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Coverage of climate change issues in Kenyan print media: a case of Daily Nation and Standard newspapers

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COVERAGE OF CLIMATE CHANGE ISSUES IN KENYAN PRINT MEDIA: A CASE OF DAILY NATION AND STANDARD NEWSPAPERS

By

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A thesis submitted in partial fulfilment of the requirements for the degree of Master of Arts in Digital Journalism

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APPROVAL PAGE

The Aga Khan University
Graduate School of Media and Communications

A thesis submitted in partial fulfilment of the requirements for the degree of Master of
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Members of the Thesis Evaluation Committee appointed to examine the thesis of
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DECLARATION

COVERAGE OF CLIMATE CHANGE ISSUES IN KENYAN PRINT MEDIA: A CASE OF DAILY NATION AND STANDARD NEWSPAPERS

I, **ESTHER WANJA MUNGAI-535163** declare that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university and that to the best of my knowledge it does not contain any material previously published or written by another person except where due reference has been made in the text. The editorial assistance provided to me has in no way added to the substance of my thesis, which is the product of my research endeavours.

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Signature

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Date

DEDICATION

I dedicate this document to my mother Nyambura Mungai and my sister Zipporah
Mungai for your support during the process.

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I would like to express my deepest appreciation to the Aga Khan University – Graduate School of Media and Communications (AKU-GSMC) fraternity for their continued support throughout the entire process. Dr. Nancy Booker and Dr. Alex Awiti were instrumental faculty members and this thesis would not have been realised without your tireless efforts.

ABSTRACT

Climate change is an issue of public interest and given the adverse effects of climate change, concerted efforts are imperative as different stakeholders work on solutions. The media with its power to set and build agenda is very critical, especially in its coverage of climate change. This study sought to analyse the extent to which climate change stories are given prominence, the nature of climate change stories, and drivers of climate change stories in *The Daily Nation* and *The Standard* between 2018 and 2019. The study was anchored on the agenda setting theory to examine prominence accorded to climate change stories, agenda building to assess who the drivers of coverage are beyond the newsroom and the framing theory was used to examine the framing of climate change stories. The research adopted a descriptive content analysis research design. The study developed analysis criteria and a code sheet for content analysis and an interview guide for key informant interviews with media house editors. The researcher interviewed one media editor from *The Daily Nation* and one from *The Standard*. The study had four key words; *climate change, global warming, floods and drought*. When these terms were used, a total of 1730 articles were retrieved. The study found that the Kenyan print media does not use placement of stories on front pages to set the climate change agenda. Media houses focus more on adaptation stories and that they rarely cover mitigation stories. It also established that they frame climate change stories using disaster and that victims are the key actors in disaster stories while government officials feature prominently in events driven stories. The study concluded that climate change coverage is not given prominence through placement of stories on key pages and recommended that media houses need to consider strategic placement for those stories in front pages. The study recommended that media houses need to give significant focus on mitigation efforts.

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ABBREVIATIONS AND ACRONYMS

CC: Climate Change

GHGs: Greenhouse Gases

IPCC: Intergovernmental Panel on Climate Change

UNFCC: United Nations framework convention for climate change

SSA: Sub Saharan Africa

REDD+:   Reduce Emissions from Deforestation and Degrading

ASALs: Arid and Semi-Arid Lands

LULCC: Land Use and Land Cover Change

NCCRS: National Climate Change Resilience Strategy

NCCAP: National Climate Change Action Plan

NDMA: National Disaster Management Authority

FCPF: Forest Carbon Partnership Fund

KIIs: Key Informant Interviews

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

The proposed study, aimed at investigating coverage of climate change issues in Kenya's print media, with a focus on the Daily Nation and The Standard newspapers. This chapter gives a background of climate change, placing it in perspective and evaluates the role of print media in Kenya.

1.2 Background to the Study

Climate is defined as the state of the atmosphere for a long period of time, while weather refers to what conditions the atmosphere over a short period of time (Nasa, 2005). Over the years the climatic conditions of our planet have evolved due to alterations of the atmosphere hence climate change, which has become the greatest human catastrophe of the 21st century, with the global temperatures reaching an all-time high due to increased human activity and release of Greenhouse Gases (GHGs) (United Nations [UN], 1992). Human activities have impacted on environments way before the industrial revolution. This was done through fires, agriculture and even through livestock. These activities however, had little contribution to climate change (Doughty, 2013). The industrial revolution is believed to have impacted climate change significantly ushering in an era of emissions of carbons through burning of natural gas, oil, coal and fossil fuels. These resulted to increased greenhouse effect in the atmosphere that tags along higher temperatures (Climate Policy Watcher, 2021).

Climate change is a reality and no longer a speculation and global warming is due to human (anthropogenic) activities (Intergovernmental Panel on Climate Change [IPCC], 2014). The global warming effect, that has since altered the global ecosystem manifesting itself in form of melting ice caps causing floods (due to rising sea levels), subsiding islands, erratic rainfalls and in other parts desertification (UN, 1992). Some of these complexities are exacerbated by increased human population and demand for more agricultural land for food production, which have resulted in destruction of the vegetation cover and subsequently rampant environmental degradation (Ojwang, Agatsiva, & Situma, 2010).

Given the consequences of global warming and the contestations around it, the role of the media in coverage of climate change is significant. The media should take the responsibility to acknowledge the presence of climate change and to contextualize the issue and provide information to the audiences on the patterns and solution they can provide to solve the climate crisis (Gross & Lawson, 2017).

While emissions of greenhouse gases from industries are a major contributor to global warming, anthropogenic activities like Land Use and Land Cover Change (LULCC), cannot be overlooked and more so the role of the media in getting the people to realize how their activities are contributing towards climate change (Shanahan, 2011). Between 1990 and 2010, land use and land cover change, accounted for 12.5% of anthropogenic carbon emissions (Houghton et al., 2012).

However, the blame for emission of GHGs, including carbons, methane, nitrous oxide and chlorofluorocarbons is largely on the developed (global north) countries due to their heavy mechanization and high industrialization driven by coal burning. The developing (Global South) countries, are susceptible recipients of the effects of climate

change and have little ability to adapt to the changes, hence Africa is ranked the most vulnerable continent to impacts of climate change (IPCC, 2014; Williams, 2015). Shanahan (2007) says the media coverage on GHGs and its connection with global warming and eventual damage on poorer countries is underreported and more so, on their need for financial support.

In 2015, world leaders congregated in the French capital, Paris, to address the issue 'climate change' calling upon countries and governments to pull efforts to combat the negative effects of climate change while reducing greenhouse gas emission especially the world's greatest emitters which include the USA (United States of America), India, China, Russia, European Union countries, Brazil, Mexico, South Korea and Indonesia. By the end of this first ever legally binding climate deal, 195-member states had adopted the Paris agreement. While the accord has been well received by some countries as a measure to restore world temperatures to pre-industrial levels, some world leaders have been adamant that the accord is not in good faith and dismissed climate change on grounds that it is just a hoax. In 2017, The 45th president of the USA Donald J. Trump, dismissed the Paris accord, saying it is a hoax, and that it is meant to 'punish' The USA while being lenient on other major polluters like China and India 'imposing no meaningful obligations' on them. He moved on in the same year, to withdraw The Super Power from the Accord adding that it undermines The US's economy, putting it at a permanent disadvantage.

In September, 2019 the world's fourth largest polluter (Russia), finally ratified the international climate instrument after years of hesitation. This happened ahead of The United Nation Climate Action Summit held in New York (Sauer, 2019).

While some nations are determined to act against the climate change through mitigation efforts, some are caught up in denials that climate change is not a reality. This holding of doubts about climate change, is referred to as 'climate scepticism' (Capstick & Pidgeon, 2013). Climate scepticism comes in various forms; some actually deny the presence of climate change while this view is outside the scientific consensus, it is not taken seriously. The other form of climate scepticism is where a section of sceptics disputes the cost of reducing global warming, questioning whether the cost of global warming is higher than that of reducing emissions. The other group of sceptics are of the opinion that the war against climate change is futile, that it is too late to tackle the menace, for instance, even if The USA took steps to reduce emissions, the huge GHGs emitters like China and India will not make efforts to do the same (Plumer, 2015).

The media has played its part in driving climate scepticism conversations based on the news value of conflict, where in newsrooms conflict is considered to sell more than consensus. While journalists have been balancing science with scepticism for years, they have been found to be fond of offsetting evidence with emotion. In doing so, they largely ignore scientific consensus which out rightly shows bias which serves to feed the audience with misinformation and confusion (Shanahan, 2007)**.**

1.2.1 Role of Print Media in Kenya

Print media in Kenya, is a vibrant space to drive the climate change agenda, given its huge market share of more than 50%. *The Daily Nation* and *The Standard* are the market leaders in the print space, with the former having a share of 40% and the latter 20% (Elliott, 2015). The media is a central player in disseminating information on climate change and if effectively done, it would guide public debates and create conversations around weather

and climate change. It is also established that effective communication on the issue is the genesis of getting citizens to understand that they have a responsibility to reduce their carbon footprint as well as realizing a better coping mechanism to effects of climate change. There is need to lobby governments for better policies and adaptation approaches as well as to communities especially farmers. Farmers require accurate weather information to guide their practice. The meteorological department issues alerts and warning on weather occasionally, and journalists could use these alerts to communicate effectively and efficiently to them through the use of mass media. Tagbo, (2010) says that journalists fail in giving timely information that millions of farmers require to adapt to the effects of climate change. The media has instead focused on disseminating climate information mostly during crises, thus missing out on alerting farmers on impending dangers or catastrophes prior (Tagbo, 2010).

There is also over reliance on dramatization to accord a story newsworthiness to appeal to masses, and editors do not seem or consider climate change stories attractive enough to the audience, while using human angles in storytelling, could be a solution and appealing enough to the audiences' climate change stories do not lend themselves to such angles (Shanahan, Shubert, Scherer, & Corcoran, 2013). Climate change coverage on Kenyan print media is not prioritized as other social issues are, leading to scarce information about the topic, and whenever reported, focus is on climate change impacts with the stories bearing a reactive tendency so as to comply with the news value of timeliness (Bwire, 2019). However, there seems to be a dearth of empirical research on climate change coverage in Kenya, to interrogate prominence of climate change issues in Kenyan print space (Atieno & Njoroge, 2014) and the nature of coverage given to climate change stories.

Conversations around climate change seem to suggest that instead of reporting disaster which just creates panic amongst the audience, the reporters need to take the mitigation and adaptation kind of approach so as to get the citizenry informed about the ecological collapse and eventually be involved in creating solutions (Atieno & Njoroge, 2014). This form of episodic reporting opposed to thematic reporting means that the frequency in overage is based on the incidences and therefore reflecting a reactive media approach rather than proactive. The latter will create an opportunity for deeper analysis, projections for the future, follow ups and even information on adaptation to the effects of climate change. Lack of specialization on the matter in the newsrooms contributes largely to poor communication and undetailed reporting of climate change in Kenyan Media, where impact and event-based reporting result to a state of helplessness among the audience (Bwire, 2019).

Misinformation of news media on scientific reports attributed to difficult scientific language is also misleading to the public (Atieno & Njoroge, 2014). Complexity of climate change itself makes it difficult for journalists to cover, leading to copy pasting of reports without simplifying or interpreting in layman terms the outcomes of such reports. The media is expected to articulate these issues in a manner that the society will get interested and respond to the changes in climate, hence demanding for more information on what's happening and what they can do about it. Quigley (2006) suggests that if the fourth estate takes seriously their social responsibility role of being the watchdogs of the society and putting the governments on their toes, there will be better policies in place, people will make more informed choices, be more involved in adaptation efforts, they will be involved in decision making leading to improved livelihoods

Competition between content that sells and journalistic content, puts climate change issues at a disadvantage, where issues that are likely to bring media houses revenue are prioritized and those that cannot even morph into a native advertising style are left out (Atieno & Njoroge, 2014). The print media in Kenya, operates as a business where what sells is what goes, and so climate is not highly considered because it is not what editors consider as 'sexy' or appealing to audiences (British Broadcasting Corporation [BBC] World Service Trust, 2010).

A report by Kenyan science journalists from an environmental reporting workshop, indicated that Kenyan print media coverage of climate stories is not as innovative, and making the climate stories unappealing to readers. The journalists adopt a tone of misery and doom creating panic and fear among the audience. This can be overcome if journalists treated their stories better, telling them through a human angle especially people who are providing solutions to the miseries (Africa, 2011).

1.3 Statement of the Problem

Climate change is a serious global issue which has tremendous effects on the people, and therefore it is imperative to combat it or address its consequences with a view of mitigating adverse effects. A majority of citizens are ignorant of environmental information since they face difficulties making sense out of the complex issues and how it would affect their lives (Kaul, 2017; Atieno & Njoroge, 2014) and therefore the media comes in as a critical public sphere where climate change and environmental information get meaning a requisite interpretation for the mass public. Mass media is perceived as the society's central 'interpretative system' (Heinrich's, 2005) and it has also proven to be a

key player in shaping science and policy discourse as well as public understanding and action (Boykoff & Roberts, 2007).

Empirical research also shows that there are gaps in making stories relevant, to people consuming mass media and that reporting on adaptation to the effects of climate change could improve the lives of the people. Journalists and media houses also face challenges including lack of human resource, funds and time (Shanahan et al., 2013) to adequately engage experts on climate change issues on a longitudinal basis and as Chand (2017) argues explains why there are no beats for environment and climate change in newsrooms.

Media attention to climate change matters is often around major events and not necessarily about climate change itself. This therefore leads to a trend whereby, there are peak and off-peak seasons for climate coverage (Rödder & Schäfer, 2010) and it is not clear how such events driven coverage puts the issue of climate change in the public domain to influence policy. Atieno and Njoroge (2014) noted that during such events, climate change stories compete fairly not because of the veracity of the issues, but because of the big-name personalities, like heads of state who grace these events.

This study, aimed at assessing the extent to which climate change is given prominence in Kenya's print media, the factors that drive coverage and, what direction media conversations take in terms of offering more knowledge about its cause and solutions that could help communities cushion themselves against effects of climate change.

1.4 Objectives of the Study

To general objective of the study was to examine the coverage of climate change stories in Kenyan mainstream newspapers; *The Daily Nation* Newspaper and *The Standard* Newspaper.

1.4.1 Specific Objectives

1. To examine the extent to which climate change stories are given prominence in both *The Daily Nation* and *The Standard*

2. To examine the drivers of climate change coverage in both *The Daily Nation* and *The Standard.*

3. To assess the nature of climate change stories covered in both *The Daily Nation* and *The Standard*.

1.4.2 Research Questions

1. To what extent are climate change stories given prominence in *The Daily Nation* and *The Standard*?

2. What are the drivers of climate change coverage in both *The Daily Nation* and *The Standard?*

3. What is the nature of climate change stories covered in both *The Daily Nation* and *The Standard*?

1.5 Justification of the Study

Climate change is an issue of public interest affecting almost every facet of our lives and therefore requires adequate media coverage. Proper coverage will not only keep citizenry informed on adaptation and mitigation efforts towards climate change, but will

also get the issue at the forefront of governmental agendas during policy making (Pralle, 2009). A study by Mwangi (2011) on Media Influence on Public Policy in Kenya, found out that proper and rich media content provided policy makers with comprehensive understanding of issues and even influenced their course of action.

Studies have been done around the area of climate change coverage, in other parts of the world and Africa for example, media coverage of climate change in Africa (Tagbo, 2010), Newspaper coverage of climate change in Fiji (Chand, 2017) framing of climate change in Canadian newspapers (Good, 2008) to mention but a few. There's also a dearth of studies on climate change coverage in relation to what kind of stories get more attention in regards to; mitigation and adaptation (nature of coverage) and what drives their coverage.

1.6 Significance of the Study

This study gave a perspective of climate coverage in Kenya's print media, bringing to light the trends of the stories accorded coverage. The results of the study will aid media practitioners understand the kind of coverage they give to climate change. This could allow for informed editorial decisions in newsrooms regarding climate change.

Findings from the study will be resourceful to academia in the sense that it will add knowledge in areas of climate change coverage in view of who drives climate change agenda and what stories journalists prefer to focus on whether mitigation or adaption stories. It will be a reference point for climate change coverage in Kenyan print media through the lenses of theoretical frameworks of Framing, Agenda setting and Agenda Building.

Those in practice will benefit from the study in various ways; Journalists may use it as a guide to climate change coverage drawing insights from the study on how to go about coverage that would influence behaviour change in tackling the effects of climate change and anticipating possible outcomes to get the readers ready for catastrophes, the study may prompt policy makers to formulate policy that would inspire more coverage of climate change in Kenyan media in line with adaptation and mitigation themes.

Policy makers need to understand the strategies used by journalists in selection of climate change stories, in terms of what their preference are in qualifying a story for coverage. For example, event driven stories could attract more coverage due to the news value of timeliness, as well as those that have politicians involved due to the news value of prominence. This understanding of journalists' psychology is necessary for policy makers in decision making.

1.7 Scope of the Study

This study examines the coverage of climate change issues in Kenyan mainstream print media with a focus on *The Daily Nation* and *The Standard* newspapers. The reason these two newspapers were selected, is because they are the most authoritative newspapers in the Kenyan print media space, taking up a majority of the market share, thus commanding a wide reach compared to other dailies like The Star, People Daily and Business daily. Geopoll, (2015), reports that *The Daily Nation* and *The Standard* have a majority or the readership with the former leading with 40% of the market share and the latter commanding only 20%. The period of study was two years, targeting the period between January 1st 2018 and December 31st 2019. Year 2018 and 2019, are within a period of time categorised as having extreme weather conditions worldwide by The World

Meteorological Organisation' Statement on the State of the Global Climate. The report highlighted exceptionally high sea level rise, high land and ocean temperatures leading to severe heat waves in some parts of the world. The study was limited to the newspapers that have an article that contains any of the four key search words used by the researcher, that is, climate change, global warming, drought and floods. During this period of time, the researcher examined how coverage of climate change issues were conducted by the two newspapers, focusing on the number of news stories, features and editorials, as well as the manner and way in which they are placed on various pages ,that is, front page, back page, mid pages (odd no. pages or even no. pages), as well as the trends in the coverage ,that is, whether climate caused calamities are the only triggers to coverage or there's an initiative by editors and reporters to consider climate issues. Kenya was the area of study, considering that the two newspapers are local dailies and mostly cover national issues within the country.

