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Button-less on the information superhighway: Issues of ideological horizons in environmental communication amongst communities at fish-landing sites along Lake Victoria in Uganda

Goretti Linda Nassanga*

Abstract

The article addresses issues of ideological horizons in relation to the information superhighway, as they affect environmental communication, with a special focus on grassroots communities at fish-landing sites along Lake Victoria, in Uganda. While in the 'button society' a great deal of information is accessible at the push of a button, the most that button-less grassroots societies have to contend with, is a simple radio switch. Given this continuum of ideological horizons, both communities cannot interpret environmental management concerns in the same way. Conceptually, the article is guided by Hall's encoding and decoding framework, whereby due to a failure to share 'meaning' (between the two parties) miscommunication arises. The discussion is based on findings of a survey for a research project that sought to find behavioural change communication strategies that can be used to empower grassroots communities to participate more in managing their local environment in a sustainable way. The research looked at the communication of environmental issues pertaining to solid waste management and sanitation. The major question of interest to the discussion is why there is continued environmental degradation at Lake Victoria fish-landing sites, despite the available environmental information and existing frameworks for ensuring proper environmental management.

Key words: Decoding messages, environment communication, grassroots communities, ideological horizons, participatory communication, risk communication

INTRODUCTION

In order to contextualise the discussion, the article starts by looking at the issue of sustainable development as it pertains to environmental degradation or imbalances in the ecosystem, with a special focus on fish-landing sites along Lake Victoria, in Uganda. The article is based on findings from a formative evaluation survey for a situation analysis done as part of a research project that sought to find behavioural change communication (BCC) strategies that can be used to empower grassroots communities to adopt good environmental management practices. The research looks at the communication of environmental issues related to solid waste management and sanitation.

An appreciation of the role communication and information play in efforts to halt environmental degradation is essential as a basis for understanding why environmental degradation continues, yet much information is available on sustainable environmental management. Communication is an activity people engage in on a daily basis, but because it is done so frequently, we often do not

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deliberately plan how to do it. For purposeful communication, adequate attention should, however, also be given to the actual content of the communication, in addition to the context and process. In order for communication to take place, the assumption is that the sender and receiver (i.e. the parties involved) are able to share meaning. This implies that an encoded message is decoded in the intended way, to elicit the intended reaction. Communication is said to be effective if it has achieved the desired goal, i.e. the message is interpreted or decoded in line with the intentions of what the sender wanted to pass on. Looking at how effective the communication of environmental risks has been, it is apparent that messages are not decoded in tandem with the intentions of the encoders, since efforts to reduce environmental degradation are yet to bear visible results.

Considering the current state of degradation in the Lake Victoria basin, it is no longer adequate to disseminate information in a bid to increase public awareness on environmental issues. It has become imperative to find a means of influencing those populations in high-risk areas (that are prone to serious degradation) to adopt good environmental management practices. Decreasing water levels, coupled with increasing demands for electricity, have adversely affected Uganda's economy. There have been power shortages, disruptions in water supply as well as transportation and infrastructure, in addition to a decline in fish catches (Hepworth & Goulden 2008). Since most people at the fish-landing sites are dependent on fishing from Lake Victoria, any negative impact on the lake will affect their livelihoods directly, aggravating poverty. This makes the landing sites high-risk areas that call for special attention.

When an assessment was done of the sources and channels of environmental information amongst communities at the fish-landing sites, it was found that these were 'button-less' communities with limited access to digital media. In 'button societies' in Western countries and urban areas, much information is accessible at the push of a button, via apparatus ranging from radio knobs to remote-control switches (of various media systems like television), to more sophisticated navigating (on Internet web pages). These have been accentuated by media such as mobile phones, SMS and e-mail services. In contrast, similar to what obtains in rural subsistence farming areas, amongst communities at fish-landing sites, the few buttons they can access for information are simple radio switches. Disparities in access to sources of environmental information imply different levels of awareness about environmental issues. In addition, environmental messages largely emanate from sources outside these grassroots communities, therefore there is minimal participation in the generation of such information.

With such a continuum of ideological horizons, the aforementioned two communities cannot interpret environmental management concerns in the same way. This article highlights several issues of ideological horizons and how they influence risk communication related to environmental degradation. The major question of interest to this discussion, is why there is continued environmental degradation at Lake Victoria's fish-landing sites, despite environmental information being available and frameworks being in place to ensure proper environmental management.

The article calls for the use of community videos as a development communication tool – something which has been used successfully elsewhere. Community video is based on the concept of participatory communication, which is a prerequisite for change and development. Thus, in order to have the desired impact on environmental communication, it is important that the communication process be re-examined, so that both the originators of the messages (encoders) and the grassroots communities (decoders) attach the same 'meaning' to the environmental messages.

