

## CLIMATE CHANGE IMPACTS REPRESENTATION IN KENYA'S NEWS MEDIA.

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### ABSTRACT

**T**oday the questions of adaptation and mitigation to climate change risks are arching their way out to community platforms in an interpretive flow through various communication modes that shape public opinion and mediate scientific commentaries. At the forefront of this process, are news media which facilitate critical public engagement in alternative discourse concerning climate change controversies. However, the question of whether or not the media can lead to informed citizenry that can help communities and governments to enact sustainability measures for society is an elusive one. Some quarters have put reservations on the ecological integrity of media concerning climate change highlights as it plays to the tune of dominant systems of environmental representation, which is biased on framing alarming reports of ecological collapse. Using content analysis of selected media this paper examines climate change reporting and representations in Kenya. Further interviews were done with scientists to examine their perception about climate science reporting in Kenya's mainstream media. It was found that climate change continues to receive low coverage locally, however from time to time when new research findings are published the media are quick to flash out alarmist news. This brings the question of true representation of science in mainstream media; is it a triumph of business over journalistic norms as media are quick to sell and remain relevant? The findings also posit a proactive role yet to be embraced by the media in addressing environmental failures as well as its healing possibilities in bid to tackle the prevailing climate change crisis observed both globally and locally.

**Key words:** Climate change, Media representation, Kenya, Framing theory, News media.

**Introduction (pressing issues on climate change reporting) (Global issue)**

The challenges of climate change continue to riddle the 21<sup>st</sup> Century, with damaging effects felt from the global to community levels (IPCC, 2007). Such effects have been closely linked to economic slowdown in countries, (IPCC, 2012; DARA Vulnerability Monitor, 2013), and also the consequences have been predicted to possibly dent the global GDP (Stern, 2006; Stern, 2007). In developing countries a lot of emphasis is put on impacts to agricultural productivity for sustenance of rural populations. For example, some studies center on a general overview on agriculture (Chen, Huang, McCarl, & Shiva, 2014) and others are country specific studies, exclusive mentions being Agriculture in Tunisia (Mansour & Hachicha, 2014); Cameroon (Molua, 2009); Sub Sahara (Calzadilla, Zhu, Rehdanz, Tol, & Ringler, 2013).

Scientific facts on global warming implications envisage agrarian economies in sub Saharan Africa to be the worst hit with food insecurity issues due to dependence on rain fed agriculture (International Food Policy Research Institute, 2009). Besides, climate change impacts create a conflict problem when immediate human needs are at risk of not being met due to scarcity of resources. Struggles over depleted resources pose grave threats to the security sector with armed interstate conflict in parts of Africa linked to disputes over insufficient natural resource supplies (Burke, Miguel, Satyanath, Dykema, & Lobell, 2009; Gleditsch, 2012; Hendrix & Salehyan, 2012). The subject of climate change is also pertinent in tourism, a weather dependent sector with a contention that tourism is both architect and prey of climate change (Gossling, Bredberg, Randow, Sandstrom, & Svensson, 2006; Riebe, 2011).

The DARA Vulnerability monitor (2013) foresees an increasing vulnerability to climate change related deaths for developing countries low emitters from 83% to 85% for the period 2010 to

2030, and further stresses that inaction to climate change provokes more harsh outcomes of the crisis. Action points to climate change are patent to adaptation and mitigation strategies. So in tackling such pressing issues, these are important strategy but adaptation and the necessity of solving impending challenges through pro adaptive collective actions is urgent (Njoroge, 2014). According to the scholar, since climate change has a local effect adaptation has been encouraged at regional/community level hence information flow from global policy level to national platforms has been encouraged. At this point, adaptive actions can only be implemented from a community level of perception (Chawla, 2001), and media is a key player in problematizing the climate change crisis to elicit appropriate public response.

Media's role in mainstreaming climate change response through informed citizenry is acknowledged. Wilson (1995) underscores the role of the mass media by revealing that a large section of the public receives scientific knowledge through broadcast channels. Television and daily newspapers remain the leading source of mass media (Project for Excellence in Journalism 2006). Therefore media efforts could be relied upon for making headway in responding to growing pressures of climate change impacts by the public and policy makers alike.

