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The Contribution of Mass Media on Environmental Management in Dar es Salaam City, Tanzania

Dr. Emmanuel Patroba Mhache

Senior Lecturer, Department of Geography, Open University of Tanzania, Tanzania **Bujo Ambosisye**

Assistant Lecturer, Department of Journalism and Media Studies, Open University of Tanzania,
Dar es Salaam, Tanzania

Abstract:

The contribution of mass media on environment management in any given society cannot be undermined; the mass media generally, can be used to enhance cognizance and alter bad individual behavior and attitudes in relation to environment management, and hence bring about positive change in the process of environment management. Thus, this article examines the contribution of mass media on environmental management in Dar es salam city, Tanzania. It explores the major social-environmental problems facing Dar es salaam city, and the reasons making Dar es Salaam city among the dirtiest region in Africa. It also establishes respondent's level of understanding on the concept of environment management, and journalists' knowledge on their profession as well as on the complexities of environmental issues. The article also identifies TV and radio programmes that addresses environmental issues, the frequencies of the coverage of environmental issues in the newspapers, and compares the media coverage on environment and other issues in Tanzania. The article further determines the relationship between journalists and environment stakeholders in Tanzania and presents feasible solutions to the problem of poor environment management in Dar es Salaam city.

This paper discovered that, Dar es Salaam city does not receive environment management attention it deserves; subsequently it remains one of the dirtiest city in Africa to date. The article identified the contribution of mass media on environmental management in Dar es Salaam City. Mass media is divided into two folds whereby on one hand is electronic broadcasting media, in particular TV and radio contributes significantly on environmental management in the country as they have exclusive programmes on environment which includes "Nitunze" i.e. Care for me aired by TBC, "Mazingira yetu" i.e. Our environment, and "Mazingira ni uhai" i.e. Environment is life" aired by Star TV, "Mazingira club" i.e. Environment club, "Ripoti maalum" i.e. Special report, and "Usafi na mazingira" i.e. Environmental sanitation all aired by ITV; and "Kambi popote" i.e. Camping anywhere aired by Clouds TV. Radio programmes include "Mazingira ni uhai" i.e. Environment is life aired by TBC Taifa; "Tutunze mazingira yetu" i.e. Let's care for our environment aired by Magic FM, and "Nitunze nikutunze" i.e. Care for me so that I care for you aired by TBC FM. On the other hand, the contribution of newspapers is very minimal as they do not have environment agenda in their editorial policy hence they report environmental issues by chance. Thus, it proposes that newspapers should entrench environmental management agenda into their editorial policy in order to intensify environment management campaign in Dar es Salaam City. TV and radio should continue producing and airing programmes on environment but with additional programmes exclusively designed for Dar es Salaam city with more appealing formats so as to attract more audience.

1. Introduction and Problem Setting

The media plays strategic role in raising environmental awareness, channeling environmental information to people and inspiring environmental management actions. This paper examines the contribution of the mass media on environmental management in Dar es Salaam City, the largest city in Tanzania in terms of population, industrialization, socio-political-economic development and the oldest city in Tanzania. The region is also experiencing high rate of urbanization (Mhache and Mauma, 2013). Mass media has contributed in raising environmental awareness and environment management in different cities in the world. Some of the potential ways through which media can work include editorials, features, news commentaries, discussion programmes and documentaries. The authors have noticed that, there is poor environmental management in Dar es Salaam city (Mhache and Mauma, 2016). Thus, the media, both electronic and print can be used to promote attitudinal change among city council functions responsible for environmental management as well as the general public matters. The underlying assumption is that, the media contributions will lead to improved environmental management such as disposal of waste in authorized points and timely collection of waste as well as construction of a new sewerage system which reflects the needs of the current population of Dar es Salaam city by the responsible authorities.

2. The Study Area and Methodology

This study was conducted in Dar es Salaam City (Figure 1). Why Dar es Salaam City? Most of the media like Radios, Televisions and Magazines/Newspapers have their headquartes in Dar es Salaam City. Dar es Salaam City is among the dirtiest city in Africa. Why so? Can we say that media have not done their responsibility or media are not giving the required information about environmental management? These shortfalls necessitated the selection of Dar es Salaam City as a study area. In this study both primary and secondary data were collected. Secondary data were solicited from books, journals, websites, published and unpublished materials. The aim of secondary data was to get familiarization with previous studies related to this study. The literature review helped to avoid duplication of the study. Primary data is the first-hand information collected from the respondents for the first time. Questionnaires, interviews and observations were used in this study. A sample of 30 people was used for this study. The selection of the sample considered males and females, local citizens and practitioners of different mass media.