1.8 Limitations of the study

The researcher acknowledged that the study may not be generalizable to the entire Kenyan media landscape including Radio, television and the digital space, since the study only focuses on print media. The researcher also acknowledged that the print media has evolved since 2018 and 2019, especially with digital platforms and social media becoming more popular. News sites with the support of print operations take a lead in online searches in fact; social media is the leading source of news and information now in Kenya (Mwita, 2021). However, the study is representative of the print media's climate change coverage in Kenya, seeing that the focus is on the two of the most authoritative and popular newspapers in the print space.

The researcher focused on two years only, that is 2018 and 2019, which were also not representative of the situation since it's just two years in question. However, the researcher acknowledged that two years is sufficient to help study the trends in coverage of the issue including the prominence accorded to climate change, drivers of coverage as well as to gauge the nature of the stories covered.

The four key search terms used by the researcher including Climate Change, global warming, floods and drought, may have been few to represent the reality of climate change coverage, considering that there are too many vocabularies available. However, the researcher was guided by content analyses studies a majority of which utilise the four key search terms (Chand, 2017; Ajaero & Anorune, 2018; Schäfer et al., 2010; Piamonte & Gravotso, 2008).

1.9 Operational Definition of Terms

Climate: In this study, climate refers to global average temperature humidity and rainfall patterns over a long-period of time for instance years or decades.

Weather: The term weather is used to refer to atmospheric conditions that take place locally over short periods of time—from minutes to hours or days these include rain, snow, clouds, winds, floods or thunderstorms.

Climate change: The study defines climate change as transformation of global temperatures and weather patterns over a long period of time.

Global warming: The term global warming is used to define the increased heating up of the earth's atmosphere, triggered by human activities. This is observed through pre industrial period.

Mitigation: The study defines mitigation as the reduction of greenhouse gases from the atmosphere to prevent global warming.

Adaptation: The terms adaptation is used in this study to refer to efforts taken to combat the effects of climate change.

Greenhouse gases: The research uses the term to refer to the gases that trap heat in the atmosphere and bring about a greenhouse effect hence global warming. The greenhouse gases allow light to pass through the atmosphere, but prevent the heat from the sunlight to escape. Examples of greenhouse gases include Water vapour, carbon dioxide, methane Ozone, Nitrous oxide and chlorofluorocarbons.

1.10 Summary

This chapter provides the background of the study and the role of the print media in Kenya. It also presents the statement of the problem as well as the objectives and research questions. It offers a justification, significance, assumptions and limitations and delimitations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter gives an exhaustive review of literature related to the coverage of climate change within the broader framework of agenda setting. The chapter also gives a brief history of the Daily Nation and The Standard newspapers, as well as the theoretical frameworks on which the study is anchored that is the agenda setting theory and the framing theory.

2.2 Theoretical Framework

2.2.1 Agenda Setting Theory

First put forward by Maxwell McCombs and Donald Shaw in 1972, the theory states that the media sets the public agenda by telling the audience what to think about, though not necessarily what to think. They indicate that mass media has the ability to transfer the salience of items on their news agendas to the public agenda. The theory suggests that Media determines what is newsworthy by giving those stories prominence and that the public judges important what the mass media judge as important. We look to news professionals for cues on where to focus our attention. Repeating climate change stories more often, reinforces the agenda which transfers from being the media agenda to the public agenda. The media will also portray climate change stories as important to the readers if they place them on prime pages for example the cover pages that is the front and back pages or by repetitively covering the issue thus increasing the frequency of coverage.

Agenda setting sets in, the moment the mass media selects issues and portrays them with frequency and prominence resulting to the audience perceiving them as more important than others (Coleman, 2010). Relentless repetition of messages in the news on a day-to-day basis, constitute a major source of journalism's influence on the audience whose outside world, besides their immediate society deal with realities created by journalists and the mass media (McCombs & Valenzuela, 2007).

Lytimaki (2012) in Newspaper coverage of climate change and eutrophication in Finland, notes that media coverage influences people's perceptions, decisions and actions, environmental protection being one of the areas. Lyytimäki (as cited in Prale, 2009) confirms the significance of the media in reporting climate change in that it can set the environmental policy agenda especially in highly industrialized and democratic nations. In the same issue, Lyttimaki (as cited in Hannigan, 2006; Cox, 2010), says that through agenda setting, new topics are presented to the public discussion while archaic ones are either modified or thrown out altogether. However, Cohen (1963) indicates that the media may have an influence on social priorities but may be helpless in determining what to do with them. Cohen further states that while the Agenda setting theory is a three-tenet model that is media agenda, public agenda and public policy, it's not necessarily a linear format where an environmental problem forms public agenda due to coverage and eventually provokes or informs policy action. In the case of Kenyan print media coverage of climate change, there needs to be an assessment of whether setting the climate agenda follows this trend or it actually triggers policy action.

A lead story on page one, headlines and front-page displays, tend to provide hints about salience in news (Onindo, 2011). For electronic media like television and radio, important and prominent news stories come first or high up in the bulletin while in online

platforms, they feature prominently on the home page while on print big stories are placed in prominent pages with pictures and big headlines (Kioko, 2018). Given the magnitude of climate change globally and in Kenya, there's need to assess the importance / salience placed on the issue through the lenses of agenda setting.

In the context of this study, The Agenda Setting Theory, will help the assess salience attached to climate change stories in Kenyan newspapers with regard to frequency, placement, nature of coverage and the drivers of coverage of climate change stories. The theory, will also anchor the interpretation of the coverage and the extent to which the coverage influences public agenda and public policy. Agenda setting theory matters in media coverage studies, since selection or omission of issues determines importance (salience) the media confers on the issues. The theory is therefore important in this study, because it was applied to assess whether the print media in Kenya particularly the mainstream print media elicits the public debates formed around climate change, through repetitive coverage of the issue or prominent placement on the newspaper pages.

2.2.2 Agenda Building Theory

The agenda building theory is closely related to The Agenda setting Theory, and was first put forward by Roger W. Cobb and Charles D. Elder in 1971. The two proposed the theory in an effort to relate the interests of the public to those of policy makers. Research around the theory, examines how corporates and politicians influence media agenda as well as how the public views those issues (Kiousis et al., 2006).

Considering the influence of media coverage on the public, Agenda building focuses on who prompts media coverage with studies around the theory, examining the extent to which media stories are influenced by sources without the newsroom

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(Lancendorfer, 2010). The climate change issues have attracted different interest groups with policy makers and bodies both at the national and international level pushing for more action to be taken to mitigate global warming. There are also sceptics who argue that the earth has a regulatory mechanism and within the framework of agenda building as a theory the current study will find an anchor for a robust discussion on the key policy makers that drive the coverage of climate change stories in Kenya.

The process of Agenda building entails reciprocation of efforts among the parties including political candidates, business actors, non-profit organizations, activists and so on seeing that the relationship among the source of information, media agenda and public agenda are of ultimate importance in agenda building (Kiousis, 2013). The theory dictates, that press conferences, news releases, speeches, and videos are important tools to aid in shaping public policy and public dialogue. Politicians expect that the information subsidies will prompt journalists to consider coverage on the issues political leaders find desirable at the same time incorporating the leaders' points of view. In the US, information subsidies like press releases helped the house speaker highlight issues that the New York Times would focus on like the efficiency of government and the wars in Iraq and Afghanistan (Parmelee, 2013). In the coverage of climate change, Agenda building is applicable, since many rely on press releases and news letters from meteorological departments and scientists to report on expected adverse weather conditions like flush floods and heavy winds. Studies on agenda building therefore need to focus on the main actors or rather the sources of news content that end up in newspaper publications or on air. In the context of the current study the focus will be on the main actors who helped the reporters covering climate change stories highlight the issues on climate stories.

Kiousis (2013) also notes that scientific matters are technical in nature and can be abstract in nature, thus agenda building becomes crucial in creating conversations about them in media to influence policy and public dialogue. Climate change matters are scientific in nature and therefore, agenda building would be appropriate to see how leaders and experts prompt conversations around climate change to influence media coverage for policy action. It would also be important to understand what kind of agenda stakeholders and actors are building around climate change given that climate change has been characterised by sceptics and the dialectics of adaptive and mitigation measures.

Agenda building occurs at two levels. The first level agenda building, entails journalists being persuaded to cover issues that they may have ignored while Agenda building at the second level entails journalists being influenced to use attributes, characteristics and properties to portray issues and other objects (Lancendorfer, 2010).

2.2.3 Framing Theory

The framing theory is closely related to the agenda setting theory, but expands the research on the essence of the issues rather than on a particular topic. The theory of framing, suggests how the media presents an issue to the audiences, which is called a "frame" and this influences how the public then chooses to process the information. First put forward by Ervin Goffman in 1974, the framing theory suggests that frames determine people's choices about how to process that information (Mass Communication Theories, 2017).

Chong and Drukman (2007) define framing as the process by which people develop a particular conceptualization of an issue or reorient their thinking about an issue. How we interpret information differs depending on how that information is contextualized or framed (Scheufele Dietram A., 2014).

Framing presents a meaningful, yet fractured, paradigm for communication scholars, as it integrates influences from various disciplines (Entman,1993). Frames can be located in four places in the communication process; within the communicator, the text, the receiver, and the culture itself (Entman, 1993). In the context of political and mass communication, frames influence how people understand, remember, evaluate, and act upon a problem (Reese, 2001).

Scheufele, Dietram, and Iyengar (2014), state that how we interpret information differs, depending on the context or frames. These frames are important in communication, since they affect the attitudes and behaviour of the audience (Druckman, 2007). Chong and Druckman (2007) in addition, say that one's frame in thought can have a marked impact on one's overall opinion. This concept in coverage of climate change, is applicable in that, journalists' messages on climate change geared towards mitigation or adaptation or a combination of both, can lead the audience to place importance on the issues they present. Chong and Drukman (2007), add that whichever issue in which the media accords greatest volume of coverage, will be the most accessible and tends to have the greatest impact, regardless of other issues discussed. Kenyan media in highlighting climate change as an issue of public interest and one that needs attention from the people and the government, might be considerate if this premise. Frequent coverage will reinforce salience of climate change issues and incline readers to perceive of these issue as of great importance.

A content analysis of framing of climate change coverage in New Zealand's major daily newspapers; *The New Zealand Herald, The Press and The Dominion Post*, revealed that the Consequences frame put more emphasis on the potential effects of climate change on the citizenry and the environment to emphasize on the need to act and put efforts to mitigate it. The frame was expressed through use of dramatic language and portraying a

sense of looming disaster in future as well as impacts of climate change on human health. This frame is applicable in Kenya's newspapers, where reports tend to be alarmist in nature, warning people on possible future repercussions if action is not taken. Atieno and Njoroge (2014), evidence that media frames on climate change reporting border on specific topics like drought, El Nino, rising sea levels and temperature increase, depicting a reactive approach of coverage.

The study also revealed that climate change was framed in a manner to suggest that climate change is real: that is the scientific consensus position. Climate sceptics and deniers were given little voice. The politics frame, emphasized that political actors were best suited to provide solutions to deal with the climate menace, by providing policy-based solutions. Chetty et al. (2015) frames may be applicable in Kenyan print media, since politicians and policy makers are often put to task especially through editorial articles as the primary actors responsible with the ability to offer solutions.

A study carried out by Good (2008) on The Framing of Climate Change in Canadian, American, and International Newspapers, revealed that the science frame was popular among the three newspapers, though the Canadian newspaper had higher probability to carry science framed stories compared to the rest. In Kenya, coverage of climate change stories may bear such frames especially when science reports are released. This is driven by the media's tendency to attach coverage to newsworthiness hence the use of new scientific reports. However, these kinds of reports are prone to bearing misinformation, when journalists do not understand the context or the science of climate change (Atieno & Njoroge, 2014).

The American newspapers were less likely to be framed with the Kyoto protocol. This is explained by a probable lack of engagement of the Americans with the Kyoto protocol or the probability that The Canadian and International presses do not necessarily cover about America's noncompliance with the Kyoto protocol (Good, 2008). Kenyan newspapers are equally not likely to cover frames around international treaties and protocols often, since most of them are mainly urging party members to reduce emissions seeing that Kenya is not on the list of notorious emitters, and therefore such frames may not be popular unless during ongoing events or conferences which are hyped due to newsworthiness and personalities and delegates attending the events. A study on the framing of climate change issues in Kenyan print media by Osindo (2012) indicate that *The Daily Nation* and *The People Daily* had most of the stories/ articles that carried the effects and mitigation frames and that out of the 57 articles that were climate change related, the effects frame was the most used on the Daily Nation, constituting 46% while the mitigation frame came in second at 25%. This study assessed the effects frame and the mitigation frames as used by the Daily Nation and The Standard newspapers. Disaster driven coverage is prominent in Kenyan print media, especially the Daily Nation's coverage of climate change which is expressed through the effects frame (Osindo, 2012).

Good (2008), states that while the causes of climate change are human induced and easier to track, the consequences are natural and hard to track. The consequences frame, can be used to divert the conversation on climate change from the perspective of the causes to the effects. The consequences frame can be used in the study to evaluate whether the print media in Kenya, uses the consequence frame during climate change coverage.

The framing theory is therefore important for this study and the researcher assessed the consequences, adaptive and mitigation frames, and how they have been used in the Kenyan print media.

2.3 General and Empirical Literature Review

2.3.1 The Daily Nation: A Brief History

The Daily Nation started off as a Swahili paper namely Taifa Leo in 1958 established by Charles Hayes. The English version of it going by the name 'The Daily Nation' was first published in 1960, a year after ownership changed hands and establishment of the Nation Media Group by His Highness the Aga Khan. It was then regarded as the first independent newspaper in East and Central Africa (Nation Media Group [NMG], 2020). Today, The Daily nation is Kenya's largest newspaper in terms of scope and circulation. 150,000 copies are circulated a day and enjoys 40% of the market share (Kenya Audience Research Foundation [KARF], 2019).

2.3.2 The Standard: A Brief History

The newspaper started off as The African Standard publishing weekly. It is the oldest newspaper in the country having been established in 1902 by Alibhai Mulla Jeevanjee, an immigrant businessman from British India. The newspaper has changed names and hands several times since then. In 1906, Maia Anderson and Rudolph Franz Mayer bought it out and renamed it to The East African Standard which later in 1910 would become a weekly paper. Lonrho Group, a British based enterprise, bought it out in 1963 a few months before Kenya gained Independence and renamed it to the standard until 1977 when it changed the name back to The East African standard in 1977. Local investors took

over ownership in 1995 and renamed it to The Standard which has remained to date (Kimani, 2018). The Newspaper comes second in command of market share after The Daily Nation which has a 20% reach producing 80,000 copies a day (KARF, 2019).

2.3.3 Effects of Climate Change

Africa is the most vulnerable continent to the effects of climate change with recorded rise of temperatures by 0.7°C and projections of further increase. The consequences are conspicuous especially on geographical icons. The once snow-capped Mt. Kilimanjaro, now has a few left ice strips. Lake Chad is now half, its original size, 35 years ago and the shores of Lake Victoria keep receding (Chand, 2017).

Impacts of global changes in climate are rising by the day, extreme conditions like heat waves and freezing cold temperatures causing deaths and changing habitats creating favourable environments for breeding of vectors which result to spread of diseases (Muchuru, 2019).

Diseases such as Malaria, Dengue fever, Rift valley fever, cholera and Schistosomiasis have become more prevalent over the years because of changing temperatures on the continent, exaggerated amounts of precipitation that result to floods as well as irregular rainfall. 90% of the people suffering from Schistosomiasis (Bilharzia), live in the underdeveloped parts of Africa (World Health Organisation [WHO], 2013), with the illness being escalated by the increased use of dam water for irrigation as a measure for adaptation to the effects of climate change (Terblanche et al., 2008). The rift valley fever which is common in the horn of Africa, is rampant due to unceremonious rainfall patterns and escalates with increased variability of climatic patterns (Nguku, 2010). Malaria prevalence is determined by temperature variability in various regions, with transmission

increasing at 25°C and declining at 28°C. Vector borne diseases such as Malaria and dengue fever, have been on the rise with 700,000 to 2.5 million of the victims hailing from sub–Saharan Africa. Meningitis, is reported to be Africa's top three climate sensitive infections (The United Nations Economic Commission for Africa [UNECA], 2013). The increased levels of GHGs are the culprit to deteriorated air quality leading to increased cases of respiratory and cardiovascular diseases (Bhalla, 2018).

Use of old and un- roadworthy cars that burn fossil fuels in massive amounts are some of the notorious causes of these infections. In Africa, Kenya, Nigeria and Ethiopia import 40 million cars from the developed world which are high fuel guzzlers and release high levels of carbons (Bhalla, 2018).

Unforgiving climatic conditions across the continent have also had a toll on the agricultural sector which is the backbone of the economy, employing 70% of the African population with 80% of those managing farmlands being small scale farmers. Atieno and Njoroge (2014), say that the media should be more proactive in coverage of climate change, such that they prepare farmers on looming droughts and delayed rainfall.

In Kenya, effects of climate change are notable through erratic rain patterns, droughts, floods, human- wildlife conflict and tribal clashes over natural resources (Osindo, 2014). So far, 28 droughts have been recorded in the last 100 years with severe consequences in arid and semi-arid areas (ASALs). The ASALs receive low and erratic rainfall leading to food insecurity and low economic participation among the population most of whom are pastoralists. In 2004 - 2006, droughts left 4.4 million people in agro-pastoral areas affected, with 2.6 million people at risk of starvation and 70% of their livestock dead (Reliefweb, 2014-2019).

The Kenyan media according to Osindo (2014), has the tendency of capturing the doom and gloom of events and rarely do the give hope or solutions to their challenges. The study explored how the media sets their climate change agenda through coverage of disaster.

2.3.4 Climate Disasters in Kenya

It is the increase in weather anomalies and their intensity that is regarded as the most obvious manifestation of global climate change in Kenya. Climate change has precipitated severe outcomes in the country, with floods, droughts and mud slides/ landslides being some of the major ones often leading to malnourishment, deaths and displacement of people and livestock, especially among the pastoralist communities (Nyaoro, 2016).

It is therefore imperative that the media coverage focuses on issuing warning prior on the looming disasters than waiting to cover the drama of the aftermath (Shanahan, 2007) The negative impacts narrative is popular in Kenyan media representation of climate change, which takes an episodic trend related to dramatic disasters and their consequences (Atieno & Njoroge, 2014). Shanahan (2011), explains that while media coverage of disaster and warning of looming floods can provide vital information at times of emergency to explaining how to deal with disease outbreaks such reactive disaster reporting often means too little, too late.

