

**THE FRAMING OF CLIMATE CHANGE ISSUES IN KENYAN PRINT MEDIA:
A COMPARATIVE ANALYSIS OF THE DAILY NATION AND THE PEOPLE
DAILY NEWSPAPERS**

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DECLARATION

This research project is my original work and has not been submitted for award of degree in any other university

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DEDICATION

This work is dedicated to two categories of people. Firstly, the work is dedicated to my entire family, consisting of my dear wife Cynthia, my daughter Abigail, siblings, uncles, aunts, in-laws and the general extended family, for their constant support by way of prayers, concern and encouragement. Though my late parents are absent physically, this work is a symbol of my commitment to their legacy of hard work. Dear God, may You bless my entire family for their visible support.

Secondly, this work is dedicated to all communication experts committed to leaving the world a better place than they found it. Some of these key people are lecturers, journalists, development communication specialists and all those particularly concerned about the effects of climate change on lives and property. Please continue the fight!

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LIST OF ABBREVIATIONS

ICRC: International Committee of the Red Cross

ICSU: International Council of Scientific Unions

IPCC: Intergovernmental Panel on Climate Change

NEMA: National Environmental Management Authority

UNDP: United Nations Development Programme

UNEP: United Nations Environmental Programme

UNFCCC: UN Framework Convention on Climate Change

WMO: World Meteorological Organization

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ABSTRACT

The purpose of this study was to establish the framing devices used by both the *Daily Nation* and *People Daily* newspaper to communicate Climate Change information and do a comparative analysis of each newspaper's treatment of the topic. The target population for this study consisted of all newspaper articles in the two local dailies ranging from January, 2012 to June 2012. Systematic random sampling was used to select stories for analysis from the population, where a total of 127 stories on climate change-related issues were analyzed. The researcher used content analysis, where, a code sheet was developed and utilized in data collection. The findings of this study seem to suggest that there are two most common frames used by both the *Daily Nation* and *People Daily* newspapers to communicate climate change. These two frames were the "effects" and "mitigation" frames. Comparatively speaking, the leading frame in the *Daily Nation* newspaper was the "effects" frame, with 45.6% of the sampled cases using this frame to communicate climate change information. The second most commonly used frame in the *Daily Nation* newspaper was the "mitigation" frame with a volume of 21.6% stories sampled employing this frame. On the other hand, the leading frame in the *People Daily* newspaper was the "mitigation" frame, which posted a volume of 41.4% of the sampled cases. The "effects" frame was second here, with 27.1% of the sampled stories reporting climate change issues in this manner. It is recommended that the print media editors should liaise with climate change scientists in order to bridge the gap between available information on climate change issues and audience's perceptions of the same. Again, editorial boards should consider having special supplementary sections in their newspapers dedicated to increasing level of awareness. Finally, print media firms should train reporters on science journalism so as to increase interest in this topic and build on the reporters' capacity to apply the correct frames that would demystify climate change.

CHAPTER ONE

INTRODUCTION

1.1: Background

This chapter gives a background to the subject of climate change by placing it in perspective so as to seek an understanding of what climate change is together with its effects in Kenya, this being the country of study. Since the study's focus is on the framing of climate change issues in the Kenyan print media, this chapter also gives a brief outline of the role of print media.

1.1.1: Climate Change in Perspective

Climate change as a phenomenon is such a life-threatening issue globally yet, in Africa, and even in some parts of the world, it is not given the attention it deserves. Most of the time, it is perceived as an issue affecting the West, and not Africa. This is a pointer to the fact that communication is a key tool that influences the way an issue is perceived and consequently, how it is addressed.

However, whether we accept and know the fact that the global climate is changing or not, we are daily bombarded by its effects. For instance, here in Kenya, its effects are evident: erratic weather patterns, floods, droughts, food insecurity, human-wildlife conflict and conflicts between communities just but just to mention but a few examples. Eventually, climate change effects, if not checked, lead to a downfall of a country's economic stability and loss of lives and property.

According to Bulkeley & Betsill (2003), climate change (also known as 'global warming' refers to an increase in the mean annual surface temperature of the earth's atmosphere due to increases in atmospheric concentrations of greenhouse gases, such as carbon dioxide (CO₂), Methane (CH₄), CFCs and Nitrous Oxide (N₂O). While quoting Houghton et al (2002), Bulkeley & Betsill, add that according to IPCC (Intergovernmental Panel on Climate Change), concentrations of these gases have increased dramatically since 1750, due primarily to human activities such as combustion of fossil fuels. These gases absorb long wave radiation and disrupt the earth's energy balance, which in turn influence the climate system.

The IPCC reports that the average global surface temperature increased by 0.6 degrees C during the 20th Century and this rise has been linked to a number of observed changes in global climate, including: a 0.1-0.2 metre rise in global average sea level; a 10% decrease in snow cover since the late 1960s; more frequent, persistent and intense El Niño episodes since 1970s; and more frequent and severe droughts in parts of Africa and Asia.

1.1.2: Effects of Climate Change in Kenya

A book edited by Fujikura, R & Kawanishi, M.C (2011) on climate adaptation and international development, gives a well-captured picture of the effects of climate change in Kenya in the recent past years. In a chapter documenting the research by Oloo, O.C and Troell, J.J the book reports that when the long rains of 2009 failed in Kenya, 3.8 million people were faced with hunger. (World Food Programme, 2009).

In addition, pastoralists and small-scale farmers in the country's arid and semi-arid lands, which comprise 80 percent of the total country's land mass, were hit the hardest. Acute malnutrition rates among children under 5 rose above 20 percent in some areas-well above the 15 percent emergency threshold. (World Food Programme ,2009).In the capital, Nairobi, the dam which supplies the city's water suffered a sharp decline in water levels and residents were subject to water rationing programmes that forced them to pay high prices charged by private water vendors .(Kenya Broadcasting Corporation,2009)

When the rains finally came, they brought massive floods and killed more than 70 people and left 70,000 more in need of emergency assistance after their homes, crops and basic infrastructure were washed away (ICRC, 2010).The country is perennially prone to drought and floods. During the recent years, this drought/flood cycle has shortened from five to seven years to two to three years, leaving communities with little time to recover.

Climate change can be detected through changes in the average patterns of climate parameters like rainfall, temperature, wind and pressure, among others.(Kenya's National Climate Action Plan, 2013-2017).This Action Plan documents the effects of climate change in Kenya and one alarming statistic is that the overall impact of the 2008-2011 drought in Kenya is estimated at Ksh 968.6 billion (USD 12.1 billion) and was predicted to have caused a slowing down of the economy by an average of 2.8% per year, during that period.

This document outlines strategies to address climate change in Kenya and a noticeable one is labeled 'Subcomponent 7'.It deals with knowledge management and capacity

Development tasked with sharing of climate change –related knowledge. This confirms the need to boost the citizens’ level of awareness on climate –change issues. The media, which is also a development organ, is expected to spearhead the dissemination of relevant information on climate issues. However, how they do the communication is what matters most.

It is against this backdrop that this research seeks to study the framing of climate change issues in the Kenyan print media. Framing as a concept will basically focus on how coverage of an issue in the media affects mass opinion. The choice of two print media firms is to allow for comparison of reportage between one newspaper that enjoys national circulation and the other still working on penetration of the market.