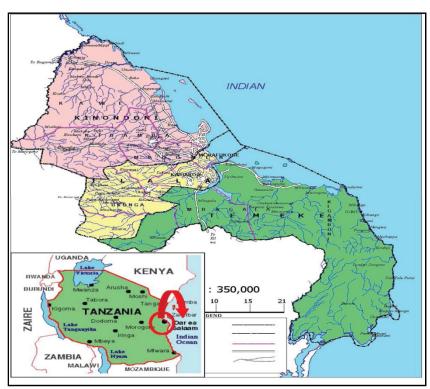


Figure 1: Location of the study area

3. Conceptual Clarification

3.1. Environment

It is difficult to define environment as there is no single agreed definition of the term environment. Different scholars have defined environment in various ways. Burgess (1990) states that, environment has evolved from a concept limited to green and brown issues, (green issues being related to natural resources management and brown issues relating more to pollution), to a more encompassing concept that includes human and social dimensions. According to Scheese (2003) environment refers to the elements that compose the physical or conceived aspects of nature, along with their groupings in landscapes and ecosystems, with special reference to that which is considered the non-human. The environment is often casually conflated with nature which comprises the entire material world, or in earlier and recent languages, everything under God (Scheese, 2003).

Enger and Smith, (2000) affirm that environment encompasses all living and non-living things occurring naturally on the Earth. However, for the sake of clarity of this paper environment can be defined as the totality of the physical factors of the surroundings of human beings including air, land, water, climate, sound, light, gases, heat, odour, taste, micro-organism, the biological factors of animals and plants, cultural resources and the social-political-economic factor of aesthetics and includes both the natural and the built environment and the way they interact. Thus, the word environment encompasses the atmosphere, land, water, vegetation, animals including human beings, social status, economy and the general ways of living of the people; their organization, infrastructure and political environment. Therefore, environment can be summed up as the living organisms and physical environment.

3.2. Environmental Management

The concept of environmental management has a number of definitions. It is an attempt to control human impact on and interaction with the environment in order to preserve natural resources. It focuses on the improvement of human welfare for present and future generation. Edwards, (2004) assert environmental management as keeping control of our activities so that we do what we can to

conserve these physical resources and to avoid polluting them. Thus, environmental management refers to the protection, conservation and sustainable use of various elements or components of the environment.

3.3. Environmental Communication

In a broad definition, environmental communication refers to the sharing of information, insights and opinions on environment issues, trends, conditions and solutions using any means of communication, ranging from interpersonal methods to means of mass communication, using the modern as well as traditional media (Dobson, 1997).

3.4. Mass Media

The mass media is a collective means of communication by which the general public or populace is kept informed about the day to day happenings in the society. The word "mass" means a large number of people or a collection of organs of communication and information dissemination that reaches out to a large number of people. The mass media are diversified communication technologies that are intended to reach a large audience by mass communication.

4. Theoretical Framework

This paper is anchored on two theories which are social responsibility theory and agenda setting theory. For a better understanding of these theories, it is useful to compare the social responsibility and libertarian theory since they have similar basic principles. Historically, social responsibility theory was a response to libertarian theory which advocated a free expression of ideas without however being sensitive to moral values of a concerned society. According to the libertarian theory, people are rational beings capable of distinguishing between truth and evil, and between good and evil (Fourie, 2004 in Pule, 2009). Fourie (2004) contends that according to libertarian theory, the press should be free from government control and there must be free market of ideas and information.

On the other hand, social responsibility theory which is an offshoot of libertarian theory carries the idea that the press which enjoys a privileged position under government is obliged to be responsible to the society for carrying out certain essential functions of mass communications in contemporary society, to the extent that it recognizes its responsibility and makes them the basis of its operational policies (Peterson, 1956). According to Peterson (1956), social responsibility theory is the product of the commission on freedom of the press in conjunction with National Union of Journalists of the press after the World War II. Its main impetus was a growing awareness that in some important respects, the free market had failed to fulfill the promise of the press and to deliver expected benefits to the society.

Social responsibility theory has a wide range of application, since it covers several kinds of private, state and public print and broadcasting media as well as public broadcasting corporations, which are answerable through various kinds of democratic procedures to the society. Social responsibility theory has thus tried to reconcile media freedom with obligations to society. The theory is relevant to this paper because it calls for responsibility on the part of the media. Thus, the media should be able to promote environmental management practice in Dar es Salaam city and trickle down to other cities in the world.

Another theory upon which this paper is premised is the agenda setting theory. The theory was proposed by Maxwell McCombs and Donald L. Shaw in 1972. Agenda setting theory is the ability of the press to guide the masses on issues that affect their lives significantly and provide an indication of what audiences should worry about. It implies that, the mass media has power to decide or create reality. It reflects how the media exercise emphasis, selection and gate-keeping on certain issues and not others. The theory suggests that the kind of issues people discuss, think and worry about, are powerfully shaped and directed by what the media choose to publicize (Wimmer and Dominick, 2000; McQuail, 2005 and Fourie 2004). In other words, the media are not always successful at telling us what to think, but they are quite successful in telling us what to think about. The theory is therefore relevant to the study because the media can be used to set environmental management agenda in Dar es Salaam city, so that the people will think along that line and ultimately catalyze environmental management action from the public.

