

## **Communication for Mangrove Forest Conservation among the Coastal Communities in Kenya**

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### **Abstract**

*Rural communities in coastal areas depend on mangroves as their primary source of income generation, fuel, medicine and other basic necessities such as timber for housing. The wanton depletion of mangroves is a cause of serious environmental and economic concern. Wise management of these resource is therefore essential for the sustainable use and for the cultural and socio-economic welfare of the coastal inhabitants. In this connection, awareness raising through information to all relevant stakeholders is decisive in order to save the mangrove forests. The aim of this paper is to analyze the contribution of the different forms of communication in the dissemination of information. The findings of this study indicate the use of face to face communication through village meetings and seminars were found to be more effective communication channels as opposed to mass media tools like radio and TV due to the high levels of interaction and feedback opportunities.*

**Keywords:** communication, conservation, mangroves, community, resource, TV, radio

### **1.1 Introduction**

Mangrove forests are one of the primary features of the coastal strip of Kenya. Various kinds of fauna including shrimp, fish, crabs, reptiles, birds, insects and micro-organisms are found in mangroves ecosystem. Mangroves are an important bulkhead against climate change: they afford protection for coastal areas from tidal waves and cyclones and are among the most carbon-rich forests in the tropics (Cornforth et al., 2013). People in mangrove communities have utilized mangrove ecosystems for their food resources, firewood, charcoal, timber and other minor products. The mangroves in the coastal ecosystem are rapidly declining due to general forest degradation. The degradation of this ecosystem has a negative impact on the environment and economic activities of the local communities.

As the negative impacts of climate change, including rising sea levels, become more evident, the economic value of coastal wetlands for protection will also increase as the need for their buffering services becomes more critical (Costanza et al., 2008). There is therefore a strong need to diversify livelihoods means so as to protect the fragile mangrove ecosystem. Diversification of livelihood means requires that people have access to unlimited and accurate information about alternative economic activities. Unfortunately, in this region, accurate and reliable information to sustain local livelihoods through communication are limited.

There is a strong need to develop information flow mechanisms to local communities though communication to facilitate a reverse in the decline of the mangrove ecosystems. For this to be done effectively, there is need to determine the major information sources and factors that influence adoption of each.

The Mijikenda people are the most dominant along the Kenyan coast, they are made of nine sub tribes, the Giriama, Digo, Chonyi, Duruma, Jibana, Kambe, Kauma, Rabai and Ribe. Agriculture is the main economic activity of the Mijikenda people. Their most important cash crop is the coconut palm, whose products include oil extracts and palm wine. Its fronds are also used for roofing and as material for making baskets, mats, brooms and other weaved products. Fishing is another important economic activity for the Mijikenda people. The community is involved in the cutting of the Mangrove for timber to build houses and as a source of firewood. This wanton destruction of the Mangrove has led to an ecological disaster along the Kenyan coast leading to a concerted effort to save the Mangrove forest through communication.

## ***1.2 Review of Related Literature***

Defleur et al (1993) stated that communication is a process during which source individuals initiate messages using conventionalized symbols, nonverbal sign and contextual cues to express meanings by transmitting information in such a way that similar or parallel understandings are constructed by the receiving party or parties toward whom the messages are directed.

Communication is a process which depends on communicator perception including culture, communication skill, physical-emotional states, experience, attitudes, memory and expectation. The source is stimulated by some events and encodes the messages for sending to receiver through channel which is depending on kinds of communication such as some or all five senses for face to face channel. After receiving messages, the receiver must decode the messages through memory or background of receiver. Once the receiver has received messages and response it is called feedback that can be either verbal or non-verbal reaction to the message. And noise which can impact to the information and interpretation in process of communication.

An early verbal model in communication was designed by Harold Lasswell in 1948. Communication as a process could be explained by the simple statement “Who says what to whom in what channel with what effect” (Lasswell 1948 cited in Ruben and Stewart, 1998) in viewing communication as a one-way process in which one individual influenced other through messages.