1.1.3: Role of Print Media

Newspapers are a form of mass media. According to Dominick, J R (2011), Mass media are the channels used for mass communication. He defines mass communication as the process by which a complex organization, with the aid of one or more machines produces and transmits public messages that are directed at large, heterogeneous, and scattered audiences.

Dominick, J R outlines the functions of mass communication as follows.

(a) Surveillance

This is the news and communication role of the media. Dominick divides this surveillance function further into two: the warning or beware surveillance and the instrumental surveillance. Warning function is when the media informs us of threats from terrorism, hurricanes or volcanoes, depressed economic conditions, increasing inflation, or military attacks. Instrumental surveillance has to do with the transmission of information that is useful and helpful in everyday life.

(b) Interpretation

This means the mass media do not just supply facts and data. They also provide information on the ultimate meaning and significance of events. Dominick continues to state that media organizations select those events that are to be given time or space and decide how much prominence they are to be given.

(c) Linkage

The mass media are able to join different elements of society that are not directly connected. For instance, mass advertising attempts to link the needs of buyers with the products of sellers.

(d) Transmission of values

This, according to Dominick, J R, has been called the socialization function. Socialization refers to the ways an individual comes to adopt the behavior and values of a group. The

mass media portray our society, and by watching, listening or reading, we learn how people are supposed to act and what values are important.

(e) Entertainment

Dominick, J R admits that even though most of a newspaper focuses on the events of the day, comics, puzzles, horoscopes, games, advice, gossip, humour, and general entertainment features usually account for around 12% of the content.

1.2: Problem Statement

Allan, S and Thorsen, E (2009) identify climate change as one of the global crises alongside crises like terror and financial meltdowns amongst others. They further argue that how such global crises become signaled and defined, staged and elaborated in the world's media proves critical to the wider processes of recognition and response.

In the UNDP, Human Development Report of 2007, Boykoff ,M.T and Roberts , J.T also admit that mass media coverage has proven to be a key contributor that have shaped and affected science and policy discourse as well as public understanding and action. They further assert that within climate change, two more terms need quick review and clarification: climate change mitigation and adaptation. Mitigation of emissions is the reduction of greenhouse gases released to the atmosphere. Adaptation to climate change has been defined by Working Group II of the Intergovernmental Panel on Climate Change as “adjustments in natural or human systems in response to actual or expected

climatic stimuli or their effects which moderates harm or exploits beneficial activities” (McCarthy et al 2001; IPCC, WGII, 2007).

Climate Science and Mass Media first came together in coverage of climate change in the 1930s. In addition; media coverage of humans’ contributions to climate change appeared more clearly in the 1950s. However, in the subsequent three decades, mass media coverage regarding climate change remained sparse. International and domestic climate policy began to take shape in the mid-1980s, primarily through the activities of the International Council of Scientific Unions (ICSU), The United Nations Environmental Programme (UNEP) and the World Meteorological Organization (WMO).

In their findings, Boykoff, M.T and Roberts, J.T discovered that increase in media coverage could be noted in Western Europe and North America during the times of the releases of the IPCC Assessment Reports in 1990, 1995 and 2001. There were also increases in the coverage during the 1992 UN Framework Convention on Climate Change (UNFCCC) and the 1997 Kyoto Protocol. It was also noted that large increase in coverage was evident in Australia, New Zealand, the Middle East, Asia, Eastern Europe and South Africa during the 1997 Kyoto protocol.

With reference to Kenya, the National Environmental Management Authority (NEMA) has also identified climate change issues as a challenge in the country and, to address this, a secretariat has been formed with four thematic areas of dealing with this challenge. One key thematic area by NEMA that is relevant to this research is the fourth thematic

area entitled, “Awareness and Understanding of Climate Change issues in Kenya.” This thematic approach by NEMA is proof that effective communication is mandatory in addressing climate change issues in Kenya. The media is always a powerful tool in communication as it aids dissemination of information and facilitates discourses on any issue of public concern. It is not surprising therefore for Boykoff & Roberts to identify framing as the first factor and phase that influences discourses on climate change via the media. It is against such backdrops that this study is intended to analyze the framing of climate change issues in Kenyan print media.

1.3: Objectives of the study

- (i) To establish the framing and visual devices used by the Nation and People newspapers to communicate Climate Change information.
- (ii) To investigate the positioning of information about Climate Change issues in the newspapers.
- (iii) To determine the disparities in terms of tone, paragraph, viewpoint and headlines/leads for each of the dailies.

1.4: Research questions

- (i) What kinds of frames and visual devices are used by journalists to influence the audience’s perception of climate change issues?
- (ii) What positions do climate change stories occupy in the dailies?
- (iii) What disparities exist between different media outlets with a view to the reportage of climate change issues in terms of tone, length of story and headlines?

1.5: Scope and Limitations of the Study

The study is not historical and thus it will not study the development of media framing in Kenya. However, its key focus is to establish the types of frames used in the *Daily Nation* and *People Daily* newspapers to report climate change stories. These two dailies would be used as case studies with the view that they would be representative of all the dailies enjoying nationwide readership and reach in Kenya.

Again, this study focused on articles published in the two dailies covering the period between January 1, 2012 and June 30, 2012. A comprehensive research on framing of climate change issues in all the newspapers in Kenya, though possible, would be far-fetched considering the limitations of time demanded by an academic research for the award of a Masters Degree in Communication Studies.

1.6: Significance of the study

This study will first provide valuable data to help bridge the gap between climate change scientists and communication professionals in a bid to ensure that each play their role in addressing climate change issues while at the same time complementing each other. The outcome of the study will thus prove valuable to all journalists and media audiences as it will help refine their understanding of climate change issues. Those in the field of academia would also find the outcomes of this study a relevant starting point for future researches and also use it for comparisons with other research works.

CHAPTER TWO

LITERATURE REVIEW

2.0: Introduction

This chapter gives a brief overview on the researches related to climate change issues. It also discusses the theory informing this study. The chapter finally gives a picture of the response of Kenyan and African media in addressing climate change issues.

2.1: Overview of Researches Related to Framing of Climate Change Issues

Bruggemann, M (2014) of the Institute of Mass Communication and Media Research, University of Zurich, Switzerland did a research and found out that research on frame building is less well developed. Bruggemann quotes Borah (2011) and de Vreese & Lecheler (2012) in his research by adding that, in particular, journalists' contributions to shaping the frames in the news deserve further analysis. He further adds that within the framing approach, the question of how frames get into media content is still a relatively neglected research area.

Billett, S (2009) also argues that much research has theorized on and now established the role of mass media in 'framing' and reforming climate change issues, whether scientific or political. He quotes Trumbo (1996) and Pelechia (1997) who observe that there has been a lot of 'climate scepticism' in Western Mass Media, a fact Billett says is confirmed by a USA research conducted by Boykoff & Boykoff (2004). In fact, Boykoff & Boykoff

(2004) found out that up to 50% of articles on climate change doubted either its existence or anthropogenic origin.

Billet, S (2009) further reports that, to date, almost all research on the communication of climate change has focused on Western social contexts and norms, with little consideration of how the issue is being framed in other countries where the macro-scale normalizing values in the public sphere are different.