5. Empirical Literature Review

5.1. Environment and Its Significance to the Well-Being of Human Population

Environment is fundamental for all living things, this relationship between the living things and the environment has been established long time ago. Human beings live in the kingdom of nature and interact with it constantly. The environment influence the quality of human life in the form of the air s/he breathes, the water s/he drinks, the food s/he eats, and the flow of energy and information. Thus, any negative change in the environment can not only result in devastating effects, but can also pose a threat to the human race.

The significance of environmental factors to the health and well-being of human populations' is increasingly apparent (Rosenstock, 2003; WHO, 2010). It is on this basis that, environmental protection and management law has been developing in unprecedented way at international, regional and domestic level. For instance, in 2004 the United Republic of Tanzania enacted Environment Management Act (EMA) which stipulated that, every person living in Tanzania shall have the right to clean and keep environment safe and healthy. It further stated that, the right to clean, safe and healthy environment include the right of access by any citizen to the various public elements or segments of the environment for recreational, educational, health, spiritual, cultural and economic purposes.

5.2. Poor Environment, the Utmost Concern in Most Big Cities in Developing Countries

The management of the environment can be traced back to the beginning of humankind. Systems, practices and institutions were put in place to be in charge and oversee the management of the environment in various parts of the world including Tanzania. Prior to the United Nations Conference on Human Environment in 1972, the issue of environmental management was not considered as an important agenda and was put at the periphery of priority agendas of many nations in the world. Thus, the 1972 United Nations Conference on Human Environment was the first international conference to address global environmental problems. It made environmental management a global agenda aligned with development. This international conference laid down the basis of environmental management and foundations of sustainable development.

Despite of legal framework and other mechanisms for environmental protection and management, poor environmental management has become the utmost issue of concern in most big cities in developing countries, Tanzania being one of those countries. The main concern of the government in the process of environmental management is to protect human health from environmental threats through various interventions. The government priorities are to provide basic environmental services such as access to safe water supply, proper sewerage system, maintained drainage system, proper solid waste collection, health education, improved waste disposal and reduced air pollution. However, without a populace pumped with adequate environmental knowledge and support from private sector, individuals, groups, experts, researchers, environmental activists, Non-Governmental Organizations and the mass media, government interventions cannot be successful; will just be like a dream. The success of government interventions depends highly on support from partners who include the private sector, individuals, groups, experts, researchers, environmental activists, Non-Governmental Organizations and the mass media. Burgess (1990) noted that, among all these government partners in environmental protection, the media's ability to change the course of the environmental crisis is immense. In this regard, the media has a big role to play in making people aware of environmental issues and taking actions to conserve, manage and protect the environment. Thus, it is logical to pre-suppose that the cities' efforts to overcome environmental problems can materialize through intensified media works by creating effective influence on the community to bring about behavioral change.

5.3. The Current Situation of Environment in Dar es Salaam City

The environment in Dar es Salaam is very volatile due to population increase, high rate of urbanization, proliferation of unplanned settlement and massive generation of waste both solid, liquid and hazardous waste (Mhache and Mauma, 2013). Thus, the current state of the environment in Dar es Salaam City is a matter of concern, something should be done to rescue the situation and environment in Dar es Salaam. A national analysis has identified six major problems for urgent attention in Tanzania and Dar es Salaam in particular (National Environmental Policy, 2007). These problems include: (i) Land degradation, this is a problem experienced in several areas in Tanzania like in the river banks due to people extracting sand, quarrying activities and different construction material along the beach; (ii) Lack of access to quality water for urban and rural inhabitants. This problem is experienced in different areas where people are influenced to drill wells to get underground water which in most areas the water extracted is not safe for human consumption. (iii) Environmental pollution, this is a problem in different parts of Dar es Salaam City. Industries discharge waste without treating them. (iv) Other problems are loss of wildlife habitats and (v) biodiversity deterioration of aquatic systems and (vi) deforestation.

The most common and of utmost concern in Dar es Salam city is waste generation and disposal, environmental pollution and lack of access to quality water. These problems lead to poor sanitary conditions and hence posing human health threats. The role of media would be to educate the people on the problems associated with environmental problems and the way to address them. Media if used properly can change people's mind, attitude and behaviors. A lot of good measures to address the problems associated with environmental problems are in place but not known to people. The media can make these measures known to people because the media has an immense ability to change the mindset of people and control all causes of environmental degradation (Burgess, 1990).

5.4. The Current Status of Environmental Education in Tanzania

Environmental education is an issue of great concern which gained an international prominence through a series of inter-governmental meetings and documents in the 1960's and 1970's. However, for Tanzania, the concept of environmental education has been advocated since the 1980's. The government response to the environment and environmental education was partly due to the declining wealth of the country and to a large extent influenced by global concern towards the environment (Mtaita, 2007). In Tanzania, Environmental Education (EE) began as Awareness Raising Programs supported by both government and non-government sectors. Some of the actors included the National Environmental Council (NEMC), government ministries, environmental clubs such as the Malihai Club, the World Conservation Society of Tanzania (WCST) and there have also been efforts to communicate the environmental information through media, radio and TV (National Environmental Education and Communication Strategy 2005 – 2009).