BACKGROUND

While different yardsticks have been used to measure development, the tendency in the past has been to view it largely from an economic perspective, using GDP, per capita income, etc. The 1990s saw a shift in focus – not only as regards an increase in development, but also as to whether the increase could be sustained. Sustainable development has to do with how limited resources are utilised, or how well the environment is managed (Bremmer & Zuehlke 2009; Nwosu 1993; Servaes 2002; UHDR 2005). One of the key areas of rapid environmental degradation is water resources. Indeed, this deserves due attention, as water is the basis for all life.

Uganda, situated in East Africa, has a population of 30.7 million, with a growth rate of 3.4 per cent and a fertility rate of 6.7 (World Population 2009). Over 80 per cent of the population depend on land, agriculture and fishing for their livelihood, but trends indicate a rapid degradation of Uganda's natural resources. Rapid population growth has been identified as one of the factors contributing to such degradation (Bremmer & Zuehlke 2009).

Uganda shares the second-largest fresh-water body of Lake Victoria with Kenya and Tanzania, with the Lake Victoria basin supporting one of the densest and poorest rural populations in the world – up to 1 200 persons per square kilometre (Shepherd 2010), compared to the global average of 50 persons (World Population 2009). Lake Victoria flows into the River Nile, so the lake is of equal importance to the ten countries through which it flows (together, they form the Nile Basin Initiative).

Water is an important resource for all human beings, and its proper management is essential to make it safe for human consumption and use elsewhere. Related to safe water are proper sanitation and solid waste disposal. People cannot have safe water if there is poor sanitation and poor solid waste management. In Uganda, a relatively sizeable part of the population (37.4%) does not have access to safe water – most of these people (42.4%) live in the rural areas (UHDR 2005: 54). In addition, national household latrine coverage is 48 per cent, while 10 per cent of solid waste enters and accumulates in the environment annually (ibid.). Some of the waste finds its way into Lake Victoria and other water bodies. Apart from water pollution resulting from siltation caused by soil erosion, there is dumping of domestic and industrial waste in the lake. Hepworth and Goulden (2008) believe the resilience of the Lake Victoria ecosystem to climate change can be increased by reducing the impact of stresses like over-fishing, soil erosion and pollution.

Uganda's experience is not unique. At the global level, during the Earth Summit in Rio (1992), poor waste management in most developing countries featured prominently as a major challenge (UHDR 2005: 56). Like other Third-World countries, this problem contributes much to environmental degradation in Uganda. The government has put in place frameworks aimed at reducing the degradation of water resources: apart from the Ministries of Water, Lands & Environment; Agriculture, Animal Industry & Fisheries; there are institutions like the National Environment Management Authority, the Lake Victoria Environment Management Program, the Nile Basin Initiative, etc., which are complemented by initiatives by NGOs and their development partners.

There has, however, not been much involvement on the part of the grassroots communities in these efforts, as most environment-related communication largely involves one-way top-down information flow. While laws and policies have been instituted, people have yet to come to appreciate the need for sound environmental management. Among the communities at the fish-landing sites, people continue to engage in negative practices like littering garbage, which eventually finds its way into the lake. It should be emphasised that sustainable development cannot be de-linked from good environmental management – development should aim to educate and stimulate people to be active in self- and communal improvement, while maintaining a balanced ecology (Bremmer & Zuehlke 2009; Nwosu 1993; Servaes 2002: 93; UHDR 2005). The *Common country assessment of Uganda report* (2004: 32) attests to this. In their evaluation of Uganda's commitment to achieving Millennium Development Goal (MDG) 7 on environmental sustainability, one of the capacity gaps and challenges identified is the lack of sufficient research on how to better involve local community knowledge and traditional behaviour in environmental management programmes.

This study addressed the research gap by exploring how BCC can be used to influence grassroots communities to adopt good environmental management practices. Right from the start, the research recognised the importance of ideological horizons in communication and used participatory learning approaches (PLA) and participatory rapid appraisal (PRA) research methods. The rationale was that communities had knowledge about their environment and information on how they had been dealing with problems which the researchers (as outsiders) could learn from, thus necessitating the use of a participatory research process.

RESEARCH METHODOLOGY

A key concern in environmental management is the high level of water pollution, which is partly the result of poor solid waste management. A baseline survey was done at nine fish-landing sites along Lake Victoria, to establish the levels of knowledge, attitudes and behavioural patterns; communication patterns and information-seeking habits; sources of information and channels used; as well as media consumption patterns in respect of garbage disposal and sanitation. The study looked at several variables: socio-economic status and levels of education; toilet facilities; sanitation and the disposal of children's faeces; the sources, treatment and storage of drinking

water; knowledge of environmental laws and policies; waste disposal at domestic and workplaces; as well as access to mass media and interpersonal sources of environmental information.

