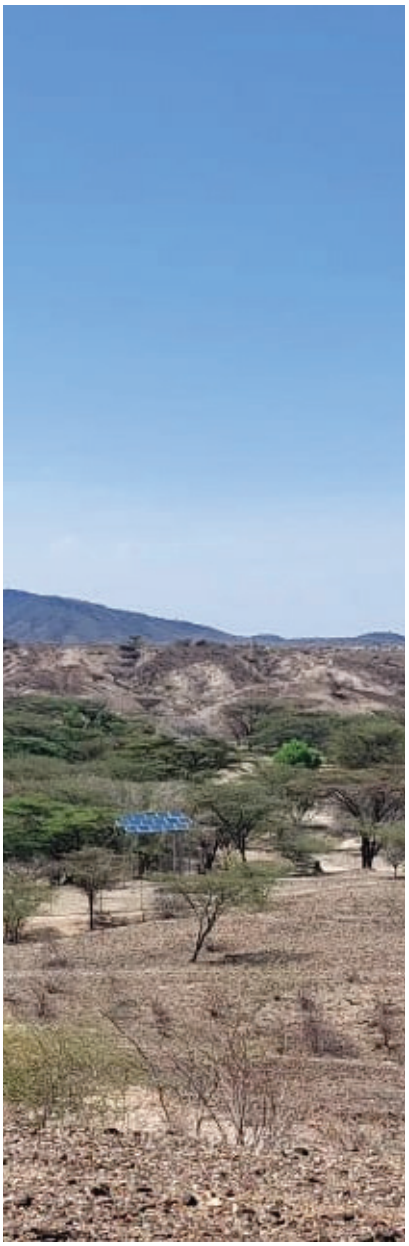
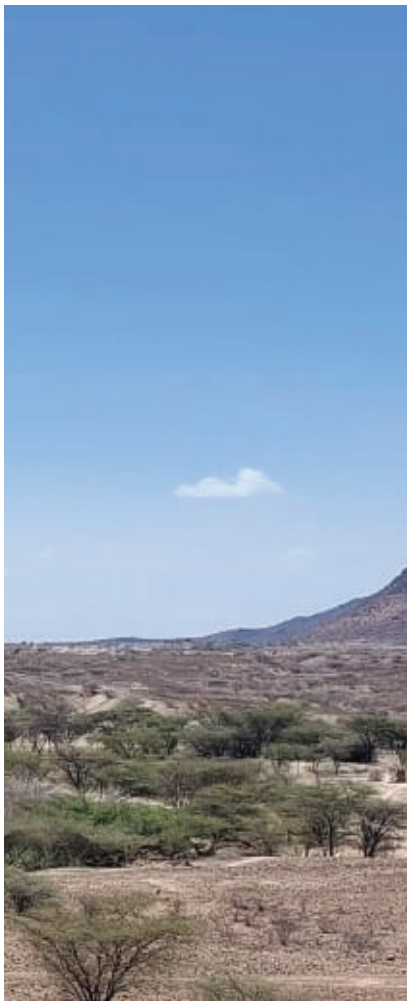
KONRAD ADENAUER STIFTUNG





MEDIA PERCEPTIONS OF CLIMATE CHANGE IN SUB-SAHARAN AFRICA

MEDIA PERCEPTIONS OF CLIMATE CHANGE IN SUB-SAHARAN AFRICA

Authors:
Gerard Guédègbé
Eugene N Nforngwa

Edited by:
Ruth Michaelson and Anja Berretta

Media Perceptions of Climate Change in Sub-Saharan Africa

Published April 2023 by
Konrad-Adenauer-Stiftung,
Regional Programme Energy Security and
Climate Change in Sub-Saharan Africa
91 UN Crescent
P.O. Box 66471-00800
Nairobi
Kenya

Tel. +254 701 092 723
Email : Info-Climate-Nairobi@kas.de
Website : https://www.kas.de/en/web/climate-energy-africa

Cover photo: Private

ISBN 978-3-98574-144-1

Table of Content

Table of Figures

Foreword

In its report, *Climate Change 2022: Impacts, Adaptation and Vulnerability*, the Intergovernmental Panel on Climate Change (IPCC) clearly stated that human-induced climate change is affecting the lives of billions of people around the world. The people and ecosystems that are least able to cope with the impact of climate change are often the ones being hardest hit. Some of these most affected areas with a low level of resilience or means to adapt to the impact of climate change can be found in Sub-Saharan Africa.

In order to effectively limit global warming and cope with the devastating effects of climate change, it is important that civil society, decision makers and the entire population have access to reliable information. Having the right information can support climate action by facilitating informed decision-making as well as introducing and sustaining climate change on the policy agenda. Lack of information or disinformation however undermines the existence or impacts of climate change, and makes the need for correlating action in line with the goals of the Paris Climate Agreement less urgent. Research shows that climate disinformation is a contributor to public polarisation over the climate crisis, and that it shapes public attitudes toward climate science. Unfortunately, not all countries allow free reporting on the effects and causes of climate change, some even make it difficult for journalists to access information on the subject.

In order to better understand how climate change is perceived in the media in Sub-Saharan Africa, we interviewed more than 100 journalists in seven different countries in the region and asked how often they report on climate change and in what context. Serving as a watchdog to society, journalists have the power to share or not share information on climate change. They have the resources to put the issue on the political agenda, and to monitor whether those in power follow through on their commitment. As a result, we were able to understand how climate change is framed in African media today. Most often, climate change is contextualized when extreme weather events such as droughts, storms or floods occur. Deeper analysis on climate change as well as opinion and editorials are rare to find and investigative reporting on climate change occurs for less than 10 per cent. Moreover, while coverage has focused on technical aspects, it has been more difficult to effectively cover moral, ethical and cultural issues related to a changing environment.

Climate change is an issue of public interest and given the effects of climate change, collaborative efforts are imperative as different stakeholders work on solutions affecting every facet of our lives and therefore requiring adequate media coverage. In publishing this study, the Konrad-Adenauer-Stiftung Nairobi-based Regional Programme on Energy Security and Climate Change in Sub-Saharan Africa seeks to contribute and to shape the debate on how media coverage can effectively and efficiently contribute to create awareness on climate change and its impacts on the African continent.

Anja Berretta
Head of Regional Programme
Energy Security and Climate Change in Sub-Saharan Africa

Abbreviations and Acronyms

ACP	African Common Position
COP	Conference of the Parties
FGD	Focus Group Discussions
IPCC	Intergovernmental Panel on Climate Change
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organization
SSA	Sub-Saharan Africa
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
VOA	Voice of America

Executive Summary

Mass media can drive climate action by facilitating informed decision-making, introducing and sustaining climate change on the policy agenda and holding major players, particularly political decision-makers, accountable for their national and international commitments. To perform this duty well, media must have a grasp of the critical issues around the climate crisis, including the science, governance processes and major debates. These can be understood as the perceptions that media form about climate change.

Media perceptions are important as they shape how media frames and presents climate change to their audiences; and determine whether and how media choose to cover climate change. This report presents the finding of an investigation of media perceptions of climate change in Sub-Saharan Africa (SSA). We equally interrogate the factors that influence media coverage of climate change on the continent to reveal experiences, gaps and opportunities for advocacy and technical support.

According to the IPCC, Africa is among the regions of the world that are most vulnerable to the adverse impacts of climate change, owing to their exposure to extreme events and weak coping capacities. Across the continent, extreme weather events are leading to crop failures, water scarcity, increased disease burden and threaten to wipe out coastal and island communities in at least 50 countries. By some estimated, climate change threatens to erode decades of development gain and make future investments more expensive almost everywhere in Africa.

We find high awareness of climate change in Sub-Saharan African media, mainly as a result of a large number of news-making events that have occurred in the country, particularly following the Paris Agreement in 2015. However, climate change literacy has remained low among journalists, who show a limited grasp of essential facts, processes and debates. Many explanations can be advanced for this discrepancy. For example, we found that despite sufficient willingness to cover climate change, journalists lack adequate skills and resources to do a good job.

A restricted perception of climate change has therefore formed within media communities. We find evidence that coverage mostly fails to explore the full range of issues critical for facilitating informed choice and adequate policy responses. African media's over-dependence on a restricted category of sources, such as international NGOs and media, has resulted in the reproduction of a single narrative about climate change and left little room for a diversity of views.

Multiple forces account for the climate change perspectives and frames in the African media. Firstly, the incentives for covering climate change is at variance with real-world practices. For example, even though journalists said they were motivated by the thought of "contributing to a good cause", they failed to see themselves as advocates of climate justice, invoking the principle of journalistic independence. Secondly, in addition to limited skills and resources, poor access to credible sources accounted for the lack of depth, breadth and accuracy in media reports.

We recommend three main actions to strengthen media coverage of climate change in Africa:

- Strengthening the capacities of African media to cover climate change;
- Improving journalists' access to credible and diverse sources of information, including scientific knowledge;
- Scaling up the financing for climate change coverage.

1.

Introduction

Mass media are critical in shaping beliefs, behaviours and public policy by supplying critical information, holding power to account and positioning issues on the policy agenda. These roles have long been referenced to support media's place of choice in advancing democratic governance, justice and development. In performing these and many other social functions, media are constantly producing and reproducing perceptions and frames about the subjects and topics they engage, and thereby extend their influences beyond informing to the production of meanings, the prioritisation of issues and the creation of urgency. This is critical because in so doing, media become powerful forces in determining whether the public is sufficiently equipped to make informed choices, or whether policymakers act rightly (Tsfati and Cohen, 2013).

One area where the influence of media has drawn attention to, is the climate emergency. This paper explores the media's perceptions of the climate emergency, as such perceptions shape what the media communicates and the impact it has on individual choices and policy options. The scope of our investigation is limited to Sub-Saharan Africa (SSA), which the Intergovernmental Panel on Climate Change ranks among the regions of the world that are most vulnerable to the adverse impacts of climate change (Boko et al., 2007). We equally interrogate the factors that influence media coverage of climate change on the continent to reveal experiences, gaps and opportunities for advocacy and technical support.

We spoke to more than 200 journalists from seven countries, selecting 30 per country, and conducted individual and group interviews in four of them. Thematic analysis was applied to data from interviews, focus group discussions and other qualitative sources (literature) to identify patterns and meanings across that data set. A set of codes was applied to organize and further interpret data to produce conceptual or broad themes and categories to enable us to draw meanings and conclusions. We used a deductive approach that is driven by pre-existing concepts or ideas. We find that whereas interest in climate change as a news subject is high among African journalists and media organisations, climate change literacy has remained low.

Many factors explain this irony. For example, the incentives for covering climate change, such as professional growth or the satisfaction drawn from contributing to something considered a good cause is high, but journalists have limited or no skills, resources and newsroom support – preventing them from sufficiently and adequately communicating climate change and the climate crisis to their audiences.