In 1955, political scientists Elihu Katz and Paul Lazarsfeld presented a two-step flow of communication. The finding from earlier research in which they found that information in mass media did not reach and have an impact on individual as previous views of communication. They determined that people around influenced undecided voters as opinion leader more than by information provided in the mass media .

### **1.2.1 Types of Communication**

The human communication is a vast field and ranges from talking to yourself to mass communication which can be divided to several levels

#### **Intrapersonal Communication:**

Talking, learning, evaluating, persuading and reasoning to ourselves about possible decisions to make as well as rehearsing the message intend to send to others.

#### **Interpersonal Communication:**

In this type of communication people can establish, maintain and sometimes destroy (sometimes repair) their personal relationships.

#### **Small Group Communication:**

The interaction with other in terms of solving problem, developing new ideas and sharing knowledge and experiences.

**Public Communication:** Others inform and persuade us as receiver. And we in turn inform and persuade others to do, to buy, or to think in a particular way, or to change an attitude, opinion or value.

**Mass Communication:** We are entertained, informed and persuaded by the media movies, television, radio, newspapers and books.

## ***1.3 Participatory Communication***

Predominantly two major approaches of Participatory Communication influenced the sector of Development Communication since the emergence of participatory models. These were the dialogical or critical pedagogy of Paulo Freire and the ideas of access, participation and self-management articulated in the UNESCO debates of the 1970s (Servaes 1993). Both approaches involve the notions of access and participation as the core ideas of a normative theory of alternative communication. Freire, in his 'Pedagogy of the Oppressed' (1968) stresses that many political and educational projects have failed because they have been designed from the implementers' 'view of reality', not considering and involving the people to whom the programs have been directed, except as mere objects of their action (Freire 1968: 84). The idea of Development Broadcasting, stems from this participatory school of thought, particularly the 'critical conscious' model of Paulo Freire.

### **The Freirean Perspective**

The current, predominant form of Development Communication, namely Participatory Development Communication (PDC) received high contribution from the theory of Paulo Freire.

The perception that Development Communication cannot change people but that it can only support them to change themselves is the centre of today's practices of employing communication technologies and strategies as part of rural development interventions (Manyozo 2004). Freire's argues that positive outcome of educational or political programs can only be generated by respecting the "particular view of the world held by the people".

The intention of his model is to prompt the individual to critically reflect on his or her own living conditions and problems. By this he premises "the right to participation and emancipation regarding social, cultural, and historical reality" as a fundamental right for everyone (Servaes 1996). Freire believed in people's ability to learn, to reflect dominating social, political and economic contradictions and consequently to be able to take actions against those oppressive elements in their lives. This is what he calls 'conscientization'.

According to Freire, in the process of 'conscientization', men begin to single out elements from their 'background awareness' and to reflect upon them (Freire 1968: 70). Stemming from his practice and theory of dialogical education he holds the view that dialogue leads to ongoing processes of reflection and creating awareness, resulting in action. He underlines mutual, horizontal dialogue between the people and between the 'oppressed' and other instances as the encounter in which reflection and resulting action is addressed to the 'world' that is meant to be transformed, to be developed (Freire 1968: 77).

By this Freire goes beyond his educational model and suggests a role of media in developing countries. His conscientization model "was designed to bring about new conditions by breaking through a culture of acceptance and silence and encourage active participation as a subject" (Richards 2001). By emphasizing the crucial importance of dialogue he points to the core importance of communication for learning and creating awareness. "diffusion of innovations" theory inserted by Everett Rogers (Rogers 1962/1983). He stated that innovations diffuse over time according to people's stages, distinguishing between early adopters of innovations and those who are slower in adoption, which he assured to be the majority of development countries populations. According to this view of a transmission bias he can be traced in one line with Lerner and Schramm (Waisbord 2001).