Indeed there has been an ever increasing media attention to climate change issues across the continents, (Anderson, 2009; Boykoff, 2007; and Schafer, Ivanova, & Schmidt, 2014). However, there has been comparatively little media coverage of climate change in developing countries; yet, they are likely to suffer the worst effects (Painter 2007 cited in Anderson 2009, p 169).

With the much empirical evidence on climate change, there is still low awareness among African populations including Kenya. In a poll of 206,193 interviews conducted across 128

countries in 2007 and 2008, Africa reported the least percentages in awareness of climate change and its threats. It is reported that among those who participated in the survey only 44% were aware and felt the threat of climate change compared to Europe and the Americas (which includes North, South, and Central America) where 8 out of 10 people are aware of climate change and its threat. In addition, these two regions have the greatest percentage of adults who were confident of knowing how to respond to the threat.

<i>How much do you know about global warming or climate change?</i>					
	Have not heard of it	Know something about it	Don't know a great deal about it	Don't know/ refused	Aware
World	24%	50%	11%	15%	61%
Europe	8%	70%	18%	4%	88%
Americas	14%	64%	17%	4%	82%
Asia	24%	45%	8%	23%	53%
Middle East/North Africa	41%	42%	10%	7%	52%
Sub Saharan Africa	48%	37%	7%	9%	44%

Source Gallup poll, [www.gallup.com](http://www.gallup.com)

Based on Gallup surveys in 128 countries between 2007 and 2008. Data weighted to World Bank adult population estimates

While the risk of ecological collapse points to the increasing climate variability needs that have to be addressed, informative public discourses through news media to shape our understanding on climate change in Kenya are scarce. Moreover, reporting of climate science jargon to the general public requires simplification of scientific language to a great extent. Considering the country's susceptibility to climate change as a sub Saharan agrarian economy (see IPCC 2009) and as a developing country low emitter (see DARA Vulnerability monitor, 2013), low coverage of climate science news (read media inaction) in the country is a worrying trend. We therefore question if media's constructions of climate change correspond with scientific findings.

## 1.2 Media in Climate change reporting

Two problematic issues that stand out in academic debates on media reporting of climate change are; the reluctance to publish climate science reports (Oluasson, 2009), also shown in studies on coverage/ comparisons of climate change awareness levels e.g (Boykoff, 2007; Boykoff & Rajan, 2007) and the reconstruction of scientific claims in media (Boykoff & Boykoff, 2004; Carvalho, 2006; McCright and Dunlap, 2003). This would imply that the general public is rarely enlightened on climate change issues, and that information obtained from media is not necessarily a mirrored reflection of scientific reports. Consequently, the aforementioned problematic concerns would amount to media inaction to climate change.

Arguments on inaction to reporting reveal that reluctance to broadcast is as a result of coverage playing into a confrontational space of: superfluous topical social problems devouring for public attention; divergent viewpoints from scientists and opposing scientist's camps on climate science, all competing for the limited entry in mass broadcasts; and a strong reliance on dramatization to make an item newsworthy that translates into reactive episodic reporting whose frequency is highly dependent on occurrence of climate related incidences. At this point, the tight spot for the media is on selectively amplifying or suppressing some voices on the pressing concern. Justification of what issues to give priority attention or backseat is often times pegged on an influential authority order bias (Bennett, 2002; McManus, 2000).

The contention on reconstruction of scientific claims in media reports centers on misrepresentation appropriated to various reasons by media researchers. According to Carvalho, (2006) this may stem from ideological standpoints

taken by media. For Boykoff & Rajan (2007) it is the complexity of scientific language that may yield approximate meaning in public discourse. The authors write that “Scientists generally employ a lexicon of caution and speak in a language of probability, which usually does not translate smoothly into the crisp, unequivocal commentary that is valued in the press (2007, p. 3). Their language is dull and specific, factors that may not attract readership of common audience. Goalty (2001, p.204) however forewarns that ordinary language misrepresents the world in ways which are out of step with modern insights into the nature of the physical and biological universe and of humans’ place in it. Thus media reports on climate change are not actual reflections of science. While the social relation between science and public arena is mediated by news items, it is worth noting that packaging complex scientific reports to alternative formats suitable for non scientific audiences’, presents the challenge of twisted reflections of climate science in bulletin forms. Climate change reporting takes a two step flow departing from scientific expert findings, to meaningful constructions by the media. Scientific reports on climate change may be complex and have specific target audience. Simplified reports for the public come in through media.