2.3.5 Climate Mitigation

Even though Kenya's contribution to global GHGs is almost insignificant, Kenya has committed to reduce GHG emissions in the midst of rapidly increasing population and

expanding economy that is projected to lead to more emissions. During the 21st Conference of Parties (CoP 21) meeting held in Paris, France, by The United Nations Convention on Climate Change (UNFCC), the country committed to reduce GHGs by 30% by year 2030. The country had earlier in 2010 committed to reduce carbon emissions, by joining the World Bank's Forest Carbon Partnership Fund (FCPF) to reduce emissions of Carbons from Deforestation and forest Degradation (REDD). This move would be a way to achieve the country's mitigation objectives and increment of forest cover to 10% as stipulated in the constitution promulgated in the same year (Longa & Zwaan, 2017). Boykoff and Roberts (2007) insist that climate change mitigation requires coverage as much as adaptation does. However, they also note that the reportage of climate change mitigation in smaller and global south countries was sparse, due to lack of funding and access to climate science because of the complexity of the issue, leading to reliance on climate change coverage from media organizations based in developed countries.

2.3.6 Coverage of Climate Change

A content analysis study on mass media coverage of climate change in Bangladesh, between 200 and 2009, revealed that climate change had increasingly become hot topic in the media, where print articles tripled between 2007 and 2008. A follow up of the content analysis with key informant interviews among them journalists, explained that this boost was as a result of a number of things: More training among journalists, improved the level of skill in reporting climate change. Making journalists more enthused to report on climate change was also instrumental in increased frequency. Creating a favourable environment for journalists, whereby, policy makers want journalists to convey the climate agenda and the fact that they acknowledge their significant role in disseminating information to the public was also a catalyst in enhancing frequency of coverage. There was more

collaboration between journalists and scientists where scientists were more willing to share reports and scientific information with journalists significantly stood out (Rahman, 2010).

Climate change is a global issue and should therefore attract adequate coverage especially in Africa (Ajaero & Anorue, 2018), however, this is not reflected in newspaper coverage today, and as Nwabueze and Egbra (2016, cited in Ajaero & Anorune, 2018) found out there is a dearth of prioritization of climate change issues in Ghanaian and Nigerian media whereby of 160 newspaper issues, only 76 articles related to climate change were found. Ajaero and Anorune (2018) argue, based on their findings, that this low frequency in reportage is attributed to a perception that climate change stories are a hard sell. In the current socioeconomic and political dispensation characterized by a very competitive media market that relies on eyeballs to sell, media outlets and publishers prefer sellable content like politics and sports See (Andrea Prat, 2013). Tagbo (2010) adds that low coverage of environmental issues is driven by a lack of funding and the phenomenon is common in Sub Saharan African countries, where coverage need to correspond with the impacts of climate change.

Ajaero and Anorune (2018) argue that using human interest angles gets other humans interested in the stories, hence drawing eyeballs towards publications and therefore gets the editors encouraged to cover climate change stories more often. Telling stories with a human-interest angle, adds more appeal to a story making it more interesting. When people read about the trials and tribulations of others as a result of climate change, they can relate to their story, and begin to see how they can best counter the effects of climate change through adaptation efforts as well be accountable on how to mitigate climate change (Ajaero & Anorune, 2018). In Kenyan newsrooms where, commercial interests drive content selection, editors could capitalize on human angles for topics such as climate

change, to get their readers hooked yet educating them on the best practices for adaptation and mitigation.

2.3.6.1 Frequency of Coverage

Boykoff and Robert (2007) highlight that mass media coverage of climate change globally had been sparse in three subsequent decades and has continued to receive attention by the media and received better coverage. Chand (2017) in her research on newspaper coverage of climate change in Fiji, notes that climate change coverage on newspapers has increased over the years though the effectiveness of newspapers on the issue is questionable. It is notably clear that even though the number of articles published on climate change had gone up, they tend to be sporadic and transient. This sporadic coverage probably explains the coverage of climate change issues in Kenya during certain landmark climate related days or events and the media generally has a higher proclivity to move on. On the same breath, Atieno and Njoroge (2014) revealed that the issue of climate change and science continued to receive low coverage, but there is excitement in coverage in case of new research findings by scientists an approach they call alarmist news reporting.

A study done by Elia (2018) on coverage of climate change in Tanzania with a focus on two newspapers: Government owned *Daily News* and privately owned *The Guardian* reveals that in the last one decade, coverage of climate change had increased, prompted by international negotiations, agreements and awareness of climate change. The international protocols, treaties and negotiations are hot topics in climate arenas making the climate agenda popular among the global south countries hence high coverage by local media publications.

According to Shanahan (2007) low coverage of climate change in news media is also as a result of untrained journalists who have little knowledge about science reporting, and the concept of unfunded desks, art-oriented journalists and editors who are unwilling to indulge in anything science. He however notes that now, climate change affects almost all spheres of our lives including economy, health, security and many more (Shanahan, 2007). It is therefore imperative to empirically ascertain the extent to which climate change is covered in Kenya and whether there is a dearth of coverage occasioned by lack of science knowledge and lack of resources in Kenyan newsrooms.

2.3.6.2 Disaster Driven Coverage

Schafer (2015) states the bulk of climate change stories covered are of disasters that are weather triggered, especially extreme weather events, punctuated by hurricanes, floods and heat waves. Ajaero and Anorune (2018) on coverage of climate change mitigation in Ghana and Nigeria, show that most of the climate change stories covered were straight news, an indication that most of the stories done were disaster driven. Ghanaian newspapers especially, had more of these straight news and fewer features, translating to a notorious trend of episodic reporting unlike the Nigerian counterparts who had more features than straight news. There was a notable trend of floods coverage especially which show a use of thematic frames. The study further revealed that journalists were reactive when it came to climate change reporting, whereby, editors' only approved stories on the issue, when there was disaster. The trend appears to be similar to the Kenyan context given the high coverage given to disasters occasioned by climate related calamities like floods, landslides, droughts and famine. However, there is need to look at the nature of stories and the angles taken by local newspapers in Kenya against the backdrop of these global and regional trends.

Empirical research on Framing and frame changing in coverage of major US natural disasters, 2000–2010 shows that news media rely on official sources for information, disaster news are episodic and not sustained for long and bear a descriptive tone of the events rather than the causal explanations which require background and deep analysis (Houston. et al., 2012).

2.3.6.3 Events Driven Coverage

A study carried out to assess drivers of climate change coverage in India, Germany and Australia over a period of fifteen years established that the issue of climate change received attention at certain times. The study noted that coverage was not prompted by weather or climate characteristics not even by catastrophes except for the 'The Flood of the Century' in Germany in 2002. Political debates on climate change in Australia, also contributed to the spike in coverage (Schäfer, Ivanova, & Schmidt, 2014). Essentially, climate change does not seem to be attracting proactive coverage as most editors prefer commissioning stories after the damages are done and the issue is already prominent in the public domain.

Major climate change meetings have been noted as drivers of coverage of the issue. Major conferences like the United Nations Climate Conference, International Climate Summit and (Conference of Parties) CoP 21 were reported to have heightened coverage, due to availability of scientific reports, relevant and reliable material from electronic sources during the meetings (Elia, 2018). In West Africa however, coverage of climate change is noted to be 'grossly inadequate Ajaero and Anorune (2018) even at the time major conferences are ongoing. A case in study was UNFCCC (The United Nations Framework Convention on Climate Change) (CoP 21) held in Marrakesh, Morroco in 2016,

where a myriad of issues emerged in the conference, yet emerging issues and implications of decisions taken at the conference were absent in the two West African countries' dailies (Ajaero & Anorue, 2018).

Chand (2017) states that the media reports on climate change often focus on the international and local events, indicating low prioritization of climate change issues. Kaul (2017) however recognizes the importance of mass media in environmental education as critical to creating awareness among the audience he insists that the media needs to be trained on environmental matters so as to effectively communicate through substantial content that is well contextualized. Kaul (2017) also warns on over sensitization of climate change stories, what he refers to as anniversary / campaign journalism stating that it tends to result in redundancy of an event or an issue. Considering packaging messages in a manner that is more appealing to the younger audiences is imperative, seeing that they tend to sustain the narrative in future. How newspapers package climate change narratives, especially when covering global events is therefore imperative and that is one of the objectives that this study seeks to find out.

2.3.6.4 Mitigation vs Adaptation Messages

Shanahan (2011) in his policy brief on climate change and media partnerships, notes that quality media coverage of climate change is imperative. He notes that quality coverage gets the publics aware of possible impacts and how to adapt to them while also helping in mitigation activities that help reduce global warming. Coverage of adaptation efforts is part of solutions journalism, which is a form of news reporting focused on responses to societal problems (Hammonds, 2014) . Solutions journalism has gained popularity as newsrooms are innovating ways of gaining traction and winning eyeballs as

well as gaining audience engagement (Lough & McIntyre, 2021). In their study on transitioning to Solutions Journalism: One Newsroom's Shift to Solutions-focused Reporting (Lough & McIntyre,2021), found out that Alabama's largest daily newspaper, the Gannett-owned Montgomery Advertiser, had increased its connection with the community, by adopting the solutions journalism approach in its story telling. Elia (2018) notes that impacts and adaptation were the factors highly responsible for increased coverage of climate change in Tanzania. However, Bashir (2013) in his publication 'press coverage of climate change issues in Nigeria, insists that it's imperative for journalists to design their messages around adaptation and not mitigation efforts. Mitigation messages tend to disengage the audience from the reports and eventually from climate action. He adds that mitigation involves resources that the audiences who are largely poor may not be able to act on. Bashir (2013) believes that for the audience to be involved, media reports need to appeal to their interests which include adaptation to the effects of climate change. Atieno and Njoroge (2014) assert that both approaches are relevant if applied consciously. In areas where countries are culprits of climate change pollution, then the media should emphasize on mitigation efforts not forgetting informing the publics on adaptation especially in countries where disaster hits most. Ajaero and Anorune (2018) emphasize that mitigation approach is imperative and that there's need for urgent action. People need to be aware that climate change is a human induced phenomenon and therefore necessary for them to act on mitigating climate change as well as adopting solutions that combat its effects. The immense flooding in Nigeria was episodic, yet newspapers reported the issue and called upon citizens to act to combat climate change (Ajaero & Anorune, 2018).

Being actively involved in climate action, the media will get the people to participate as well and therefore leading to a realization of United Nations' Sustainable

Development Goal 13). Ajaero and Anorune, (2018) further recommend that media reports in the bid to help mitigate climate change should begin to teach the audiences about carbon credits, where people are taught how to calculate their carbon emissions based on their actions. This approach will get people more conscious of their actions and eventually lead to less carbon emissions which are responsible for heating the globe.

Boykoff and Roberts (2007) argues that mitigation targeted reports may not be popular in newsrooms, due to the commercialized nature of news whose main advertisers are corporates in the real estate, motor industry among others. These corporates produce goods that may be labelled harmful to the environment and would therefore mobilize the audience to boycott. Boykoff and Roberts recommend focus on adaptation as a way to encourage a win-win situation where the media houses will remain in business through harnessing advertising revenue and the people will be equally informed and encouraged to embrace adaptation.

The Kenyan newspapers therefore need to be evaluated on whether they cover stories on mitigation or adaptation and the extent to which such coverage sets the right agenda given that Kenya contributes very little to greenhouse gas emissions globally. In Bangladesh, a third of the climate change stories in the newspaper publications and broadcast media were noted to be mitigation stories in 2006 and by the end of 2009, 26% of them were vulnerability stories rising from zero percent in 2006, which reflect the reality of cyclones, typhoons, droughts and floods in Bangladesh. Vulnerability stories differ slightly with the adaptation stories in that, the latter refer to those that feature hardships of the people and their miseries as a result of climate change, while adaptation stories refer to stories that offer solutions to the effects of climate change (Rahman, 2010). Studies need

to be done, to interrogate the nature of stories carried by Kenyan newspapers, especially with regard to adaptation and mitigation.

2.3.6.5 Placement

Prominence of coverage refers to the emphasis placed on the issues (Hunter Bacot, 1999) based on their location within the newspaper publication. Majumdar, (2010) says that the placement of a news story in a newspaper indicates the importance accorded to the story. The amount of exposure and placement accorded to a story, whether on the front page or inner pages, determines how the audiences perceive the story (Boykoff & Roberts, 2007). The location of a story is also a sign of its newsworthiness and prominence. The probability of an article to be read is determined by its location and therefore stories located nearer to the front page have higher probability to be read than those located in the inner pages and papers with more environmental articles, reflect are deemed to be more environmental conscious (O'Donnell & Rice, 2008). Climate change has been touted as a serious global issue and one would expect prominent coverage of climate change stories with placements in prominent pages.

Climate change stories are mostly found in specialist environmental pages which tend to be innermost pages (Okoro & Nnaji, 2012). A content analysis of *The Daily Nation* and *The Standard* by Langat (2011) revealed that only 7% of all the environmental stories covered between November and December 2009 were featured on the front pages, reflecting a lack of prioritization and prominence of the Climate change issue on Kenyan main dailies. The editors will get sensationalized stories on the front page with catchy/ overselling headlines in a quest to grab eyeballs to suit the commercial interests of the media houses.

According to Roba (2012) environmental related issues are not prioritized in the media as other topics are, including agriculture, health, sports, investments and education and are therefore not covered in a consistent manner with no special segments designated to reporting climate change and environment. The stories on climate change are also not considered as prominent and therefore not put on front page. Findings from Saikia (2010) case study on two newspapers from North East India, revealed that 85% of the science, technology and health stories in the Hindi newspaper were printed on the 12th page, indicating that the preference was in putting these 'similarly themed stories' together. Piamonte and Gravoso, (2008) noted that climate change stories in leading Phillipino newspapers were denied prominence. The study reveals that climate change stories that made it to the front page were stories about death tolls, injuries and floods and destruction which were all straight news, while those with deeper analysis and probed the effects of climate change by experts, were placed in the inside pages (Piamonte & Gravoso, 2008). Disaster stories even on the front page do not help the audience much, since they cause a public scare / panic. This study therefore, interrogated the quality of climate change placed on the cover pages that is the front and the back pages.

2.5 Summary

This chapter highlights the history of both *The Daily Nation* and *The Standard* and tackles the effects and coverage of climate change in Kenya. It also explores the theories on which the study was anchored on.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research design and methods adopted by the researcher in the investigation of the coverage of climate change stories in *The Daily Nation* and *The Standard* newspapers. It explains the researcher's population of the study, sampling techniques and sample size, the code sheet which the researcher used for content analysis of *The Standard* and *The Daily Nation* as well as the ethical considerations.

3.2 Research Approach and Research Design

The study used mixed methods research approach. The researcher adopted a quantitative content analysis of the newspapers and also conducted key informant interviews with the editors from both *The Daily Nation* and *The Standard* Newspapers. The unit of analysis was the newspapers while unit of observation were the climate change stories, retrieved using the key words; climate change, global warming, drought and floods. The newspapers were used to assess the issue of prominence, which was determined by placement of stories. The unit of observation which were the articles were used to examine the nature of climate change stories and the drivers.

Creswell (2009) defines research designs as "plans and procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis" (p. 3). The design is influenced by the nature of the problem being addressed, the researcher's personal experiences and the audiences for the study. The purpose of this study was to examine the coverage of climate change stories in Kenyan mainstream newspapers

and the researcher adopted a descriptive content analysis research design which Jain, Roy, Daswani and Sudha (2010) describe as a design that systematically and quantitatively describe manifest features of the message content based on predetermined variables.

Krippendorff (2004) in supporting the use of directed content analysis argues that a researcher must explicitly identify the context within which their analysis will be conducted for valid inferences to be made from the text in relation to real world experiences. To this end the researcher identified the context with specific codes and an analysis criterion and a code sheet.

3.3 Population

Keyton, (2006) defines a population as consisting of all the units that possess attributes or characteristics that the researcher is interested in. The study generalized its findings to newspapers in Kenya and therefore, the population for the study was Kenyan newspapers (Oladipo et al., 2015). In this study the population was the Kenyan print media, with a key focus on the two main dailies. The Daily Nation and The Standard newspapers constitute the totality of items in this study as explained by (Creswell, 2009). The two dailies were selected because they are the most authoritative newspapers in Kenya by audience size and share (Geopoll, 2015).

3.4 Target Population

The target population for the study was all *The Daily Nation* and *The Standard* Newspapers with climate change articles (based on the four key words/phrases) published between January 1, 2018 and December 31, 2019. This time period is purposively selected for analysis because, it is during these two years that dramatic occurrences caused by

climate change took place in the country, especially floods, extreme heat and cold weather (UNFCC, 2016). In the same period, significant climate change meetings took place: Conference of Parties (CoP) meetings, which happen every December; The Climate Action Summit held at The United Nations Environmental Program Headquarters in Nairobi in September and The Nairobi Summit Hosted by The United Nations Development Program in November. It is therefore important to assess coverage of climate change issues during this period.

The researcher used the four key words: *Climate-change, global-warming, floods and droughts* to search for articles with these terms from both *The Daily Nation* and *The Standard* Newspapers digital libraries. These four key words have been used in other studies (see Shanahan, 2007; Tagbo, 2010; Boykoff, 2007) and the researcher adopted them in retrieving articles published during the two-year period. In total the researcher retrieved a total of 1028 newspapers using the four key search words. The search for *The Standard* newspaper retrieved 236 newspapers in 2018 and 319 newspapers in 2019, while *The Daily Nation* Newspapers search, retrieved 129 results for 2018 and 344 for 2019.

3.5 Study Site

The study was conducted in two sites: The Nation Media centre and at The Standard group premises for content analysis. At the media houses, the researcher was able to access the database for retrieval of newspapers from 2018 and 2019 using the key words, *global warming, climate change, floods* and drought. As for the key informant interviews, the researcher was constrained by the COVID-19 pandemic and in respect to social distancing, the key informant interviews were conducted on phone and through email.

3.6 Sample Size

The sample size refers to the number of units chosen, from which data was gathered (Lavrakas, 2008). Since this study adopted mixed methods, the researcher combined quantitative content analysis for *The Daily Nation* and *The Standard* in years 2018 and 2019 and Key informant interviews from both media houses. The researcher conducted a census where for content analysis where she analysed all articles derived from the 1028 newspapers retrieved. The total number of newspapers retrieved using the key words climate change, floods, drought and global warming for both newspapers is 1028 (Daily Nation, 473; The Standard, 555). The study's unit of analysis being newspapers and the unit of observation (measurement) being the newspaper stories, the researcher analysed all the 1730 climate change stories from all the 1028 newspapers retrieved.