The study utilised both quantitative and qualitative research methods, in addition to secondary sources or desk reviews of existing related studies. An administered questionnaire, focus group discussion, key informant interviews as well as observation methods were used to collect primary data. Since the struggle against environmental degradation involves several key players, it was crucial to conduct in-depth interviews with various stakeholders, starting with the village or local council 1 (LC1), sub-county, local beach management units (BMUs); District Departments of Communication/Information, Fisheries and Environment; government departments; the National Environment Management Authority; Lake Victoria Environment Management Programme; CBOs and NGOs; etc.

The target population for the study was rural grassroots communities, which were represented by residents at nine fish-landing sites along Lake Victoria (from the districts of Jinja, Kampala and Masaka). The sample, purposefully selected to take into account factors like gender representation, consisted of 695 respondents for the questionnaire, separate men's and women's groups of ten for the focus group at each landing site and 32 key informants.

The findings of the survey acted as input in designing environmental messages for a campaign aimed at increasing environmental awareness and influencing behavioural change towards better environmental management practices. Radio, which was found to be the most accessible medium, was used to carry environmental messages in the form of two-month-long radio spots in the local language (Luganda). Media support materials, such as posters and community dialogue, were also used in the campaign. The basic message was an appeal to the communities to keep the lake clean, as it is their source of livelihood and an important element in the ecosystem.

ACCESS TO ENVIRONMENTAL INFORMATION, SANITATION AND WASTE MANAGEMENT PRACTICES

Most people at the fish-landing sites are engaged in fishing, or in activities related to sustaining the fishing industry. Incomes are low, with 521 respondents (74.9%) reporting earnings below 100 000 Shillings (about $60) monthly, leading to a hand-to-mouth existence. Although fishing is done by men, landing sites have more women who engage in work like cleaning, drying, smoking and selling fish; selling in kiosks and markets; cooking food for sale, etc. The landing sites have a mixture of people from different ethnic groups, but almost all of them speak the language used in the central region – Luganda. While most people reside at the landing sites, others move there temporarily when fish stock is detected around the area, or during the weekly market days. Normally, fishing is done at night and on the fishermen's return in the morning they go to sleep, thus the best time for interviewing them is in the afternoons, before they return to their fishing.

Living conditions are similar to those in slum areas: characterised by overcrowding, poor sanitation, the absence of a proper road network and no sewerage system. Houses are largely make-shift structures of papyrus or wood thatched with grass, while other dwellings are sheet-iron structures. Because the water table is very near the surface, people cannot construct private latrines/toilets and rely on public pit latrines, where they have to pay 100 Shillings (0.06 $) per use. This is relatively expensive, as 495 respondents (71.2%) reported having one to five people in their household, while 167 (24%) consisted of six to ten people. Cost acts as a counter-incentive, with some people opting to use the bushes around the landing sites, or polythene bags that are disposed of with other garbage, while others simply cover their faeces with a thin layer of sand.

Although 649 respondents (93.4%) reported having a place to collect their domestic waste/garbage as well as refuse at work places, the landing sites are still littered with rubbish, including polythene, which is particularly hazardous as it does not decompose and remains stuck along the shoreline, thus interfering with fish breeding grounds. Local councils and the BMU have tried to organise garbage collection systems, but when refuse is not collected regularly, it begins to rot. During the rainy season the garbage drains into the water, yet most people (except for those near Kampala, where there is piped water) use the lake as their source of drinking water.

In addition, littered garbage is blown into the lake, thus contaminating the water, but most people cannot afford the cost of boiling or treating it in some way before drinking it. Combined with the poor sanitary conditions, this situation makes the inhabitants susceptible to diseases – especially the children. When asked whether any of their children had had diarrhoea during the month preceding the survey, 147 (21.2%) respondents answered in the affirmative.

In total, 420 respondents (60.5%) did not know the laws relating to environmental management, and those who knew them had scanty information about policies and regulations related to fishing, wetland use and deforestation.

Looking at access to environmental information sources, radio was found to be the most accessible medium, with 558 respondents (80.3%) having access to a radio in working order. However, of the 357 (51.4%) who claimed to listen to environmental programmes, only 47 (13.2%) could remember the message in a programme they had listened to, during the month preceding the survey. A negligible number of 46 respondents (6.6%) reported having access to TV, while only 191 (27.5%) read a newspaper at least once a week. Again, only nine respondents (1.3%) reported having any knowledge of how to use a computer, while only three (0.4%) had access to the Internet.