Boykoff, MT (2011) shows how and why issues to do with climate change still need demystification and healthy debates to make people understand the concept. For instance, he demonstrates that over time, many have debated which of the terms 'climate change' and 'global warming' should be invoked when. He quotes Frank Luntz, a well-known political strategists and advisor to George W. Bush administration who wrote a memo in 2003 arguing that 'it's time to start talking about 'climate change' instead of 'global warming' 'Climate change', Luntz argued, is less threatening than 'Global warming'

Even though a lot research work has been done on the broader topic of climate change in Kenya, very little has been done on the Framing of Climate Change issues in newspapers. One research work by Kanini, M (2010) assessed the agenda-setting role of the media in environmental conservation. Here, the researcher admits that during the period of the study, there was sufficient information on the issue of climate change but insufficient information on the mitigation measures of climate change. Kanini also notes that most researches heavily focused on the impact of climate change.

According to a research finding by Shisanya, C.A & Khayesi, M (2007) on perception of climate change in relation to other socioeconomic and environmental threats in Nairobi, the vital question that still needs to be addressed is: Do communities in the developing world perceive climate change as being a significant threat when compared to other developmental and environmental problems? Shisanya's study actually found out that respondents do not perceive climate change to be a very significant problem in relation to other threats to socioeconomic security in Nairobi. This, they discovered, is also due to the government's mode of prioritization which focuses more on poverty alleviation, corruption, insecurity and street children, among other socioeconomic issues.

2.2: Response of Kenyan and African Media in Addressing Climate Change Issues

Shanahan, M et al (2013) did a research on the state of climate change in Africa.(Kenya included).In one of the chapters, they document their findings got from interviews of African Climate Change specialists from academia, civil society organizations and government agencies on what is missing from African media coverage of climate change. The following responses summarize the main areas they saw for improvement, which, they further argue, should give journalists ideas for story angles to consider.

Firstly, the interviewees felt there was need for fewer disaster narratives and more success stories that should highlight how people are adapting, developing solutions and using new technologies that can limit climate change. Again, they felt there is need for more coverage of Africa's roles and responsibilities under the UN Climate Change Convention, and what governments say and do at these international negotiations. Next,

the interviewees felt that more coverage of the status of National Adaptation Programmes of Action and National Adaptation Plans of African countries should be encouraged.

These interviewees also requested for more stories that explain the causes, including climate change, of events such as droughts and floods; more stories that explain the human side of climate change and show that this is a 'development' and 'people' issue, just as much as an environmental one. Finally, they also advocated for more stories about the business and development opportunities that climate change present.

From the report above, Shanahan's findings seem to suggest that the African media (Kenya included) is yet to rise up and tackle climate change in the best way possible. Currently, it seems, journalists and communication experts are still not creative and effective enough in their attempt at changing people's attitudes and channeling the people's energies towards combating climate change.

2.3: Theory Informing the Study

Severin, J and Tankard, W (2001) state that theories are general statements that summarize our understanding of the way the world works. They further assert that communication theory is aimed at improving our understanding of the process of mass communication, and that with better understanding; we are in a better position to predict and control the outcomes of mass communication efforts.

This study employed the Framing theory in understanding the frames used by the Kenyan print media to report climate change issues. The following two subsections discuss the origin of the Framing theory and its significance.

2.3.1: Framing Theory and Goffman's Frame Analysis

Baran, J.S (2012) traces the Framing Theory to Goffman's Frame Analysis idea which was developed by Sociologist Erving Goffman (1974). Goffman argued that we constantly and often radically change the way we define or typify situations, actions, and other people as we move through time and space. Goffman used the term frame to refer to a specific set of expectations used to make sense of a social situation at a given point in time. On the other hand, McQuail, D (2010) states that the idea of a 'frame' in relation to news has been widely and loosely used in place of terms such as 'frame of reference', 'context', 'theme' or even 'news angle'. McQuail, D (2010) also cites Entman (1993) who argues that 'framing involves selection and salience'. According to Entman, frames define problems, diagnose causes, make moral judgements and suggest remedies. Framing is thus a way of giving some overall interpretation to isolated items of fact.

As far as media is concerned, Goffman argued that media content is edited to highlight only the most meaningful actions. Baran, J.S (2012) posits that Goffman's theory provides an intriguing way of accessing how media can elaborate and reinforce a dominant public culture. After Goffman's work in the 1960s and 1970s, framing theory continued to gain interest and acceptance and other scholars took his idea and extended them to create a conceptual framework that considers the social and political context in

which framing takes place, and the long-term social and political consequences of the media-learned frames.

One of the other most productive and creative framing researchers is William Gamson (1989) whose work have helped shape current perspectives on framing theory and its explanations of how news has influence on the social world. Gamson argues that, increasingly, frames used in public discourses are developed and promoted by individuals and groups having an interest in advancing certain ways of seeing the social world rather than others.

Baran, J.S (2012) concludes by asserting that the framing theory challenges the notion of objectivity in journalism because, he argues, journalism fora are dominated by institutions that promote frames that serve to reinforce or consolidate existing social order and to marginalize frames that raise questions about or challenge the way things are.

Chong, D and Druckman, J (2007) define framing as the process by which people develop a particular conceptualization of an issue or reorient their thinking about an issue. These two authors argue that a more precise definition of framing starts with a conventional expectancy value model of an individual's attitude. This model is an idealized conception of an attitude as a summary of definable set of beliefs that an individual holds about a subject. They allude that the practice in which communicators highlight certain features of an issue is called "frames of communication". A frame in communication "organizes everyday reality"(Tuchman,1978, P 193) by providing

“meaning to an unfolding strip of events”(Gamson and Modigliani, 1987;P 143,1989) and promoting particular definitions and interpretations of political issues” (Shah et al, 2002,p 343).

Chong & Druckman highlight the following as typical stages of identifying frames in communication. Firstly, an issue or event is identified. Secondly, if the goal is to understand how frames in communication affect public opinion, then the researcher needs to isolate a specific attitude. Thirdly, an initial set of frames for an issue is identified inductively to create a coding scheme. The fourth stage is to select sources for content analysis. Coders then analyze a sample, identifying the presence or absence of one of the predefined frames in the story or article.

To sum up, it is seen that the way an issue is framed in the media thus affects the audience’s perception of the issue. For instance, McQuail,D (2010) quotes Iyengar(1991) who showed that the way in which news about social problems was framed affected whether audiences were more or less likely to ‘blame the victim’ for their troubles.

2.3.2: Significance of studying frames

Many researchers always see a thin difference, or almost none, between agenda-setting theory and the framing theory. While attempting to show the difference between these two confusing theories, Grant, A.E et al (2008) quotes Maher, T.M who alludes that agenda-setting theory focuses on how the media tell us what to think about while framing studies whether the media are telling us to think about the right things. Framing thus

asks: what kinds of issues, causal interpretations and potential solutions are the news media ignoring that they should not be ignoring? Where do frames originate and how do they spread? Why do reporters adopt a given frame for a social problem and ignore other frames? Which segments of society gain or lose from journalists' framing decisions? Why do different publics accept or reject journalist' frames? Grant et al also quotes Tankard, J.W, Jnr. who argues that news framing can eliminate voices or weaken arguments, and that the media can frame issues in ways that favor a particular side without showing an explicit bias.