Scholars argue that when the population is small or when the elements within the population are quite different from each other, then the condition is right for a census rather than the drawing of a sample (Fisher et al., 2002). Given that the stories in these newspapers, the subject of observation, are fairly different from each other, the current study found the census approach to be more appropriate.

3.7 Sampling Procedures

Sampling is a process of choosing a sub-group from a population for participation in a study whereby, the researcher selects a number of units for a study in such a way that they represent the population from which they were selected (Ogula, 2005). This study adopted purposive sampling procedure where the researcher selected *The Daily Nation* and *The Standard* in years 2018 and 2019, based on the judgement that the two years were characterised by dramatic climatic conditions. The researcher also selected the key

informant interviewees based on the fact that senior editors are key decision makers in editorial content and therefore one from each media house would explain the results from content analysis authoritatively.

3.8 Research Method

This study used a mixed method approach and the researcher collected data through a quantitative content analysis of the newspaper articles and an interview with key informants. A coding sheet (*see Appendix B*) and an elaborate analysis criterion (*see Appendix A*) used to collect data from the two newspapers. In-depth interviews with key informants were used in order to corroborate findings from the quantitative content analysis. The key informants were editors drawn from each of the media houses. Therefore, the two data collection methods were quantitative content analysis and key informant interviews.

3.9 Data Generation / Collection Tools

The researcher used a content analysis coding sheet and a KII guide. The study focused on sixteen variables or categories of coverage and each story was coded along these variables. The sixteen variables are explained in details. (*See Appendix A)* and they include: the brand, Dates, Headline of the story, Treatment, Number of climate change stories in a newspaper, Day of the week, Keyword, Focus, Nature of coverage, Drivers of coverage, Main actors, Story source, Statistics, Graphics, Picture and the Tone.

The brand referred to the newspaper that published the article being analysed and *The Daily Nation* was coded as 100 while *The Standard* will be coded 200. The date indicated when the newspaper was published while the headline was the exact headline of

the article analysed. Treatment was operationalized as the way that the story was written and stories were analysed along three different variables/categories:

General News/Hard news (*see Appendix B*) category included any story that emphasized facts of a recent event and used straight news or inverted pyramid style of writing that emphasizes the most important of the 5Ws and H news questions with an emphasis on the timeliness factor. In the reflective category (200) were those news stories that were longer, more insightful in tone, present an in-depth coverage of climate change issue and most importantly tell a story rather than just regurgitate a series of facts they included news feature stories and other longer forms. Commentary/Criticism (300) included any story that offered a first-person opinion or that which stated an opinion of the newspaper they included the editorials and the opinion editorials by columnist. Any articles of any other nature were categorized as other and coded 400.

The number of climate change stories in the newspaper entailed counting the number of stories in an edition of a newspaper and writing it out, while the day of the week entailed the coders indicating the day of the week when the story/stories was/were published. The researcher found it important to analyse the days of the week that climate change stories were published and the number of stories published in particular days' editions. This is because different consumption moments differ across the days of the weeks as there are days that readers are more relaxed or yearning for news while there are days of the weeks that newspapers dedicate to particular issues.

The study also analysed which one among the four key words were predominantly used in the news articles in the two newspapers by indicating the keyword which was used

in the analysis. Climate change was coded as 100, global warming 200, drought, 300 and floods, 400.

Climate change stories can only gain prominence in the public sphere and become the public agenda upon which different stakeholders can build agenda and influence policies if they are given prominence in the coverage. The current study therefore looked at focus as a critical variable/category and focus has been operationalized to refer to the level of importance or prominence accorded to the stories in the newspapers.

Focus was analysed in terms of where the story was placed, presence or absence of graphic/picture, and mention of key words in the headline. Three focus levels: high, medium and low were used. High focus stories were coded as (100): (1) on the front or back page (2) had a headline that mentioned the key words (3) devoted more than twenty lines to a climate change-specific issue (4) had a graphic devoted to a climate change with an issue in discussion and (5) was an editorial story. Medium focus stories (200) were stories that had: (1) graphic that integrated a climate change related issue with another issue (2) graphic that included a climate change-related issue (3) a section of an integrated story that devoted 10-20 lines of the story to Climate change-specific issue (4) a section of an integrated story that devoted 20 lines of the story to Climate change issue.

Low Focus stories (300) included those stories that had: (1) a single mention of five to ten lines devoted to climate change specific story, (2) a section of an integrated story that devoted 10-20 lines of the story to climate change related issue and (3) no graphic.

Nature of coverage was categorized into two: Adaptation and mitigation. Adaptation stories were those that focused on problem solving in terms of adapting to the effects of climate change and were coded (100). Mitigation stories were those that urged

citizens, governments or institutions to deal with global warming through reduction of carbon emissions or carb human activity that contribute to air pollution and they were coded (200). When a story did not fit within the mitigation or adaptation categories it was categorized as other (300).

Most climate change stories are either occasioned by natural events or individual actors within the different organizations that work in the climate change field including local and international organizations. The study therefore analysed these stories in terms of the drivers of coverage and this variable was categorized into two, that is, disaster driven and event driven. A disaster driven story, is one that reported on a climate change related natural calamity, for example floods, mudslide, drought or famine and will be coded (100). An event driven story is one that reported around a conference, a meeting or a summit that had a climate change theme organised by local or international organizations and they will be coded (200). A story that was neither driven by a disaster nor event was categorised as other (300).

Main actors referred to people featured in stories as sources or news makers for example victims, ordinary people, and authorities. Main actor categories included: Victims of climate change related natural calamities such as floods and landslides among others and this category was coded (100). Authorities or government officials if featured in the stories as articulating government policy or reacting or acting on behalf of the government in relation to climate change events that was newsworthy was coded (200). International non-governmental organization players whose organizations were playing various roles in sensitizing the citizenry or governments to adopt mitigation or adaptation approaches were code (300) if they were featured in the stories as actors. Local non-governmental organizations were coded (400) the researcher used code (500) for activists or lobby groups

lobbying for or against government policy or other policy including the ones origination from outside the government: They were lobby groups that brought together individuals from different organizations or many NGOs together. Any other actor not mentioned not fitting within the above five categories was categorised as other others (600).

Story source indicated whether the story was drawn from a wire service (coded as 100), a reporter working for the newspaper (200) a reader (300) or an unknown source (400). Statistics indicated whether the story used any statistics and stories that were anchored on or used statistics were coded (100) while the ones that did not have were coded (200).

The types of graphic used were operationalized into six categories which included: Picture (100), Graph (200), Illustration (300), Cartoon (400), Side bar list (500), Pie Chart (600). Pictures have further been categorised as sensationalistic (100) and symbolic (200).

Lastly the study analysed the tone of the articles. Tone was categorised as optimistic, neutral/ambiguous, and pessimistic as advocating for change. Optimistic tone (coded as 100) was for stories presenting climate change and its associated consequences in such a way that presented hope or a situation where there were scientifically proven mitigating and adaptive measures. Pessimistic tone (200) was for stories that presented a bleak future based on the consequences of climate change. Neutral tone (300) was for stories that were presenting issues related to climate change in a manner that neither inspired optimism nor a bleak future. Advocating for change or an advocacy tone (400) were those stories that had a slant that advocated for a certain cause of action as far as climate change was concerned.

3.10 Data Collection Procedure

The researcher conducted the study single-handedly and did not hire a research assistant. The researcher sought permission from both Nation Media Group and Standard Group to access their newspaper libraries. Thereafter, the researcher used the four key words, that is, *climate-change, global-warming, floods and droughts* to search through the digital newspaper databases for all the stories that have these key terms. The time period in the search criteria was limited to January 1, 2018 to December 31, 2019 and for each media house one key term was used at a time to retrieve the articles with the climate change stories. The researcher then used the list of all the retrieved stories and noted the dates of the newspaper editions that published these stories and articles. With this list the researcher collated all the articles and narrowed down to the newspapers that contained all these articles. The physical hard copies of these newspapers were then retrieved for data collection using the coding sheet.

Thereafter, the researcher proceeded with the key informant interviews where the researcher interviewed newsroom editors (Key informant interviews). The interview questions were based on the findings from the quantitative content analysis and the qualitative data was useful in corroborating the findings from the quantitative data. The interviews were semi structured and the researcher used the findings as a basis for the main questions, but asked follow up questions based on the responses from the editors.

3.11 Pre-testing of Data Generation Tools

The researcher conducted a pretest of the code sheet by coding climate change stories published by *The People Daily*. The researcher opted to conduct the pretest using *The People Daily*, since the newspaper is also published on a daily basis and is the fourth

largest newspaper in audience size and share (Geopoll, 2015). The researcher therefore considered it fit for a pre-test. Two coders were trained on how to go about coding articles from the newspaper. The training took a day, entailing interpretation of the analysis criteria and the code sheet. The researcher upon conviction that the two coders were conversant with the tools then gave each 5 copies *of The People Daily* with which they conducted the exercise. The coders spent two days carrying out the pre-test independently between 19th October, 2020 and 20th October, 2020. During the pre-test, it was discovered that there was an inter-coder reliability which scored a 91 per cent similarity. Inter-coder reliability is a numerical measure of the agreement between different coders regarding how the same data should be coded (O'Connor & Joffe, 2020) this step is necessary to ensure similarity in results. With the similarity index at 91 per cent, the researcher then kept the code sheet intact seeing that 91 percent is acceptable. According to Krippendorff (2013), coefficients of 90 or greater are acceptable, 80 or greater is acceptable in most cases, while 70 may be appropriate in some exploratory studies for some indices.

3.12 Validity and Reliability of Research Tools

The researcher conducted the pretest exercise to ensure reliability and validity of both the code sheet and the analysis criteria. Reliability check is a necessary step without which, a study's results and conclusions may be questionable and doubted and at times considered meaningless (Lombard, 2010). Reliability indicates that something can be measured consistently, offering similar results every time a test is conducted validity on the other hand means that the researcher accurately measures that which they want to measure, (Fitzner, 2007). To ascertain reliability and validity, the researcher had to test the agreement between both coders' results and the accuracy to help check the strength of the analysis criteria and the code sheet in order to commence data collection. From the five copies of *The People*

Daily newspaper, the coders had 20 stories with a total of 12 categories. The coders were expected to have all the 240 categories similar. The coders however, coded 218 the same while 22 categories yielded different codes. 218*100/240= 90.8 the researcher rounded this off to 91 percent. The pretest results reflected reliability as there was consistence and similarity between the two coders' results. This was measured using the Scott's *pi* formula which scored 91 percent. With this similarity index, the researcher considered the code sheet reliable and valid.

3.13 Data Analysis and Presentation Plan

The newspapers articles and stories were analyzed based on the analysis criteria and the researcher used the data from the content analysis of the newspapers to respond to the research objectives. The first level of the analysis used the analysis criteria and code stories focus, day of the week it was published, use of pictures, number of stories and dates of publication to respond to the objective that sought to examine the prominence given to climate change stories.

The next level used the analysis criteria and the coding sheet to analyze the stories and articles in order to establish the drivers of climate change stories and the nature of climate change stories. At this level the analysis entailed reading these stories and articles and ascertain the treatment of the stories, nature of coverage (whether adaptive or mitigation stories), drivers of coverage, main actors in these stories and the tone as explained in the analysis criteria.

Content analysis is a research technique used to make replicable and valid inferences by interpreting and coding textual material. The researcher therefore systematically evaluated the newspaper texts and using the coding sheet and the analysis criteria convert the qualitative data into quantitative data. This data was then be analyzed

quantitatively and different statistical analysis and cross tabulations information pulled out for interpretations. Cross tabulation is a method to quantitatively analyze the relationship between two or more variables. In this study, the researcher examined the relationship between the nature of coverage of climate change stories and prominence as well as drivers of coverage and prominence. For instance, to assess prominence of adaptation stories or prominence of mitigation stories the researcher cross tabulated focus and nature of coverage, pictures and nature of coverage and statistics with nature of coverage. The same case applied for drivers of coverage.

The results from the analysis of data were presented in form of frequency tables and pie charts the relevant narratives that will give descriptive, explanatory and interpretive analysis. This ensured uniformity in presentation and enable ease of interpretation and conceptualization of the presented results findings. The presentation was based on the objectives and research questions and the researcher drew conclusions from the presented data based on reviewed literature and the theory.

3.14 Ethical Considerations

The researcher obtained clearance from The Aga Khan University Graduate School of Media and Communications as well as from NACOSTI. Permission was also sought from The Media Houses that is The Nation Media Group and The Standard Group to access their digital and physical libraries. The researcher also assured the key informants that the information they provided, was only for purposes of the study and not any other. Additionally, the researcher also made it clear to the interviewees that they also have the freedom to withdraw from the process at any time of the research process. The researcher also assured the informants of anonymity.

3.15 Summary

This Chapter dealt with the research methodology and data collection and projections on analysis. The chapter also highlighted the validity and reliability of the analysis criteria and code sheet used for collection of data. It also discusses the ethical considerations by the researcher ahead of data collection.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This study sought to establish the coverage of climate change stories in Kenyan print media that is *The Daily Nation* and *The Standard newspapers* between January 1st 2018 and December 31st 2019. The study did this by establishing the prominence accorded to climate change stories, what the main drivers of coverage were and the nature of climate change stories, that is, adaptive or mitigation. This chapter presents the findings, the analysis of these findings and interpretations from the content analysis of the newspapers in 2018 and 2019.

4.2 Presentation, Analysis and Interpretation

The narration, presentation, and interpretation of the findings was done in line with the three objectives of the study.

4.2.1 Response Rate and Demographic Results

The study targeted all *Daily Nation* and *The Standard Newspapers* published between January 1, 2018 and December 31, 2019. The key words used for the study were Climate change, global warming, floods and drought. The search at The Standard newspaper retrieved 236 newspapers in 2018 and 319 newspapers in 2019, while Daily Nation Newspapers search retrieved 129 results for 2018 and 344 for 2019. In total the number of newspapers during the two-year period was 1028 newspapers. After the search and retrieval, from the 1028 newspapers, the study realised 1730 climate change articles from both newspapers during the two-year period.

4.2.2 Quantitative Content Analysis Findings

4.2.2.1 Prominence Given to Climate Change Stories

Treatment

The newspapers mostly covered climate change as general news stories with 54 % of the stories treated as general news stories while commentary/criticism was 12 %. The findings also indicate that *The Standard* newspaper treated more climate change stories as general news at 52 % compared to 41.30% for the Daily Nation as shown in Table 1 below.

Table 1: Treatment: Daily Nation & The Standard 2018/ 2019

	Combined		Nation		Standard	
	Frequency	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
General news	937	54.20%	276	41.30%	552	52.0%
Reflective	577	33.40%	253	38.00%	400	38.00%
Commentary/ Criticism	201	12.00%	124	19.00%	109	10.30%
Other	15	0.90%	14	2.10%	1	0.01%
Total	1730	100%	668	100.0	1062	

The predominant coverage of climate change stories as general news stories is relative to reflective coverage, which are longer feature stories and commentary/criticism, which are more of expert stories and opinion editorials on climate change suggest that the media paid slightly more attention to news of the day about climate change. However, 12% percent for commentary/criticism stories seems to be significant as the stories treated as commentary/criticism stories represent in-depth and critical analysis of climate change from experts in the field or individuals with in depth knowledge.

The study sought to find out the prominence given to climate change stories. The analysis of stories was classified into three categories of high focus, medium focus and low focus, with low focus being the category that gave climate change stories pronounced prominence. The focus of climate change stories was almost equally distributed through high, medium and low focus throughout 2018 and 2019 in both newspapers. However, low focus stories were slightly more than medium and high focus stories for the two newspapers combined in the two-year period. Whereas *The Standard* covered more medium focus stories than high and low focus, *The Daily Nation* had a significantly high coverage of low focus stories at 46.40% as shown in Table 2 below.

Table 2: Focus: Daily Nation & The Standard 2018/2019

	Combined		Nation		Standard	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
High Focus	533	31.00%	346	33.00%	187	28.00%
Medium Focus	591	34.20%	420	40.00%	171	26.00%
Low Focus	606	35.00%	296	28.00%	310	46.40%
Total	1730	100.00%	1062	100.00%	668	100.00%

The findings above indicate that *The Daily Nation* placed slightly more of the climate change stories on front pages, and as headlines stories compared to *The Standard*. *The Standard,* as indicated by the fairly high percentage of low focus stories at 46.4%, had a lot of climate change stories placed in inner pages where they do not draw the attention of most readers. The stories were also very short in nature mostly with no explanation and detail about the climate change phenomena.

Story Source

The number of climate change stories covered by reporters was significantly higher than stories from other sources. Of all the stories covered in both years, 76 % of them were reporter sourced stories. *The standard,* however, recorded the highest number of reporter stories at 83% compared to *The Daily Nation* which had 65%. Wire stories from international news agencies like AFP, Xinhua, BBC, CNN and Reuters had significant contribution to climate coverage in The *Daily Nation* and *The Standard Newspaper* making up 16 % of all the climate change stories in the two newspapers over the two-year period. *The Daily Nation* though had fewer reporter stories, scored higher in sourcing from the wires at 17% than *The Standard* at 14 % as shown in Table 3 below.

Table 3: Story source: Daily Nation & The Standard 2018/2019

	Combined Frequency Percent	Nation Frequency	Percent	Standard Frequency	Percent
Wire	268 16.00%	116	17.40%	152	14.30%
Reporter	1315 76.00%	435	65.10%	880	83.00%
Reader	73 4.20%	46	7.00%	27	3.00%
Other	68 4.00%	68	10.20%	1	0.10%
Total	1730 100.00%	668	100.00%	1062	100.00%

The findings above indicate that local media houses were intentional about coverage of climate change as most of those stories were covered by their journalists. This suggests that indeed there is some level of relatively high comparable investment in covering climate change by the local media. Moreover, with a significant contribution from the wire services, there seems to be a keen focus on climate change issues even from the

international arena as the local media also found a significant space for the coverage of climate change stories from international wire services.

Pictures

The study reveals that climate change stories in both newspapers had a 50% representation of stories bearing symbolic pictures, a very low of 2% of stories with sensational pictures and 50% of stories whose pictures were neither symbolic nor sensational. The neutral picture stories were found to bear pictures of the writers or correspondent thus not speaking to the climate change content in the stories. Results show that *The Daily Nation* used more of correspondent and writer profile pictures than *The Standard. The Daily Nation* had 59% of their stories bearing those pictures while *The Standard* had 42%. However, *The Standard* Used Symbolic pictures than *The Daily Nation* as shown in Table 4 below.