Interpersonal communication channels were found to be important sources of environmental and sanitation-related information. In total, 297 respondents (42.7%) reported receiving environmental messages from plays/dramas or musical shows. Meetings of LC 1 and BMUs were attended by 572 respondents (82.3%), who reported that issues of garbage disposal and sanitation were discussed. Government officials from the Ministries of Environment, Water, Fisheries, Health, District Administration, etc. also handed out environment-related information, as did NGOs.

These survey findings tally with the *Uganda poverty status report* (cited in UHDR 2005: 54), which revealed that about 80 per cent of the disease burden in Uganda is associated with poor sanitation and hygiene. Among others, poor sanitation was attributed to people generally feeling uncomfortable about discussing sanitation because they consider it a cultural taboo, while in other cases people felt it involves 'too much hard work'.

Similar findings on poor waste management were revealed in another investigative report on waste management status in Masaka District (2005) – another district whose landing sites were used as samples. Among the key findings were: the total absence of sorting waste, common open dumping, the inadequate collection of waste by district administrations and the prevalent negative culture on waste management of 'throwing waste anywhere'.

Considering that there are environmental management laws and that most people have access to radio and other interpersonal communication channels that communicate environmental risks around Lake Victoria, why does degradation continue without preventive actions being taken, or behavioural change being experienced? The ensuing discussion attempts to analyse this problem as it pertains to grassroots communities at the fish-landing sites.

CONCEPTUAL FRAMEWORK

The discussion in this article is guided by Hall's (2000: 54) encoding and decoding framework, where the codes of encoding and decoding should be symmetrical between the encoder/producer and decoder/receiver. The degree of symmetry of the codes will determine the effect or the eventual use of the message. Ideally, if there is effective communication, the 'meaning' or decoded message should be transposed into practice or consciousness. The encoding and decoding aspects are not random, which implies that one should not only look at the form of the message, but at the whole communication process – from encoding to decoding.

Discussing the imperative of examining all the elements in the communication process when encoding and decoding, Rahim (2004: 120) explains that the form and content of a message are inseparable, and that both are simultaneously shaped by the social context of communication. He contends that there is no communication without community and no community without communication. Normally, communication is achieved using a unifying language or symbols, which have common fixed rules and meanings attached to them by the community.

Because the media have become an important source of information, thus influencing society's perceptions (depending on the way they 'colour' or encode a story), the discussion focuses on the media in particular. The media receive information about important events and issues that take place from society, and give the information/stories back to society, thus the audience acts as both the source and recipient of messages or information. The assumption here is the presence of 'a mass homogenous society' – something which does not exist, as we are placed at different strata in society. In effect, individuals will interpret or decode messages depending on where they are

positioned, therefore messages on environmental risks are decoded differently by those in central positions (like government) from those at grassroots level. Hall (2000: 53) explains that when no 'meaning' is attached, there is no communication. He notes that before a message can have an effect (for instance, satisfy a need or be put to 'use') it must be appropriated as a meaningful discourse and be meaningfully decoded. It is the decoded meanings which have an effect by permitting the meanings signified in the discourse to be transposed into practice or consciousness.

Since environmental risk messages have not led to the desired change in behaviour amongst the communities at the landing sites, there must be some problem(s) with the communication process that needs to be investigated.

CONSIDERATIONS IN COMMUNICATING ENVIRONMENTAL RISKS

In her study on risk communication, Herber (2004: 31) contends that it is sometimes a misnomer to use the term 'risk communication', explaining that the process is more often 'risk information giving' than risk dialogue, which should offer an opportunity for public participation. She explains that public participation brings together technology and scientific expertise with the knowledge held by other stakeholders – including indigenous knowledge. Herber stresses the importance of the communicator and the audience sharing a common goal, if meaningful exchange of information is to be achieved.

Herber (ibid.) submits that if the aim is to change people's behaviours or attitudes, risk communication is unsuccessful when behaviours or attitudes remain unchanged, therefore successful risk communication is dependent on existing relations between the communicator and the public being communicated to. In assessing why people do not react to risk communication, Lindell and Perry (2004: 29) identify personal involvement or the perceived relevance of the message as a key variable influencing the response in risk communication. The authors explain that this factor will motivate people to continue to think about a message, to seek additional information and to take action. All these processes will, in turn, be influenced by the credibility of the source in terms of expertise and trust-worthiness. They also point out that risk communication involves an examination of the perception of personal risk and protective action.

For risk communication to result in people taking protective action, three stages have been identified: identification, assessment and reduction/protection. The identification stage involves becoming aware of the risk – this may occur through messages from government, via the media, or through interpersonal or group communication. The second stage, assessment, involves determining the probability and likely severity of the consequences of the disaster or hazard. Risk reduction requires identifying those actions that can eliminate or reduce the risk, assessing their merits and implementing a chosen action. In all these processes, there is a need to seek relevant information that will facilitate taking protective action (ibid.: 50). Unfortunately, as often happens at fish-landing sites in Uganda, this process is never carried through to the end, so there is no attitude or behavioural change and no protective action is taken.