In the climate science discursive space, complex scientific information is passed down to community platforms through mediated communication. Since understanding of complex environmental issues like climate change requires an interdisciplinary approach (Tapio & Willamo, 2008) mediated communication can be strategic in pushing for topical debates for informing policy decisions and shaping public discourse. These include news media such as the printed press, electronic and online networks. Here information flow operates from global policy levels to local implications, and also on cross border basis in reporting across countries and continents. This flow faces a hurdle when media takes a position of

inaction in climate change coverage. Media’s inaction has been attributed to exclusion decisions based on judgments of public’s disinterest on climate change talks and also issue competition for the limited carrying capacity in news media arena.

Conversely, scholarly reflections have also noted that the topic climate change is rewarded adequate airtime and space in media houses. According to scholars who study climate change reporting the basic tenet is that media plays a pivotal role in shaping public awareness on global warming and its implications, with noted ever growing climate science coverage in print and broadcasts in most countries across the continents. This progress has been linked to popular events such as the Kyoto protocol in 1997(see (Boykoff, 2007; Boykoff & Rajan, 2007) concerted international efforts such as international climate meetings which draw attention to the impending climate crisis (Ahchong & Dodds, 2012; Schafer et al., 2014) and release of some films (see Anderson, 2009). However, there has been comparatively little media coverage of climate change in developing countries; yet, they are likely to suffer the worst effects (Painter 2007 cited in Anderson 2009, p 169). The inverse concern in media hype for these countries is what informed the focus for this study, which engages on news media representation of climate change in Kenya.’

### 1.3 Key climate change impact, vulnerability and policy response

The Government of Kenya, (2013) report on vulnerability assessments of climate change impacts in Kenya identified the following sectors at risk; agriculture, an economic stronghold highly dependent on rainfall; water resources which cater for an ever growing population in the wake of deforestation in catchment areas; the hydro power energy sector pressured by drought occurrences; and livelihoods affected by diseases and conflicts over depleting resources.

Presently, climate change is gaining attention for its potency as a source of conflict within the East and Central Africa region. Its outcomes are indeed the latest catalysts in a series of environmental sparks of human conflict over ownership and use of declining resources. This was witnessed in Kenya in the 2012 ethnic rows along the Tana delta. The fights were linked historically to disputes over farmland and water, which were evidently becoming a scarce commodity for the Orma pastoralists' and Pokomo farmers due to climate change impacts. At the interstate level, depletion of fisheries in Lake Victoria resulted to community fights between Kenya and Uganda over the aquatic rich Mgingo Island. The declining biodiversity at the lake has been attributed to deforestation of nearby regions and global warming which still poses threats to the lake basin ecosystem. The lake is sensitive to climate change since it is shallow with a mean depth of 40 meters and thereby can dry out easily. If unchecked, the environmental damage to other lake basin areas will result in total collapse of the system.

Extreme weather events that continue punctuate the climatic patterns in the country have had ripple effect felt in sectors of the economy. Take the example of El Nino rains of 1996/97 which damaged and destroyed many roads, making some tourist destinations inaccessible due to poor state of less robust feeder roads. By contrast, arid areas in the northern parts of the country didn't record rainfall leading to severe droughts. Starvation and

famine was experienced in Turkana, Marsabit and Moyale and their environs.

Excessive rains have often times caused rivers to burst their shores resulting to flooding in nearby areas. Budalangi and Ahero are some of the flood prone regions in the country, a phenomenon that is quite predictable owing to its periodic pattern. The flooding in Budalangi is caused by river Nzoia, while that at Ahero results from river Nyando, both tributaries to Lake Victoria. Every year populations get displaced from their homes due to the deluge. Worse is the danger of water borne disease and other communicable disease outbreaks during such occurrences.