Table 4: Pictures: Daily Nation & The Standard 2018/2019

	Combined		Nation		Standard	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Sensationalist picture	29	2.00%	9	1.30%	20	2.00%
Symbolic picture	856	50.00%	267	40.00%	589	56.00%
Neither Sensational Nor Symbolic	840	49.00%	392	59.00%	448	42.40%
Total	1730	100.00%	668	100.00%	1062	100.00%

The findings above suggest that to an extent, media houses accord prominence to climate change stories, by accompanying stories with pictures that are in - line with the

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content or the theme of the stories. However, 49% of those stories bore pictures that were irrelevant to the story. These pictures were only profiles of the writers especially columnists. This means that media houses are not keen in contextualising climate change stories with pictorials.

Main Actors

The study defines main actors as people who are featured as key characters in the stories. They could be sources or news makers for example victims, ordinary people, activists and authorities. The study also established that of all the stories covered, a majority of them featured people suffering effects of climate change as the main actors, having a 58% representation. Climate change stories featuring government officials and authorities as key characters came in second at 28 % Local NGOs, international NGOs, activists and lobby groups were featured few times in climate change stories. *The Standard* had a significantly higher number of stories featuring people that were victims of climate change effects 65% compared to *The Daily Nation* at 47% percent. Authorities and government officials were not highly featured on both newspapers with only 28 percent of coverage. *The Daily Nation* however, gave stories with the authorities and government officials more coverage at 32%, than *The Standard* at 26%. International Non-governmental organisations like The United Nations and the like were featured almost equally by both dailies, although *The Daily Nation* had a few more stories with International NGOs at 7.2% than the standard at 4%. The local NGOs were insignificant in coverage of climate change by both papers. *The Daily Nation* featured activists and lobby groups at 5% more than *The Standard* at only 2% as shown in Table 5 below.

Table 5: M. Actors: Daily Nation & The Standard 2018/2019

	Combined		Nation		Standard	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Victims	1017	59.00%	320	48.00%	697	66.00%
Authorities/government officials	486	28.10%	215	32.20%	271	26.00%
International NGOs	91	5.30%	48	7.20%	43	4.00%
Local NGOs	5	0.30%	3	0.04%	2	0.20%
Activists and lobby groups	48	3.00%	31	5.00%	17	2.00%
Other	81	5.00%	51	8.00%	30	3.00%
Total	1730	100.00%	668	100.00%	1063	100.00%

The findings above indicate that journalists covering climate change framed most of these stories from the victims of climate change devastation perspectives. Government officials were also found to be a great factor to influence coverage of climate change stories, showing that journalists tended to cover stories in which authorities in government are involved. It does appear that the media focused more on climate change when there were victims suffering climate change devastation and when government officials were involved. The fact that lobby groups and advocacy organisations are not featured prominently as actors could suggest that the focus is predominantly reporting and not pushing the climate change agenda

Tone

The study defines pessimistic stories as those stories that bear consequences of climate change and are depressing to the audience which also bear a tone of despair. Optimistic stories refer to stories that give hope. Most of the climate change stories bore an almost equal number of both pessimistic and optimistic tones with a representation of 38% and 36% respectively. The study found that those calling for action had a significant

representation of 20%. *The Daily Nation* had fewer climate change stories presented in

optimistic tone at 31% than *The Standard* at 39%. *The Standard* had a lower number of

pessimistic stories at 37% than *The Standard* at 41%. In terms of neutrality, *The Daily*

Nation scored higher at 10% than *The Standard* at only 3%. *The Standard* had more stories

advocating for change, urging actors to take precaution at 22% than *The Daily Nation* at

17% as shown in Table 6 below.

Table 6: Tone: Daily Nation & The Standard 2018/2019

	Combined		Nation		Standard	
	Frequency	Valid Percent	Frequency	Percent	Frequency	Percent
Optimistic	618	36.00%	209	31.30%	409	39.00%
Neutral	102	6.00%	70	11.00%	32	3.00%
Pessimistic	664	38.40%	276	41.30%	388	37.00%
Advocating for change	344	20.00%	111	17.00%	233	22.00%
Total	1730	100.00%	668	100.00%	1062	100.00%

The results above indicate that in the two years, *The Daily Nation* and *The Standard*

generally framed most of their climate change stories with pessimism, featuring stories of

despair and devastation. The media houses still had optimistic stories those that offered

hope through solutions to climate change effects or where people were involved in reducing

GHG emissions though they were slightly overtaken by pessimistic stories that only

highlighted accidents brought about by climate change.

Statistics

Statistical representation in climate change stories covered by both newspapers in

the two-year period, show that a high percentage 79% of the stories had statistics while

21% had none. Most of the climate change stories covered by *The Standard* had more

statistics at 83% compared to those covered by *The Daily Nation* at 71%. *The Daily Nation* also had more climate change stories that had no statistical representation at 28% compared to *The Standard* at 17% as shown in Table 7 below.

Table 7: Statistics: Daily Nation & The Standard 2018/2019

	Combined		Nation		Standard	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	1360	79.00%	477	71.40%	885	83.20%
No	366	21.20%	189	28.30%	177	17.00%
Total	1730	100.00%	668	100.00%	1062	100.00%

The use of statistics proves that media houses were keen on using facts supported by figures from reports and authorities to make stories more credible supported by statistical evidence. The above results suggest that *The Standard* valued statistical evidence in their coverage of climate change more than *The Daily Nation* did. *The Standard* compared to *The Daily Nation* sought statistics and figures to support validity of story content that *The Standard* did. Statistical data adds depth to stories and helps journalists contextualise their stories with a data bearing.

4.2.2.2 Nature of Coverage

The study sought to determine the nature of stories that the two newspapers carried between 2018 and 2019, whether climate change stories focused on mitigation or adaptation efforts. The study found out that more stories focused on adaptation than on mitigation efforts. Adaptation stories that focused on problem solving and efforts towards cushioning citizens against effects of climate change had a 64% percent representation while only 29% were focused urged players like citizens, governments or institutions to deal with global warming through reduction of carbon emissions or curb human activity

that contribute to air pollution**. *The Standard* published more stories that highlighted problem solving and response to climate change disasters or championing for action in relation to countering the effects of climate change at 69% compared to *The Daily Nation's* which recorded a slightly lower figure of 55%. *The Standard* reported slightly more stories that discussed greenhouse gas emission reduction at 30% than *The Daily Nation* at 28% as shown in Table 8 below.

Table 8: Nature: Daily Nation & The Standard 2018/2019

	Combined		Nation		Standard	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Adaptation	1099	64.00%	364	55.00%	735	69.20%
Mitigation	505	29.20%	189	28.30%	316	30.00%
Other	126	7.30%	115	17.20%	11	1.00%
Total	1730	100.00%	668	100.00%	1062	100.00%

These findings suggest that media houses cover more climate change stories that highlight the effects of climate change than those that focus on the reduction of emission of greenhouse gases into the atmosphere. This is illustrated by the high number of adaptation stories compared to the mitigation stories. *The Standard Newspaper* coverage was found to be more focused on adaptation stories that highlight effects and calamities brought about by climate change than *The Daily Nation.*

4.2.2.3 Drivers of Coverage

The study also sought to establish who or what the drivers of climate change stories were in *The Standard* and *The Daily Nation* between the two years. The study established that slightly more than half 59% of climate change stories during this period were driven by disasters like floods, mudslides, drought and famine while only 13% percent were driven by events like conferences. *The Daily Nation* covered more stories highlighting

disasters at 63% percent than *The Standard* which covered 56% percent of the same. The two media houses coverage of events was at par as shown in Table 9 below.

Table 9: Drivers of Coverage: Daily Nation & The Standard 2018/2019

	Combined		Nation		Standard
	Frequency	Percent	Frequency	Percent	Percent
Disaster driven	1019	59.00%	423	63.30%	56.10%
Event driven	226	13.10%	88	13.20%	13.00%
Other	485	28.00%	157	24.00%	31.0%
Total	1730	100.00%	668	100.00%	100.00%

The results indicate that The Daily Nation and The Standard gave more coverage to disaster driven stories. These are stories that focused on incidences of floods, mudslides, famine and drought. In such instances, it is instructive to note that the coverage was not so much about climate change as it was about the impact of the disaster and the number of people affected.

Treatment of climate change stories in relation to focus

A cross tabulation of focus and treatment of stories on both *The Daily Nation* and *The Standard newspaper* found out that most of the general news stories were either placed in high or medium focus stories with 22% of these stories on low focus spaces in the newspaper as shown in Figure 1 below.
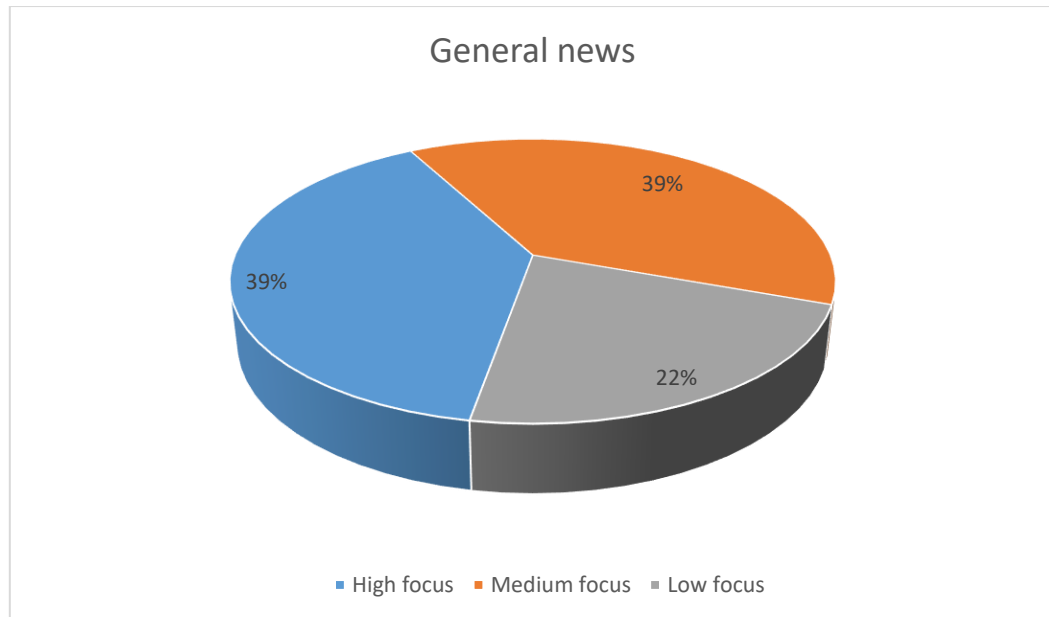
Figure 1: General news and focus - The Standard Newspaper and The Daily Nation Daily Nation 2018/2019

This shows that media houses gave the General news stories very conspicuous spaces in the newspaper. These general news stories which essentially focused on the news of the day that needed reporting on a timely basis were predominantly features with big headlines, carried the key search words like climate change, global warming, drought or floods in them. The stories also had a graphic that was dedicated to climate change and also dedicated more than 20 lines of the stories to climate change.

Reflective stories and Focus for The Standard Newspaper and The Daily Nation

A cross tabulation of treatment of stories and focus of climate change stories on *The Standard* and *The Daily Nation* found out that most of the reflective / long form stories either given medium or low focus with 45% of these stories being medium focus stories. Medium focus stories had graphics that included a climate change related issue, or had sections of integrated stories that devoted 10-20 lines to Climate change-specific issue.

A significant amount of 32% had no graphic at all and had a single mention of five to ten lines devoted to climate change specific story. These stories had a section of an integrated story that devoted 10-20 lines to a climate change related issue. A smaller percentage of 23% of the long form stories had titles that carried key search word like climate change, global warming, floods or drought. They also had their headlines placed on front pages of the newspapers and some of the long form stories were also editorial stories. The reflective detailed stories also had more than 20 lines talking about climate change while some had graphics that were related to climate change as shown in Figure 2 below.
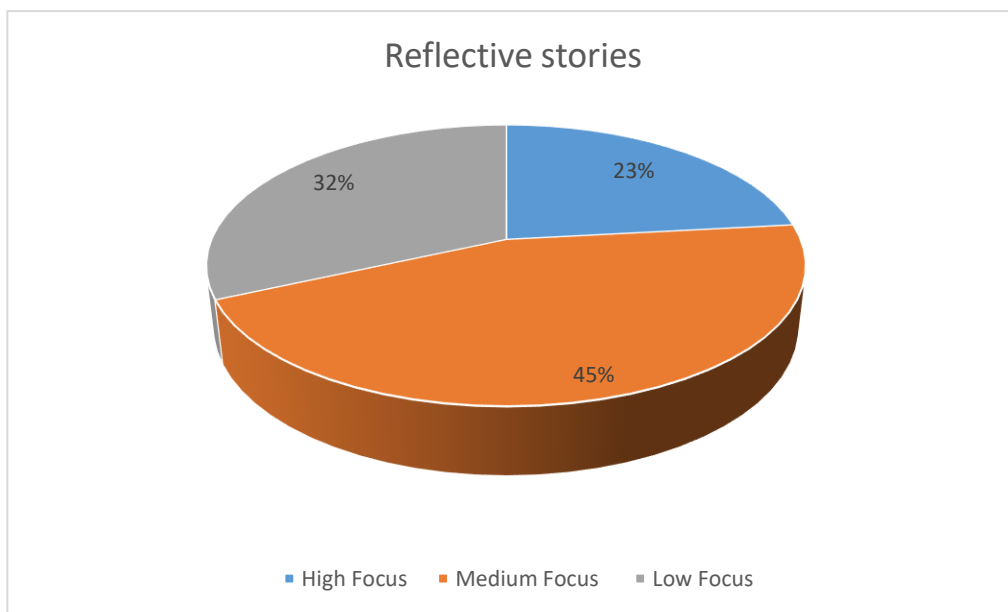
Figure 2: Reflective stories and Focus for The Standard Newspaper and The Daily Nation 2018/2019

The findings indicate that *The Standard* newspaper and *The Daily Nation* journalists in their writing and packaging have a tendency of integrating climate change related stories while reporting on other matters. This also indicates that they go out of their way to show the audience on how climate change affects various aspects of society. For

instance, while reporting on an agricultural story and food insecurity, journalists related the issue to erratic or lack of rainfall/ drought or floods that result to low yields. Most feature stories found on the inside pages rarely make it to the front pages, or make big headlines. However, there are few instances where these long form stories made big headlines and bore titles with words like climate change, floods, drought, or global warming.

Commentaries/ Criticism Stories

The study also found out that *The Standard* and *The Daily Nation* newspapers had a huge proportion, 41% of their Commentaries or criticism stories from experts, readers and opinion editorials had no graphics, they also had less than 5- 0 lines dedicated to climate change. There was also a significant number of commentaries and criticism stories 33% of them were placed on high focus pages, had mentions of key words such as global warming, climate change, they also made it to the headlines. As smaller number of the commentaries at 26% had a section of an integrated story that devoted 10-20 lines to Climate Change-specific issue. A smaller percentage of 26% were given more prominence by taking up headline stories, features on front pages as shown in the Figures 3 below.
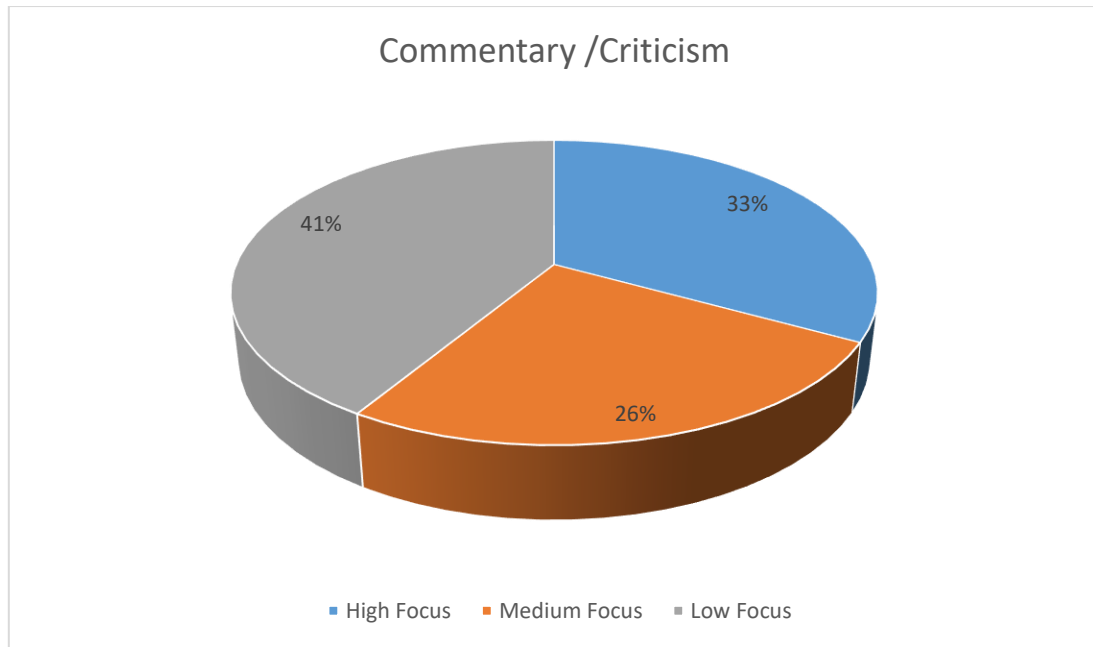
Figure 3: Reflective stories and commentaries by The Standard Newspaper and The Daily Nation

Nature of coverage and Focus

The study found that the two media houses had most of their adaptation stories given low focus coverage at 37%. Meaning most of the stories that highlighted solutions to problems posed by climate change had no graphics had less than 5 lines dedicated to climate change. The study also showed that most of the stories that highlighting reduction of greenhouse gases and urging people to limit air pollution were given medium focus coverage. Meaning they had a section of an integrated story that devoted 10-20 lines of the story to Climate change-specific issue. While some of them had a section of an integrated story that devoted 20 lines of the story to climate change issue and about 20 lines dedicated to climate change coverage, or they had a specific story integrated into a climate story. The study also showed that a majority of the stories written about reduction of greenhouse gases and emphasising on efforts to reduce air pollution, Probably had a graphic that integrates a climate change related issue with another issue or had a graphic that included a climate

change-related issue, a section of an integrated story that devoted 10-20 lines of the story to Climate change-specific issue or had a section of an integrated story that devoted 20 lines of the story to Climate change issue as shown in Table 10 below.