Furthermore, despite low capacities across the media landscape, climate change poses new and additional challenges. We find that most journalists are encountering the subject for the first time, and newsrooms are not adequately structured, equipped and even informed to make the paradigm shift needed to cover climate change. We thus recommend building media capacities, particularly through knowledge and skills development, as well as interventions that address the forces that render journalists ineffective in covering climate change such as limited resources, poor access to credible sources and an enabling environment for media to thrive.

2.

Background to the Study

Africa's media landscape is diverse. Anglophone Africa and Francophone Africa have inherited and developed media traditions and practices that are quite dissimilar (Capitant & Frère, 2011). The African media cannot, therefore, be studied, described, or analysed without the risk of sweeping generalisations. However, media across the region present shared traits that are useful for understanding the meanings media in SSA give to climate change and how they affect their coverage of the subject.

2.1. Perception, Media Functions and the Climate Emergency

Perception involves the three dimensions of recognising, interpreting and responding to information. Perception is, therefore, a form of general awareness of the environment around one (Efron, 1969), but equally the experiences that awareness creates. Applied to climate change, it often includes the appreciation or the recognition of human-induced global warming (Han et al., 2012), and more significantly, what the public chooses to believe. The media are actively involved in constructing these perceptions, which can be evident in how media frame or portray the subject. Media perceptions of climate change are critical firstly because public knowledge or awareness of climate change and its effects is derived both from how and how much climate change is covered in news media (Lineman et al., 2016). Afrobarometer[1] researchers, for example, found a direct correlation between media coverage and public awareness of climate change in Africa (Salormey et al., 2019). Additionally, media reporting is important, not only as a channel for informing the public but also as a means through which different publics construct meanings and take positions vis-à-vis the subject. Indeed, by framing the subject in a particular manner, media can create a perceived reality, draw attention and promote certain meanings of climate change, thereby influencing how people think, talk and act concerning the subject (Han et al., 2017). Climate change reporting can thus shape individual-level responses to climate change (Boykoff & Roberts, 2007).

[1] "Afrobarometer is non-partisan, pan-African research institution conducting public attitude surveys on democracy, governance, the economy and society in 30+ countries repeated on a regular cycle. We are the world's leading source of high-quality data on what Africans are thinking."

Secondly, the media's agenda-setting power – the media's ability to introduce and sustain issues on the policy agenda – lends them strong influences on what climate change issues are important or even to be trusted. In a coming paper, Stuart Soroka and his colleagues of McGill University posit that deliberately or unintentionally media are ceaselessly influencing policy and decision-making processes. They "draw and sustain public attention to particular issues.

They can change the discourse around a policy debate by framing or defining an issue using dialogue or rhetoric to persuade or dissuade the public. Media can establish the nature, sources, and consequences of policy issues in ways that fundamentally change not just the attention paid to those issues, but the different types of policy solutions sought" (Soroka et al., n.d.). Additionally, if they are not actively shaping public discourses, media often serve as a means through which the public gains insights into those discourses (Dusyk et al., 2018).

Thirdly, media have a watchdog duty towards climate action. The role of media as a watchdog traces back to the Vietnam War when dramatic shifts in the tone of war reporting saw journalists challenging the behaviour of American politicians and military in contrast to showing wholesale support for the war effort (Gershon, 2016). Journalists in this role see themselves not only as conveyors of information but also as modifiers of public behaviour, particularly of the those who are in a position of power. In the context of climate change reporting, journalists could, for example, take up the task of holding their governments accountable for emission reduction and adaptation pledges made in national climate action policies and plans such as Nationally Determined Contributions (NDCs) (Brüggemanna & Engesserb, 2017).

2.2. The Climate Emergency in Sub-Sahara Africa

One of the worst tropical storms on record ripped through Mozambique, Malawi and Zimbabwe in mid-March 2019, causing flash floods and inundations that killed more than 600 people and left over 1.8 million people in need of humanitarian aid. Relief organisations estimated that in one sweep, Cyclone Idai destroyed nearly 224,000 houses, displaced 161,000 people and triggered a cholera outbreak that affected 6,700 people[2]. Six weeks later, at the end of April 2019, another tropical storm Cyclone Kenneth rushed into northern Mozambique, bringing its share of devastation to human and natural systems. They affected an estimated 2.5 million people across three countries. The collective impact of both cyclones rippled across different sectors, notably agriculture, education and public health; creating an expensive emergency response problem for communities, governments and international relief agencies. The United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) estimated that $450 million was needed to deal with the unfolding emergency in 2019[3], excluding recovery investments. Both mega-storms were extraordinary in their ferocity, scale of damage, as well as spatial and temporal proximity.

[2]July 2019 estimates by UNICEF. See details online at https://www.unicef.org/mozambique/en/cycloneidai- and-kenneth. Last accessed on 11/18/2019.
[3]See the latest UNOCHA needs assessment update online at https://fts.unocha.org/emergencies/808/summary/2019. Last accessed on 11/18/2019

Such extreme weather that can be associated with climate change is becoming commonplace across Africa. Floods from unprecedented rainfall affected 200,000, people across 15 states, killing 66 of them in South Sudan in August 2019[4].

In October 2019, dozens died in a landslide in Cameroon following weeks of torrential rains[5]. Across the continent, droughts are leading to crop failures and water scarcity (see for example Gbetibouo & Hassan, 2005 and Mutekwa, 2009); higher temperatures are expanding the territorial range of malarial infections (see Tanser et al., 2003 and Hay et al., 2002) while sea-level rise threatens to wipe out coastal and island communities in 50 African countries (Hinkel et al., 2012). By and large, climate change threatens to erode decades of development gain and make future investments more expensive almost everywhere in Africa (Shanahan et al., 2013). In complicity with other forces, it is serving as a threat multiplier for poverty, inequality and conflict.

At the same time, the climate emergency obliges individuals and policymakers to rethink how development is conceived and delivered. Progress in renewable energy technologies is largely attributable to the role that energy systems play in either causing or addressing climate change. Adaptive options such as sustainable and climate-smart agriculture have the potential to increase farm yields, strengthen livelihoods and reduce emissions from unsustainable land use.

Increasingly, research and policy are paying closer attention to the co-beneficial outcomes of measures to address climate change on developmental priorities ranging from poverty, social justice and equity to infrastructure and sustainable economic growth. These intersecting issues provide opportunities for news stories that cover and overstep a wide range of media interests, notably the human condition, economics, migration, justice and human rights. Climate change has in the last decade thus emerged as one of the most important stories of the 21st century (Shanahan et al., 2013). In SSA, where climate change impacts are considered among the most severe, media are presented with new narratives for recurring themes such as droughts, floods, disease outbreaks and the degradation of nature-based sources of livelihood.

2.3. Media Coverage of Climate Change in Africa

Media coverage of climate change has aroused the interest of academics and policymakers globally.In Africa, most of the growing body of work in this area claim that the level of climate change reporting is both insufficient and inadequate (see for example Atieno & Njoroge, 2014; Wassermann, 2012 and Tagbo, 2010). By and large, these studies conclude that the incidences and consequences of climate change are not receiving broad media attention, and reports often lack evidence or scientific facts, thus producing contributions that lack quality and are of limited value to inform audiences.

[4]See VOA report citing government sources. Available online at: https://www.voanews.com/africa/sudanflood-death-toll-reaches-62-state-media. Last accessed on 11/18/2019.
[5]See Al Jazeera report on deadly Cameroon landslides. Available online at: https://www.aljazeera.com/news/2019/10/dozens-dead-cameroon-landslide-torrential-rain-191029180802994.html. Last accessed on 11/18/2019.

This assessment of media reporting of climate change in Africa is often blamed on the lack of journalistic competences, interest and knowledge levels (see for example Atieno & Njoroge, 2014 and Wasserman, 2012) and also, as we found, on little or no support from newsrooms with a great will but limited resources. Climate change reporting in Africa is further constrained by a range of political and economic factors.

In Nigeria, for example, journalists must make editorial decisions based on the actual or perceived political and economic interests of media owners and their alliances with power brokers. These often lead "to the privileging of news that is considered profitable over climate change news", or censoring climate change stories that are deemed politically harmful (Meribe, 2017). Investigators of media coverage of climate change in Africa have focused on quantity and quality of media reportages and paid little attention to how the African media understand, interpret and present climate change through their reporting. The focus on the quality and quantity fails to reveal the full range of explanations for the state of media coverage of the climate crisis in SSA. This paper seeks to fill this gap. We aim to unpack not so much how much climate change is reported in Africa, but more specifically how the subject is perceived and portrayed within the news media. We further interrogated how the dominant media perceptions of climate change might enable or inhibit climate change reporting and investigate how shortfalls can be improved. We take a multi-country approach, hoping to discover localised factors that further inform our appreciation of the results. We asked questions on the relevance of media coverage of climate change; the word choices, topical associations and interpretations contained in climate change reports; and finally, newsroom attitudes towards climate change stories.

3.

Findings and Discussions

3.1. Awareness and Experience of Climate Change in African Media

Analysing interview responses for words and phrases that might refer to climate change or climatic variabilities revealed high levels of awareness of the manifestations and impacts of climate change among African journalists. Respondents interchangeably used climate change, global warming, global heating, climate crisis and climate catastrophe in discussing experiences of floods, droughts, other extreme weather events and their impacts on agriculture, health and livelihoods. They also described personal experiences of extreme weather and could link climate change to deforestation, unsustainable land use such as shifting agriculture and the use of fossil fuels in industrial processes and the transport industry. Journalists had an overall general knowledge of the subject and could describe events beyond their national boundaries and make associations with the changing climate.

Pressed on the specifics, however, journalists showed low levels of climate change literacy, which we define as understanding the essential principles of earth's climate system; knowing how to assess scientifically credible climate information; communicating about climate and climate change in a meaningful way; and being able to make informed and responsible decisions concerning actions that may affect climate[6]; as well as, demonstrating a personal concern for climate change; adopting a climate-friendly behaviour; acting as a change agent and demonstrating sound knowledge about the causes and effects of climate change (Kuthe et al., 2019).

Journalists, for example, could identify tree-planting and building flood defence systems as responses to climate change, but could not distinguish between the concepts of mitigation and adaptation as applied to climate action. Journalists frequently used mitigation to mean reducing the impacts of climate change or as a synonym of responsive and anticipatory adaptive action. Respondents also showed limited knowledge of the causes of climate change. In Cameroon, a journalist thought climate change was the result of the depletion of the ozone layer. This aligns with other studies previously conducted such as Jasson (2019), which found that it was common for African journalists to miss the differences between major environmental issues such as plastic pollution, ozone depletion and climate change.

[6] See "What is Climate Literacy?" online at: http://sites.gsu.edu/geog1112/what-is-climate-literacy/

Across all countries, journalists were informed about international climate change processes, such as the United Nations Framework Convention on Climate Change (UNFCCC) and the annual COPs. Notably, journalists had heard about and reported the Kyoto Protocol, the Paris Agreement, and the Copenhagen Climate Change summit of 2009. Yet, they were unable to explain details about these processes or discuss their role in the global climate change governance arrangements. They were even less aware of the African Common Position (ACP), which contain the needs and demands that African negotiators take to international climate change negotiations, and the principle of shared but differentiated responsibility, upon which the African position stands.