### **1.4 Other Related Literature**

Kongtong (1993) studied the factors influencing participation in the conservation of the community mangrove. She found that people provided little participation in relevant activities such as preparatory meeting, seed collection, reforestation of the community mangrove forest, maintenance of the forest, substitution planting, public relations coordination with government agencies. The factors which significantly affected their participation were their occupation, access to information group membership and sex and education. Problems and obstacles which arose out of their participation were lack of seedling, shortage of areas to be reforested, lack of cooperation and good advice from the authority and lack of free time as well as a risk of their life in confrontation with influential people.

Ganagasai (1997) studied the level of participation of people in mangrove conservation and factors affecting the difference in the level of participation. The results showed that communication and expectation of production in mangrove were significant factors affecting the participation in mangrove conservation while knowledge of mangrove, socio-economic variables did not significantly affect the participation in mangrove conservation.

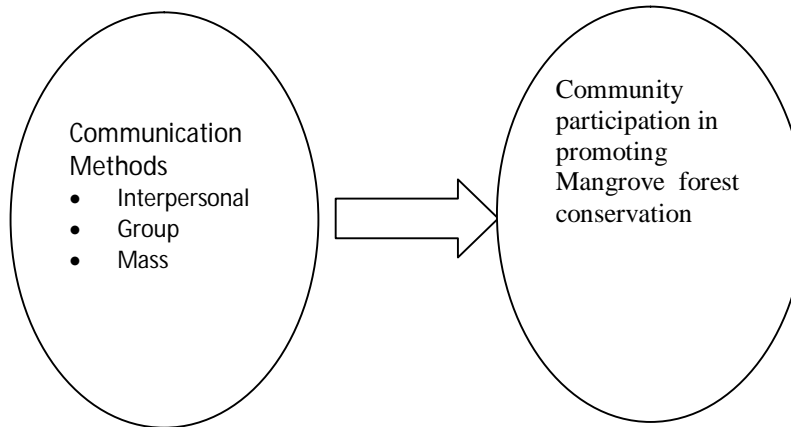
Sittikityothin (2000) made a study on relevant factors affecting people's different decision in participation. Findings showed the moderate level of the participation in the conservation and rehabilitation of the mangrove forest. There were 3 types of participation: opinion participation, project planning participation, and project implementation participation. Factors which had significant affect to participation in mangrove conservation were sex, occupation, community group's member, knowledge and understanding of mangrove.

Marasri (2000) investigated the factors which influenced people participation in mangrove conservation. The results indicated high level of participation in mangrove conservation. The villagers form of participation were mostly informal. Problems and obstacle to people participation were that of no support and inadequate information concerning mangrove conservation from government officers.

### Conceptual Framework

Participation is influenced by communication methods. The independent variables are communication methods which include interpersonal communication, group communication and mass communication. The dependent variable is participation of people in promoting mangrove conservation. The relationship between communication methods and community participation is shown below.

**Figure 1: Presents the Conceptual Framework**



Communication methods used were interpersonal communication, group communication and mass communication. Interpersonal communication was used mostly by village elders, government officials and family members. The respondents preferred to communicate mangrove information with government official as first source of information. Group communication used involved informal meeting, formal meeting and training. The respondents preferred to communicate mangrove information through informal meetings. This was also their preference as first source of information concerning mangrove.

Interpersonal communication remain the most significant conventional sources of information in the study area. Emerging sources of information included television, radio and mobile phones. The adoption of emerging sources of information was found to be positively influenced by farmers' years of schooling. This study proposed integrating methods and information processes at the local level for improved livelihoods, mangroves conservation, decision making and policy recommendations.

### Conclusion

Based on the findings of the study the following conclusions were drawn. Informal meeting should be more considered because people often use this as a source of mangrove information. This method can be used to enhance project's activities such as brainstorming and problem solving. The systematic use of communication can be a key factor for change and development. It can help individuals, communities and whole societies to become conscious and introduce change in a democratic way. Communication serves as the basis for generating awareness, consensus building, creating participation in processes of change and development, informed decision-making processes, and for finding conflict solutions. It can help individuals to change their attitudes and their behavior patterns and introduce new ideas and practices into their lives that will improve their economic and social situation.

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