Table 10: Nature of stories in relation to focus as covered by all the Newspapers in 2018/2019

Cross tabulation Nature and focus for both *The Standard* and *The Daily Nation*					
			Focus		
		High Focus	Medium Focus	Low Focus	Total
Nature of coverage	Adaptation	34.00%	28.00%	37.00%	1099
	Mitigation	24.00%	51.00%	25.00%	505
	Other	30.00%	13.00%	6.00%	126
Total		533	591	606	1730

The above findings indicate that media houses generally do not accord prominence to climate change stories those that highlight solutions to climate change and those that are bent on calling actors to reduce greenhouse gases and calling on citizens to avoid air pollution. It also shows that journalists will just cover solution-based stories prompted by the news values and will not relate these problems directly to climate change hence few lines of these stories relate to the topic of climate change. The media houses at times give prominence to these kind of solution stories by placing them on front pages, giving them big headlines, at times including the key search words like climate change, global warming, floods and droughts Fewer times they will include pictures and graphics to the stories that will speak to climate change, and will dedicate between 10-20 lines of these stories to climate change this is evident in the 28% representation of low focus stories.

The findings also reveal that mitigation stories are given more prominence based on the fact that most of the times they will have graphics related to a climate change issue and have 10 to 20 lines dedicated to climate change as shown in the Table 11 below.

Table 11: Nature of stories in relation to focus as covered by The Standard Newspaper

| | Standard 2018 2019 | | |
	High Focus	Medium Focus	Low Focus
Nature of coverage Adaptation	36.00%	33.00%	30.40%
Mitigation	25.00%	54.00%	20.25%
Other	9.09%	18.00%	73.00%

The table above indicate that The Standard Newspaper gave prominence to stories that touched on the effects of climate change and that sought to highlight solutions to the effects of climate change. With high numbers of these stories represented in high focus category by placing them on front pages, using graphics, making them headline stories as well as giving them editorial coverage at time dedicating graphics that are climate change related. *The Standard* had less preference for stories that discussed reduction of greenhouse gases emissions or efforts to combat global warming.

The adaptation stories covered by *The Standard* Newspaper in both years were almost equally distributed across the various levels of importance. 31% of adaptation stories were accorded high focus while 33% of them were medium focus stories and 36% were low focus. *The Standard* however covered mitigation stories differently, with a majority of them receiving medium focus coverage at 55%, and almost equal proportions to high focus and low focus as shown in Figure 4 below.

The Standard newspaper however, had 69% of adaptation stories with high focus and 29% of the stories were mitigation as shown in Figure 4 below.
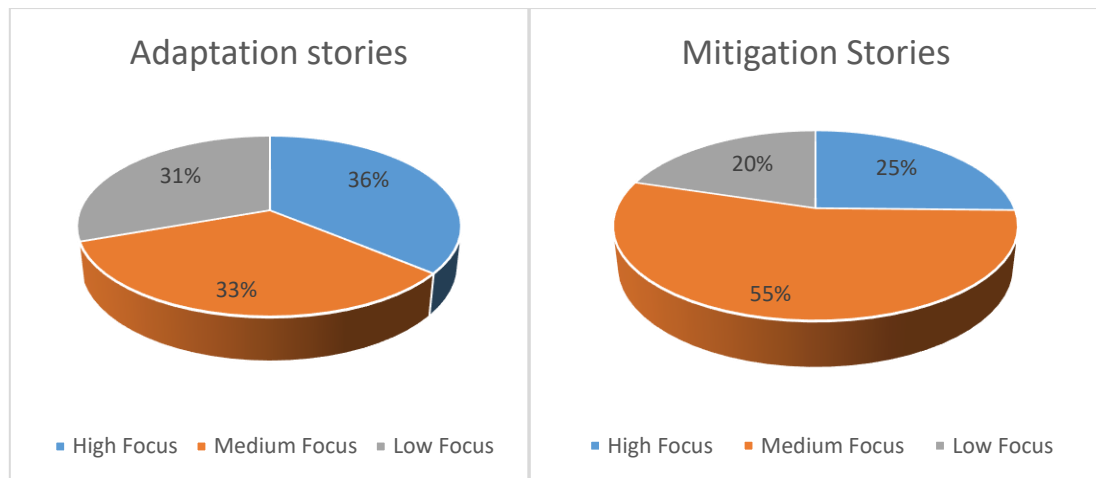
Figure 4: Adaptation and mitigation stories and focus as accorded by The Standard Newspaper 2018/2019

This infers that The Standard Newspaper covered stories that highlighted the plight of people due to effects of climate change as well as stories that highlighted solutions to these problems and was not intentional about setting the agenda by according them importance. Most stories that highlighted the reduction of greenhouse gases from the atmosphere, or that urged governments and actors to take action in an effort to combat climate change, were placed in inner pages.

Nature of coverage and focus The Daily Nation accord the stories

The study found that *The Daily Nation* in both years had 51% of stories highlighting plight of citizens and the solutions to climate change effects that were given very low prominence. A lot of these stories had very few lines at times none dedicated to climate change and no graphics were used for illustration or pictures to contextualise the stories.

The Newspaper however had accorded more prominence to those that highlighted reduction of carbons, greenhouse gas emissions with 46% of those stories deliberate about the climate change topic, dedicating 10-20 lines of coverage to the topic as shown in table 12 below.

Table 12: Nature of coverage and focus by The Daily Nation

Cross Tabulation Nature of coverage and	Focus	Nation 2018 2019		
		High Focus	Medium Focus	Low Focus
Nature of coverage	Adaptation	30.00%	19.00%	51.00%
	Mitigation	22.00%	46.00%	32.00%
	Other	32.00%	13.00%	55.00%

The above findings infer that *The Daily Nation* did not give prominence to the climate agenda neither through the coverage of solutions-based stories nor efforts on reduction of greenhouse gases. The newspaper failed to contextualise the plight of citizens and the solutions provided as consequences of climate change. They did not explain to audiences that the tragedies they face inform of droughts, floods and mudslides were triggered by climate change. The Daily Nation, also based on the above findings, was not keen on setting the climate agenda in relation to highlighting efforts on greenhouse gases reduction, urging corporates, governments and citizens in general to avoid air pollution.

Types of Pictures used in Adaptation and Mitigation stories

The study found that Adaptation stories, those highlighting solutions to combat effects of climate change, had more symbolic pictures at 52%, while the stories that highlighted reduction of carbons and greenhouse gas emissions were had fewer pictures at 47%. The study also found that there was a significant proportion of stories that had pictures that were neither symbolic nor sensational, with Adaptation stories having a representation of 46% of those pictures and 52% for mitigation stories which highlight carbon emissions and greenhouse gas reduction. Sensational pictures had significantly lower representation in both types of stories with solution-based stories having only 2% and the stories on reduction of carbon emissions at only 1% as shown in Table 13 below.

*Table 13: Cross tabulation Nature * Pictures Daily Nation & The Standard 2018/2019*

		Nature of coverage * Picture Cross-tabulation			
		Picture			
		Sensationalist picture	Symbolic picture	Neither Symbolic nor sensational	Total
Nature of coverage	Adaptation	2.00%	52.00%	46.00%	1095
	Mitigation	1.00%	47.00%	52.00%	505
	Other	2.00%	39.00%	59.00%	125
Total		29	856	840	1725

The above results indicate that media houses use symbolic pictures to give prominence to climate change stories. The results also infer that media houses rarely use sensational pictures: those that oversell the stories to create hype and draw eye balls to their publications. However, the high presence of neutral or irrelevant pictures, indicate that media houses have a tendency of publishing stories without pictures in context to their content. These pictures were found to be profile pictures of columnists just for identification purposes.

Use of statistics in Adaptation and Mitigation stories

The study found out that both adaptation and mitigation stories had an almost equal number of statistical representations. The stories highlighting solutions to combat climate change effects were 80% while those that highlighted the carbons and greenhouse gas emissions and reduction were 79%. The study found that very few stories of both categories had no statistics. The solution-based stories with no statistics were 19% while those on reduction of carbons and greenhouse gas emissions were 21% as shown in Table 14 below.

Table 14: Cross tabulation of Pictures & nature of coverage The Daily Nation & The Standard

		Nature of coverage * Statistics Cross tabulation		
		Statistics		
		Yes	No	Total
Nature of coverage	Adaptation	80.00%	19.00%	64.00%
	Mitigation	79.00%	21.00%	29.00%
	Other	63.00%	37.00%	7.00%
Total		79.00%	21.00%	100.00%

The results above indicate that media houses give prominence to climate change stories, by accompanying them with statistics. The media houses are more cautious about publishing their stories unaccompanied by statistics in their climate change stories hence fewer numbers in those that did not carry statistics. Statistics make stories prominent as they acquire authoritative and credible especially with statistics from credible bodies or organisations. This therefore show that media houses give prominence to stories by use of statistics.

Drivers of Coverage and Focus

The study found out that most of the climate change stories were covered around natural calamities by both newspapers in both years were given medium focus at 39% The stories that were reported to show devastation of humans as a result of natural calamities, tended to have been related to climate change through dedication of at least 10 or more lines to climate change, others had graphics that were dedicated to climate change while some had graphics that were integrated into a climate change related story. Both dailies portrayed stories that highlighted reduction of greenhouse gases and carbons from the atmosphere as less important, by giving them low prominence. Few of these stories at 19%

were placed on front pages, made headline stories, had headlines with key words such as climate change, global warming, floods and droughts.

The number of stories that were neither event driven nor disaster driven were actually more than the event driven stories as shown in Table 15 below.

Table 15: Drivers of climate change stories coverage in relation to focus by both The Daily Nation and The Standard

Drivers of coverage * Focus Cross Tabulation					
		High Focus	Medium Focus	Low Focus	
Drivers of coverage	Disaster driven	34.00%	39.00%	18.00%	56.12%
	Event driven	19.00%	46.00%	36.00%	12.99%
	Other	21.00%	38.00%	42.00%	30.69%
		100.00%	100.00%	100.00%	100%

The findings above mean that both newspapers were motivated by disaster to cover climate change stories. Occurrences of drought, famine, floods, mudslides and the like, attracted media houses to cover climate change stories. In 2018 and 2019 there were frequent occurrences of these weather disasters. Media houses therefore were driven by news values of relevance and timeliness to give prominence to these incidences. On the other hand, both media houses covered few climate change stories, driven by events like conferences, summits on climate change. This could be explained by the fact that few events around the topic took place and were only featured on these newspapers whenever they were announced or by the fact that media houses do not attach importance or

prominence to stories around climate change events like summits, conferences and meetings.

Drivers of coverage and Pictures

The study found out that the stories reporting natural calamities had a representation of 52% of pictures that were in line with the content of the stories. However, the stories that reported on conferences, workshops, summits and meetings, had fewer stories at 49%. Both stories on natural calamities and those highlighting events like conferences, workshops, summits and meetings however, had an equal number of pictures at 2%. As shown in the Table 16 below.

Table 16: Cross tabulation of Pictures & drivers of coverage

		Drivers of coverage * Picture Crosstabulation			
		Picture			Total
		Sensationalist picture	Symbolic picture	Neither Symbolic nor sensational	
Drivers of coverage	Disaster driven	2.00%	52.00%	46.00%	59.00%
	Event driven	2.00%	49.00%	49.00%	13.00%
	Other	4.00%	44.00%	55.00%	28.00%
Total		2.00%	50.00%	49.00%	100.00%

These results indicate that media houses use symbolic pictures to give prominence to stories reporting on natural calamities more than those reporting on conferences, summits, workshops and meetings. It also shows that media houses rarely publish stories from events and on natural calamities with sensation pictures that oversell the stories or grab the attention of audiences with no proper cause.

Drivers of coverage and Statistics

The study found out that both media houses used statistics to give prominence to stories on natural calamity, which had 80% of stories bearing statistics. The Stories on events like conferences, workshops, summits and meetings also had a significant number of them with statistics at 73%. However, few climate change stories covered on natural calamities had 20% of them using statistics while those driven by events like conferences, workshops, summits and meetings had 27% as shown in Table 17 below.

Table 17: Cross tabulation of Drivers of coverage & Statistics D. Nation and The Standard 2018/2019

Drivers of coverage * Statistics Cross tabulation				
		Statistics		
		Yes	No	Total
Drivers of coverage	Disaster driven	80.00%	20.00%	100.00%
	Event driven	73.00%	27.00%	100.00%
	Other	78.00%	22.00%	100.00%

Drivers of Coverage and Treatment

The study found that of all the climate change stories covered by the two newspapers, 52% of the stories reporting on natural calamities were given a hard news treatment. The study also found that a smaller percentage at 38% of those stories had deeper analysis and depth taking up more space and were also long in form. A conspicuously smaller percentage at 10% of these disasters driven stories were in form of first-hand opinion pieces by columnists or in house editorials as shown in Figure 5 below.
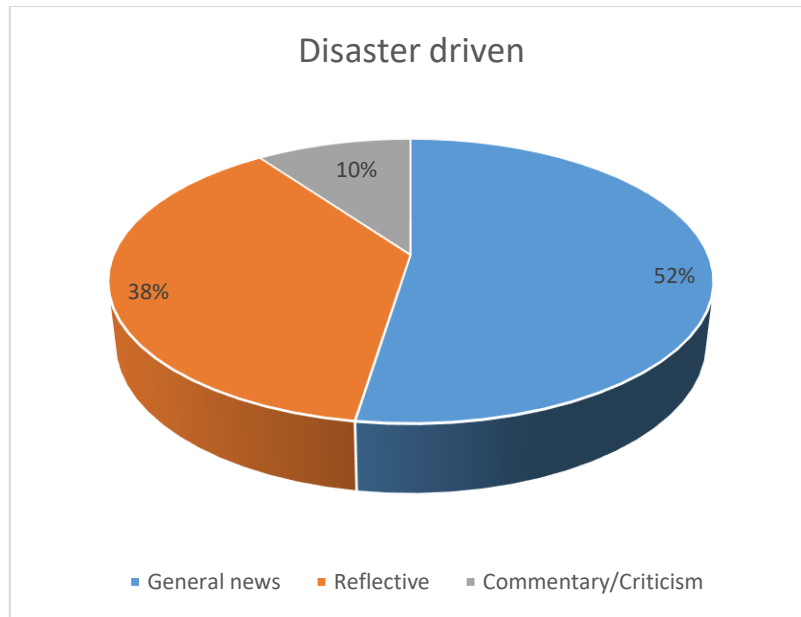
Figure 5: Drivers of coverage and treatment by both The Daily Nation and The Standard 2018/2019

The findings above infer that media houses treat natural calamities as a statement of straight facts and hard news which are quickly phased out by other emerging issues. These stories often assigned to reporters become irrelevant or stale in a short span. However, the media houses fewer times, will get the reporters to do a follow up of the climate change stories to expound further and to give more background to the story. It also shows that media houses are less likely to commission OPEDS, columnists and experts to write about stories on natural calamities as first-hand opinion stories.

Treatment of event driven stories on The Daily Nation and The Standard

The dailies were fond of treating most of the conferences, meetings and summits on climate changes as mere general news. The study found that 72% of these events were reported with straight facts and treated as current affairs. The study also established that a smaller percentage at 24% of the event driven stories were further pursued as reflective stories to give deeper analysis and depth, and were presented in long form whereas only

4% of the event driven stories were assigned to columnists or were presented as opinion editorials as shown in Figure 6 below.
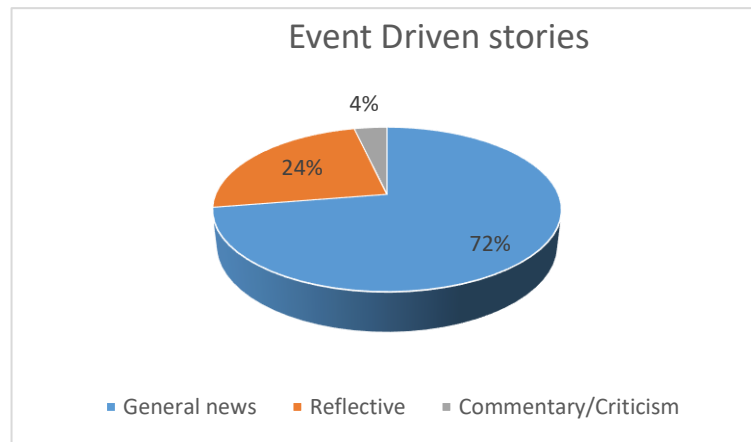
Figure 6: Event driven stories and Treatment by The Daily Nation and The Standard 2018/2019

The above results indicate that media houses mostly treat events as hard news, current affairs, covering the straight facts, that is, the 5Ws and H. The media houses rarely wrote long form features out of event driven stories, meaning they did not contextualise the purpose of events beyond the 5ws and H. Beyond stating the hard facts at 72% only 24% of the stories were in long form to analyse the climate change topic in relation to the event. Only 4% of the stories on events being opinion pieces show that newsrooms hardly give contributors a chance to express their opinion about events around climate change. It can also be interpreted that, coverage of events on climate change stories is a reserve of reporters.

Drivers of coverage and Source of Stories

The study revealed that 87% of all disaster driven stories were written by reporters, while only 11% originated from the wires and only 3% were contributions from readers while 81% of event driven stories, were written by reporters, while a smaller percentage of

them were generated from the wires. None of the event driven stories came from the readers as shown in Table 18 below.

Table 18: Drivers of coverage and story source in The Daily Nation & The Standard 2018/2019

Drivers of coverage * Story source Cross Tabulation		Wire	Reporter	Reader	Total
Drivers of coverage	Disaster driven	11.00%	87.00%	3.00%	100.00%
	Event driven	19.00%	81.15%	0.00%	100.00%
	Other	19.07%	77.23%	4.00%	100.00%

Those findings indicate that journalists are often on the lookout for tragic occurrences to report on climate change issues. This is informed by the value of newsworthiness which dictates that bad news make news. The fact that more event driven stories were written by reporters means that reporters are also always on the lookout for upcoming events or ongoing major event to cover climate change stories. Since both natural calamities and events are prompts of climate change coverage, it can be said, that journalists are more reactive than proactive, when it comes to coverage of climate change. There's also an indication that the wires like AFP, AP, CNN, BBC, Xinhua are also an important source of climate change stories and that media houses are at times deliberate about climate change stories coverage since this kind of sourcing is more deliberate.

Main actors and nature of coverage

The study found out that 82% of all the stories that featured people who suffered effects of climate change were stories that also reported on solutions for climate change effects. On the contrary, a smaller number 18% of stories that featured people that suffered

effects of climate change, were also touching on reduction of greenhouse gases and highlighting air pollution.

Stories that had a theme of greenhouse gases reduction featuring government officials and authorities as key characters, had a representation of 54% and only 43% of stories with government officials as key characters were stories that were highlighting solutions to effects of climate change. International NGOs were equally featured as main actors in both categories, though in low numbers at 21% as shown in Table 19 below.