In view of the mentioned climate change outcomes, the government's policy response was through the development of a five year period map out, 2012 to 2017, dubbed the National Climate Change Action Plan (NCCAP) which informs policy decisions in all economic sectors. The first policy document on climate change in Kenya was the National Climate Change Response Strategy (NCCRS), 2010, which showed evidence on climate change impacts on the economy and suggested an adaptation and mitigation game plan to avert perceived risks.

Through the NCCAP, the government adopted decisions on forestry policy and also instituted priority actions on sustainable development of Arid and Semi Arid Areas (ASAL), sustaining resilience of vulnerable communities to calamities, and policies on generation of electricity from renewable sources among others. However with the contestations between laws governing land tenure system and community's traditional land use in ASAL, the viability of government policies in addressing climate change in such areas is doubted.

## 2.0 Methods and Materials

This study utilizes content analysis and expert interviews. Textual data used for analysis was contextually limited to climate change impacts related themes in Kenya's news media, and this was cross - examined with experts' opinions on the matter. We studied the "effects" and "adaptation" contexts in media representation of climate change in Kenya, with the assumption that media texts acquire meaning when integrated to the mentioned contexts of environment sustainability themes. Contextual variables were identified as effects and adaptation to climate change. Here we hold that the effects of climate change are the framework of assumptions being projected through climate change discourse on print media.

The study also borrowed approach from directed content analysis, owing to its suitability and frequent application in communication research to provide in depth critiques of written data and situations related to communication theory. Using the technique, climate news items from two main newspapers in Kenya with wide readership were analyzed, guided by McCombs media theory of framing. Majority of researchers in environmental communication field find it imperative to use content analysis for investigative studies of media texts. Taking the reasoning of three scholars (Anderson, 2009; Antilla, 2005; and Lyytimäki 2012) who use the method to analyze media texts on climate change coverage, a content analysis based study enables identification of media frames on categorical areas of climate change representation using content in broadcasts as well as press. Kerlinger (1973) defines content analysis as "a method of observation" that allows researchers to gain leverage on communication-related phenomena (, p. 525). Giannantonio, (2010) definition explains our focus on text, showing that the research technique is used for making replicable and valid inferences from texts to the contexts of their use" (2004, p. 18).

## 2.1 Geographical location

Located in sub Saharan Africa, Kenya experiences a warm tropical climate throughout the year. Within the country there are arid and semi arid areas, with highlands experiencing relief rainfalls, while the lowlands and the coastal strip experience conventional rainfall. The coastal climate is influenced by warm currents and trade winds from the Indian Ocean. The equator cuts across the country, with areas located at the south of the equator being arable, whilst those at the northern part being mostly arid and semi arid and depend on irrigation for crop farming. The highest peak in the country is Mt. Kenya at 5199m. The Great Rift Valley accentuates Kenya as a land of contrasts hosting a number of geological features including lakes, mountains, faults and ranges which influence climatic conditions of surrounding areas.

