react to the cause. There is lot of positive and negativity about the climate change communication. Media must not exaggerate the negative information by downplaying the positive aspects.

For example, when the IPCC reports on climate change was made public; there were few comments on how the climate change phenomenon is going to affect the glacier caps of the mount Himalaya. Many Indian national and the regional channels have broadcast news that Himalayas are going to disappear by 2050. There were exclusive debates and certain channels have allocated 30 minutes programmes on the issue. When the IPCC has learnt this issue, it issued a press release saying that they did not publish any such report prescribing exact timeframe for the melting of the Himalayan glaciers. The report also warned that scientific methods must be established while taking up such studies and media should not exaggerate/sensationalize such reports by misinterpreting the facts.

Shanahan [12] argued that majority of research findings and data on media coverage of climate change is available from the G-8 and the developed North and there is extreme lack of understanding on global South on what media is reporting on this crucial issue. Newell(2008)'s views support the Shanahan's observation that although the Global South is a victim of climate change and is quite often affected by it, it is not prominently finding a place in the mainstream media channels.

Climate change communication in Indian Media

398 dailies are enjoying more than 3 Crore circulation in India with regional language newspapers dominating the scene. India is the largest film producer in the world, worth of US\$ 1.9 billion by 2010.

As per the TAM Annual Universe Update - 2010, India now has over 134 million households (out of 223 million) with television sets, of which over 103 million have access to Cable TV or Satellite TV, including 20 million households are DTH subscribers. In Urban India,

85% of all households have a TV and over 70% of all households have access to Satellite, Cable or DTH services. TV owning households have been growing at a rate of 8-10%, while growth in Satellite/Cable homes exceeded 15% and DTH subscribers grew 28% by 2009. The television industry stood at a staggering US\$ 6.5 billion, a rise of 15.6 per cent from 2009 estimate of US\$ 5.7 billion. The total number of TV channels (both private and government owned) grew from 461 in 2009 to 626 in January 2011. The number of News and Current Affairs channels was 312 and that of Non-News and Current Affairs channels was 314 up till January 2011.

Radio was estimated to be about US\$ 0.22 billion in 2010 and it is expected to grow at 20 per cent to US\$ 0.44 billion, with 245 FM radio channels and World space India, Singapore is providing satellite radio in India. Although many regional language media is enjoying wide circulation/viewership in India than the English language press, there is complete lack of research in this area.

According to Nielson's survey, print medium is the major source of information on climate change in India, as 74% of the respondents surveyed are learning about the climate change through Newspapers, unlike USA, where majority are learning about it through TV. Although newspapers are published in 30 different languages in India, English and Hindi newspapers enjoy nationwide circulation.

Billett [13] researched the way the Indian media reporting the climate change by analyzing the content published in four major English newspapers: The Times of India, The Hindu, Hindustan Times, and The Indian Express—with circulations of 7.4, 4.05, 3.85, and 0.95 million respectively [13]. These newspapers are by and large serve English literates. The Indian press endorses climate change as a scientific reality and 100% of the 247 articles published during the study period have talked about the global warming, claiming it as rapid and unusual change in the climate at present.

Unlike the press in USA, New Zealand and Australia, 98% of the articles in the Indian press made anthropogenic (men made mistakes) causes responsible for the climate change. Billet also interviewed the journalists contributing content on climate change and environment from these publications. All the 15 journalists have agreed that the anthropogenic climate change was a reality, citing either scientific or environmental evidence to support their conclusions. These journalists are up to date on issues related to climate change as they are reading extensively by subscribing to mainstream environmental journals.

These journalists have firmly believed that the climate change effects are already underway in India, as they have cited the resent postponement of monsoons as an immediate consequence of the global warming on India [14].

Rather than reducing it to a distant scientific process, the Indian press is considering climate change as a socio-environmental issue [15]. Indian media has also prominently discussed about the impact of the global warming on the Indian society. Having identified the human errors as a major cause for the climate change, the Indian press has created a distinct framework of threats India is facing as a result of this phenomenon.

Out of 189 articles published during that time, 103 articles (66%) focused on the way it is influencing the rural India, such as fall in the agricultural output, monsoon disruption and the melting Himalayan Glaciers [16].