Because risk identification is done largely by government and outside agencies without grassroots participation, it is difficult for communities to do a proper assessment of the risks involved, that would enable them to take protective action or to implement risk reduction measures.

Through communication, individuals satisfy their sense of curiosity or the need 'to know'. Peirce (cited in Wimmer & Dominick 2003: 9) highlights four approaches to methods of 'knowing': tenacity, intuition, authority and science. In Uganda's case, government and grassroots rely on different methods: the grassroots use the tenacity approach (sticking to those beliefs and traditional practices they have always engaged in, when managing their environment), while government uses the intuition approach (i.e. it appears 'self-evident' that there is a problem in terms of Lake Victoria's degradation). Government also uses the authority approach, believing that grassroots communities will accept whatever government says, because it is a trusted authoritative source.

Apparently, both are communicating from different platforms. The scientific method/approach would yield better results, as it recognises that learning occurs as a series of small steps, and since one source may not provide all the necessary information, there should always be on-going inquiry or research about the audience. Indeed, as several studies have shown after the initial belief in the bullet theory, messages are interpreted differently and solicit different reactions from the heterogeneous members of the audience. There is thus a need to carry out audience surveys, so that environmental risk messages are relevant to the various target audiences.

In order to make an impact, we need to differentiate between 'technical' and 'risk' communication. Technical communication, which may be intended to inform, educate or persuade, is often designed to disseminate information to audiences, while risk communication involves motivating the audience to action and is often two-way communication, between the organisations managing the risk and their audience(s). Technical communication tends to be prevalent, with a lot of jargon that lay-people find incomprehensible. This results in perceived apathy towards environmental risks, so what is deemed a high risk by scientists and government agencies seems trivial to others. It is thus important to conduct an audience analysis to identify matters of importance to the audience, before linking risk communication efforts to those important issues (Lundgren & McMakin 2004: 3).

In other instances, audiences may be hostile due to the perception that change is bad. One example was in a rural area, where the water had been contaminated by chemicals. The response from many residents was: 'My grandfather drank from this well, my father drank from this well, and I don't see why I can't.' In order to overcome such hostile attitudes, it is important to show not only the dangers of continuing risky behaviour, but also the benefits of changing behaviour to something less risky (ibid.: 61). This is in line with the social marketing principle of exchange, whereby one needs to show what will be gained, compared to what will be lost. In environmental communication, messages often focus on one side (i.e. what should not be done or the dangers/risks). There is a need for balance by also showing the benefits of change, which involves doing a risk-benefit analysis.

This is often difficult to do, due to differences in ideological horizons between the centre/government and grassroots communities. Environmental resources are utilised by people from all walks of life, so when communicating environmental risks this should be a widely participatory process involving all the stakeholders concerned (government officials, legislators, NGOs, CBOs, CSOs, community members and leaders, special interest groups, etc). The next section shows how ideology affects environmental communication.

CHALLENGES OF IDEOLOGICAL HORIZONS IN COMMUNICATING ENVIRONMENTAL RISKS

Ideology refers to the basic ways of conceiving and representing the social world, which may be related to specific groups or social categories (Hoijer 2007: 33). Ideology has to be looked at within the context of media systems, considering that what we know, we largely get through the media (directly or indirectly), so it follows that the media play a major role in influencing our ideological horizons (Golding & Murdock 1997: 488). Previously, ideology formation tended to be seen in terms of nation-states, but with globalisation processes and global media systems creating a global village, ideology has to be contextualised beyond the frames of national borders. One should also consider the influential role international organisations like the UN, the IMF and the World Bank have on the policies of developing countries (Nohrstedt 2007: 13). In the early 1990s, these organisations introduced structural adjustment programmes as a strategy to cut down on government expenditure. Among the measures taken was the laying off of civil servants, which increased unemployment levels and further aggravated poverty levels, while exerting even more pressure on the environment (Bremmer & Zuehlke 2009; Hepworth & Golden 2008; UHDR 2005).

Looking at the media, relating experiences of developing countries, Kivikuru (1999: 98) notes that as oral communication has given way to mass communication, there has been a tendency to exaggerate the significance of the national level and urban components, while ignoring rural and local elements.

This situation is especially true in Uganda, where much of the media content – including environmental messages – is meant for the national level, but the rural grassroots find it irrelevant and do not utilise it. This has contributed to a situation of dualism between urban and rural areas, as reflected in the later having low incomes, low living standards, and limited access to information/communication channels, which contributes to the further social isolation of the grassroots – amongst whom are the communities at the fish-landing sites.