This theory is therefore relevant for this study because, through it, we shall learn whether the Kenyan print media are telling us to think about the right things or not. The right things, in this context, imply climate change issues.

CHAPTER THREE

METHODOLOGY

3.0: Introduction

This chapter outlines the methodology adopted in this study. The areas of focus include the research design, population and sampling, data collection and analysis.

3.1: Research Design

The purpose of this study was to answer the question: How do the media frame climate change issues in Kenya? The hypothesis was that the media frames used have obscured the problem thus setting different terms for debate. This has hampered the search for effective solutions therefore leading to an understatement of the real effects of climate change in Kenya. The *Daily Nation* and *People Daily* newspapers were used as case studies.

In this research, both qualitative and quantitative methods were used. Mugenda & Mugenda (2003) state that qualitative research includes designs, techniques and measures that do not produce discrete numerical data. More often, the data are in form of words rather than numbers and these words are then grouped into categories. Quantitative research, on the other hand, produces numerical or quantifiable data. These two designs provided the research with in-depth analysis and afforded it the benefit of reliability and validity that normally accrue from the usage of the mixed methods. Again, the results of one method can also be triangulated using the other method.

3:2: Population and Sampling

Wimmer, R.D and Dominick, J.R (2011) define a population as a group or class of subjects, variables, concepts, or phenomena while a sample is a subset of the population that is representative of the entire population.

The study examined newspaper articles on the topic of climate change published in the *Daily Nation* and the *People Daily* covering the period between January 1, 2012 and June 30, 2012. The newspapers covered in the stated period thus formed the population of this study. The period is relevant because it precedes the launch of Kenya's National Climate Change Action Plan, 2013-2017. Therefore, it would be crucial to analyze the discourses that dominated the media on climate change issues prior to the launch of the action plan. The six-month period between January and June is also significant because, traditionally, these periods are associated with 'noticeable' weather changes in any part of Kenya.

The researcher used systematic random sample method with a random start to select the newspapers for study. 2nd January, 2012 provided the random start and for subsequent samples, every newspaper coming after an interval of 2 days had climate change stories in it chosen for inclusion for the study. Through this method, we were able to select and review in-depth 127 stories during the period January 1, 2012 to June 30; 2012. The sampling frame indicating the days selected for analysis for each month is attached as appendix 2.

The stories for study were identified by searching the Nation Media Group newspaper library, the University of Nairobi Library, Kenya Broadcasting Corporation (KBC) library newspaper s' archives and the internet under the search items "climate change in Kenya". These items were chosen because of their potential to limit the researcher to climate change issues in Kenya.

3.3: Data Collection and Analysis

The study employed content analysis code sheet to collect and analyze the data collected. Severin, J and Tankard, W (2001) state that content analysis is a systematic method of analyzing message content whereby, instead of interviewing people or asking them to respond to questionnaires, as in a survey research, or observing behavior, as in the human experiment, the investigator examines the communications that have been produced at times and places of his or her own choosing.

After selecting a question to be investigated, or a hypothesis to be tested, the content analyst must define the population he or she will work with. (Publications, newscasts, time span etc.) If the population is large, a sample is drawn as in a survey research. Categories must then be defined for classifying message content (a crucial step), and the content of the sample is coded according to objective rules. The coded content may be scaled or differentiated in some way to arrive at scores. If the content is to be related to other variables, these scores can then be compared with them. As with all quantitative research, these scores must then be analyzed and the findings interpreted according to the concepts or theories that have been tested.

McQuail, D (2010) lists the basic sequence used when applying content analysis as follows. Firstly, a universe or sample of content is chosen. Secondly; a researcher should establish a category of frame of external referents relevant to the purpose of inquiry (such as a set of political parties or countries which may be referred in the content. Thirdly, 'a unit of analyses' from the content should be chosen. (this could be a word, a sentence, an item, a whole news story, a picture, a sequence etc.) .Next; a researcher should seek to match the content to the category frame by counting the frequency of the references to relevant items in the category frame, per chosen unit of content. Finally, the results are expressed as an overall distribution of the complete universe or chosen content sample in terms of frequency of occurrence of the sought-for referents.

CHAPTER FOUR

FINDINGS AND DATA ANALYSIS

4.1: Introduction

The study's principal purpose was to establish the framing and visual devices used by both the *Daily Nation* and *People Daily* in reporting climate change issues and do a comparative analysis of each newspaper treatment of climate change issues. This study analyzed a total of 127 stories on climate change-related issues during the sampled days of study with the stories from *Daily Nation* contributing 44.9% (57 stories) while the *People Daily* had 55.1% (70 stories). This chapter is thus divided into sections, each dealing with a specific area of focus as per the research questions.

4.2: Coverage according to type of climate change story

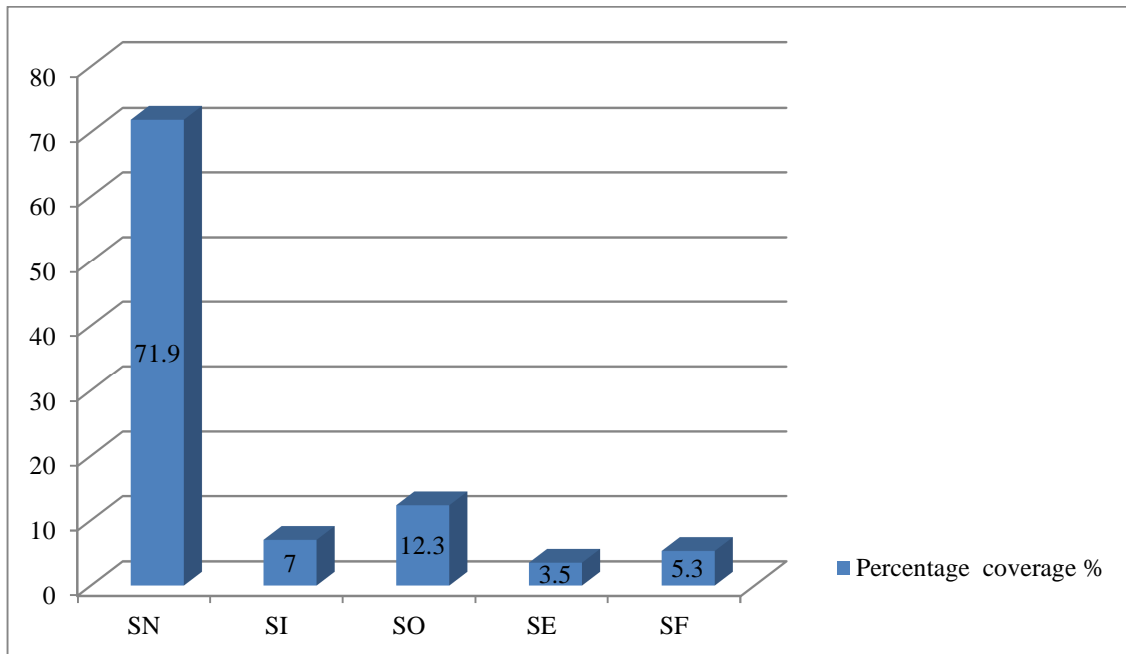
Since the two newspapers chosen for analysis publish and sell daily (7 days a week), the research sought to find out the types of climate change stories featured in them. This, in itself, can be considered framing by type. When using the word 'story type', we mean the editorial decisions that preceded a story's placement in the newspaper in terms of such factors as its style of writing, purpose and source. The stories were grouped into five categories: News, International, Opinion, Editorial and Feature Stories.