Table 19: Nature of coverage of climate change stories and main actors

Main actors * Nature of coverage Cross Tabulation				
		Adaptation	Mitigation	Other	
Main actors	Victims	82.00%	18.00%	0.40%	697
	Authorities/government officials	44.00%	55.00%	2.00%	271
	International NGOs	49.00%	49.00%	2.30%	43
	Local NGOs	50.00%	50.00%	0.00%	2
	Activists and lobby groups	35.00%	65.00%	0.00%	17
Total		734	316	11	1063

The findings above indicate that journalists mostly use human angles to tell stories about solutions to climate change effects, especially people who were victims of the occurrences. This could explain that stories that have humanitarian angles tend to be more compelling as people can relate with what other people are going through, hence the journalists are fond of using the angle. Media houses were not fond of using people as key characters while reporting the stories on reduction of greenhouse gases and air pollution. This means most journalists reporting on climate change in media houses are not well versed with the climate change concept and could not connect how global warming leads

to the natural calamities we experience like floods, mudslides, droughts and famine. It also indicates that most mitigation stories were written by experts who have no journalistic knowledge of including human angles in stories. The results also indicate that media houses also seek government officials as main actors of the climate change stories in order to give the news value of prominence to the stories covered, with the knowledge that politicians, officials and authorities captivate readers' attention. The above study results also indicate that activists and lobby groups have minimal contribution to coverage of climate change stories.

Drivers of coverage and Main Actors

The study found out that both *The Daily Nation* and *The Standard* had more natural calamity driven stories having people who suffer effects of climate change as their key characters at 74%. The stories reporting events like conferences, summits, workshops and meetings, had a representation of the people suffering effects of climate change in them at 21%. The natural calamity stories covered by both papers had 20% representation of government officials' way lower than those that covered events which had government officials featuring in them at 51%. These stories had other characters featuring very insignificantly in them. For instance, Inter-governmental NGOs, rated low at 3% in natural calamity story coverage and 11% in stories highlighting conferences, summits, workshops and meetings. These stories did not have activists and lobby groups featured often, as stories on natural calamities had only 1% of activist and lobby group representation, while events stories had 8% representation of activists and lobby groups, as shown in Table 20 below.

Table 20: Cross tabulation of Drivers of Coverage and Main Actors

		Victims	Authorities /governme nt officials	Internat ional NGOs	Local NGOs	Activist s and lobby groups	Other	Total
		Drivers of coverage * Main actors Cross tabulation						
Driver s of covera ge	Disaste r driven	74.00%	20.00%	3.00%	0.00%	1.00%	2.00%	100.00%
	Event driven	21.00%	51.00%	11.00%	0.00%	8.00%	9.00%	100.00%
	Other	45.00%	35.00%	7.00%	0.00%	5.00%	8.00%	100.00%
Total		59.00%	28.00%	5.00%	0.00%	3.00%	5.00%	100.00%

These findings indicate that media houses are fond of covering climate change stories especially those on natural calamities with human angles embedded in them. The media houses however, do not prefer human angles for event driven stories as much as they do for natural calamity ones. The Media houses most of the time while covering conferences, summits, workshops and events, they prefer having government officials more than they prefer using human angles. Lobby groups and activists seem to play a minimal or insignificant role in determining coverage of climate change stories.

4.2.3 Key Informant Findings

4.2.3.1 Prominence

The study sought to examine coverage of climate change stories in Kenyan mainstream newspapers; *The Daily Nation* Newspaper and *The Standard* Newspaper. The researcher analysed the key informant interviews within the objectives of the study. Research objective one sought to examine the extent to which climate change stories are given prominence in both *The Daily Nation* and *The Standard*.

The findings revealed that most climate change stories were placed in inner pages and rarely on front pages indicating that media house do not accord prominence to climate change stories. The two newsroom media editors interviewed from both outlets agreed that climate change is not given prominence through placement on front pages. This is because climate change is still a bit that has not gained popularity and therefore tends to be overtaken by other topical issues like politics. The editor from the Daily Nation echoed:

> Unless there is a landslide that killed 50 people a climate change story on rising temperatures these kinds of stories will always be beaten by political stories unless the impact of the story is so big. The results however showed that in regards to usage of pictures, the media houses gave prominence to climate change stories, as a majority of them had pictures that were symbolic to the stories.

The newsroom editors interviewed responded to these, saying that they selected photos based on their illustrative powers and never to create sensation. This could explain the 1% presence of sensational pictures. However, the editor at *The Standard* noted that:

> In some cases, file photos are used depending on the preference of the photographic editor and copy editor. Sometimes, we run "stand-alone" photos that have nothing to do with the stories on a page.

The Daily Nation editor echoed that at times a story may bear these kinds of pictures, especially when it's a story written by a columnist. He said:

> The columnists will file text in word format they will not file photos so when you layout that story after reading through it you will ask yourself is there any other photos that I can use? If the space is allowing and most of the time with columnist stories, there's little space at times you have to look for pictures you're likely to go to files or to the wires to look for pictures on whatever the subject the person is writing.

The findings of the study also revealed that media houses used statistics in most of the climate change stories. Statistical evidence and numerical representation of facts adds prominence to a story and helps the media set an agenda by using these numbers to

highlight a big deal that audiences should care about (Erbring et al., 1980). The editors from The Daily Nation agreed that: "Statistics are very crucial in explaining phenomenon and presenting the evidence of the headline or the intro you're making." The Standard news editor noted that "For any story, not just on climate change, statistics or data help in presenting it and ensuring it becomes more palatable to the reader."

4.2.3.2 Drivers of Coverage

Research objective two sought to examine the drivers of climate change coverage in both *The Daily Nation* and *The Standard.* Revelations from the study show that media houses' coverage of climate change is driven by disaster in form of natural calamities like floods, droughts, mudslides and famine. The editors interviewed agreed to these claims and said that "Disaster stories are richer in news value hence the high coverage of natural calamities and incidents." Another editor added that "Much of our reporting is catastrophe based." The study also found that victims of climate change were more preferred by media houses compared to those that had government officials and authorities another editor supported that by saying:

> Stories about people affected by a situation have a better 'human interest' appeal. As an editor, a story highlighting the predicament of families appeals to me more than sentiments of bureaucrats speaking from the comfort of their offices.

Another editor supported this sentiment by saying that "good journalism is people focused and climate change is an issue that affects people and so people have to be at the centre of the narratives."

4.2.3.3 Nature of Coverage

Objective three of the research, was to examine the nature of climate change stories covered by the two media houses. The study found that *The Daily Nation* and *The Standard* gave more coverage to adaptation stories that highlighted solutions to climate change, than those which focused on telling people about emissions and reduction of GHGs. The editors attributed this to a trend in preference for solutions journalism. The Daily Nation editor said:

> There's a new craze for solutions journalism within media houses. We offer solutions to problems instead of reporting those problems where it is possible, the general approach on solutions journalism will be to look at the problem and then look at the people who are solving that problem and offer solutions.

The Standard editor attributed this kind of coverage to the technical nature and complexity involved in mitigation focused stories. He said, "There is a thin line between efforts and solutions. But in my opinion, what may further blur the line is the rather technical nature of climate change stories."

4.3 Summary of Key Findings

1. The purpose of the current study is to examine coverage of climate change stories in Kenyan mainstream newspapers; *The Daily Nation* and *The Standard Newspapers*, against the backdrop of the agenda setting, agenda building and framing theories. The analysed data presented in this chapter indicates that there are 7 key findings on how *The Daily Nation* and *The Standard* covered climate change. Climate change stories are given minimal prominence in Kenyan mainstream newspapers as a majority of the stories at 69% are given low and medium focus. Only 31% of the stories are given high focus, with placement on front pages. Prominence of coverage is indicated by the emphasis placed on the

issues based on their location within the newspaper publication (Hunter Bacot, 1999). Other pointers to prominence include presence of pictures and statistics. The study found out that 50% of all climate change stories in both newspapers had symbolic pictures. Symbolic pictures aid in making a story prominent, as they offer visual aids to readers and help demystify hard scientific concepts like climate change (Nicholson-Cole, 2005), they also make it easy for audiences to remember. The study found that 79% of the stories covered bore statistics.

2. Climate change stories of adaptive nature are given low focus in Kenyan mainstream newspapers. The study found that 37% which were majority of stories dwelling on solutions to effects of climate change were featured in inner pages where audiences could not access easily. In short this means the media accords less prominence to stories that tell audiences about solutions being provided to combat effects of climate change. However, prominence was accorded to adaptation stories through use of pictures. The study found out that 52% of the stories of adaptation nature bore symbolic pictures. Prominence is accorded to both solutions based stories and those reporting on reduction of carbon emissions as both categories carried a similar and significantly huge amount of stories bearing statistics at 80% and 79%.

3. Media houses do not give prominence to climate change stories that are related to events. Out of all stories reporting on events, conferences, summits and workshops, only 19% of them were featured on prominent pages like front pages. This means the media does not give prominence to event based stories and therefore places a bulk of them in inner pages. Climate change stories driven by disasters are given more prominence as they are mostly accompanied by symbolic pictures. The study

found out that 54% of the stories highlighting the plight of citizens and caused by natural calamities were accompanied by symbolic pictures. This shows that media houses give prominence to climate change stories driven by disaster by accompanying them with pictures. The disaster driven stories were also given prominence by the mainstream newspapers through use of statistics. 80% of the stories that reported natural calamities had statistics. This means that media houses accord prominence to disaster stories through use of statistical evidence.

4. Second, the mainstream media covers more adaptive stories than mitigation stories. The numbers of stories that highlight the solutions provided to combat effects of climate change were more than double those that focused on reduction of carbon emissions. This indicates that media houses focus more on solutions-based journalism than the kind of journalism that enlightens on carbon emissions and greenhouse gases reduction.

5. The media houses prefer to focus on victims while covering stories that tell about solutions to climate change effects. More than three quarters of the stories featuring victims were highlighting solutions to climate change effects. This can be explained to mean that Kenyan media prefers to use human angles in their stories to draw the attention of their audiences. Ajaero & Anorune, (2018) say that human angles in stories draw more eyeballs as people tend to be more interested in hearing about other people and can relate to their stories.

6. Lastly, the Kenyan media's coverage of climate change is mainly driven by disaster. Three quarters of all climate change stories covered were reporting natural calamities. This means the media houses are more reactive than proactive in their

coverage of climate change. Atieno and Njoroge, (2014) agree that when the media responds to natural disasters in their coverage, they assume a reactive role than a proactive one.

7.   The Kenyan print media in its coverage of climate change, reports more disaster stories in which people are victims of these natural calamities. The study established that 74% of the stories had people at the center of climate change effects like droughts, floods and mudslides. In short, most of the time, editors select stories that have a natural calamity occurrence and chose to include the human-interest angle in coverage. The study also found that 51% of stories that reported events had more government officials as main actors. This means that media houses, for these kinds of stories prefer to feature to politicians and officials in government. This could be because they are mostly the delegates to such events and hence journalists have easy access to them.

4.4 Summary

This chapter provided the findings on coverage of climate change in Kenyan print media, with focus on *The Daily Nation* and *The Standard newspapers* between January 1st 2018 and December 31st 2019. These findings were presented in form of tables and pie charts. The tables and figures were accompanied by descriptions and explanations of the findings. The chapter also gave a summary of the key findings in relation to the research objectives and in the following chapter the researcher presented a discussion of these key finding

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter presents the discussion of the key findings on Climate change coverage in Kenyan print media with the case of *The Daily Nation* and *The Standard Newspapers* between January 1, 2018 and December 31, 2019. The chapter also presents a discussion and conclusions on the findings on how climate change was covered in regards to Agenda setting, Framing and Agenda building.

5.2 Discussion of Key Findings

5.2.1 Research Objective One

The first objective of the study sought to examine the extent to which climate change stories are given prominence in both *The Daily Nation* and *The Standard.* The study found out that climate change stories are given minimal prominence in Kenyan print media, since most of the stories were placed in inner pages where accessibility by audiences is not easy. Very few stories were placed on front pages of the newspapers. The number of stories highlighting adaptation to effects of climate change, were not given prominence either. These stories report solutions that are provided to combat the effects of climate change. The fact that a majority were placed in inner pages means editors do not find it necessary to accord prominence to climate change stories reporting on solutions journalism. However, the stories that reported on carbon emissions, had more prominence as a majority featured in front pages. This is indeed a sign that media houses, when it comes to enlightening citizens on carbons and greenhouse gas emissions, they find it necessary to

give such stories prominence. As for the reporting of events like conferences, workshops, summits and meetings on climate change, they were given minimal prominence as they were not featured in front pages. The results showed that events driven stories, were only featured in prominent pages like front pages at 19% of the time. Media house editors said that unless an event is really big and had local relevance, only then could it make it to front pages. Prominence is measured by the placement of stories. According to Onindo (2011), stories on front pages, hint to the audiences that there is salience in that news item. Majumdar (2010) says that the placement of a story reflects importance given to it. The lack of prominence for climate change stories on Kenyan newspapers match with findings from a study by (Piamonte & Gravoso, 2008) which found that climate change stories in leading Phillipino newspapers were denied prominence. They noted that, reflective feature stories were placed in the inside pages and rarely on front pages. The findings also match with those from a study by Langat (2011) whose content analysis on *The Daily Nation* and *The Standard* in November and December 2019 found that only 7% of the climate change stories were placed in front pages.

The study also found out that media houses, at times gave prominence to climate change stories, especially by use of pictures and statistics. A majority of stories including those that highlighted solutions, those that covered events and even those that reported disaster had symbolic pictures accompanying them as well as statistics. The deliberate use of statistics and pictures in these stories indicate that to some extent, media houses accorded prominence to climate change stories by dedicating symbolic pictures and including statistical representation in the stories. Kioko (2018) says that pictures impose a level of importance to a story hence give prominence to stories that bear pictures.

These findings are supported by the agenda setting theory by Mc Combs and Shaw (2007). It suggests that mass media has the ability to transfer the salience of their items on their news agendas to the public agenda. It also states that the media determines what is newsworthy by giving those stories prominence and that the public judges important what the mass media judge as important. This theory therefore guides the study in its assessment of prominence placed on climate change stories by both newspapers in the years 2018 and 2019. It is clear from the findings that the media did not set the climate change agenda through placement of stories on prominent pages especially front pages.

5.2.2 Research Objective Two

The second objective sought to assess the nature of climate change stories covered in both The Daily Nation and The Standard. The study found that media houses cover more stories highlighting the solutions provided to combat effects of climate change than those that highlight the reduction of carbons and greenhouse gases. This means that media houses adopt a more reactive approach in their coverage of climate change stories. The media is not proactive in its coverage of climate change stories hence the low number of stories enlightening people on reduction of greenhouse gases. The media houses' preference for victims in their stories highlighting solutions to climate change effects is an indication that human angles are used by media house to tell solution-based stories. The human angles are mostly people who have experienced the impact of climate change effects like hunger, floods or mudslides. Ajaero and Anorune (2018) argue that use of human angles in climate change stories add appeal to stories, hence drawing more eyeballs to publications. News editors interviewed for this study, confirmed that indeed Stories about people affected by a situation have a better 'human interest' appeal, and editors will prefer stories highlighting

the predicament of families than those that feature sentiments of bureaucrats speaking from the comfort of their offices.

These findings agree with those from Elia (2018) in his study on media coverage of climate change information by the Tanzania Guardian and Daily News in 2015. His findings reflected that Tanzanian main dailies capitalised on adaptation and impacts of climate change which contributed to the coverage of climate change by the Guardian and The Daily News newspapers. The results of this study however, differ from those by (Rahman, 2010) whose study on climate change coverage on the mass media of Bangladesh found out that three quarters of stories covered in 2006 were of mitigation nature and were focusing on carbon emissions and greenhouse gases reduction.

The framing theory suggests that how the media presents an issue to the audiences influences how the public then chooses to process the information. The media chooses to frame climate change news as problems that the Kenya audiences have no control over. This gives an impression among the audiences. It shows that the audiences are helpless and can only wait for solutions to deal with effects of climate change. The media by including human angles into the adaptation stories mean that they frame their stories through human angles. They do this to attract the attention of readers as people tend to relate more with issues faced by others. The Kenyan media rarely frames climate change from the perspective that audiences have a responsibility over climate change. Instead, they have a responsibility through tracking their carbon foot prints and eventually reducing emissions. Media house editors responded to this, saying that mitigation is somewhat a difficult concept for audiences and would mostly turn them off. The media editors therefore preferred to frame their stories around adaptation efforts which they said solutions journalism sells more.

5.2.3 Research Objective Three

The third objective sought to assess the drivers of climate change stories in *The Daily Nation* and *The Standard.* The study found that media houses give more attention to stories on disasters than those that report on events. Three quarters of all climate change stories covered by both newspapers were covering disaster. This goes to say that in deed media houses find natural calamities as a more appealing way of telling stories on climate change. The fact that natural calamities carry with them an aura of doom, misery and hopelessness, these attributes inspire newsrooms to cover climate change as they possess the news value of newsworthiness. The saying that when a man bites a dog is news than vice versa, qualifies disaster stories more coverage. This also goes to say that media houses will mostly cover climate change when there are natural calamities. The media editors interviewed said disaster stories are richer in news value hence the high coverage of natural calamities and incidents in regards to climate change.

These findings agree with those of Ajaero and Anorune (2018), in their study on newspaper framing and climate change mitigation in Nigeria and Ghana. Their study found that newspapers were episodic in their coverage of climate change, which explains why there was a surge in articles on disaster when natural calamities brought about by climate change occurred. Their study also discovered that there was a reactive approach in coverage and media house editors assigned reporters to cover stories on disasters.

The findings however differ with those of Schäfer, Ivanova, and Schmidt (2014), whose study noted that climate change coverage in Germany, India and Australia was driven by events and not occurrence of disaster. They found that media houses recorded a spike in coverage of event-based stories. In their study, Ajaero, andAnorune, (2018) also

noted that there was a dearth of events coverage even at the time the events were on-going. The study's findings also differ from those of Rödder and Schäfer (2010), who conclude that media attention to climate change issues is often around major events and not necessarily about climate change itself. They say that this leads to a trend of peak and off-peak seasons for climate coverage.