When applied to environmental communication, this brings the problem of semantics into the communication process, where there are differences in encoding and decoding, thus posing a barrier to effective risk communication. This stems from the general tendency to target the message form to suit the market or audience, which is largely in the urban areas, therefore the content is urban-oriented, the implication being that rural communities with different ideological horizons cannot

decode the environmental message form in the expected way. For example, there is no shared meaning/interpretation of 'sustainable use of resources' and 'sound environmental management practices'. If we start off on the premise that in order to communicate the parties must attach the same meaning to the symbols used, this results in urban and rural grassroots communities failing to share meaning, and failing to communicate.

A related concern is that while legal institutional frameworks are in place for environmental management (National Environment Act (1995), Water Act (1995), Land Act (1998), Fisheries Policy (2002)), these have not had much of an impact in halting environmental degradation. This situation can partly be explained by the findings noted in the *Uganda sustainability watch report* (2005: 18), where one of the barriers to sustainable development was identified as the lack of 'active local participation in national affairs'. It was found that the population was generally not well informed about government programmes, laws and policies, which created an information gap that resulted in people seeing the laws and programmes as restrictive, and the grassroots as being detached from them. This was the exact situation at the fish-landing sites, where very few people knew about the environmental management laws.

There has also been a failure to appreciate the relationship between environment/resources vis-à-vis the number of people and corresponding standards of living at household and national levels – particularly amongst the rural population, where fertility levels are higher than in urban areas. The *State of Uganda population report* (2006: 17–18) indicates that there is a link between family size and poverty, and that large families are more likely to stay impoverished or to move into poverty. The report also found that a population increase had an adverse effect on environmental and household poverty. To further compound this situation, there are inconsistent messages from government and other authoritative sources regarding population increase. The National Population Policy (2005) recommends that families have 'the number of children that they can support'. On the other hand, development economists (including President Museveni) are encouraging people to produce more so as to realise a bigger market and increased production. Religious and cultural leaders who support only the use of natural contraception have also made population control efforts amongst rural grassroots communities futile.

In the *Common country assessment of Uganda report* (2004), the three categories of factors identified for poor environmental management in Uganda are all reinforced by differences in ideological horizons. The first category included rapid population growth, poverty and a lack of sufficient resources for both the state and households. Category two included governance-related factors (like policy frameworks which were found to be poorly defined and inadequately implemented), while Category three dealt with traditional patterns of behaviour and culture. Using the rural/urban areas as the unit of analysis for the above categories, one finds remarkable differences between the indices. There is, therefore, a need to find communication approaches that can be used to bridge the gap in ideological horizons as a means of facilitating successful risk communication, where rural grassroots communities can be motivated to take preventive action.

USING COMMUNITY VIDEO AS A DEVELOPMENT COMMUNICATION TOOL

Early development communication approaches were largely guided by the views of economists on increased production, with the media disseminating information to the masses using top-down communication. New development communication approaches have realised the centrality of the concept of participation by the beneficiaries of development efforts. As Rahim (2004: 118) posits, the meanings and values of development must be produced by the people within the country or community where the development is to take place. Knowledge and information from outside can help the process, but should not dominate it. Thus, he argues, this shift makes it imperative that development communication change its focus, from information supply to meaning production. In other words, information on its own has no value if the recipients cannot decode it as intended, nor make use of it.

The shift from the modernisation approach in development communication has been influenced by the work of Paolo Freire (cited in Huesca 2003: 211), who used the teacher/student analogy: the teacher/communicator viewed students as objects characterised by some sort of deficiency in need of knowledge that could be transferred to them in a linear fashion. Freire advocated a 'liberating approach' that centred on a praxis where the teacher/communicator seeks to close this distance by entering into a co-learning relationship or dialogic communication, as opposed to the earlier information transmission model. Whereas earlier communication scholars like Schramm, Lerner and Rogers focused on the important role of communication and media in development, Freire emphasised the need for two-way effective participatory communication as a prerequisite for change and development (Freire 1993; Lundgren & McMakin 2004; Melkote & Steeves 2002; Nair & White 1993; Nwosu 1993; Servaes 2002)

Bordenave (2007: 6–8) differentiates between diffusion communication and participatory communication: the later emphasises context and relationships between the people involved in the communication process, while the former looks at the mere transmission of messages. He explains that apart from considering language or the codes and media used, it is vital to investigate the context or place, time and circumstances surrounding the act of communication. Of equal importance is the relationship aspect, which points to the quality of the human linkage uniting or separating the actors in the communication process. Often, the focus is on the environmental messages, with little attention being paid to the receivers or the context of the communication.