News stories were defined as those dealing with any fresh information on climate change issues locally. Such stories followed the inverted pyramid structure and answered such questions as 'Who? What? Where? When? Why?' In addition, they were found under the

'local news' pages of the newspapers. The category of International news, on the other hand, meant stories that report fresh occurrences on climate change issues outside Kenya. The opinion category included straightforward opinion columns by individual writers given space by the newspapers to express their opinions on the subject while Editorial stories were defined as stories in which, the editor or editorial team, of the newspaper gave extra importance to an issue in the news. Feature stories were considered as those dealing with human-interest themes related to climate change. Such stories cover an issue in depth, going beyond the mere hard facts associated with news.

Data was thus collected from each newspaper using the code sheet and analysis done to assess the distribution by type. In a nutshell, the findings suggest that both the *Daily Nation* and *People Daily* frame climate-change stories as newsworthy items. This is confirmed by the fact that the leading story type in each newspaper is the 'News Category' with *Daily Nation* having 71.9% of stories in this category while the *People Daily* has 58.6% of stories categorized as news items. The results detailing the percentage of stories in each category per newspaper are shown in Figure 1 and Figure 2 below for *Daily Nation* and *People Daily* respectively.

Figure 1: Chart showing the type of climate change articles/stories as featured in the Daily Nation newspaper



Key: codes for story types

SN: News Story

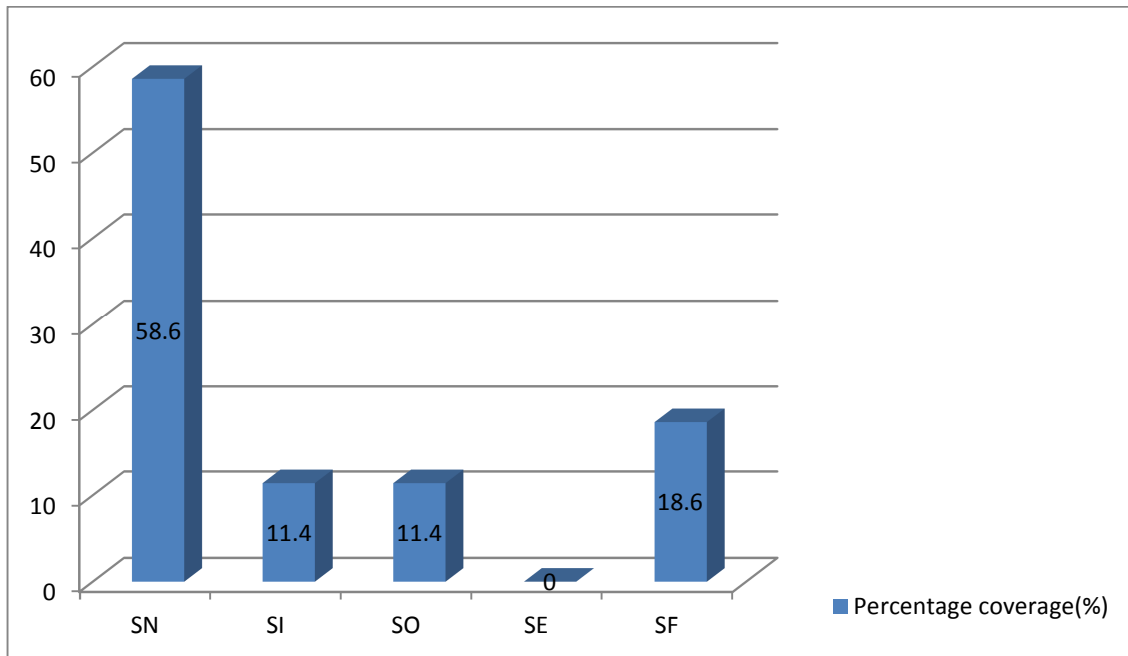
SI: International Story

SO: Opinion story

SE: Editorial Story

SF: Feature Story

Figure 2: Chart showing the People Daily newspaper climate change articles categorized in terms of percentages of type of story



Key: codes story types

SN-News story (Local News)

SI-International news story

SO-Opinion story

SE-Editorial story

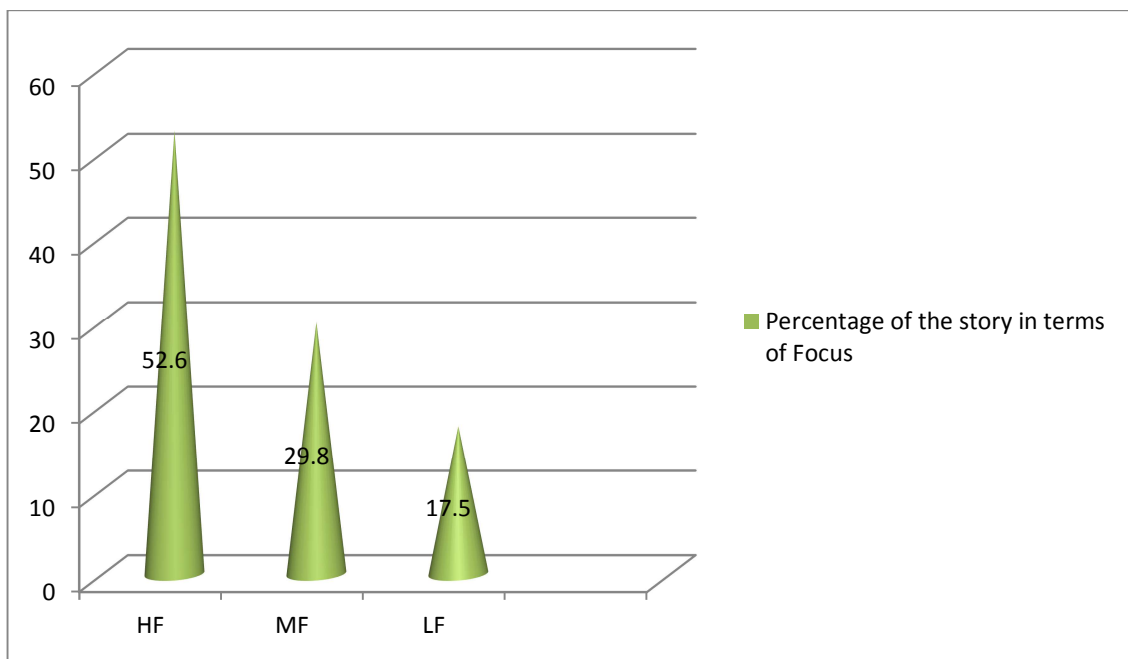
SF-Feature story

4.3: Analysis by way of focus of climate change story

By ‘focus’, we mean both the placement of the story on the pages of the newspaper together with the amount of space it is given. The key questions asked to assess this included: ‘What page does the story occupy? Is it a front page headline story or a back

page story? What is the length of the story in centimeter square? The three key categories that were used to study the stories were High Focus, Medium Focus and Low Focus. (Refer to appendix 1 for description). Figure 3 and 4 below indicate the focus of climate change stories in both the *Daily Nation* and *People Daily* newspapers respectively.