Most journalists said they became climate change reporters because of opportunities offered by NGOs but have not received sufficient training to deepen their knowledge and understanding of the subject and the debates that surround it. We found that journalists formed their opinions about the subject based on limited levels of awareness and sometimes misconceptions. In Niger, group interview participants shared the view that climate change, just like other forces of nature could be attributed to supernatural forces.

3.2. Depth and Breadth of Climate Change Coverage

We found that as a direct consequence of the low levels of awareness coverage of climate change in Africa generally lacks depth. Our analysis of 464 news stories from 35 media outlets in seven countries showed a marked preference for media coverage of single, isolated events, with little or no connection to the broad and complex issues and debates. Up to 337 stories in our survey, representing 73% of analysed climate change coverage, reported on single events such as droughts, storms, floods or conferences, seminars and meetings. Eighty-seven or 19% of published content qualified as analyses, opinions and op-ed, while investigative pieces were least frequent, just 40 stories or 8% of the total analysed stock (see Figure 1).

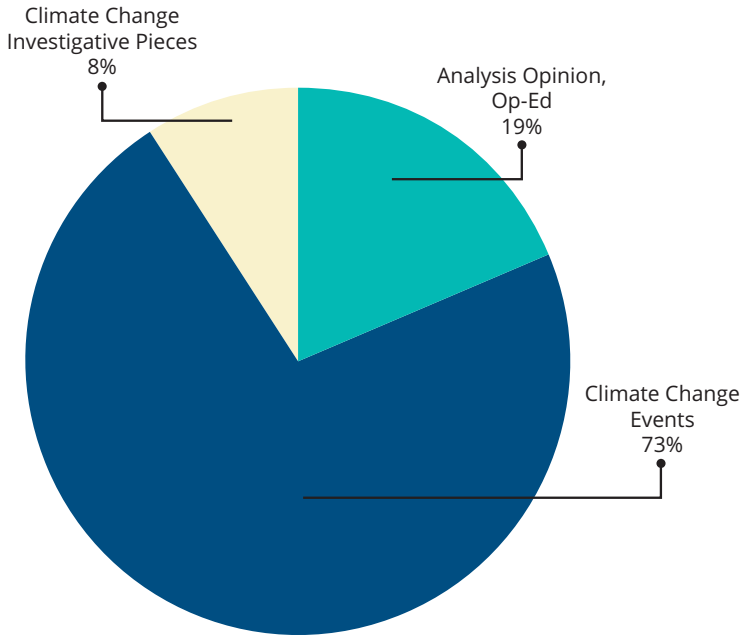


Figure 1. Preference of media coverage in Africa

Media tend to focus on sudden-onset events that are sensational, dramatic and "newsy" to the detriment of slow-burn impacts that unfold over time.

The lack of depth was also evidenced by the absence of the full range of issues or debates surrounding the climate emergency in media coverage. Reporting on the Paris Agreement (PA), for example, focused on the commitments made by governments to reduce emissions and build more resilient societies in their NDCs but missed the sometimes passionate discussions on the levels of ambitions that countries put forward and the claims that most African pledges were rushed, driven by foreign experts and unrealistic. Other subjects that were visibly absent from coverage were climate finance, and emerging themes such as carbon-dioxide removal, fossil fuel divestment and nature-based solutions.

We also did not find strong evidence of the alignment of climate change actions to national and regional development programmes in media coverage. Climate change was presented narrowly as an environmental problem, despite growing proof of its interconnectedness with other sectors such as agriculture, water, health and even urban development. In Cameroon, one respondent explained that this could be due to the climate change governance systems in many countries, which put climate change issues under the ministry of environment without clear mechanisms for cross-sectoral coordination. The exception was South Africa, where extensive media coverage connected the 2015 to 2018 water shortages in the Western Cape due to prolonged droughts[7] to political and institutional failures, as well as racial inequalities.

The levels of climate change reporting were unevenly distributed across the region. South Africa, Côte d'Ivoire and Niger accounted for more than half the coverage. South African media alone accounted for 103 stories in the sample. Surveyed news outlets in Cameroon, Kenya, Ethiopia and Madagascar each published less than 50 stories during the four years under consideration (see Figure 2).

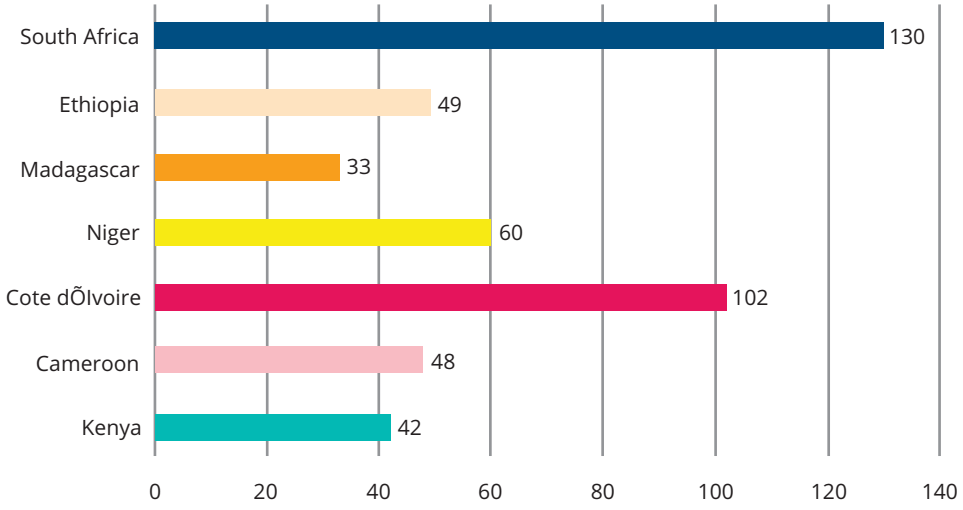


Figure 2. Climate change story distribution by country

7 See this Wikipedia article on the Cape Town water crisis. https://en.wikipedia.org/wiki/Cape_Town_water_crisis. Last accessed on 11/20/2019 Last update 25 May 2020, at 08:02 (UTC).

3.3. Media Influences on Climate Change Policy and Practice

Analyses of the data reveal an extension of traditional roles assigned to media and journalists into the field of climate change reporting, whereby, media can promote or discourage certain behaviours and policy pathways by positioning climate change on the public agenda and policing civic and public conduct.

An analysis of responses to an open question on media roles in advancing climate action shows that as many as 82% of survey respondents cited mass education, through which media serve to inform, sensitize, raise awareness and issue warnings about climate change, as a key role for media in advancing individual and collective climate action.

When asked what media can do to contribute to the global effort to tackle climate change, 47% of respondents said they can promote action by creating awareness on a wide range of issues, from the causes of climate change, risks of impacts and "good practices" in coping with or mitigating climate change (Figure 3). A slightly smaller percentage, 44%, said media's role was to inform the public by providing accurate information about climate change, while only 2% thought the media played a public education role.

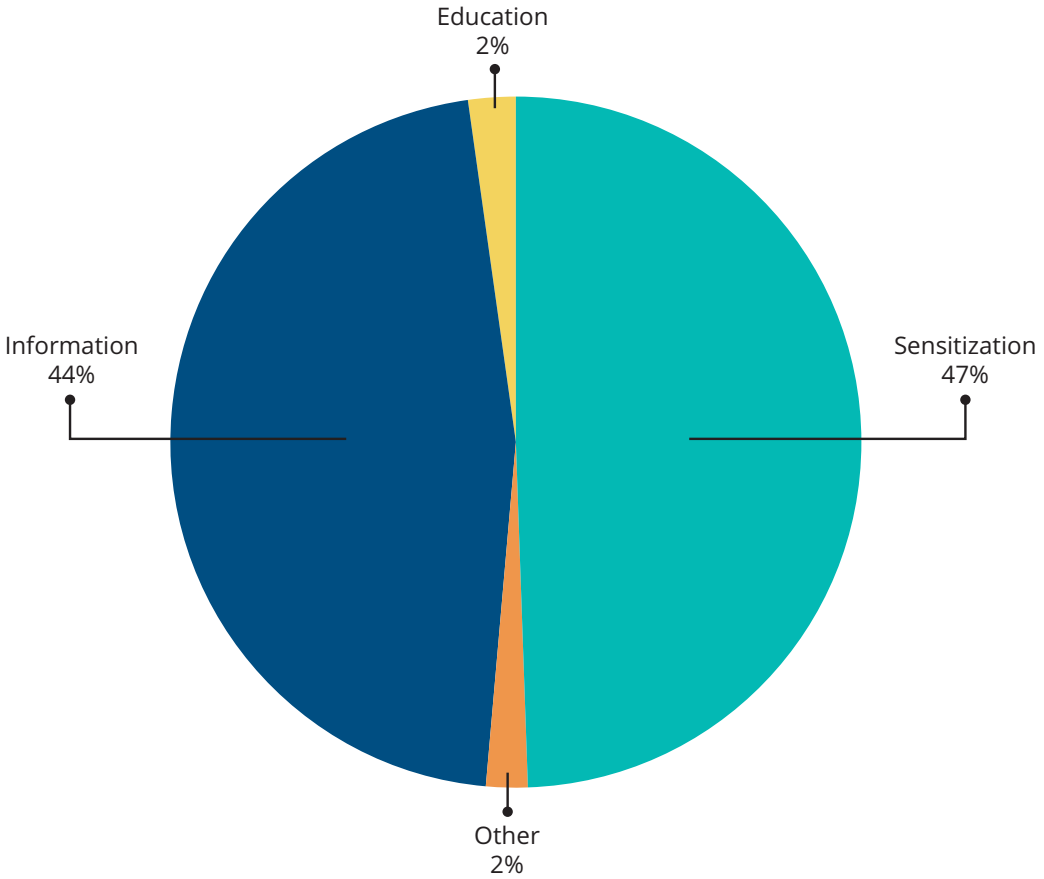


Figure 3: Role of media in advancing climate action

Survey responses were consistent with views shared during focus group discussions. As one participant argued:

"Telling stories is a step towards eradicating an issue. When we constantly report on climate change, the world gets to know the consequences of a neglected environment and they'll strive to practice environment-friendly activities... By shining a light on the public and private conduct of organizations and individuals, media reporting can act as both a deterrent of misbehaviour or an incentive for good behaviour."

By keeping climate change in the news, some respondents added that media can advance debates on the subject and force stakeholders such as national governments, multilateral agencies and private sector operators to take adequate actions to combat climate change. As noted by one respondent: "By drawing attention to the pressing dangers of climate change and highlighting good practices, media can be key to changing behaviour and inciting a conversation about climate change." In other words, through their reporting, media can force a public debate on climate change (agenda setting) and promote certain climate change narratives (framing). They can equally drive policy through sustained coverage of climate change and its impacts.