A successful approach in development communication has been the use of community videos, under the Communication for Change (C4C) project (Goodsmith 2007: 78–80). Here, locally produced community videos were shown in community halls, followed by a discussion of various issues raised in the videos. Successful experiences in the use of community video included: the Video Sabou et Nafa Project in Guinea; Egypt's Video and Village Dreams project; Video SEWA in India; Action Health in Nigeria; Brazil's TV Maxabomba and Kayapo video projects; Chiapas Media Project in Mexico; Nutzij in Guatemala; and Maneno Mengi in Tanzania.

The community videos acted as a springboard for promoting dialogue and reflection among community members. The themes were arrived at after discussions with community members on issues of relevance. To encourage active participation, the videos were screened separately to small yet similar interest groups – something which enabled frank discussion. Post-viewing discussion is important in that members bring diverse interpretive frames to their viewing, which leads to a wide range of interpretations and uses of the already richly layered and nuanced symbolic content (Storey 1999: 347). The use of community videos is in line with a basic principle of the doctrine of participation. It is argued that 'the production of knowledge is considered as the core issue of participatory research because it sees knowledge as power, asserting that the "common people" must have control over the process of knowing … ' (White 1999: 32).

White and Pradeep (2004: 363) note that video has become a key development tool, especially among rural poor communities, as it is able to overcome the barriers of illiteracy. Since people do not need to know how to read or write to use video, it is user-friendly and thus a powerful participatory learning tool. They add that the power of video feedback is unprecedented for behaviour 'mirroring' and gaining insight into people's actions. It is noted that while most rural people would never see themselves on commercial television, video makes this possible: this has the potential to strongly influence or change a person's frame of reference about him/herself and expand his/her ideological horizons. Community video provides for group communication that facilitates behavioural change. As Kumar (cited in White & Pradeep 2004: 367) adduces from the experience of using video in India, the medium is an alternative to mass media and has virtually untapped potential as a tool in development programmes at local grassroots community level.

In Uganda, videos can be organised based on existing decentralised structures of LC 1 or village councils, facilitated by the Rural Development Communication Agency. At the landing sites, the BMUs (constituted by the residents) can also be used in implementing the community video project. Community videos can be shown in the make-shift halls in the trading centres that are used at weekends to stage plays, show Nigerian videos and other kinds of entertainment. In small towns, these video shows can be publicised on local radio stations and via loudspeakers. The audience usually pays a token entrance fee of about 500 Shillings (0.25 $). To minimise the cost of equipment, one video camera could serve several communities. Thus, in communicating environment risks in the Lake Victoria basin, community video would be a useful tool.

CONCLUSION

When used positively, media can be a powerful tool for influencing ideological horizons. As Tichenor (cited in McQuail 2003: 457) notes in the knowledge gap hypothesis, the growth of knowledge is relatively greater among the higher-status segments of society. However, through their informational role, the media have contributed greatly in modifying differences in knowledge resulting from inequalities in education and social position. While access to ICT or 'buttons' amongst the communities at the fish-landing sites is so low that they cannot fully benefit from the information superhighway, there are alternatives that can be implemented, which do not

involve heavy investment or require much technical knowledge. As demonstrated in places where community videos have been used, the government in Uganda should consider their use at the fish-landing sites. Community video is based on the concept of participatory communication, which is a prerequisite for change and development. Having audience-based participatory programming should enhance the 'sharing of meaning', thereby narrowing differences of ideological horizons between the centre (government, urban areas) and the rural grassroots.

This study's findings confirmed the predominant view of communication scholars, namely that it is impossible to communicate to everyone at the same time. The aspect of doing audience segmentation and research so as to package environmental messages accordingly, has not been given due attention, resulting in the use of non-scientific approaches in communicating environmental risks. Media practitioners and researchers need to carry out on-going audience research to ensure the relevant and effective communication of environmental risks to various target groups.

Considering that Lake Victoria and the Nile River are trans-boundary resources, the impact of research like this would be greater if it were replicated in other communities along these water bodies. While there are some commonalities between communities at fish-landing sites, it has to be acknowledged that each community has its own communication systems. There is a need to explore how these systems can be used for effective participatory communication in terms of the sustainable management of water resources.

As a way of achieving the desired impact in environment communication, it is important that the communication process be re-examined so that both the originators of the messages (encoders) and the grassroots communities (decoders) attach the same 'meaning' to environmental messages.

Ultimately, the purpose of communicating environmental sanitation risks will be achieved, as people will be motivated to take preventive actions and to effect the desired behavioural change. Thus, grassroots communities will have been empowered to participate more in managing their environment in a sustainable way.

REFERENCES

Bordenave, J.D. 2007. The itinerary of an underdeveloped communicator. *Communication for Development and Social Change* 1(1): 5–11.