Figure 3: Chart showing the percentage coverage of Climate Change stories/ articles in the Daily Nation newspaper in terms of focus



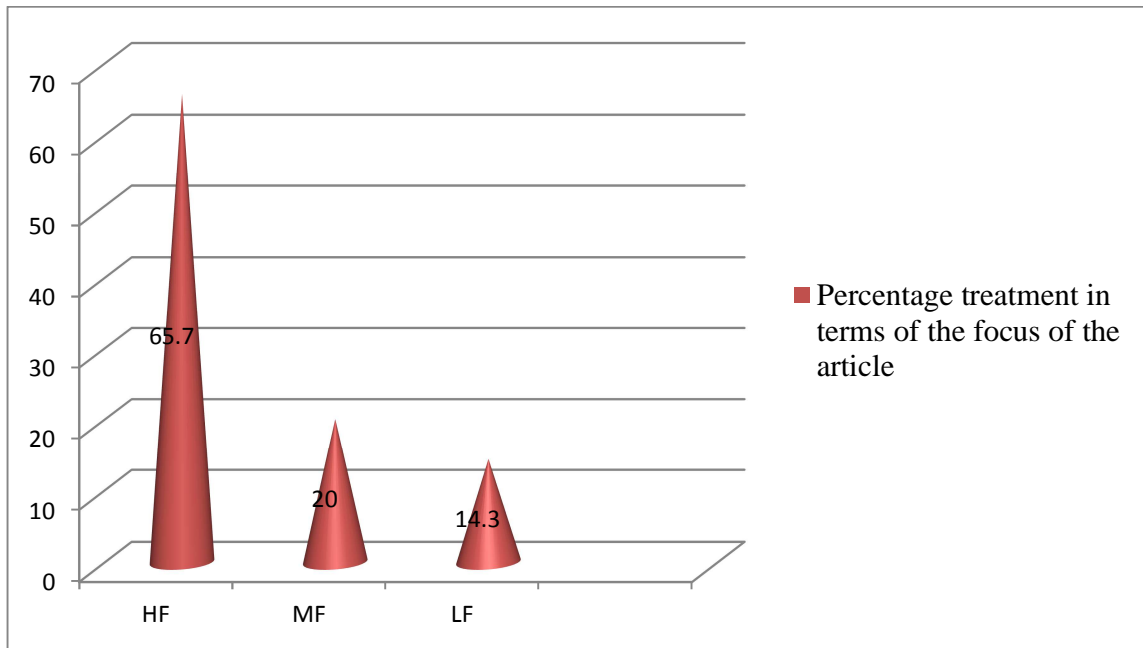
Key

HF-High Focus Stories

MF-Medium Focus Stories

LF-Low Focus Stories

Figure 4: Chart showing the treatment of climate change articles in the People Daily newspaper in terms the focus of the story



Key

HF-High Focus stories

MF-Medium Focus stories

LF-Low Focus stories

4.4: Frames used in the newspapers

This study seems to indicate that the two newspapers used in the study, that is, the *Daily Nation* and the *People Daily*, had stories/ articles that mostly used the ‘effects’ and ‘mitigation’ frames to present climate change information. Out of a total of 57 stories that contained climate change-related issues on the days sampled in the *Daily Nation* newspaper, the ‘effects’ frame was the most used with a total of 45.6% stories

employing the 'effects' frame. The second most used frame in the *Daily Nation* was the 'mitigation' frame with 24.6% of the studied stories using it.

The findings on framing devices used by the *Daily Nation* seem to confirm Shanahan, M et al (2013) respondents' fears where the respondents felt there was need for fewer disaster narratives and more success stories that should highlight how people are adapting, developing solutions and using new technologies that can limit climate change. This study, ironically, still found out that disaster stories continue to get prominence in the *Daily Nation* newspaper coverage of climate change issues in the form of 'effects' frame.

The *People Daily* , however, recorded a slightly different order with those stories using the 'mitigation' frame consisting of 41.4% of the total volume studied followed by the 'effects' frame stories at 27.1%. The *People Daily* had a total of 70 stories on climate change issues on the days selected for analysis. The findings in the *People Daily* seem to contrast with a Kanini (2010) research report that suggested that there is insufficient information on mitigation reports in newspapers.

The two pie charts below, Figure 5 and 6, present the data on frames used in both the *Daily Nation* and *People Daily* newspapers pictorially.

Figure 5: Chart showing the Frames used by the Daily Nation newspaper to cover Climate Change stories