Moreover, following the 1997 curriculum review by the Ministry of Education and Culture (MoEC), EE was introduced in formal education curriculum. The most recently 2004/05 syllabus review included EE at all levels of education. In some universities, the initiative has led to fully fledged degree programmes (Mtaita 2007). These include courses on environmental engineering and management of natural resources at the University of Dar Es Salaam (UDSM), and environmental related disciplines as well as short and long-term courses at Sokoine University of Agriculture (SUA) and the Open University of Tanzania (OUT) (National Environmental Education and Communication Strategy 2005 - 2009). Despite of all these efforts, the country has been facing environmental problems such as pollution and environmental degradation. The factors central to such environmental problems are human related developments such as urbanization and industrialization which led to increased industrial waste discharges, domestic waste and sewage. Good indicators for the existence of poor environmental management in Tanzania include eruption of diseases like

cholera (Mtaita 2007). It has been recognized that mass media would help providing people with EE which is very important in getting rid of environmental problems and its effects such as diseases and poor quality water. This situation makes the media a significant tool in raising the awareness of people on environmental matters.

5.5. The Interplay between Mass Media and Environment

The literature indicates that in the recent past, the ancient societies mainly depended on oral transmission of information. In the absence of modern media facilities, information was transmitted by word of mouth. The emergence of modern media in the beginning of the second half of the 20th century shows significant improvement in human communication and interactions (Dobson, 1997). Over the last 25 to 30 years, the environmental problems became a public and political concern and became a big agenda in the media and wider public (Wezel and Haigs, 2000).

One of the major channels through which environmental communication is practiced is the media, which include both print and electronic. In this sense, environmental educators constantly engaged in environmental communication. The media, in all their variations have established themselves as the most pervasive and powerful source of environmental information in the world today (Dobson, 1997). They represent a major channel through which information on environment can be conveyed to the people (Roba, 2012). Today, more environmental activities and organizations are moving to take advantage of these powerful media for environmental awareness and action. The media are used to raise public awareness and understanding of environmental issues. Also, some environmental stakeholders use it to document instances of the environmental crimes and degradation, to lobby for specific policy reforms or raise funds for specific campaigns (UNEP, 1997). The media also serves to coordinate the information flow between environmental scientists/experts, organizations and activists on the one hand and the public on the other hand, in our own case. Environmental information forms the crux of environmental management action. Therefore, it follows that the prominent role the mass media play in disseminating information can ensure widespread of environmental information and thus catalyze environmental management action and raise public awareness about environment.

5.6. The Role of Mass Media in Environmental Management

Critical to the realization of any novel idea of relevance and practical translation is the matter of creating and raising its awareness. In the domain of environmental issues, environmental education (EE) plays a key role in sensitizing people on the need and significance of programs carried out to address environmental problems confronting them or their societies. Morgan (1997) stated that, environmental education increase public consciousness and knowledge of environmental issues and challenges. Dalelo (2007) had the opinion that environmental education is necessary to increase public awareness about effects of human activities on the environment. It is necessary to increase the public's sensitivity to environment and development problems. People gains or benefits from environmental education by gaining an understanding of how their individual actions affect the environment. They also acquire skills from environment education which are useful in evaluating various environmental issues, and becoming better equipped to make informed decisions.

According to Morgan (1997), the media is a significant source of environmental information for people. Morgan (1997) postulated that a significant amount of the public's knowledge of environmental issues is likely to come from the media. According to him, much of what people hear about issues such as greenhouse effect, global climate change, ozone depletion, water and air pollution, and other environmental threats, is likely to come from the media (or from others who have heard it from the media), since our first-hand knowledge of the state of the environment is likely to be minimal.

It has been suggested that, the media is frequently the only source that people use to gather information about environmental issues (McCombs, 1995). It could take up a crucial role by providing technical information about relevant environmental problems and possibilities. Arcury (1990) suggested that environmental quality is unobtrusive issue (issues that humans do not directly experience) which by their nature, are more susceptible to a significant media agenda-setting effect, and consequently the public needs the media to tell them how important the environment is. Hansen (2007) stated that, "media discourses help to shape and set the parameters of discussion and understanding of environmental issues" and for resulting social and policy responses.

Media coverage of environmental issues can heighten or diminish the amount of attention the public pays to these issues and strongly influence the political discussions that take place about the environment. In the past, the role of media in human society was seen essentially as sources of information and to influence people. It is now being proposed that the media should be understood as a process of social interaction through a balanced exchange of information and experience. This implies participants critically analyzing the role played by the media in environmental protection and progressive management (Hansen, 2007).

As a result of the significant role the media play in developing the public's understanding of environmental issues, it will give the confidence to act appropriately leading towards sustainability. Some researchers have concluded that the news media not only play a significant role in modeling the public's knowledge of environmental issues, but also play a part in the public's likelihood to participate in environmentally-friendly behaviors. All stated issues indicated that the media are a significant tool in raising awareness of people on environmental issues. Article 4:10(h) of the Environmental Policy of Ethiopia which was approved by the Council of Ministers in 1997 stress the role to be played by the media in raising environmental awareness (EPA 1997).