Only a tiny percentage of survey respondents (less than 1%) advanced a public accountability role in which media serve to hold power and citizens to account for their actions and commitments to addressing climate change. This is consistent with the lack of interest in the political issues surrounding climate change. As one respondent explained:

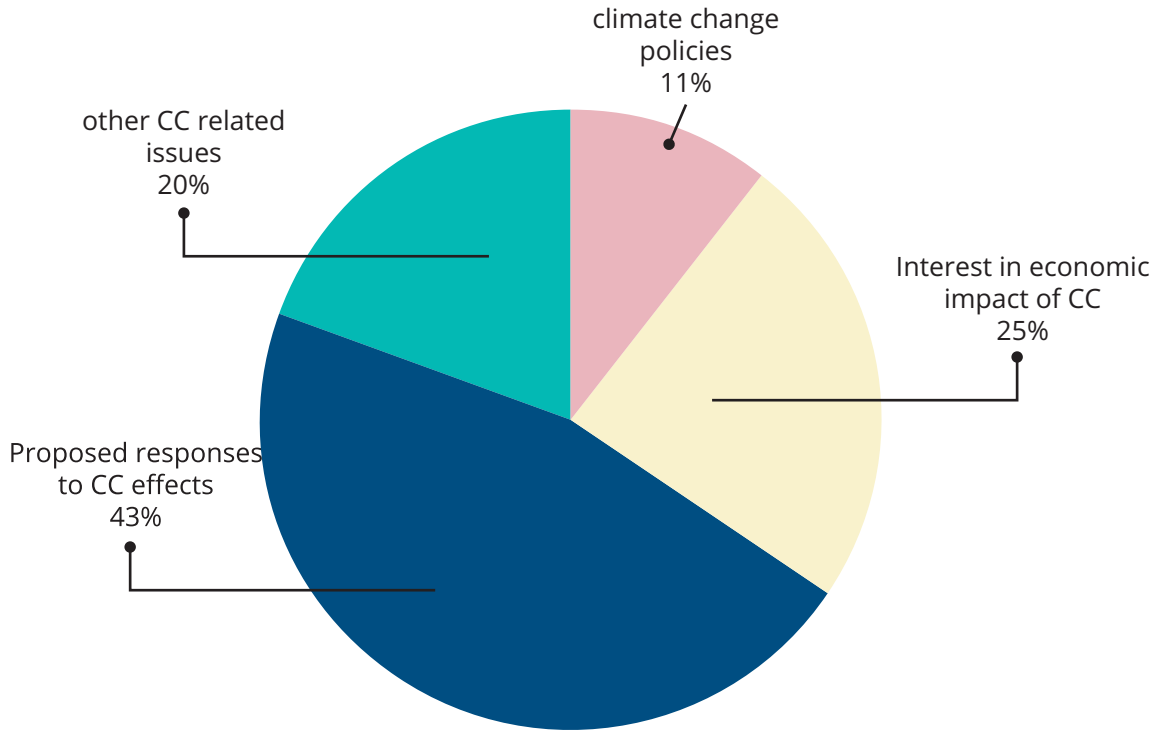


Figure 4: Role of media climate change policy and practice

Climate change is yet to be politically charged. Despite the level of activism, in Africa, elections are not won or lost by where one stands on climate change. Secondly, many African leaders portray themselves as victims of climate change along with their citizens and in so doing absolve themselves from the responsibility of taking action on climate change.[8]

In addition to focusing attention on a subject that affects millions of people, media "facilitate critical public engagement in alternative discourse concerning climate change controversies" as found by Atieno & Njoroge (2014). We found that climate change reporting created tensions between the need to present all perspectives rather than try to mediate them. As a journalism trainer in South Africa explained, journalists feel an obligation to take sides in the name of what they consider the common good. As a result, climate change scepticism either receives bad press or is insignificant in the African media, compared to narratives that advance views that align with the idea of human-induced climate change. This is a problem that cannot be easily resolved as they stem from what journalists choose to believe as constituting the "right" climate change narrative, in contrast to a "wrong" far-right narrative driven by conspiracy theories and not science.

3.4. Incentives for Covering Climate Change

Nearly 77% of respondents said they were motivated to cover climate change because it was a "contribution to a good cause." In interviews, we found that journalists were willing to trade their neutrality if they believed being biased served the public interest. In South Africa, focus group participants repeatedly evoked the media's duty to advance society and "do no harm". Journalists held the view that the media can and should be a force for good.

However, this inclination to the greater good became less evident when we confronted journalists with specific cases. For example, they failed to see themselves as responsible for promoting just, equitable and pro-poor climate action. Only a small percentage of survey respondents (less than 1%) said the media had other roles such as representing the voice of the voiceless even if they must take up the duty of shedding light on the suffering of those affected by climate change. This irony came across more forcefully during interviews and focus group discussions, where, most participants argued against the advocacy roles often assigned to journalists who cover climate change. Most participants in the study upheld the view that "journalists are not activists" and that media must remain independent, neutral and fair in all reporting, however difficult in practices.

We found that media roles take on an entirely new meaning when framed differently. These frames originate both from with and outside media. For example, we found that "good causes" are frequently predefined for journalists. Discussions revealed that media coverage of climate change was strongly influenced through training and reporting grants by donor agenda - which determined what was covered and how it was covered. One respondent said:

8 Interview MPCC2, Johannesburg, South Africa

"NGOs train you to tell the story they want to tell and you are obliged to play along because you do not know better or lack the means to undertake independent reporting... NGOs, especially those from the west and their partners in Africa, have been very instrumental in shaping journalists' attitudes towards climate change (FGD Participant, Cameroon)."

Media's partnerships with NGOs often present opportunities for journalists to travel internationally for training and to cover major climate change gatherings. Many journalists in our sample said they had participated in international fellowships and cross-border collaborative work that would not be possible without NGO support. However, that majority said the opportunity to travel, for example, along with professional and financial rewards, were less important in determining whether journalists covered climate change than the fascination of the subject. In FGD and interviews, participants explained that climate change had become such an important subject that it was difficult for journalists to ignore. Additionally, the impacts of climate change have become ever more visible and have caught the attention of journalists. Major events such as Cyclone Idai that hit parts of the southwestern coast of Africa in 2019 and the Western Cape water crisis in South Africa (2017-2018) have made climate change stories equally charged with elements of drama, conflict and the human condition that appeal to journalists and audiences alike. However, most climate change stories lack the dramatic appeal of extreme weather events such as Cyclone Idai and largely remain under-reported.

Surveys showed no strong disagreement among participants with the newsworthiness of climate change and the climate crisis, in contrast to the literature, which claims that climate change is largely considered not news-worthy in Africa (see for example Atieno & Njoroge, 2014 and Esipisu, 2018). Most respondents (91.8%) agreed that the subject was newsworthy (3 to 5 on a scale of 1 to 5, 1 representing low newsworthiness and 5 representing high newsworthiness). In this group, 32.7% of survey respondents rated climate change as a very newsworthy subject, compared to 4.1% who felt the newsworthiness of a climate change story was low. (Figure 5).

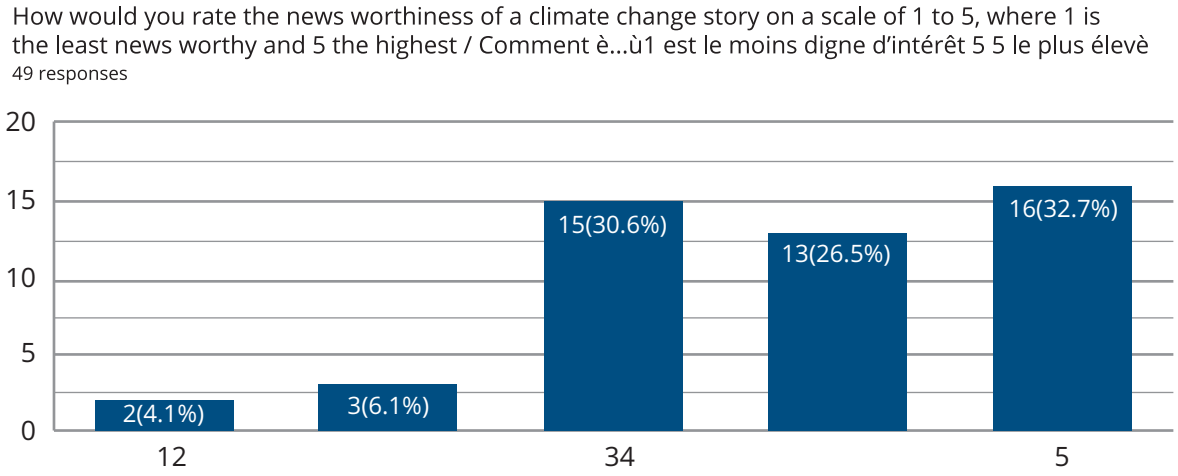


Figure 5: News worthiness of climate change stories

Sample bias might explain the high rating of the newsworthiness of climate change. Participants included mostly journalists already covering climate change or with a demonstrated interest in the subject. It could as well also indicate an evolution of climate change on media agenda, as it gains prominence in public discourses and produces impacts that are felt directly by audiences and cover a range of human interests that make good news stories. Nonetheless, participants said the news appeal of climate change still rated comparatively low, when measured against other subjects such as politics, economics and sports.

3.5. Factors Influencing Media Coverage of Climate Change

3.5.1. Interest

We define interest as newsroom attitudes towards climate change or the level of willingness to place climate change stories on the coverage agenda. We deliberately omit motivations from the definition, since they introduce new elements, such as availability of climate change reporting grants, which can have temporary influences on attitudes and willingness. We work with the hypothesis that levels of interest can determine success in translating climate change story ideas into published content, and how they might compete with other news topics.

Contrary to the literature, we find strong support for climate change stories among editors and reporters. Drawing on their experiences, more than 88% of respondents said editors were welcoming of climate change stories – 65% described the level of interest as "positive" and 23.1% as "very positive". Despite an 11% rate of "indifference" in the attitude of editors towards climate change stories, none of the respondents reported a "negative" or "very negative" interest (Figure 6). Among other journalists, respondents had similar views. More than 80% of fellow reporters were interested in climate change as a news subject. Though the rate of indifference seemed higher (19.2%) among journalists than among editors, there were equally no negative interests in climate change reporting (Figure 7).