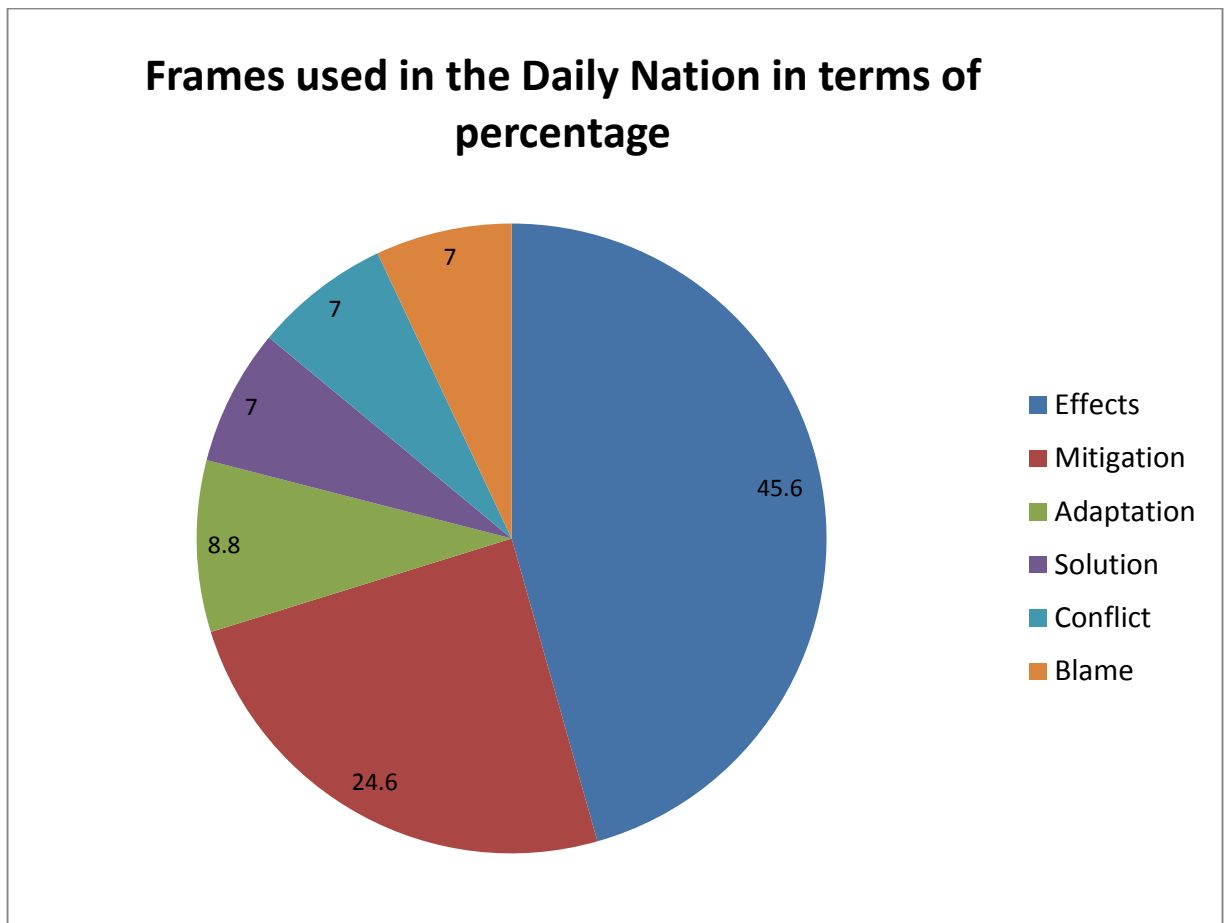
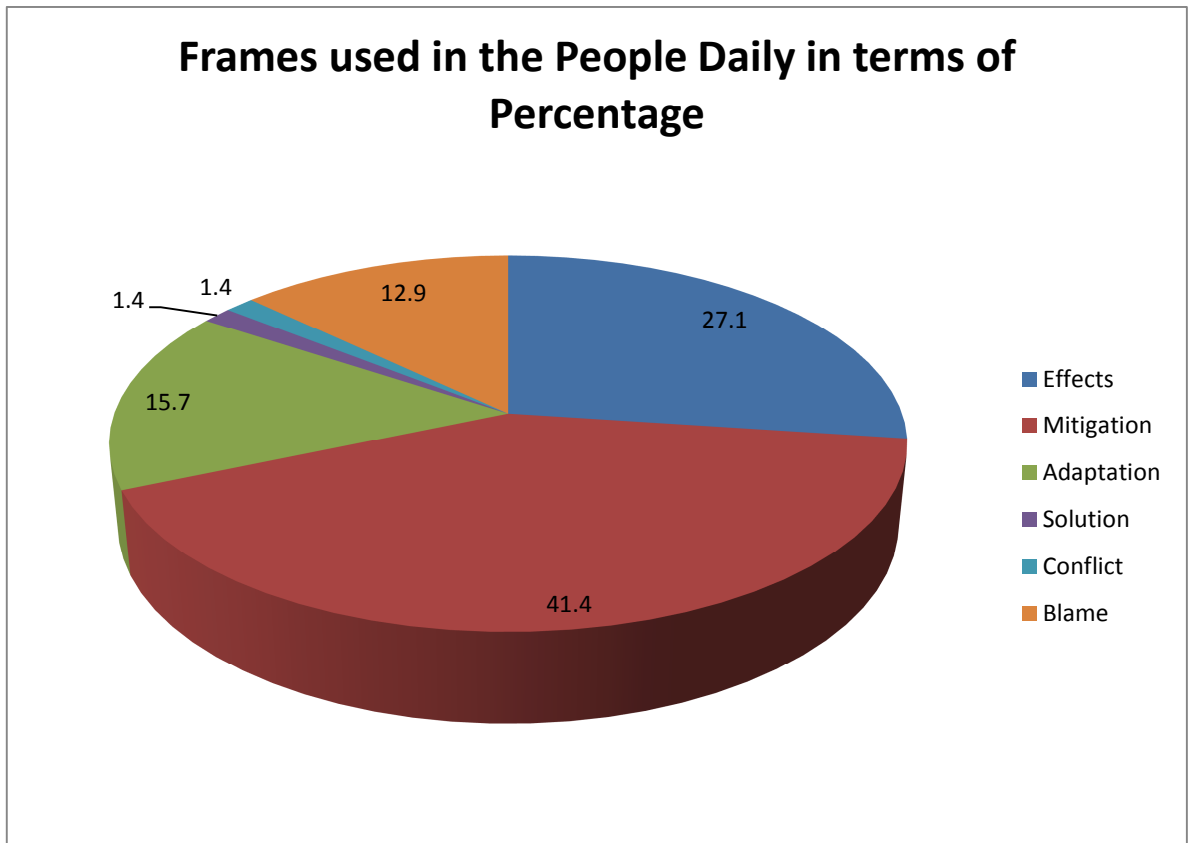


Figure 6: Chart showing the Frames used by the People Daily newspaper to cover Climate Change stories



4.5: Framing Analysis

This study's findings, as already presented in the charts above, discovered a variety of frames used by both the *Daily Nation* and *People Daily* newspapers to cover climate change. The prevalence of a variety of frames on climate change seems to contrast Boykoff & Boykoff (2004) earlier view that up to 50% of articles on climate change doubted either its existence or anthropogenic origin.

This may imply that since Boykoff & Boykoff (2004) did their earlier study, there has been growing concern about climate change by the media, with Kenya not left behind. The frames prevalent in the articles analyzed are hereby briefly explained.

(a) Effects frame

These were stories or any articles depicting the effects of climate change on lives and property. Some of these effects were reported in the form of floods, drought, famine, tornadoes, frost and destructions, among others, with aspects of the earth's climate seen as the causative agent. The key words that guided placement of stories under this frame included: 'destroyed, killed, effects, affect, floods, rage, drought, famine, climate change effects' amongst others.

This frame was the most used in the *Daily Nation* newspaper with 45.6% of the stories featured in this newspaper using it. The *People Daily* used this as the second most used frame with 27.1% of stories studied using it.

(b) Adaptation Frame

This was categorized as any story showing how humans are adapting to the phenomenon of climate change like engaging in the planting of drought-resistant plants. This frame typically focuses on the effort of humans to do things or invent things to help them cope with climate change. The key words used in such stories were adopt/adapt, invent and adjust. 8.8% of the *Daily Nation* stories used this frame while the *People Daily* had 15.7% of the stories using this frame.

(c) Mitigation Frame

These were stories showing the use of environmentally- friendly implements and those using the word ‘mitigate’ most of the time. This is the frame the study found out to be heavily used by the *People Daily* newspaper with 41.4% of the stories analyzed using it. The *Daily Nation* had 24.6% of the stories adopting the ‘mitigation’ frame.

(d)Solution Frame

This frame was used by stories showing a deliberate effort by the characters to solve climate change challenges. This seems to be the least used frame with the *People Daily* only having 1.4% of the stories studied using it while the *Daily Nation* had a volume of 4.7% of its stories employing this frame.

(e) Conflict Frame

This frame was used by stories showing some kind of conflict amongst humans and between animals and humans over some resource threatened by climate change. The *People Daily* had a volume of 1.4% of its stories using this frame while the *Daily Nation* had 4.7%.This, should be noted, as a similar percentage with the solution frame.

(f) Blame Frame

This frame was used by stories in which characters mentioned are blamed by others for contributing to climate change. The *People Daily* had a volume of 9 % of its stories using this frame while the *Daily Nation* had 4.7%.

4.6: Disparities in terms of length, headlines and tone, of climate change stories

This study sought to find out the disparities in terms of length, headlines and tone, of climate change stories in the two dailies. The findings of this study seem to suggest some notable differences in terms of the manner in which each newspaper framed the climate change issues. It was found out that the *People Daily* was more likely to give a climate change story more space, in terms of the length of a story, than the *Daily Nation*. However, a climate change story is likely to be featured as a headline or editorial story more in the *Daily Nation* newspaper than it would in the *People Daily*. These disparities could also be a pointer at how a media entity's editorial team views a climate change story in terms of 'selection and salience'. The table below (figure 7) shows the disparities.