*Map*

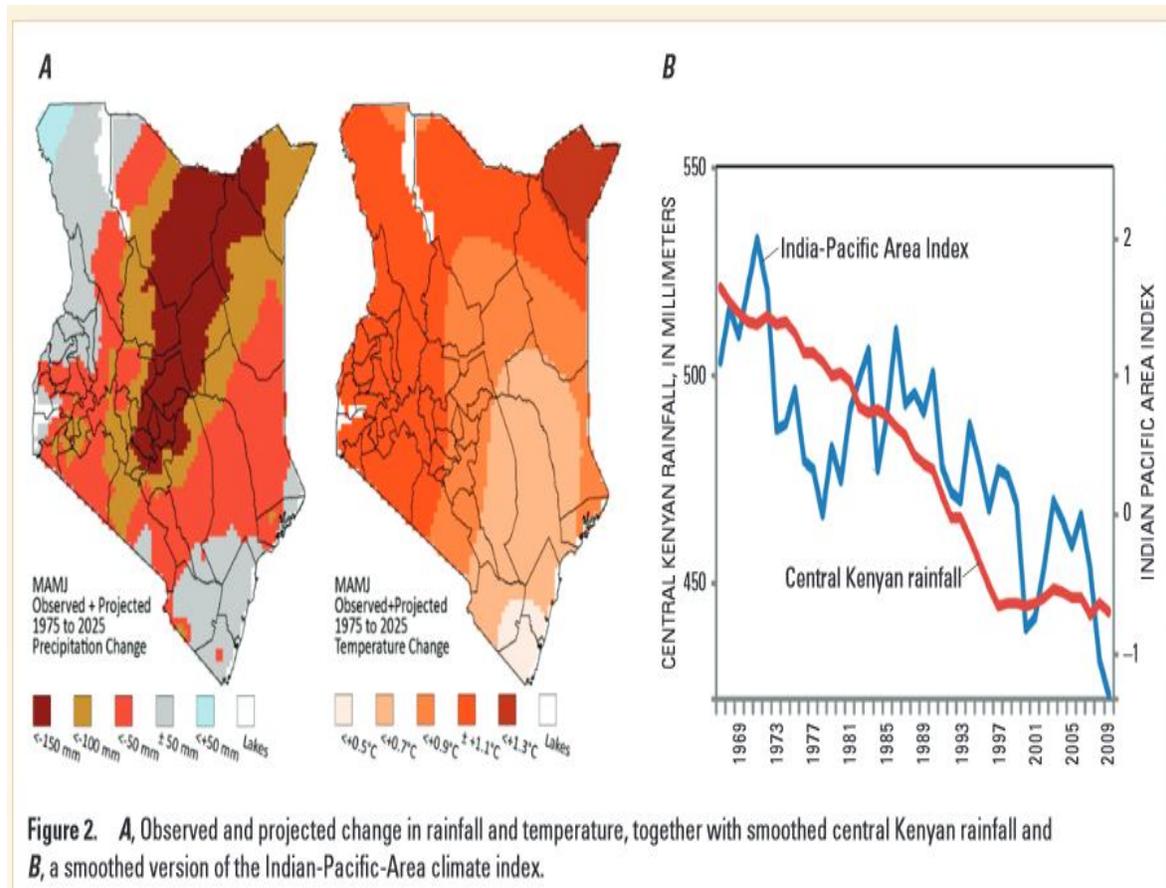


Figure 1. Physical map of Kenya. Source, [www.mapsofworld.com](http://www.mapsofworld.com)

**2.2 Key climate change variables**

Climate change variables in Kenya are characterized by recurrent droughts and floods, changing rainfall patterns, rising sea levels and desertification effects on temperature rise. The northern parts of the country are worst hit by drought, and hunger pangs have to be quelled by

relief foods. Flooding is almost a predictable annual event in the tributary regions of Lake Victoria in Nyanza province, and Indian Ocean at the coast. Short rains fail to the disappointment of agricultural production in the country's breadbasket.



Source: USAID: A Climate Trend Analysis of Kenya—August 2010

### 3.0 Results

#### 3.1 Climate change main stream media representation in Kenya

Media freedom is enjoyed in Kenya, a democratic country. For both print and electronic media, reporting represents an interactive and international media environment, with information flow between countries. Each press offers a favorable stand for climate change representation through both textual and visual imagery. Images captured by photojournalists equate to iconic expressions of the changing climate.

Articles on climate change in Kenya's news media are scarce, possible explanations for this linked to the fad of reactive reporting and exclusion decisions on climate change stories based on issue carrying capacity by media houses. However, climate change issues are still given airtime in news media, and this exposé is discussed in the subsequent section.

#### 3.1.1 Media portrayal of the crisis in Kenya: content analysis

A clear observation in news media depictions of climate change in Kenya is the focus on its impacts to the local communities; upholding Olausson's (2009) remark that national horizons are maintained in media's construction of climate change risks. For instance, some article headings involve a framing choice that defines harsh outcomes of climate change. An example is given of; "*Rapid desertification in Kenya threatening livelihoods*" and "*Mombasa to sink in 20 years*"; with the latter having key phrases in discussion that reinforce the inevitability from such a disaster "... parts of the Kenyan coast could disappear under the sea" and "... experts have warned that the coast could be no more in two decades". The desertification piece describes effects of prolonged drought, carefully mentioning "*widespread acute poverty, chronic food shortages and harsh climatic conditions*" to emphasize the brutality of the crisis.