Bremmer, J. and E. Zuehlke. 2009 Integrating population, health and environment in Uganda. Washington: Population Reference Bureau. www.prb.org/Publications/PolicyBriefs/uganda.aspx (accessed 8 April 2010).

Common country assessment of Uganda report. 2004. Kampala: UN Office.

Freire, P. 1993. *Pedagogy of the oppressed*. New York: The Continuum Publishing Company.

Golding, P. and G. Murdock. 1997. Ideology and the mass media: The question of determination. In P. Golding and G. Murdock (eds), *The political economy of the media*, 465–476. Cheltenham: Edward Edgar Publishers.

Goodsmith, L. 2007. Video Sabou et Nafa: Community voices joined in a common cause. *Communication for Development and Social Change* (1): 63–85.

Hall, S. 2000. Encoding/decoding. In P. Marris and S. Thornham (eds), *Media studies*, 51–61. New York: New York University Press.

Hepworth, N. and M. Goulden. 2008. *Climate change in Uganda: Understanding the implications and appraising the response.* Edinburg: LTS International.

Herber, M.W. 2004. *Talking to me? Risk communication to a diverse public*. Orebro: Orebro University.

Hoijer, B. 2007. A socio-cognitive perspective on ideological horizons in meaning-making. In B. Hoijer (ed), *Ideological horizons in media and citizen discourses: Theoretical and methodological approaches*, 33–57. Gottenberg: NORDICOM.

Huesca, R. 2003. Participatory approaches to communication for development. In B. Mody (ed), *International and development communication: A 21st century perspective*, 227–244. California: Sage.

Investigation report on waste management status in Masaka District. 2005. Masaka: Directorate of Health Services and Department of Environment.

Kivukuru, U. 1999. Locality in mass communication: An irreplaceable quality or a relic from the past? In T. Jacobson and J. Servaes (eds), *Theoretical approaches to participatory communication*, 77–104. New Jersey: Hampton Press.

Lindell, M.K. and W.R. Perry. 2004. *Communicating environmental risks in multiethnic communities.* California: Sage.

Lundgren, R.E. and A. McMakin. 2004. *Risk communication*. Columbus: Battelle Press.

McQuail, D. 2003. *McQuail's mass communication theory*. London: Sage.

Melkote, R.S. and E.L. Steeves. 2001. *Communication for development in the Third World.* New Delhi: Sage.

Nair, S.K. and S.A. White (eds). 1993. *Perspectives on development communication.* Thousand Oaks, CA: Sage.

National Population Policy. 2005. Kampala: Uganda Government.

Nohrstedt, S.A. 2007. Ideological horizons: Outline of a theory on hegemony in news discourses. In B. Hoijer (ed), *Ideological horizon in media and citizen discourses: Theoretical and methodological approaches*, 11–33. Gottenburg: NORDICOM.

Nwosu, E.I. 1993. Disseminating information on environmental issues and problems in rural Africa: Towards an integrated model. In S.T.K. Boafo (ed), *Media and environment in Africa: Challenges for the future*, 11–21. Nairobi: African Council for Communication Education.

Rahim, S.A. 2004. Participatory development communication as a dialogical process. In S.A. White, S. Nair and J. Ashcroft (eds), *Participatory communication: Working for change and development*, 117–138. New Delhi: Sage.

Servaes, J. 2002. *Communication for development*. Brussels: Katholieke Universiteit.

Shepherd, K.D. 2010. Lake Victoria – an introduction. http://www.worldagroforestrycentre.org/sensingsoil/lakevictoria_intro.html (accessed 9 April 2010).

State of the Uganda population report. 2006. Kampala: Ministry of Finance, Planning and Economic Development.

Storey, D.A. 1999. Popular culture, discourse and development: Rethinking entertainment education from a participatory perspective. In T. Jacobson and J. Servaes (eds), *Theoretical approaches to participatory communication*, 337–358. New Jersey: Hampton Press.

Uganda human development report – linking environment to development: A deliberate choice. 2005. Kampala: UNDP Office.

Uganda sustainability watch report. 2005 Kampala: Uganda Coalition for Sustainable Development.

White, K. 1999. The importance of sensitivity to culture in development work. In T. Jacobson and J. Servaes (eds), *Theoretical approaches to participatory communication*, 17–50. New Jersey: Hampton Press.

White, S.A. and P.K. Pradeep. 2004. Participatory message making with video: Revelations from studies in India and USA. In S.A. White, S.K. Nair and J. Ashcroft (eds), *Participatory communication: Working for change and development*, 359–387. New Delhi: Sage.

Wimmer, R.G. and J.A. Dominick. 2003. *Mass media research*. Belmont: Wadsworth Learning.

World population data sheet. 2009. Washington: Population Reference Bureau.