6. Results and Discussions

6.1. Socio-Demographic Characteristics of the Respondents

6.1.1. Gender of the Respondents

The respondents were asked about their gender, as per the findings 18 (60 %) of the respondents were males while 12 (40%) were females (Figure 2).

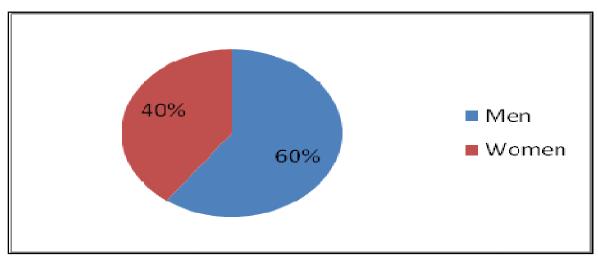


Figure 2: Distribution of respondents by gender

6.1.2. Distribution of Respondents by Occupation

The respondents were asked about their occupations and as per the findings teachers were 15 (50%), Reporters were 4 (14%), Editors 3 (10%) and Senior Reporter 1(4%) (Figure 3). Others were Deputy Head of News 1(3%), Education Officer 1(3%), Civil Servant 1 (3%), Businessman 1(3%) and 3 (10%) who were not working.

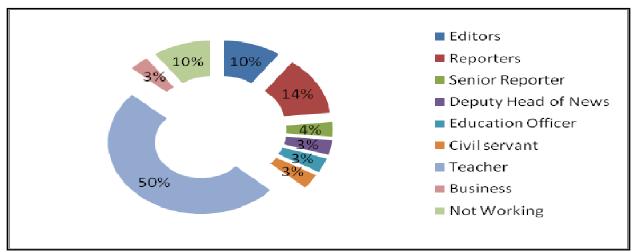


Figure 3: Distribution of respondents by occupation

6.1.3. Distribution of Respondents per Employing Organization

The respondents were working with different organizations as presented in Figure 4. About 17 (57%) of the respondents were employed by President's Office - Regional Administrative and Local Government (PORALG), 3 (10%) with IPP Media, 2 (7%) with Uhuru Publication Ltd, 1 (3%) Tanzania Broadcasting Corporation (TBC), 1 (3%) Mwananchi Communication Ltd, 1(3%) Clouds Media Group, 1 (4%) Raia Mwema Newspaper and 1(3%) self-employed and 3 (10%) were not employed, they were engaging in their own activities.

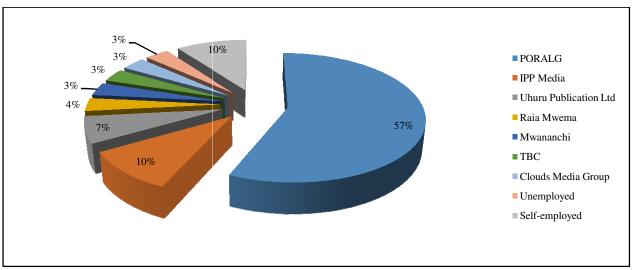


Figure 4: Distribution of respondents per employing organization

6.2. Major Socio-environmental Problems Facing Dar es Salaam City

Responding on the question what are the major environmental problems in Dar es Salaam city, respondents mentioned a range of issues including poor waste management (77%), high population (70%), poor planning and management of sewage system (63%), industrial emission, poor drainage system, squatting which leads to slums and squatters (50%) and pollution which include air, noise and water pollution (60%) (Table 1). Other environmental problems include soil erosion (57%); and cutting down trees (37%). The respondents claimed that these problems results from a combination of different causal factors which include hygiene and sanitation, illiteracy among the Dar es Salaam city residents, poor city planning, uncontrolled urbanization, poverty, arbitrary located human activities and lack of sanitation equipment and financial capacity among municipalities.

Social and environmental problems	Frequencies	Percentages
Poor solid waste management	23	77
High population	21	70
Traffic congestion	20	67
Poor planning and management of sewage system	19	63
Environmental pollution	18	60
Soil erosion	17	57
Squatting which leads to slums and squalor	15	50
Floods	11	37
Cutting down trees	5	17

Table 1: Social and environmental problems

6.3. Reasons Making Dar es Salaam One of the Dirtiest African Cities

Dar es Salaam is one of busiest and business city in Tanzania with high population of about 4.5 million (NBS 2013). The region is also among the dirt city in Africa. The respondents were asked why Dar es Salaam city is among the dirtiest region in Africa (Table 2). Several reasons were mentioned which include untimely garbage collection (83%), poor management of sewage (63%), poorly managed high population (70%), dirtiness habit and ignorance among urban residents who contribute immensely to the filthy environment (33%), lack of serious measures by the city authorities to contain the situation (37%), and poor planning (77%). Other reasons contributing to the dirtiness of city as per the findings are lack of enforcement of environmental by laws (23%), low education and fines not instituted for individuals.