In May 2014 another daily carried the heading “*Experts predict massive El Nino weather from July*”, with the opening statement “*Much of the world is preparing for what is thought to be the biggest El Nino to have ever hit planet earth*” complemented with a photo of a flooded road section in Mombasa captioned “*Experts have predicted that the country will experience El Nino in the next two months*”. This visual representation of the deluge and use of the adjectives “*massive, biggest*” would obviously create panic especially for those who witnessed the devastating effects of the 1997/98 occurrence. This prediction was later written off by a June 2014 headline stating “*Weatherman dismisses El Nino reports*”. According to meteorological statements, information fed to the public had overtly indicated an impending El Nino, contrary to Global model outputs for its development. One more caption of equal measure was; “*UN Scientists predict global warming to deal Kenya severe blow by 2030*”. In this article the writer’s judicious use of the verb “*hurtling*” in discussing certainty of global warming impacts implies the country’s lack of control to mitigate or adapt to prevailing changes, justifying the metaphor of “*severe blow*” by means of “*deadly diseases*”, and “*massive coastal flooding*” expected to hit the country.

In reporting, the main story is structured to give prominence on prevailing and anticipated severe consequences to livelihoods and environment. Most articles we came across organize along a common pattern that equates climate change to a humanitarian crisis insinuating the government’s inability to cushion its citizens from climate change upshots; the dry spell is best depicted by splashing images of hungry children in drought prone areas, whereas heavy downpour narrations center on drowning, populations displacement and related tragedies. In such cases, coverage of climate change impacts bases its frames on vulnerability symbols at the micro level such as hunger pangs which have to be quelled by relief foods, deaths resulting from flash floods,

deforestation in catchment areas, among other climate induced disasters. Within this chosen position of media reporting, the audience’s understanding is limited to an alarmist climate change reality.

Apocalyptic scenarios of climate change in media constructions are also augmented by vulnerability symbols which have become catch phrases for reporting on climate change. For instance drought, famine, and starvation depict the dry spell and lack of rain. Visual imagery of failed crops fields is also linked to similar impacts of global warming. Drowning, death, disease, displacement flashfloods form the rhythm for torrent rains. Surprisingly new terms are also coined as labels of climate change impacts. An example is the term “*climate change refugee*” which refers to populations displaced across borders due to impacts of climate change. The term has been used to refer to those who fled Ethiopia and Somalia into refugee camps in Kenya in search for food.

Media frames on climate change reporting border on specific topics like drought, El Nino, rising sea levels and temperature increase. Relation with climate change was most evident in reports about submerged Islands and least correlation on topics of droughts which are downplayed to the micro level in footages of food shortage. Consequently, climate news reports are framed by an episodic ideology. Much information on climate change reality revolved around the topic of successive environmental catastrophes, like cases of flooding along rivers Nyando and Nzoia during rainy seasons. The effect of El Nino rains reflected most coverage in 1998. Other intermittent features were on drought in ASAL, but some media comments failed to link it to current climate change impacts by normalizing famine as a usual historical occurrence for pastoralist communities who live in affected areas. This is a clear indication that the norm in Africa where climate change related disasters are stimulants for news reporting (Amu & Agwu, 2012), is not alien to Kenya where news stories are promptly built from tragic events.

Certainly, a quick glance at the mass media texts and content on climate science reveals a reactive tendency to quickly report on disastrous events linked to climate change, supportive of Boykoff & Rajan, (2007) opinion on print and electronic media readily exposing calamities, rather than habitual social problems that have already been discussed on communicative landscapes. Media discourse on the environmental concern has always been reactive, flooded with the familiar narrative of calamities. Key words in reporting limits the understanding of climate change reality to a past of catastrophic events and thus the community has to live with its consequences. A May 2013 article was entitled “*Floods wreck havoc in Tana River*”. “*Drought, famine, in NEP a calamity*” and “*State begins to assess effects of drought*” heading in May 2014 depict the current situation of climate change impacts to communities.

Rather than frame it as a tragic event, media could additionally pitch tent for adaptation and mitigation concerns on the topic in order to create informed citizenry on the pressing issues of ecological collapse. Equally, the focus on environmental disaster highlights may result to media’s inaction in informing public on topical concerns of climate change.