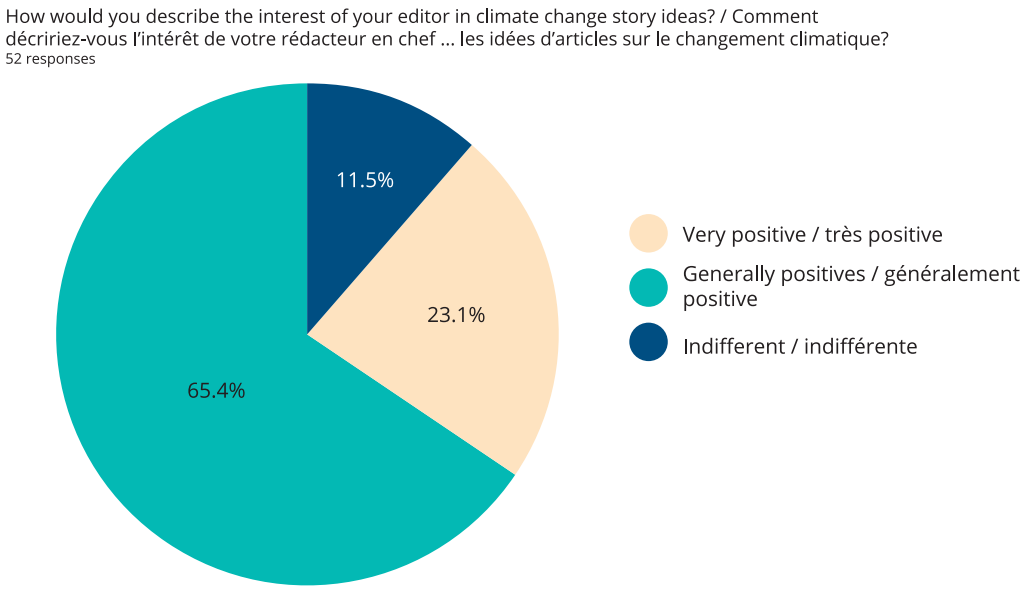


Figure 6: Interest of editors in climate change stories

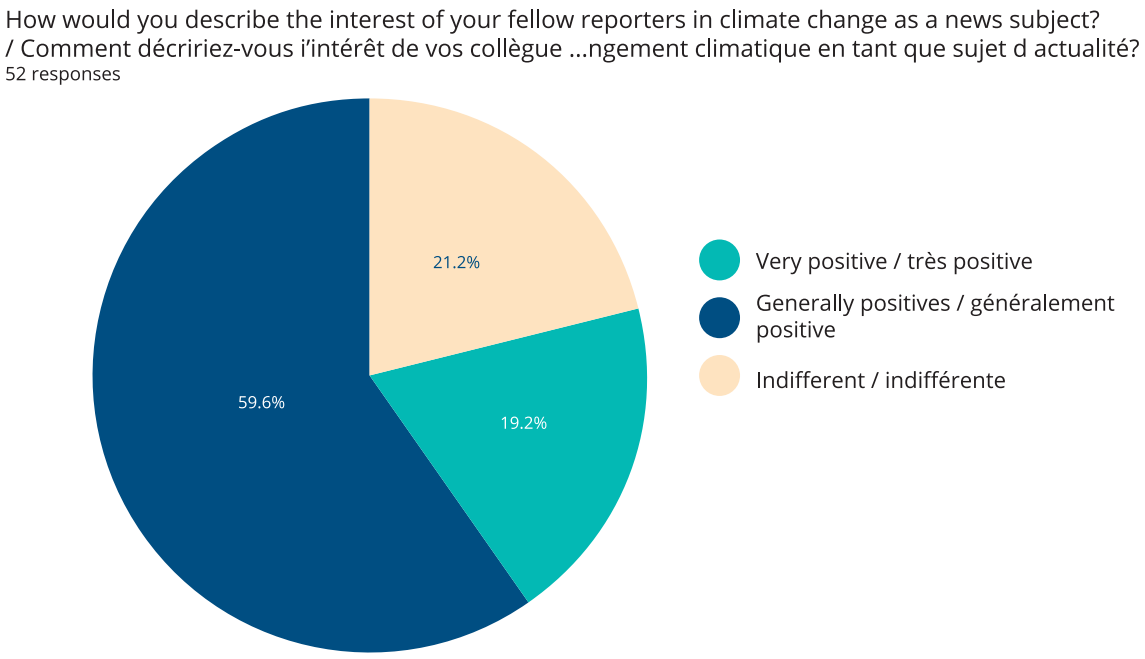


Figure 7: Journalists' interest in covering climate change

This level of interest was reflected in the proportion of climate change stories in surveyed media outlets that received coverage. More than half of respondents said climate change story ideas often develop into published stories. Up to 25% occur all the time, while 28.8% of climate change story ideas led to the publication of finished stories "most times". A higher percentage (40.4%) of climate change story ideas only led to published articles "sometimes"; while 5.8% "rarely" get published. (Figure 8)

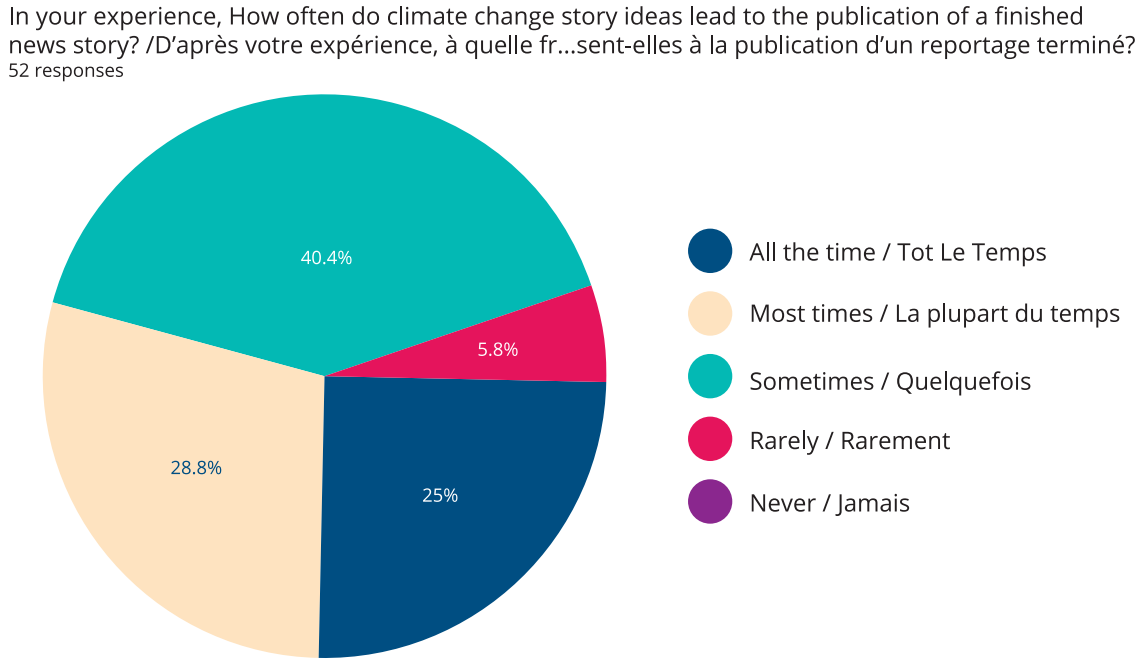


Figure 8: The survival rate of climate change story ideas.

3.5.2. Resource allocation

The level of interest is however not consistent with the allocation of resources to climate change stories. A majority of respondents (44.2%) said they were provided with the resources and time needed to cover climate change stories only "sometimes". Up to 26.9% said they "rarely" got the resources they needed, compared to 15.4% who received resources "most times" and 5.8% "all the time". (Figure 9).

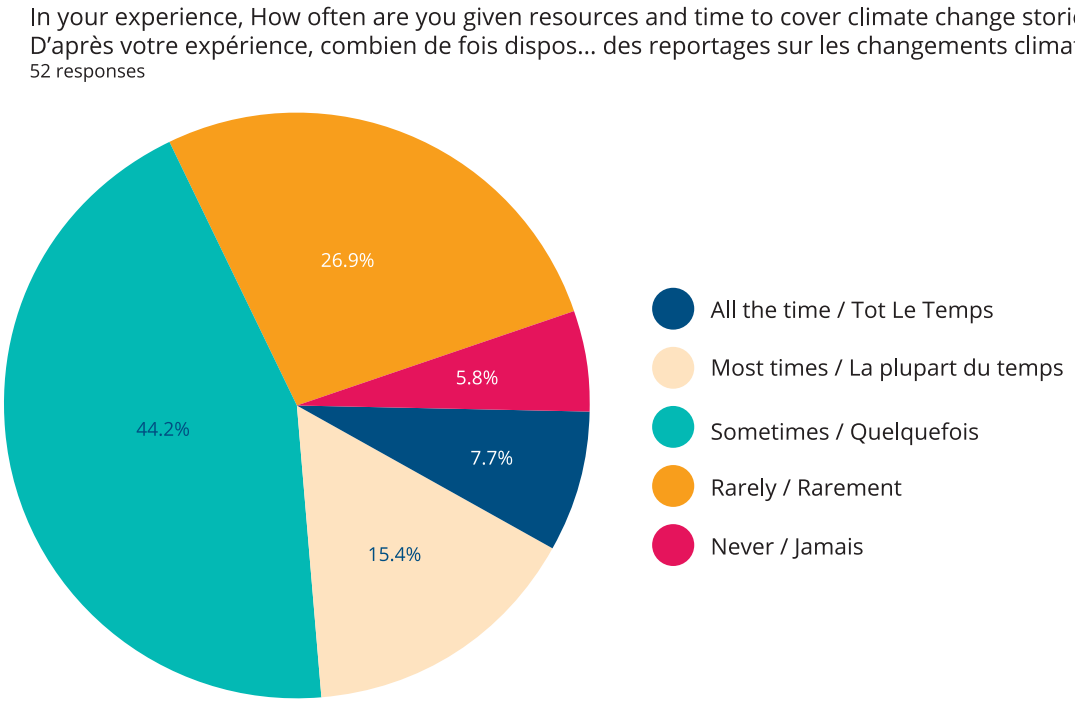


Figure 9: Resources and time to cover climate change stories

Discussions and interviews revealed that climate change stories are expensive to cover and bring lower financial rewards to news organisations than cheaply available yet high demand political stories. For many news organisations in Africa, climate change is considered "a disposable beat", that is, one that is easily set aside for "worthier" stories. This resource constraint means that African news media continues to rely heavily on foreign news organisations to report international climate change negotiations, for example.

Consistent with the literature, climate change competes unfavourably with other news stories. The news media in Kenya, for example, tend to focus on reports that "provide immediate rewards for journalists" such as politics (Tagbo, 2010). Editors must also make trade-offs between the need to sell copies and the demands of supporting climate change reporting, which for many is a hard sell compared to, say, politics. Journalists thus face pressure to make climate change stories newsworthy, leading to the dramatization and sensationalisation of climate-related events such as floods, famines and other disasters. This is consistent with the challenges of climate change reporting in most of the developing world. In Pakistan, for example, climate change reporting is confronted with obstacles related to access to information and the low news value of environmental issues (Sharif & Medvecky, 2018).