Frequencies	Percentages
25	83
19	63
21	70
10	33
11	37
23	77
7	23
5	17
	25 19 21 10 11

Table 2: Reasons for Dar es Salaam city rated among the dirty region in Africa

6.4. Respondents' Understanding on Environment Management Concept

Respondents were further asked to express their understanding on the concept of environment management. Their responses encompass diverse views ranging from social, economic and political for instance from social perspective some explained the concept as a process of carefully using and conserving natural resources as well as protecting habitats and controlling hazards. They elaborated that, the process of environmental management to some extent involves all people because all human activities have some sort of impacts on the environment.

However, 45% of respondents indicated that, individuals are more directly involved with resource use and some groups with special interests are particularly concerned with resource exploitation and with issues related to pollution. Similarly, 35% of respondents added that environmental management involves many stakeholders and requires a multidisciplinary perspective; many spatial scales ranging from local to global levels; and diverse goals including the desires to control the direction and pace of development, optimize resource use, and minimize environmental degradation.

Another segment of the respondents (15%) explained the concept of environmental management as a process of planting trees, improving sewage system and imposing tax on used machines over and beyond ten years including vehicles in order to lower gas or fumes emission. Yet other 5% of the respondents regard environmental management as involving sanitation where by human and their surroundings are kept clean, beautifying the environment by planting trees and gardening, and planning housing and infrastructure in general. Journalists' knowledge on the concepts of environmental issues was also searched. It was found that respondents had very little or minimal understanding of environmental issues as they fail to prepare and publish analytical information about environment. Yet other respondents said that, "very few journalists have enough knowledge on environmental issues".

6.5. Journalists' Knowledge on Their Profession and the Complexities of Environment Issues

Expressing their views on the knowledge of journalists on their profession and the complexities of environment issues, over 75% of the respondents said journalists do not have enough knowledge on their profession because most of them have low level of education in their profession including environmental issue (Figure 5). Some added that, this is obvious and the evidence is that, environmental issues are not critically covered in the media. Less than one third of the respondent said that at least most of the journalists are good in terms of professionalism, but they lack specialization, including specialization on environmental issues. The respondents were asked about their education level majority (67 %) had first degrees whereby (44%) were holders of Bachelor Degree of Arts in Mass Communication, (12%) were holders of Bachelor Degree of Arts in Journalism and (11%) holders of Bachelor Degree of Arts in Sociology. Holders of Diploma in Journalism were (22%) while only (11%) were holders of Certificate in Journalism.

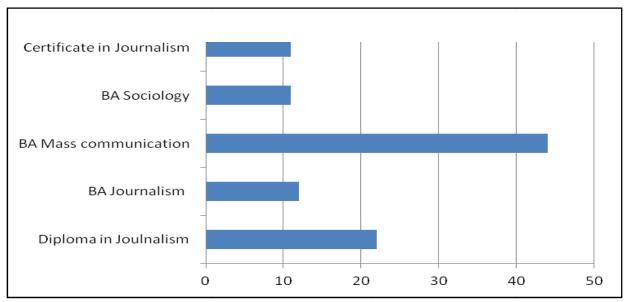


Figure 5: Distribution of Respondents by professionalism

6.6. Television Programmes Addressing Environmental Issues

Respondents were asked to mention programs on environmental education aired on Televisions. From the findings, the most popular programme mentioned include "Nitunze" i.e. Care for me aired by TBC (20%) followed by "Mazingira yetu" i.e. Our environment aired by Star TV (18%). However, few (10%) respondents mentioned "Mazingira club" i.e. Environment club targeting school children, "Ripoti maalum" i.e. Special report which cover a variety of issues including environment, and "Usafi na mazingira" i.e. Environmental sanitation all aired by ITV; "Mazingira ni uhai" i.e. "Environment is life" aired by Star TV and "Kambi popote" i.e. Camping anywhere aired by Clouds TV that mainly promote domestic tourism which is part and parcel of environment management. With all these, the environment is still deteriorating due to irresponsible society. A man interviewed said, that, "the President of the URT announced cleaning of the environment every end of the month, it was announced in all televisions, the environment is still not clean, the question to ask is who is to blame?

6.7. Radio Programmes Addressing Environmental Issues

Radio is one of the important devices for airing information to both rural and urban areas. Respondents were asked to mention environmental educational programmes aired in the radios. The findings show that, most respondents (61%) do not know radio programmes aired about environmental issue (Figure 6). However, very few of them mentioned (39%) "Mazingira ni uhai" i.e. Environment is life aired by TBC Taifa; "Tutunze mazingira yetu" i.e. Let's care for our environment aired by Magic FM, and "Nitunze nikutunze" i.e. Care for me so that I care for you aired by TBC FM.