The agenda building theory focuses on who prompts media coverage and what sources beyond the newsroom drive coverage. The study found that the media houses were mostly influenced by victims of the climate change effects especially for stories reporting natural calamities. However, as for stories that reports events, a majority of key actors were found to be government officials. This can be explained by the fact that delegates to these events are mostly government officials and policy makers and so journalists are likely to mention them in their stories by mentioning their attendance or attributing statements made by the officials. Studies on agenda building have found that government officials and politicians have a big hand in influencing media coverage. The press releases and information subsidies are expected to prompt journalists to cover issues these officials find important while incorporating their opinions (Parmelee, 2013). This study instead found out that in the case of disaster driven stories government officials came in second with a significantly low number of stories featuring politicians as main actors. The media house editors openly declared they did not consider government officials as important characters to drive their coverage of climate change.

5.3 Conclusion and Implications for Practice

The study concludes that *The Daily Nation* and *The Standard* do not accord prominence to climate change coverage. The lack of placement of climate change stories

on prominent pages like the front pages. The fact that stories on solutions to climate change, those that reported natural calamities and those that reported on events, were not given prominence through placement, means that media houses did not drive the climate change agenda and did not consider climate change an issue of public interest. However, by the media houses using pictures to accompany their stories indicate that they cared about the comprehension of the climate change issues through the use of visual aid like use of pictures, making them interesting thus grabbing readers' attention while giving context to those stories. Likewise, media houses capitalised on use of statistics and figures. This shows that media houses were keen on using statistical representations to grab eyeballs and the attention of readers and to show them that they need to care about certain matters. Statistics show the scale of an issue and stories may not bring out the seriousness of the climate change issues if they lacked statistics.

By media houses choosing to report climate change by highlighting solutions to its effects, shows that media houses are reactive to climate change coverage than proactive. There's a danger in this kind of reporting, as the media remains as a conveyor belt of information by just reporting on happenings. The media's tendency to report on aftermaths and actions to correct damages of climate change only shows a responsive approach. The media, by also considering to use victims in these kinds of stories, show that they are determined to make happenings of climate change more relatable to people, as the audience will only care about the topic when others are involved. The dearth of mitigation stories with an aim of covering reduction of carbons and greenhouse gas emissions also goes to say that media houses are not proactive in climate change coverage. Telling stories about carbon credits, carbon foot prints and responsibility to reduce emissions at a personal level would reflect a climate smart media.

The tendency to prioritise disaster coverage also indicate that Kenyan print media is episodic in its coverage of climate change. This is because the high appetite for disaster will die as soon as there is no natural calamity to report about. This means that conversations on climate change will only arise as long as there are occurrences of floods, drought, famine or mudslides. These conversations will also change as soon as other matters of public interest arise. The downside of this kind of reporting on climate change is that there will be no consistent media agenda that can elicit policy at a governmental level. Rare reporting on events reflects a media that does not take advantage of conferences, summits and workshops to come up with climate change stories. The events tend to have a lot of literature material and information subsidies that media houses could use to package stories on climate change. They could also take advantage of scientists and experts in attendance to help demystify technical and scientific matters on climate change to then present to readers in a simplistic and palatable manner.

5.4 Recommendations

The study has established that the Kenyan print media does not give prominence to climate change coverage. The climate change stories covered by *The Daily Nation* and *The Standard* are not placed in prominent pages like the front pages. Placement being a key indicator of salience hence agenda setting for stories means the Kenyan print media has not set the climate agenda through this method. To this end, the current study recommends that media houses should consider setting the climate change agenda through use of strategic placement of stories in prominent pages.

The study establishes that 64% of the stories covered around climate change by the two media houses are adaptive in nature. These stories are mostly those that highlight the

solutions provided to combat the effects of climate change. This reflects a responsive and a reactive kind of approach by media houses in their coverage of climate change. The use of people affected by climate change shows that media houses understand the power of human angles in storytelling. To this end, this study recommends that media houses first be more proactive in their coverage of climate change by publishing stories on climate change without being prompted by circumstances like solutions provided to cushion communities or people from effects of climate change. The study also recommends that media houses be keen on telling stories around mitigation efforts. The stories on mitigation will get audiences caring more on their carbon foot print hence keener on emissions of carbons at personal and corporate levels. The use of human angles could be an excellent tool to get media houses telling stories of people who are talking responsibility of their carbon footprints by avoiding certain actions that cause massive emissions, people who have come up with innovations to reduce emissions. The media editors mentioned that reason why these kinds of stories are rare is because media houses do not have special desks reporting climate change and only have general science desks. This study recommends that media houses set up climate change desks, including journalists interested in climate change coverage as well as those who have undertaken courses on climate change and editors alike, to amplify coverage of climate change in news rooms.

The study establishes that government officials come in second as key actors in climate change stories. The study therefore recommends that the government in a bid to drive the climate change agenda, officials should consider being part of the narrative as they can be key drivers of coverage, hence drawing journalists to write about them. However, it is acknowledged that government officials could at times interfere with the agenda while involving their own biases or drive their political agenda in camouflage.

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5.5 Areas for Further Research

The findings of this study have several implications for future research. There exist gaps in establishing whether media houses' coverage of climate change is coincidental or intentional. This study was not set to establish that, though there could be a possibility of coincidental or intentional coverage.

Another area of further study could be to find out the extent to which media coverage of climate change in Kenyan print media affects policy on climate change. This study was not set to interrogate policy as a result of coverage but there is a probability that media coverage does or does not affect policy action.

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APPENDICES

Appendix A: Analysis Criteria

	Criteria	Details	Codes
	The brand	Indicates where the article was published	Daily Nation-100 The Standard- 200
	Dates	The day, month and year when the article of published	Date Format DD.MM. Code 1-12 starting with November as 1 and September as 12 *(That is our calendar year, year is not important in the coding)*
	Headline of the story	The exact written headline	
	Treatment	Indicate the way that the story is written, not to be confused with the subject of the story *General News/Hard news:* any story that emphasizes facts of a recent event. Often uses a straight news or inverted pyramid style of writing with an emphasis on the timeliness factor. *Reflective:* longer, more insightful tone; covers climate issue in more depth, tell a story rather than just regurgitate a series of facts. Includes news feature stories and other longer forms. *Commentary/Criticism:* any story that offers a first-person opinion or is a stated opinion of the newspaper. Includes the	General news=100 Reflective=200 Commentary/Criticism=300

		editorials and the opinion editorials by columnist.	
		An article of any other nature will be categorized as other**.	Other=400
	Number	Number of climate change stories in the newspaper- ordinary Number	1,2,3,4,5 etc
	Day of the week	Indicate the day of the week when the story/stories was/were published	Monday=100 Tuesday=200 Wednesday=300 Thursday=400 Friday=500 Saturday=600 Sunday=700
	Keyword	Indicate the keyword which was used in the analysis	climate change -100 global warming - 200 drought - 300 floods - 400
	Focus	Indicates the level of importance or prominence accorded to the story in a newspaper in terms of where the story is placed, presence or absence of graphic/picture, and mention of key words in the headline. Three focus levels: high, medium and low will be used. *High focus stories* are: (1) on the front or back page (2) have a headline that mentions the key words (3) devoted more than twenty lines to a climate	High Focus= 100 • Front Page =FS • Back Page= BS • Headline Keyword= HS • Graphic devoted to Climate Change = G1 • Editorial Story=ES

105

| | | change-specific issue (4) had a graphic devoted to a climate change with an issue in discussion and (5) was an editorial story.

Medium focus stories had a (1) graphic that integrates a climate change related issue with another issue (2) graphic that include a climate change-related issue (3) a section of an integrated story that devoted 10-20 lines of the story to Climate change-specific issue (4) a section of an integrated story that devoted 20 lines of the story to Climate change issue;

Low Focus stories had (1) a single mention of five to ten lines devoted to climate change specific story, (2) a section of an integrated story that devotes 10-20 lines of the story to climate change related issue and (3) no graphic. | Medium Focus= 200

• Graphic integrates Climate Change with another issue= G2
• Graphic include Climate change-related issue=G3
• Section of integrated specific story devotes 10-20 lines= L1
• Section of integrated related story devotes 20+ lines= L2

Low Focus =300
• Section of integrated specific story devotes 5-10lines= L3
• Section of integrated related story devotes 10-20 lines= L2 |
| | Nature of coverage | Nature of coverage will be categorized into two that is Adaptation and Mitigation. | Adaptation=100 |

		Adaptation stories are those that focus on problem solving in terms of adapting to the effects of climate change and will be coded.	
		Mitigation stories are those that urge citizens, governments or institutions to deal with global warming through reduction of carbon emissions or carb human activity that contribute to air pollution**.**	Mitigation=200
		A story that neither falls under mitigation nor adaptation will be categorized as other**.**	Other=300
	Drivers of coverage	Drivers of coverage will be categorized into two that is disaster driven and event driven.	
		A disaster driven story, is one that reports on a climate change related natural calamity, for example floods, mudslide, drought or famine and will be coded 001.	Disaster driven =100 • Floods=DF • Mudslides=DM • Drought=DD • Famine=FD
		An event driven story is one that is reported around a conference, a meeting or a summit that has a climate change theme**.**	Event driven=200

		A story that is neither driven by a disaster nor event, will be categorised as other**.**	Other=300
	Main actors	Main actors refer to people featured in stories as sources or news makers for example victims, ordinary people, and authorities. Main actor categories will include: *Victims* of climate change related natural calamities such as floods, landslides etc *Authorities or government officials* who articulate government policy or are reacting to climate change events that are newsworthy. *International non-governmental organization* players whose organizations are playing various roles in sensitizing the citizenry or governments to adopt mitigation or adaptation approaches. *Local non-governmental organizations* *Activists or lobby groups* lobbying for or against government policy or other policy including the ones origination from outside the government. Could be a lobby group that brings together	Victims=100 Authorities/government officials=200 International NGOs=300 Local NGOs=400 Activists and lobby groups=500 Any other actor=600

		individuals from different organizations or many NGOs together. *Any other actor* not mentioned above, will be categorised as other others.	
	Story source	Indicate whether the story was drawn from (1) A wire service (2) A reporter (3) Reader, (4) Unknown	Wire Service = 100 Reporter = 200 Reader = 300 Unknown = 400
	Statistics	Indicate whether the story uses any statistics (1) Yes (2) No	Yes= 100 No= 200
	Graphics	Define the type of graphic used	Picture- 100 Graph- 200 Illustration = 300 Cartoon = 400 Side bar list = 500 Pie Chart= 600
	Picture	Define the picture sensationalistic, symbolic. *Sensationalistic pictures:* Refer to those images used that misrepresents the story by having little meaning to the context of the story. *Symbolic pictures*: Refer to pictures that contextualise the story fully representative of the facts, situation described or characters mentioned.	Sensationalist picture= 100 Symbolic picture = 200

Tone	Define if the tone of the news is optimistic, neutral/ambiguous, pessimistic, advocating for change.	Optimistic Tone= 100
		Neutral= 200
		Pessimistic= 300
		Advocating for change= 400
	Optimistic tone will be for stories presenting climate change and its associated consequences in such a way that presents hope or a situation where there are scientifically proven mitigating and adaptive measures.	
	Pessimistic tone will be for stories that present a bleak future based on the consequences of climate change.	
	Neutral tone will be for stories that are presenting issues related to climate change in a manner that neither inspires optimism nor a bleak future.	
	Advocating for change or an advocacy tone will be those stories that have a slant that advocates for a certain cause of action as far as climate change is concerned.	

Appendix B: Code Sheet

For content analysis and assigned values to assess the coverage of climate change issues

on Kenya print media with a focus on the Daily nation and the Standard newspapers.

Date

This is the date of the article as per the by-line.

1. **Headline**

2. **Treatment**

Nature of article

100 News story

200 Feature story

400Editorial

400 Other _____

3. **Number of Stories**

4. **Day of the week**

Monday=100

Tuesday=200

Wednesday=300

Thursday=400

Friday=500

Saturday=600

Sunday=700

5. **Key word**

Climate change -100

Global warming - 200

Drought - 300

Floods – 400

6. Focus

100 High focus

High Focus= 100

- Front Page =FS
- Back Page= BS
- Headline Keyword= HS
- Graphic devoted to Climate Change = G1
- Editorial Story=ES
-

200 Medium focus

- Graphic integrates Climate Change with another issue= G2
- Graphic include Climate change-related issue=G3
- Section of integrated specific story devotes 10-20 lines= L1
- Section of integrated related story devotes 20+ lines= L2

300 Low focus

Section of integrated specific story devotes 5-10lines= L3
Section of integrated related story devotes 10-20 lines= L2

400 Other_____

7. Nature of Coverage

Indicate what nature is the story. Does it offer solutions on adaptation or does it urge the

government or people to take a mitigation approach?

100 Adaptation Story

200 Mitigation story

300Others _____

8. **Drivers of Coverage**

Indicate what the driving force of the story is

100 Disaster driven story

- Floods=DF
- Mudslides=DM
- Drought=DD
- Famine=FD

200 Event driven story

300 Other _____

9. **Main Actors**

Indicate the dominant character in the article

100 Victims

200 Authorities/ government officials

300 International NGOs

400 Local NGOs

500 Activists and lobby groups

600 Others _____

10. Source of The Story

Wire Service = 100
Reporter = 200
Reader = 300
Unknown = 400

11. Statistics

Yes= 100

No= 200

12. Graphics

Picture- 100

Graph- 200

Illustration = 300

Cartoon = 400

Side bar list = 500

Pie Chart= 600

13. Picture

Sensationalist picture= 100

Symbolic picture = 200

14. Tone

Optimistic Tone= 100

Neutral= 200

Pessimistic= 300

Advocating for change= 400

Appendix C: Interview Guide

1. It appears that a majority of climate change stories covered were general news stories at 54% while there were relatively fewer feature stories 33% why is that?

2. It appeared that the media houses covered a lot of their stories focused on disaster like floods drought mudslides etc how can you explain focus on disasters on behalf of your media house?

3. There was also a notable preference for victim-oriented stories these even surpassed government officials as main actors why do you think this is the case?

4. Most of your stories were more pessimistic and very few optimistic ones why do media houses capitalize on pessimism?

5. There also seemed to be more stories that focused on solutions offered to combat climate change than there were to highlight efforts to reduce carbon emissions why is that so?

6. Your media house used statistics a lot in coverage of climate change story why do you think this is important

7. Most pictures used on your climate change stories were symbolic in fact 50% of them 49% were unrelated to the stories they were just pictures of correspondents and freelancers how would you explain this?

Appendix D: Work Plan and Budget

November 1st - 30th 2019 – Proposal writing Chapter 1 & 3

December 3rd - 19th 2019 – Proposal writing Chapter 2

December 22nd 2020 - 1st Proposal Defence

January 5th – January 10th 2020 – Proposal revision

January 11th –January 30th 2020 – Data Collection

February 1st – February 28th 2020 –Run data through SPSS

March 3rd- March 10th 2020 – Data Analysis

March 10th – March 15th - Formulate questions and conduct in- depth interviews

March 16th – March 28th – Compile and polish document

April 1st -Final Defence

May 12th 2021 – Graduation

ITEM	AMOUNT IN KSHS
Transport	5,000
Communication	2,000
Contingency	5,000
TOTAL	12,000

I Esther Wanja Mungai, the principal investigator of the proposed project will solely fund the budget herein.

Esther Wanja Mungai

Phone no. 0720270377

Appendix E: Introductory Letter from AKU

THE AGA KHAN UNIVERSITY

Graduate School of Media and Communications

National Commission for Science, Technology and Innovation

P. O. Box 30623 – 00100

Nairobi

November 02, 2020

Dear Sir/Madam.

ESTHER WANJA (STUDENT NO. 535163)

Esther Wanja is a registered student at the Aga Khan University, Graduate School of Media and Communications. She is enrolled in the Master of Arts in Digital Journalism Programme and has completed her course work. She is now working on her Master's thesis. Ms. Wanja's topic is "Coverage of climate change issues in Kenyan print media: A case of The Daily nation and The Standard newspaper."

The purpose of my writing is to request you to assist Ms. Wanja complete this important academic exercise.   Any information collected will be used solely for academic purposes. Upon completion of the research, Ms. Wanja's thesis will be available at our library. She will also submit two hard copies and one soft copy in pdf of his completed work to your department.

We appreciate your support to our student towards her successful completion of her thesis research.

Please feel free to contact me should you require any further information.

Yours sincerely,

Dr. Nancy Booker
Director – Academic Affairs

Appendix F: AKU Ethics Review Committee Approval Letter

THE AGA KHAN UNIVERSITY

Graduate School of Media and Communications

REF: AKU-GSMC/ERC/2020/006

Date: November 05, 2020.

Dear Esther Mungai (Student No. 535163)

RE: COVERAGE OF CLIMATE CHANGE IN KENYAN PRINT MEDIA: CASE STUDY OF NATION AND STANDARD NEWSPAPERS

This is to inform you that Aga Khan University – Graduate School of Media and Communications Ethics Review Committee has reviewed and approved your above research proposal. Your approval period is November 1, 2020 to October 31, 2021 and your application's approval number is AKU-GSMC/ERC/2020/006.

This approval is subject to compliance with the following, under the supervision of your two supervisors:

1. Only the approved documents including the informed consent form and the data collection instruments will be used.
2. Any changes, made on the approved documents that may increase the risks or affect the welfare or safety of the participants or compromise the integrity of the study must be reported to GSMC within the shortest time possible. The amended documents will be taken through a fresh review and the due process of approval.
3. In the event that the research cannot be completed within the one year approved period, the researcher will request for renewal of approval 30 days prior to the end of the approved period.
4. The researcher will be required to submit a comprehensive progress report when applying for renewal of approval.
5. Submission of an executive summary report to the GSMC's Ethics Review Committee within 90 days of completion of the study.
6. Produce all the data collected using the approved tools as and when required by the Ethics Review Committee within the 90 days of completion of your study.

Prior to commencing your study, you will be required to obtain a research permit from National Commission for Science, Technology and Innovation (NACOSTI). You can access the application portal from the website on https://www.nacosti.go.ke/.

Please feel free to contact me should you require any further information.

Yours sincerely

Dr Nancy Booker
Director- Academic Affairs
GRADUATE SCHOOL OF MEDIA AND COMMUNICATIONS

Appendix G: NACOSTI Research License

REPUBLIC OF KENYA

**NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION**

Ref No: 732414

Date of Issue: 02/February/2021

RESEARCH LICENSE

This is to Certify that Ms.. Esther Wanja Mungai of Aga Khan University, has been licensed to conduct research in Nairobi on the topic: Coverage of Climate change in Kenyan print media: A case of Daily nation and the standard for the period ending : 02/February/2022.

License No: **NACOSTI/P/21/8701**

732414

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY &
INNOVATION

Verification QR Code

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