However, the Indian press holds developed north as responsible for the current chaos and argues that they must shoulder their share in

addressing this issue. India views the issue of climate change from historical and development prospective. The argument is based on the fact that India was not a major emitter of the 20th century and it is obsessed with its poverty alleviation activities rather than the issues on climate change. The dominant discourse thus has sidelined India's role in fighting the climate change, as it is not a major violator [17].

Kyoto Protocol is the major milestone as far as the international climate change policy is concerned and 67% of articles published during this period mentioned about it in negative terms as it failed in fixing the responsibilities of the developed nations. Many articles have cited the USA's lack of action in this regard, as it failed to sign the document with a view that it may have an impact on US economy. Indian press is empathetic to other developing countries like China, and Pakistan and it is claiming that they are standing on similar position like India [18].

Indian Press's excessive international focus has failed to articulate a discourse on what India should do to mitigate the climate change effects on its own citizens. Indian press is treating India as a homogenous lot while dealing with the climate change issues as it is not mentioning the excess of the Indian urban and elite section that are responsible for greenhouse gas emissions. As the mainstream media in India is catering to the educated elite, it is not emphasizing the emission cuts for its elite readers, while stressing the need for capacity building to adapt to climate change [19].

Hence, the mainstream press in India is taking historical and socioeconomic perspective in covering climate change. Compared to western media, Indian mainstream media is scientific by depoliticizing the discourse. However, it failed to evolve a sound national discourse on how to combat the climate change effects within India.

Community Radio in India

Although the supreme court of India ruled as far back in 1995 that the airwaves are public property, Indian government reacted to it only in the year 2006 with guidelines, legitimizing the community radios. With public, private and community level radios, there are three tiers of radio channels in operation in India today. Initially, only the educational organizations were permitted to set up community radios. By 2008, the community radio policies became liberal allowing the NGOs and civil society to run community level broadcasting. There are 107 functional Community Radio Stations operating in India by 2011, giving voice to voiceless.

It provides an opportunity to the community to speak about issues concerning their lives. It is also facilitating development by disseminating information regarding rural development, agriculture, health, nutrition, education and issues related to village governance enabling social change through communication. Out of 107 stations, 72 are run by Educational Institutions, 27 by community based organizations and 8 by KrishiVigyan Kendra/State Agriculture Institutions Agriculture Institutions [20].

Community radio Initiatives and climate change in India

Radio Bundelkhand

Bundelkhand is a small town in the state of Madhya Pradesh, persistently drought hit for the past 8 years. Even when there are good rains in the entire country, it is always delayed, providing no relief for the farmers. Development alternatives (DA) is an NGO that

established community level radio 'Radio Bundelkhand', in the year 2008. There are five community reporters and six community coordinators, with a management committee comprising the Sarpanch (elected village-head) of Basova Village, doctors, farmers and Self Help Group members.

Until now, Radio Bundelkhand has the longest duration of programming of four hours a day, seven days a week, in Bundelkhandi and Hindi amongst the government licensed community radio stations in India.

The communities have decided that they would like to get information related to employment and livelihood opportunities, development of women, girl's education, legal rights, farmers' issues, training, culture and history. They wanted to ensure that the community radio provides basic information on availability of water, energy, roads and any other information the community requires. The broadcast timings in the morning and evening have been finalized based on the villager's requirement. While women preferred the morning hours, men voted for evening hour broadcast.

The programming, based on issues and content identified by the communities, has been broadcast in the formats which they have preferred including use of traditional Bundelkhandi songs, folk music, natak, discussions, reports, commodity prices, phone-ins, experts speak, coverage of events in villages, jokes, satire, and listeners' letters. The Wireless Operating License was issued on July 31st, 2008 and the first transmission took place on August 15, 2008 with the broadcast of the national anthem. The selected community reporters were trained for three months and a woman from Sitapur village inaugurated the station on the eve of Diwali. Community radio broadcasting/narrowcasting has allowed the rural poor to develop messages in a language they understand. Community radio fostered debate on issues, facilitating access to government policies and helped community members in decision-making, to organize themselves and evolve to manage their own affairs. Radio Bundelkhand is characterized by its signature tune and jingles which declare that it is "Apna Radio ApniBaatein" – Our radio and our conversations.

Reaching communities

Radio Bundelkhand covers a geographical area of approximately 5-10 Kms, reaching 15, 000 populations. It has penetrated to the rural communities settled in and around the villages of Gundrai, Chandravan, Bagan, Orchha, Sitapur, and Azadpura, Lachmanpura.