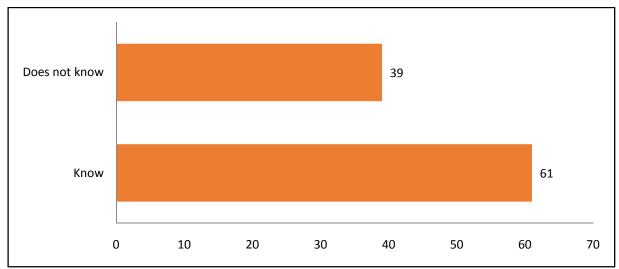


Figure 6: Understanding of environmental programmes aired by Radios

6.8. Frequency of the Coverage of Environmental Issues in the Newspapers

Responding on the question about the frequency of the coverage of environmental issues in newspapers, respondents mentioned five categories which include daily (8.3%), weekly (8.3%), biweekly (8.3%) and monthly are very rarely deployed (8.3%) (Figure 7). The fifth and widely used is by chance means mass media gives a very little attention to environmental issues (66.7%).

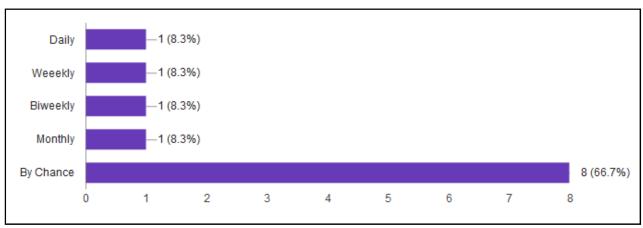


Figure 7: Genres used in covering environmental issues

6.9. Comparison of Media Coverage on Environment and Other Issues

The findings on the question about comparing the coverage of media on environmental issues and other issues shows that, environmental issues were not given enough space and airtime compared to other issues. About 57% of the respondents agreed that media gives an equal chance to environmental issues and other issues while 43% agreed that other issues are given more coverage than environmental issues (Figure 8). One reporter interviewed said "environmental issues are not given enough air time or space because it is difficult to get someone to pay for it. Editor had this to say, "the owner of the media, prefer programs which have been paid for, or have sponsors". Some media are profit oriented; they depend on money paid for airtime or space for paying tax, salaries and other expenses. The respondents added that, "media in Tanzania concentrates a lot on politics, economic and other social issues and leave away issues related environment". Another respondent said that, "the media gives equal coverage on environmental issues and other issues".

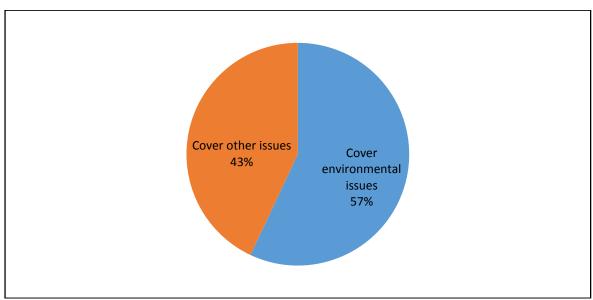


Figure 8: Media coverage on environmental issues and other issues

Press is very important organ for spreading environmental information in Tanzania. Radio, TVs and newspapers are among the media for spreading information to people. Respondents suggested a number of ways towards improving press coverage on environment issues in Tanzania. All respondents (100%) perceived the need of training and retraining journalists on how to research, write and prepare radio and TV programmes, and add human face to their works featuring environment issues. Some respondents (55%) added that media houses should take on board the environment agenda into their editorial policy and provide environmental journalists with essential production facilities such as cameras and voice recorders. They (33%) further asserted that, there is a strong need to institutionalize specialization in environment Journalism in order to produce journalists whose coverage will mainly focus on environment. About 49.5% of the respondents suggested that there should be special awards for the journalists whose coverage on environmental issues was good and have an impact on environmental management. One of the respondents recommended that, "National Environment Management Council (NEMC) and the ministry responsible for environment should work hand in hand with journalists in order to enhance journalists' knowledge on environment which in turn will boost media coverage on environment and ultimately up-scale public awareness on environment issues".

6.10. Representation of Environmental Issues on Editorial Policy of the Tanzanian Press

The findings on the question about the representation of environmental issues on the editorial policy of the press in Tanzania shows that, it is not well represented instead attraction of the coverage depends on the impact of a particular issue on the public. The Chief Editor from IPP Media said "The environmental issues on the editorial policy of the press in Tanzania are not represented in a way that can instigate journalists to take interest on reporting environmental management issues". Similarly, a senior Journalist and Editor from TBC said "Environment issues are not a priority to many media houses and sadly enough the coverage is most often given to issues which are considered to have huge impact to the public". Another journalists Editor from Changamoto newspaper added that "...of recently poor management of water treatment influent systems of manufacturing plants have received a wide coverage due to the inspection done from time to time by the minister of Union Affairs and Environment, Hon. Luhaga Mpina'. Other reporters revealed that most of the media do not have environment agenda in their editorial policy and accord environmental issue with low priority.