Figure 7: Table showing disparities in terms of length, headlines and editorial voice in both the Daily Nation and People Daily newspapers to report climate change stories

Name of Newspaper	Size of the longest story in centimeter squares	Percentage of stories featured as headline stories	Percentage of stories featured as editorial
Daily Nation	1111	5.3%	3.5
People Daily	3762	1.4%	0

In terms of the tone used to report climate change stories, the data collected seem to suggest that the *People Daily* is more likely to adopt a neutral tone compared to the *Daily Nation* whose most stories adopted a negative tone. This probably explains why the *Daily Nation* heavily employed the ‘effects’ frame as compared to the *People Daily* which heavily relied on the ‘mitigation’ frame to report climate change issues. The table below indicates the disparities in terms of the tone adopted in the reportage of climate change stories.

Figure 8: Table showing disparities in terms of the tone voice used in both the Daily Nation and People Daily newspapers to report climate change stories

Name of newspaper	Percentage of climate change stories adopting a neutral tone	Percentage of climate change stories adopting a negative tone
Daily Nation	36.8%	63.2%
People Daily	52.9%	47.1%

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1: Summary

This study has established several findings on the framing of climate change issues in the print media in Kenya. By using the *Daily Nation* and *People Daily* for comparative analysis, the study managed to establish the extent to which these two newspapers treat the subject of climate change and the discourses around the subject.

A substantial matter assessed by this study was on the types of frames used by the Kenyan print media to report climate change. In this matter, the study found out that although the *Daily Nation* has demonstrated efforts to inform the public on climate change, it heavily relied on the 'effects' frame with 45.6% of its stories depicting the effects of climate change. Its second used frame was the 'mitigation' frame with 24.6% of the stories analyzed employing this frame. It is also important to note that the study seemed to suggest that there is a correlation between the tone used in the reportage of an issue and the frame used. This probably explains why the *Daily Nation*, whose most stories had a negative tone (63.2% against neutral stories which constituted 36.8%) towards climate-change related issues, depicted the effects of climate change more than any other climate-change related issue. Since the *Daily Nation* is a leading publication in terms of reach compared to the *People Daily*, its heavy use of such a frame might obscure the topic of climate change.

The findings of this study also indicate that the *People Daily* adopted the 'mitigation' frame in most of its stories with a volume of 41.4% against those using the 'effects'

frame which constituted a volume of 27.1%. This daily also seems to have adopted more neutral tone in its reportage of climate-change related issues, with a total of 52.9% of its stories using a neutral tone while 47.1% adopted a negative tone.

5.2: Conclusion

In view of the findings, this study concludes that the print media in Kenya heavily relies on two key frames to portray climate change: the ‘effects’ and ‘mitigation’ frames. However, it is likely that the audience’s perception of climate change is wholly seen in the form of effects. This argument is arrived at on the basis of fact that the audiences the *Daily Nation* reaches is higher than that reached by the *People Daily* and, since the *Daily Nation* heavily uses the ‘effects’ frame, this is likely to be the lens through which the Kenyans would view climate change- a phenomenon that affects us and we can do nothing about it!

5.3: Recommendations

In view of the findings and conclusion above, we recommend the following:

- (1) Print media editors should liaise with climate change scientists in order to bridge the gap between available information on climate change issues and audience’s perceptions of the same.
- (2) Print media editorial boards should consider having special supplementary sections in their newspapers dedicated to increasing level of awareness.

(3) Print media firms should train reporters on science journalism so as to increase interest in this topic and build on the reporters' capacity to apply the correct frames that would demystify climate change.

5.4: Suggestions for further research

Since this study sought to establish the frames used by the print media in Kenya to communicate climate change information, we suggest research targeting the audience's perception of climate change based on the impact of the reports they read from newspapers.

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APPENDIX 1

CONTENT ANALYSIS INSTRUMENT AND CODE SHEET

Criteria	Details	Codes
Story source	Indicates where the article was published	CODES: Daily Nation-DN People Daily-PD
Date of publication	The day, month and year when the article was published	FORMAT: DD/MM/YR e .g 1/6/2012
Day of the week	Indicates the day of the week when the story/article was published	CODES: Use the numbers 1 up to 7 to represent each of the 7 days in a week e .g Monday will be coded as
Type of story	Indicates the way the story is written	CODES: News=SN Editorial=SE Commentary=SC Opinion=SO Features=SF
Placement/Focus	This indicates the level of importance given to the story/article in the newspaper in terms of placement and space it is accorded	CODES HF=High Focus stories It includes stories that are: (1)On the front or back page; (2)editorials; (3)with graphic accompanying story;(4)covering half a page or full page and(5) those devoting more than thirty lines to issue MF=Medium Focus stories (1)devoting 20-30 lines on the issue;(2)with graphic that includes a climate-change related issue LF=Low Focus Stories which (1)devote less than 20 lines to the climate change issue;(2)have no graphics
Graphics	Define the type of graphic used in the story	CODES Picture=G1 Cartoon=G2
Key words used	Indicate the Key words used in the story/stories	GUIDELINES NB: List the key nouns, verbs , adjectives plus any descriptive word or imagery in the story depicting the climate change issue

Type of Frame	Identify the type of frame used based on the key words prevalent in the texts	<p>CODES E=Effects any article depicting the effects of climate change in the form of floods, drought, famine, tornadoes, frost, destructions among others</p> <p>A=Adaptation Any story showing how humans are adapting to the phenomenon of climate change like planting drought resistant plants; story that uses the words adopt/adapt,</p> <p>M=Mitigation Story showing the use of environmentally friendly implements and those using the word ‘mitigate’</p> <p>S=Solution Those showing a deliberate effort by the characters to solve climate change challenges like</p> <p>C=Conflict Those depicting some kind of conflict between humans and between animals and humans etc over some resource threatened by climate change</p> <p>B=Blame Stories in which characters mentioned are blamed by others for contributing to climate change</p>
Length of story	The total area in square centimeters occupied by the story in the newspaper	Length of story in square Centimetres
Tone of story		<p>CODES 1=Positive 2=Negative 3=Neutral</p>

APPENDIX 2: THE SAMPLING FRAME USED TO SELECT STORIES

This frame indicates the days and dailies selected for inclusion in each month

JANUARY, 2012

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1	Select			select			Select
Week 2			Select			Select	
Week 3		select			select		
Week 4	Select			select			Select

FEBRUARY, 2012

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1			Select			select	
Week 2		Select			select		
Week 3	Select			select			Select
Week 4			Select			select	
		Select					

MARCH, 2012

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1					select		
Week 2	select			select			Select
Week 3			Select			Select	
Week 4		Select			select		
	select			Select			

APRIL, 2012

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1							Select
Week 2			Select			select	
Week 3		Select			select		
Week 4	Select			select			Select
			Select			Select	

MAY, 2012

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1		select			select		
Week 2	select			select			Select
Week 3			Select			Select	
Week 4		select			select		
Week 5	select			Select			

JUNE, 2012

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1							Select
Week 2			Select			select	
Week 3		Select			select		
Week 4	Select			select			Select
			Select			select	