3.5.3. Access to sources and information

The climate change narrative is controlled by a small category of powerful stakeholders. When asked what their primary source of information on climate change was, nearly half of the participants selected national and international non-governmental organisations as their most important source, followed by government scientists and experts and international organisations or United Nations (UN) agencies. Only a small percentage received information from the UNFCCC secretariat or IPCCC reports (Figure 10, multiple answers possible).

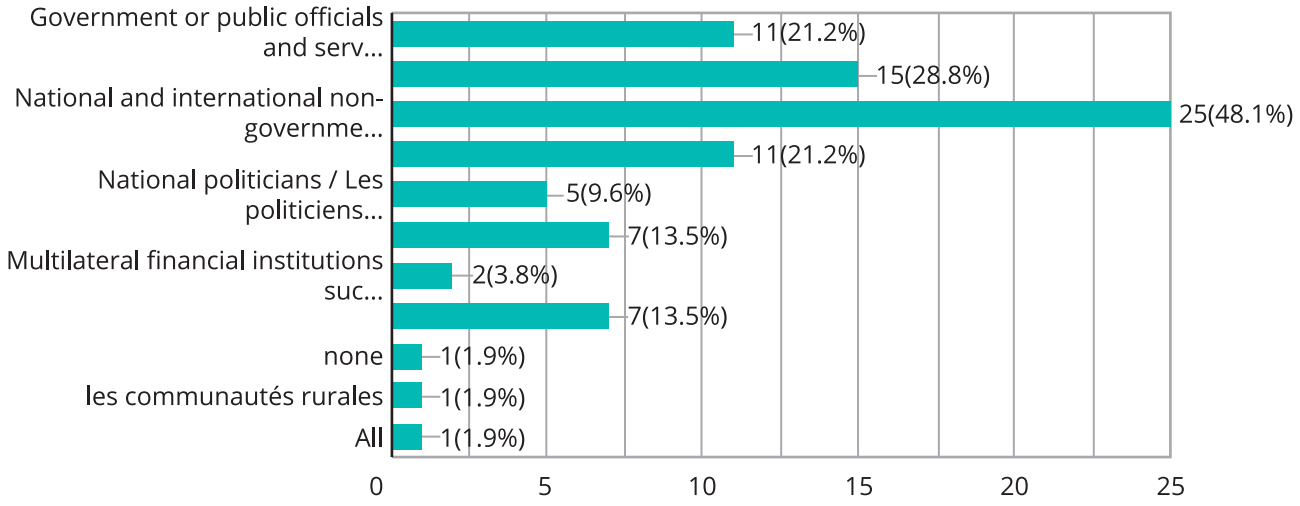


Figure 10: Primary source of information on climate change

We found evidence that international NGOs exercised the most influence on media coverage of climate change in Africa, serving both as suppliers of technical support and sources of the information conveyed in media reports. International NGOs exercise these influences directly or indirectly through their national partners. In Cameroon, for example, FGD participants said they learned about Cameroon's climate action plan from NGOs, such as the Pan-African Climate Justice Alliance (PACJA) and not from the government.

In interviews and FGD, most respondents also said they were strongly influenced by international media, "which set the tone and focus of media coverage of climate change." Lacking the means to cover international conferences and national events and phenomena, journalists said they rely heavily on international media coverage, especially by national correspondents who usually have more resources, reach and editorial support. In Cameroon, the editor of an environmental newspaper said he frequently reproduces content about Cameroon from international outlets because such content was "already sufficiently research, well-written and edited."

In correlation with the low diversity of sources, we found a limited diversity of voices and views in media coverage. A majority of respondents said they present opposing views when covering climate change only sometimes (34.6%) or rarely (36.6%) and up to 19.2% said they never present opposing views. This compares to 9.6% who always present opposing views. (Figure 11).

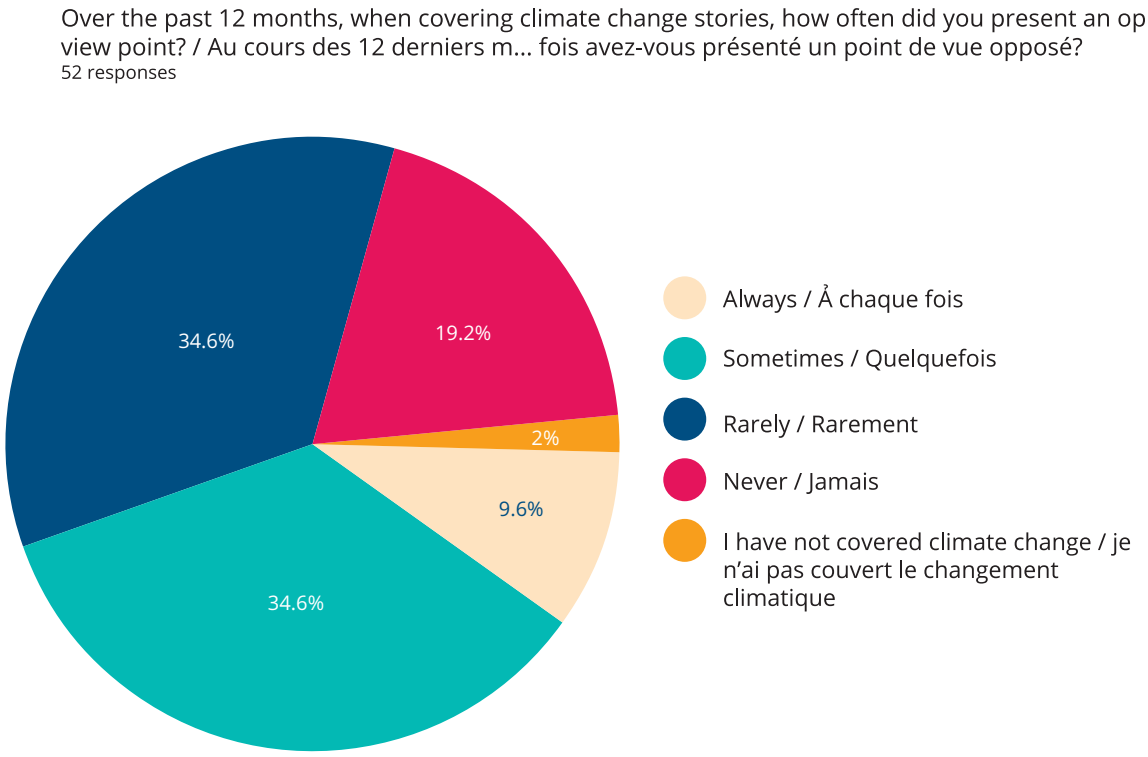


Figure 11: Balanced coverage of climate change

Opportunities for the coverage of climate change were also limited. Most respondents said they had neither covered the UNFCCC Conference of Parties, nor the African Ministerial Conference on Climate change nor other international and regional climate change conferences or events in the last two years. Coverage during the same period was dominated by extreme events such as floods (28.8%), unusual rainfall (21.2%) and droughts (7.7%), compared to little coverage of causes of climate change such as deforestation (1.9%).

In most African countries, access to information is restricted. One respondent in Cameroon said:

"And even if journalists want to report accurately about climate change they are unable to do so without access to information. Public authorities are suspicious of journalists and unwilling to share information, especially if it is not favourable to them."

Even in countries where access to information laws exist, such as South Africa and Kenya, journalists found the process of receiving information from public records burdensome and unsuited for the tight deadlines in the media. When available, they said information was in technical language that was inaccessible to journalists and audiences".

Asked how often they were able to find credible scientific sources when covering climate change, the majority 46.2% said sometimes, compared to 34.6% who said most times and 9.6% who said all the time. The rate at which journalists were unable to find accessible sources was relatively smaller. Only 6.9% said they rarely found credible sources, while none reported "never" accessing credible scientific sources. This is explained by the growing level of expertise within African governments and NGOs. One respondent said:

”Journalists have managed to build relations with climate change experts and policy makers through numerous networking opportunities such as seminars, conferences and participation in other climate change events”.

Equally significant is the fact that even though climate change is politically charged in countries such as South Africa and Kenya, it is not yet the case in the other countries surveyed. Respondents said government experts did not feel they have anything to hide and are therefore more open to providing information to journalists.

3.5.4. Training and skills

Most respondents said they had received some form of training in covering climate change, delivered mainly by NGOs. However, the need for specialized training and skills was among the top three considerations when covering climate change. Journalists said climate change remained very technical and complex and required a high level of specialization to cover properly.

3.6. Climate Change Literacy in African Media

Respondents of the survey were asked if it was true or false to state that climate change and global warming meant the same thing. The majority, 51.9% said it was false; and 42.3% said it was true (Figure 11). They were then asked to justify their answers. When we grouped answers based on the shared descriptions of the relationship between climate change and global warming, we found two major categories of responses among respondents. The first group described global warming as a manifestation of subset of climate change. They viewed climate change as more expansive and broader changes in climatic variables as well as the extreme events arising from those changes but reduced global warming to changes in the lone variable of temperature. The second category of responses found a causal relationship between global warming and climate change. The majority in this sub-group said global warming resulting from the emission of greenhouse gases was to blame for climate change. In other words, observed changes in other climatic variables were triggered by a rise in the global mean temperature. This included views that global warming served both as a cause and as a risk multiplier of climate change. Yet, for a small number of respondents, global warming was a consequence of climate change. This sub-group viewed the rise in mean global and local temperatures as a direct consequence of climate change.