It was evident that the news media acknowledge climate is changing, their discourse on the concern being interwoven with threats of unavoidable calamities and highlights of livelihoods suffering the harsh impacts of a changing climate. As some critiques suggest that this discourse could possibly not be true representation of science, we cross examined this representation with scientific opinions through interviews.

### ***3.2. Scientists opinion on climate change reporting by mainstream media***

Opinions were sought from two marine scientists, two oceanographers, a climate change researcher, City planning engineer, and Coastal zone management researcher. Their views echo an understanding that the country’s media reports on climate change are biased through misrepresentation of science and selective reporting outside relevant climate related contexts. Actually, scientific evaluation of climate change coverage has hinted for the need to practice responsible reporting by journalists. By contrast the interviewee’s critiques further emphasized incorrect inferences towed from scientific citations, illustrative of the fact that some news items post manipulated scientific findings to attract viewership or readership attention. Their discussion maintains that journalistic sketches of climate change issues are contradictory to scientific opinions.

*It was intensely critical of a news item concerning sea level rise at the Kenyan coast, explaining that the journalist erred in deducing an inevitable submergence of Mombasa Island. The journalist should be aware that terms in climate change reports are carefully selected. For example the IPCC 4<sup>th</sup> report uses the terms virtually certain to mean 99-100% probability, Very likely 90-100% probability, Likely 66-100% probability, Unlikely 0-33% probability and so on. These terms have been carefully selected to mean exactly what they mean. However media houses are mostly interested at generating sales. That is why they will look for words that catch your attention. For example a story like ‘Mombasa will sink in 20 years’ will get a good deal of attention from readers. But to make it worse these journalists will have the scientists name linked to the claim and their words will look like your words.*

...The IPCC have tried to avoid this catch by providing a breakdown for media houses in reporting but still these results are interpreted anyhow to suit the media house agenda of making more sales. For the case of Mombasa, the paper in question about Mombasa sinking in 20 years reports on study of different scenarios. And they projected that sea level rise will make Mombasa lose about 17 to 19 % of its land. ...There is no much risk to the island because it is highly elevated. The areas of concern would be the low-lying areas towards the north of Mombasa along Bamburi areas onwards. (Sc-1)

Other specialist's views were also indicative of how journalistic reporting principally reframes scientific findings to alarmist portrayals in media. This scenario was also tied to the case of sea level rise as a climate change impact.

Scientific reports are sometimes manipulated to draw attention by media houses. As a scientist I can assure you that Mombasa is safe because we have done a study funded by UNDP where we did sensitivity mapping of the coast shore line under worst case scenario moderate and minimum one. We even went to an extent of modeling Tsunami events. We found that even the highest tides of about 4m will have minimal no impact on us. Pertaining sea level rise the next few years' prediction I can say was an alarmist. The research article since I have read it, it didn't say Mombasa would be submerged completely by 2020 as claimed by the local dailies. (Sc-2)

Comments were also given on the "supposed" climate change reality created with misrepresentation and selective publishing of scientific facts. Their remarks on selected news items suggest that the discursive options selected by print media in Kenya pre dispose readers to alarmist perceptions of the climate change concern.

I like the article. The way the news paper put it may not be real but it may have done a good wake up call. This was the time when we were negotiating for a climate policy and it made people to start thinking about climate change and its impact. However the article has failed to convey the uncertainty surrounding climate change. I know sometimes conveying science to a layman can be hard but there is a need to try to minimize alterations of results. ...it is important that. (Sc-3)

As a scientist I am cautious about who is publishing my findings in a news paper. I prefer writing a news article personally and I always request if I could read an article before it is published. I do this because I am aware that journalists can publish selectively. In science we don't. So I think these reports about Mombasa sinking were a case of misrepresentation of science. (Sc-5)

Climate change impacts sketched in news media were noted to be inconsistent with scientific findings. Below is an expert's observation on recent media reports on sea level rise in Mombasa and its environs.