Development Alternative, a non-profit organization has started a sustainable project on paper plate making called Technology and Action for Rural Advancement (TARA) at Orcha village of Madhya Pradesh. "Gram" in Hindi means village. TARAGram Orcha today is synonymous with the green technology initiatives, as the village communities are producing green energy via biomass.

Development Alternative has established this community radio with a view to reach marginalized, poor, Dalit women and youth in villages with information that are vulnerable but potential change agents. DA selected and trained women reported in the age group of 20 years with a view to reach the community effectively. The management committee also comprises the local self-help group head with a view that the community is able to manage the radio by themselves with active people's participation of people [20].

Climate Change Communication

Farmers of Bundelkhand for long has been using petroleum based fertilizers, as they thought that it would give them the best yields. Farmers are not aware of the adverse effects it may have on the soil and the climate. Radio Bundelkhand started broadcast on the ill effects of the chemical fertilizers and repeatedly asked the villagers to stop using the chemical fertilizers. Summer Ahirwar is one the villagers that listened to the messages. Motivated by the messages, he started using bio fertilizers. Radio Bundelkhand interviewed him and his story of adapting to alternative farming methods and the odd ships he faced while experimenting on his farmlands was aired in Hindi and Bundeli have inspired many other villagers and have stopped using chemical fertilizers. Today a small Indian village set the stage for organic farming by tackling climate change in their own way and the messages via community radio acted as catalysts in promoting the messages on climate change (350.org, 2011).

Women of Pastapur

Deccan development society is a two decade old NGO, concentrating its activities, primarily at the Zaheerabad Mandal of the Medak district, Andhra Pradesh. DDS has its activities spread in 75 villages, primarily among the marginalized women of Dailt communities. The 5000 women members have organized into small groups (Sanghama) and they are actively taking part in the tasks of the DDS.

DDS has a vision to federate these women groups with the local bodies and to empower them by actively involving them in all the activities of the village. DDS's primary objective is to evolve alternative food strategies and attaining food security.

It is prominently propagating for inclusion of Millets into the Indian food security bill that is awaiting parliament approval.

Deccan Development Society primarily works on the following areas

Balwadies: kindergarten education for village children:

Pachasaale (The Green School): Balwadi is a special school for out-of-school working children in the 10-16 age groups, with a special focus on girl children. The School has strength of about 200 children now. Along with the formal stream of education, children also learn life skills like ecological agriculture, carpentry, pottery, paraveterinary sciences, herbal medicines, masonry, perm culture, tailoring and book binding.

DDS Krishi Vigyan Kendra, the Farm Science Centre: The DDS-KVK believes in organic, environment friendly local knowledge systems. Therefore, in all its programs, the DDS-KVK tries to develop a dialogue with the farming community about the hazards ingrained in the practice of chemical agriculture and the improper exogenous market-driven farming systems, which have been replacing socially, culturally and economically well- adapted local systems.

DDS conducts Mobile Biodiversity Festivals [Jatharas] , popular in the entire South Asia. It illustrates what the communities can do to reflect the rich agricultural diversity of their region in a celebratory fashion. Since 1998, these annual Biodiversity Festivals have dialogued with over 150,000 farmers of the region on ecological agriculture, control over seeds and organic markets.

Pathapur Community Radio

In the year 1998, DDS started the Sangham (Group) radio, with a view to educate and empower marginalized women from the Dalit communities. This radio prominently propagates its alternative farming methods and initiatives such as 'Gene Bank', a grain bank for the village.

Completely managed by the women of the community, the radio gives voice to their problems apart from disseminating the green messages. Zaheerabad is particularly an arid and drought prone area and the Radio-Pastapur is creating green waves among the village communities that are prominently taking part in green initiatives of the DDS, while airing the green messages to combat the climate change.

Conclusion

Print medium is the major source of information as far as climate change Communication is concerned in India. However, the Indian media is still abscessed with studying this phenomenon from a historical and development perspective and had failed in evolving a strong discourse related to it. While the mainstream media, under the control of major industrial groups are lagging behind in taking the solutions close to the ordinary men and women, community media at the local levels are very effective in bringing about the desired social change as it is owned and operated by the villagers at the grassroots.

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