6.11. The Relationship between Journalists and Environment Stakeholders

The respondents had mixed perceptions regarding the relationship between Journalists and major environment stakeholders. Different themes were developed from the respondents' views. About 47% of the respondents said that, the relationship is complex in such a way that every environment agent or stakeholder deals with environmental issues on his or her own, or on isolation. However, 33% of the respondents claimed that the relationship is not well composed as every stakeholder goes on his or her own ways instead of all players working together. More or less similar to this, 21% of the respondents added that, the relationship is good however with some challenges that include lack of effective communication between the stakeholders and lack of a common agenda which unites or bind all stakeholders together. On the environment experts, the respondents said that, they are willingly collaborating with the media personnel though journalists rely on same experts as sources of everything.

On the case of the relationship between NGO, private sector and individuals, the respondents said that, it depends on their interests. The respondents had some negative perceptions among which they said sometimes conflicts of interests hinders journalist to write or publish stories on environmental issues. The respondents also revealed that, the bureaucratic red tape of NEMC on clarifying environmental issues to the journalists creates a gap between the two sides. Most often journalists do not get clarification within 24 hours; instead it could be after two weeks or even a month. Some respondents were convinced that some stakeholders are only using journalists to cover their stories as they do not train them on environmental issues. If they trained them they would have enough knowledge and could write well researched and comprehensive stories about environment issues. In their response regarding the

training of journalists on environmental issues respondents said, "It is not satisfactory and comprehensive as most of the trainings are for short courses ranging from one to two weeks". Other respondent interviewed said that, "there is lack of specialization on reporting environmental issues in none degree (certificates and diplomas) and degree programmes offered in Tanzanian journalism colleges and universities". As thus, one can confidently state that, what they get from those training is of a little impact on covering environmental issues.

6.12. Feasible Solutions to the Problem of Poor Environment Management in Dar es Salaam City

Different efforts have been executed trying to address the poor environmental management in Dar es Salaam City. Respondents were asked to propose solutions to the problem of poor environmental management in Dar es Salaam City. The solutions suggested among others include putting in place proper environmental policies and stiffer enforceable environmental by-laws, development and implementation of a proper waste management plan by the city councils; educate more journalists on environment management issues so that they can use their knowledge to educate the public through mass media. Also, the government should encourage industrial investors to use clean technology or technology with low emission, and the government should strengthen motor vehicles inspection organ in order to prohibit all vehicles with highest emission rate from entering into the country. The respondents also suggested that, municipal authorities should improve their garbage collection mechanisms, and every individual, family and household should develop a sense of keeping environment clean and avoiding all activities that pollute or degrade the environment.

7. Conclusions and Recommendations

Environment is where people live, build their houses and cultivate, to list some. The environment has a big role to play in the survival of human being. The environment on which we live has been destroyed by human beings in the process of meeting their basic needs. Population increase, urbanization, globalization, haphazardly waste disposal and poor urban planning among others are the reasons for the destruction of the environment. These challenges call for the study to look on the contribution of media on environmental management in Dar es salaam city. Media is the only way information can reach the wide area and many people in a short time. TVs, Radios and Magazines are among the means of spreading information about the environment. Other means can be internet, face-book, mobile phone, whatsapp and instergram, among others. The findings suggest that Dar es salaam city does not receive environment management attention it deserves, subsequently it remains one of the dirtiest Africa cities. The paper so further identifies that the contribution of mass media on environment management in Dar es salaam city is divided into two folds whereby on one hand electronic broadcasting media, in particular TV and radio contributes significantly on environment management as they have exclusive programmes on environment which include "Nitunze" i.e. Care for me aired by TBC, "Mazingira yetu" i.e. Our environment and "Mazingira ni uhai" i.e. Environment is life" aired by Star TV, "Mazingira club" i.e. Environment club, "Ripoti maalum" i.e. Special report, and "Usafi na mazingira" i.e. Environmental sanitation all aired by ITV; and "Kambi popote" i.e. Camping anywhere aired by Clouds TV. Radio programmes include "Mazingira ni uhai" i.e. Environment is life aired by TBC Taifa; "Tutunze mazingira yetu" i.e. Let's care for our environment aired by Magic FM, and "Nitunze nikutunze" i.e. Care for me so that I care for you aired by TBC FM. On the other hand, the contribution of newspapers is very minimal as they do not have environment agenda in their editorial policy hence they report environment issues by chance.

Based on this conclusion this article recommends the following:

- i Newspapers should entrench environment management agenda into their editorial policy in order to intensify environment management campaign in Dar es Salaam city. TV and radio should continue producing and airing programmes on environment but with additional programmes exclusively designed for Dar es Salaam city with more appealing formats so as to attract more audience. And city residents should feel proud sponsoring some of the programs.
- ii Education on environmental issues should be delivered from primary schools. Pupils and students should be taught the importance of environment and problems of not keeping the environment clean.
- iii Dar es Salaam City Council, Ilala, Kinondoni, and Temeke municipal councils should allocate enough funds for cleaning the environment and sensitizing people on the need of managing the environment.
- iv Solid waste is one of the big problems in Dar es Salaam city; collection of waste should be done timely and disposed in the designated dump.
- v Enforcement of by-laws, laws, and implementation of strategies and policies will improve the environment. Whoever found spoiling or damaging the environment, stern measures must have been taken.

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