Sea level rise is not an immediate threat for Mombasa. This is because Mombasa especially the island is on higher grounds. What we should be wary about is the sinking of too many boreholes and building of too many sky scrapers. These can destabilize Mombasa Island. The article was a good starting point to challenge more and more scientists to develop scenarios and compare results. The media houses should also learn how to report scientific findings responsibly. (Sc-7)

The interview responses are illustrative of the fact that climate change representation in news media is not a mirrored reflection of scientific commentary. This, in their opinion could be as a result of message distortion in repackaging complex scientific jargon to popular public discourse. Also media integrity is put to question on willing misrepresentation of this information for selfish gains.

### 3.3 Discussion and Conclusion

The topic of climate change in Kenya's news media follows an episodic framing pattern mostly relating to action packed incidences of environmental disasters and its effects. In this pattern scientific findings are reframed, owing to the strong desire by media houses to triumph in business norms as opposed to journalistic norms. The most outstanding premise on climate change reporting in Kenya's news media is the negative impacts perspective. Occupying this frame, are sporadic reports of rising sea levels, heavy downpour and dry spells to be witnessed/witnessed across the country. In media representation they have specific symbols frequently associated to them. For example the dry spell is described by looming famine, while torrential rains are visually depicted by floods and its effects. Elsewhere, research has indicated similar frames in climate science reporting, e.g Fawole & Olajide (2012) show that Nigerian dailies coverage edge on blames, warnings and disaster. Scarce reporting of climate change issues implies that the topic's significance to development is still under estimated in the public domain.

Compared with other social problems, climate change topics remain an off peak in media. Coverage is narrowed down to climate change impacts, with a reactive tendency to brand climate induced incidences newsworthy. This explains the absence of climate related stories in our dailies and also short term peaks in the periodic pattern of reporting. Even the 2012 Doha talk on global warming in a local newspaper was sourced from a British press. The episodic thought rather than thematic reporting implies that frequency of climate science news items relies on the regularity of climate related incidences thus sporadic highs and lows on the issue.

Additionally, media focus on climate change is catalyzed by dramatic climate events. With episodic reporting, a pattern of issue attention to

one specific topic was observed across the media. Matters of drought, El Nino rains, and Island submergence coincidentally find their ways to the press at specific times of the year. Here journalists made overly dramatic claims of global warming impacts. Such reporting ascertains that the threat is beyond ordinary control of communities, thereby ruling out adaptation strategies.

A final observation was that climate change representations in news media do not fully tally with scientific reports. Due to issues of misrepresentation and complexity of scientific language, discursive options selected by news media in Kenya pre dispose readers to alarmist perceptions of the climate change reality. Journalists sketch an inevitable development of climate science contrary to what scientists say. There is the need to create a more differentiated and less restraining climate change reality as the media fails to read climate change truth from adaptation context, thereby creating alarmist reporting. Contestations between journalistic and economic norms remain, with priority given to what sells.

With the news media as a dissemination pathway to public discourse on climate science, an approach that presents factual issues on adaptation and mitigation should be embraced for objectivity in reporting. This can be structured through striking a complementary balance on the two as core factors, in relation to the climate change situation of a region. Media should allocate appropriate weights to either of the crux depending on the varying contexts of climate change for information to be of value to community. In a scenario where a country is said to be contributing highly to climate change, discourse should be pegged more on relevance of mitigation strategies, paired to adaptation concerns. Conversely, prominence should be given to adaptation contexts in reporting climate change for areas where the phenomena is expected to have the most impacts. Such an approach elicits objective reporting in creating awareness of climate change issues to local populations.

In this regard, a thematic framing in climate change reporting based on adaptation and mitigation contexts will be most efficient in mediating the social relation between scientific commentary and public discourse. Worth noting is that an episodic ideology in framing coverage of climate change is a boost to the frequent blackout given to the topics due to their periodic patterns. Whilst an episodic frame relies on dramatization to prove it's newsworthy, a thematic frame will

offer sufficient facts as counter statement to other opposing issues to showcase relevance competing for the limited space in media. Episodic frames axed on climate related calamities take a distinctive alarmist position in climate change reality thereby incapable of eliciting appropriate responses from communities. News media can be effectively used to show how communities can adjust to live with the consequences of climate change.

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