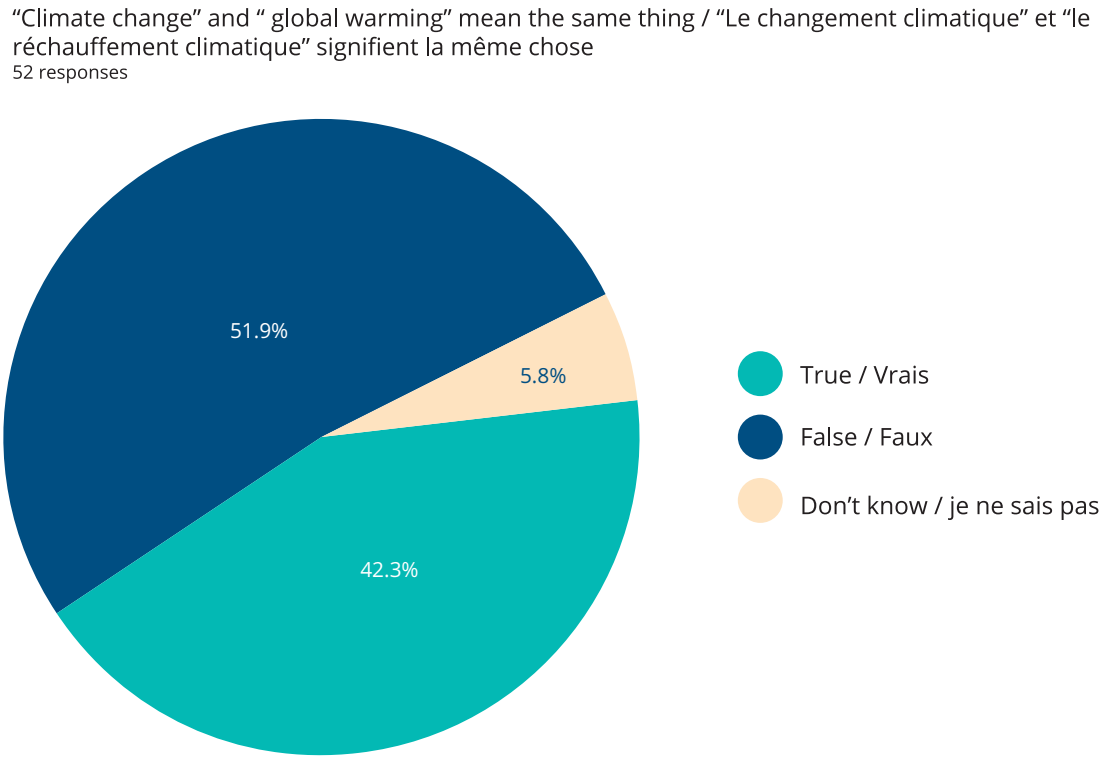


Figure 12: Understanding the concepts of climate change and global warming

The evidence reveals a range of perceptions that reflect the complexity of the notion of climate change. In face to face conversations, respondents said they often used global warming and climate change interchangeably, even if there were obvious differences and similarities between the two. "It is not that there are many definitions or no clear differences between climate change and global warming, it all depends on the standpoint from which one discusses these issues," explained a journalism professor at the University of Johannesburg. "You could well argue that global warming sets off all the other changes in the climatic system, just as you could claim that the higher temperatures that we experience, are the results of climate change."

Sharp differences began to emerge when respondents were surveyed on more technical specifics: 34.6% said the world was currently experiencing a "climate breakdown", compared to 26.9% who said the world was facing a "climate crisis" and 19.2% who said what is going on is a "climate emergency". Up to 19.2% were unsure (Figure 13).

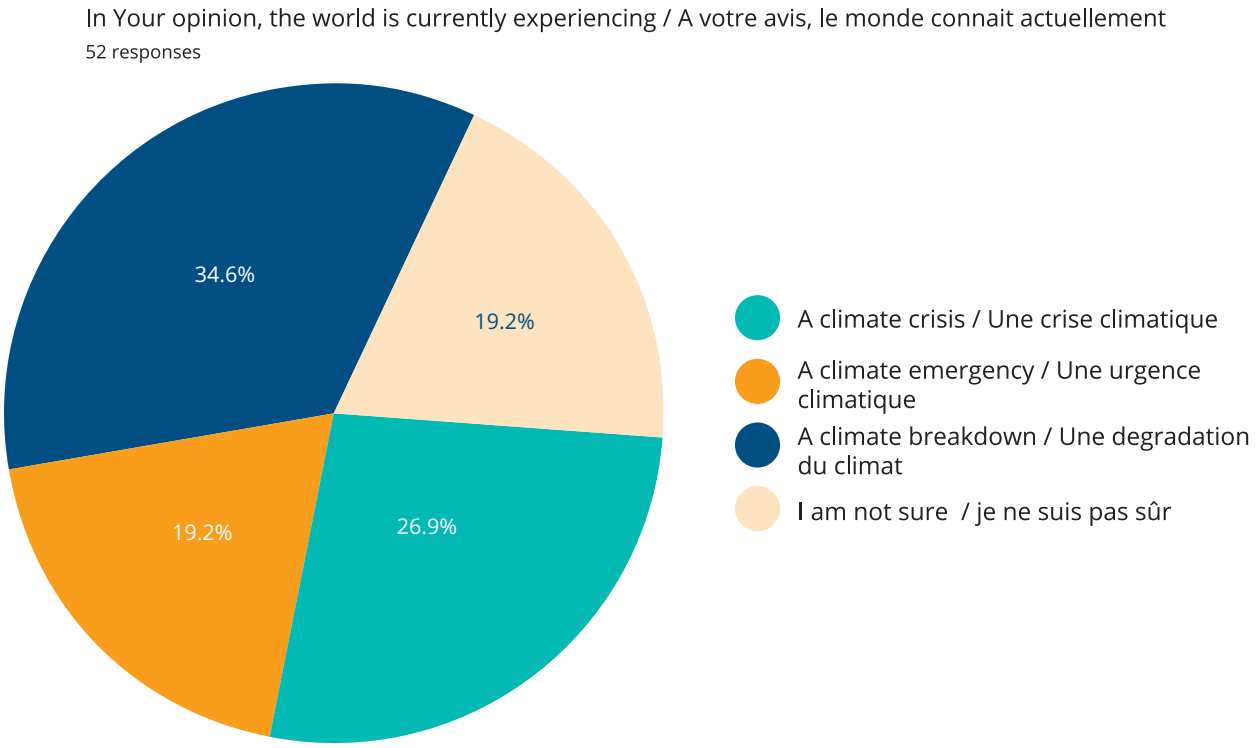


Figure 13: Perceptions of the severity of climate change

When they were given a choice between "global warming" and "global heating" an overwhelming majority (73.1%) said in their opinion, the world is currently experiencing global warming, compared to 21.2% who described the situation as global heating. The level of uncertainty was lower, with only 5% saying they were not sure (Figure 14).

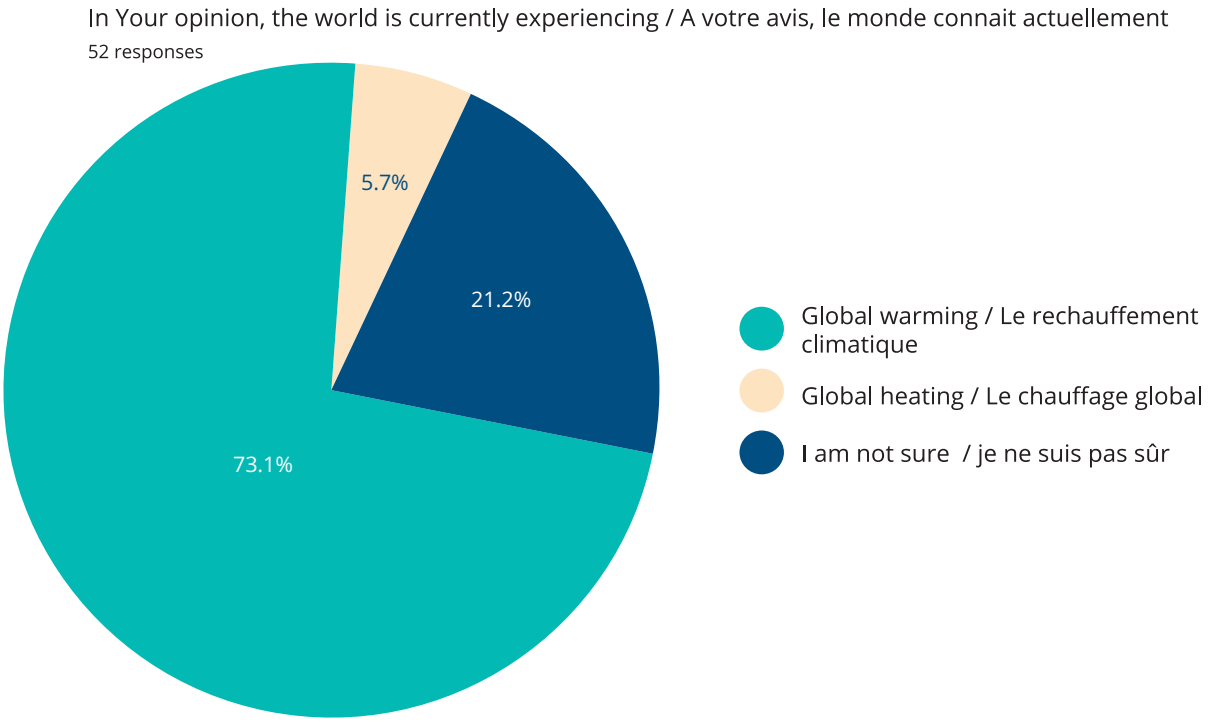


Figure 14: Climate literacy

Awareness of the disproportionate impact of climate change in Africa was low among respondents. The majority 55.8% said they were not sure if Africa was among the regions most vulnerable to the adverse impacts of climate change, compared to 30.8% who agreed with the statement and 13.5% who disagreed. (Figure 15).

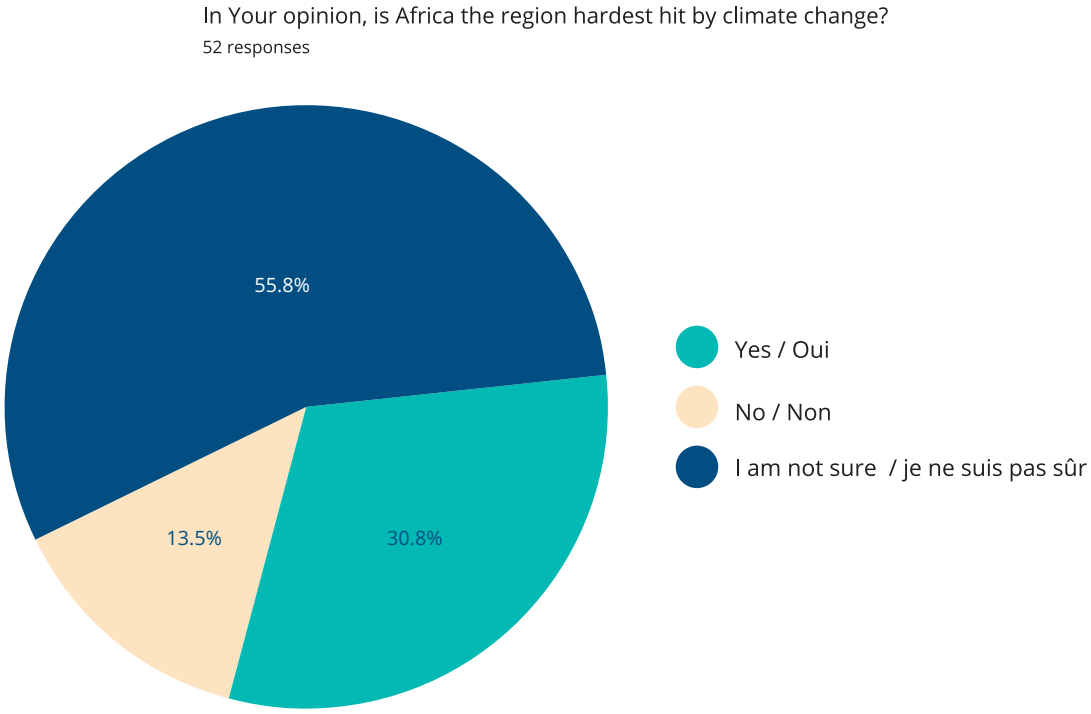


Figure 15: Awareness of disproportionate impacts of climate change in Africa

Uncertainty increased when journalists were asked more technical questions. Up to 75% said they were not sure if Africa was warming 1.5 times above the global average as suggested by the current science, compared to 19% who agreed and 5.8% who disagreed (Figure 16).

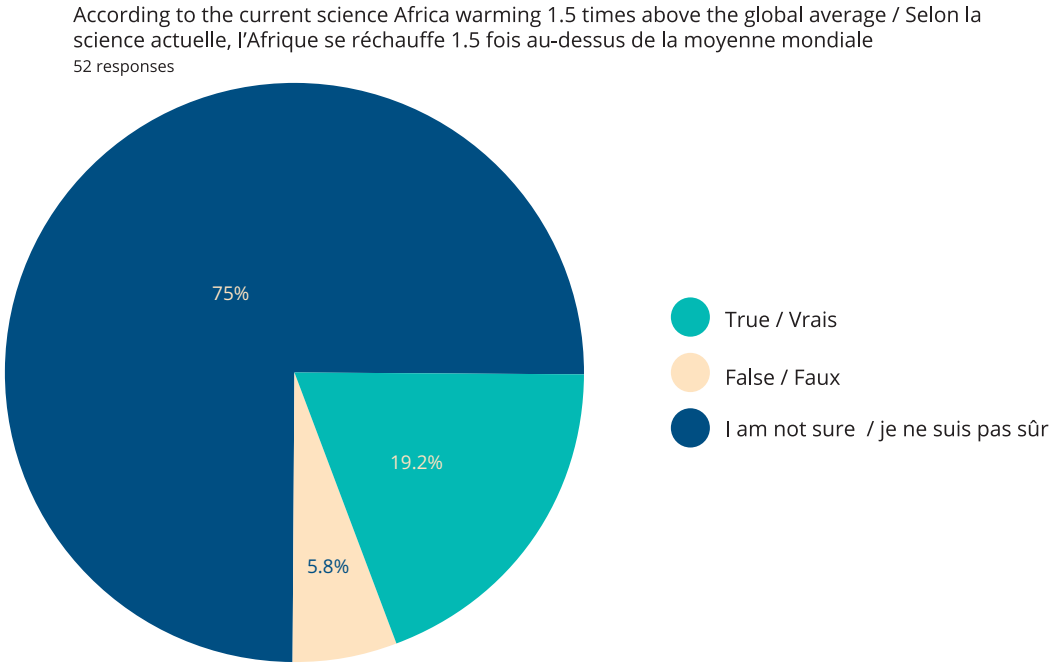


Figure 16: Awareness of levels of warming in Africa

Presented with the current estimates that show that some parts of Africa are already warming by an average of 2 degrees Celsius, 67.3% of respondents said they were not sure, compared with 25% who agreed and 7.7% who disagreed (Figure 17).

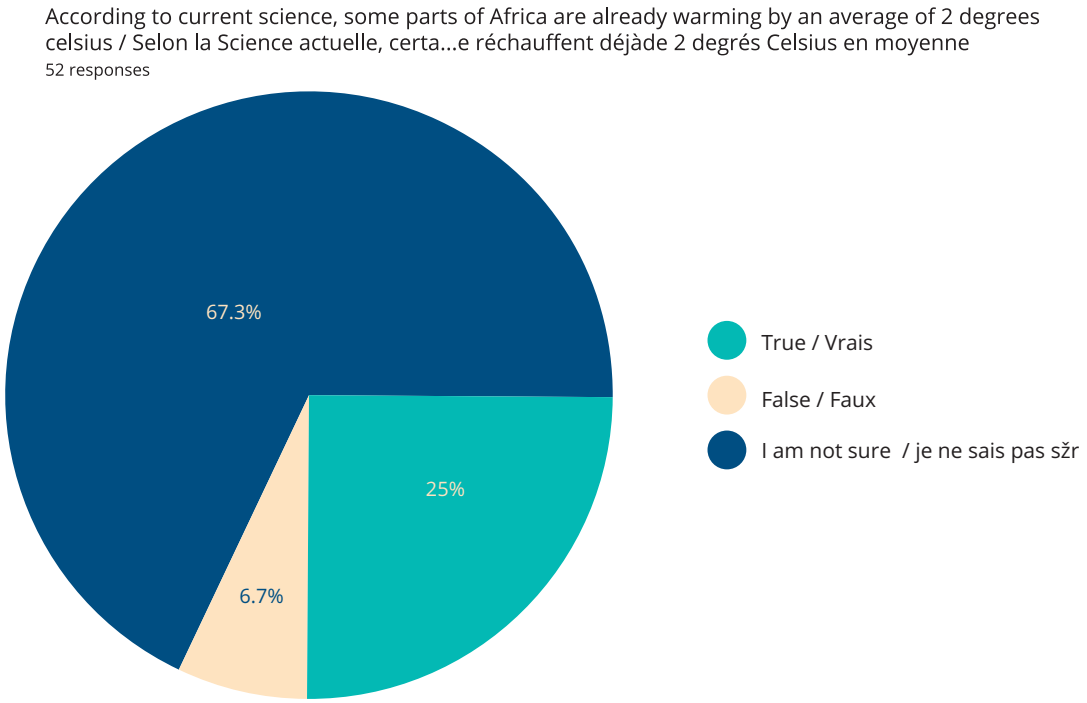


Figure 17: Awareness of faster warming in Africa compared to the global mean warming

Uncertainty was equally high (73.1%) among respondents when presented with the estimate that says the global average temperature has risen by 0.9 degrees since industrialisation. A quarter of respondents (25%) agreed with the scientific estimate and only 1.9% disagreed

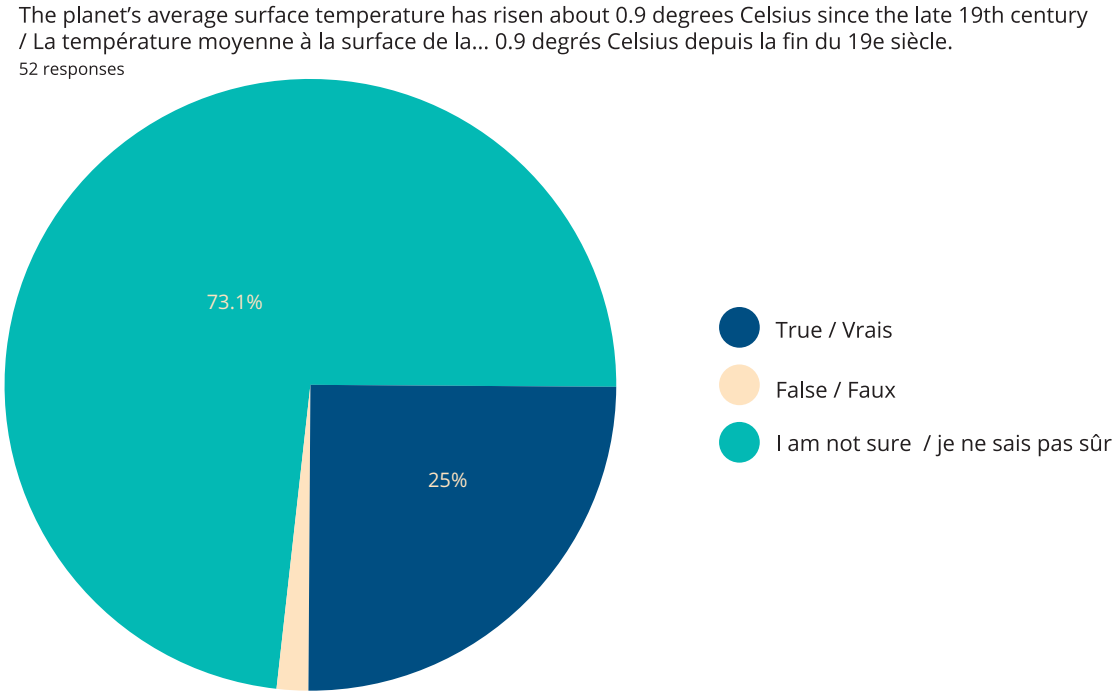


Figure 18: Awareness of the level of global warmings in the industrial revolution

Respondents were then presented with three statements and asked which of them was consistent with the current science on climate change. 67.3% said "Climate is warming faster than it has in the last 2,000 years"; 26.9% said "In contrast to pre-industrial climate fluctuations, current, anthropogenic climate change is occurring across the whole world at the same time" while 17.3% said "Over the past few hundred years, there has been a steady increase in the numbers of sunspots, at the time when the Earth has been getting warmer. The data suggests solar activity is influencing the global climate causing the world to get warmer. (Figure 19).

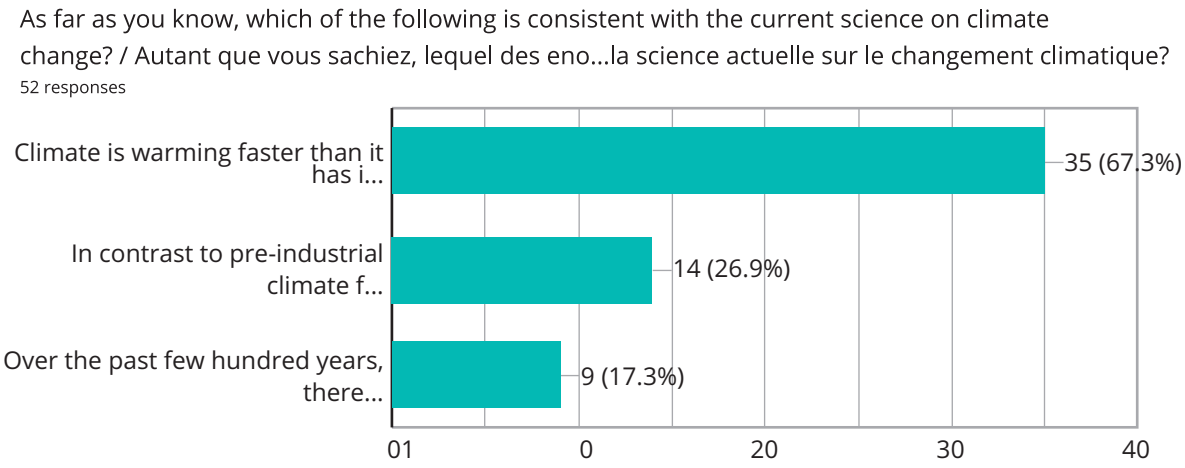


Figure 19: Awareness of the level of global warmings in the industrial revolution

We then surveyed participants on their knowledge of international climate change governance system. Two-thirds of participants said they followed UNFCCC processes with 36.5% saying "I follow international climate change negotiations and UNFCCC, processes, including reports of the IPCC." The other third (30.8%) said they were familiar with UNFCCC processes but have not paid attention. The last third (32.7%) said they did not follow international climate change negotiations and UNFCCC processes at all. (Figure 20).

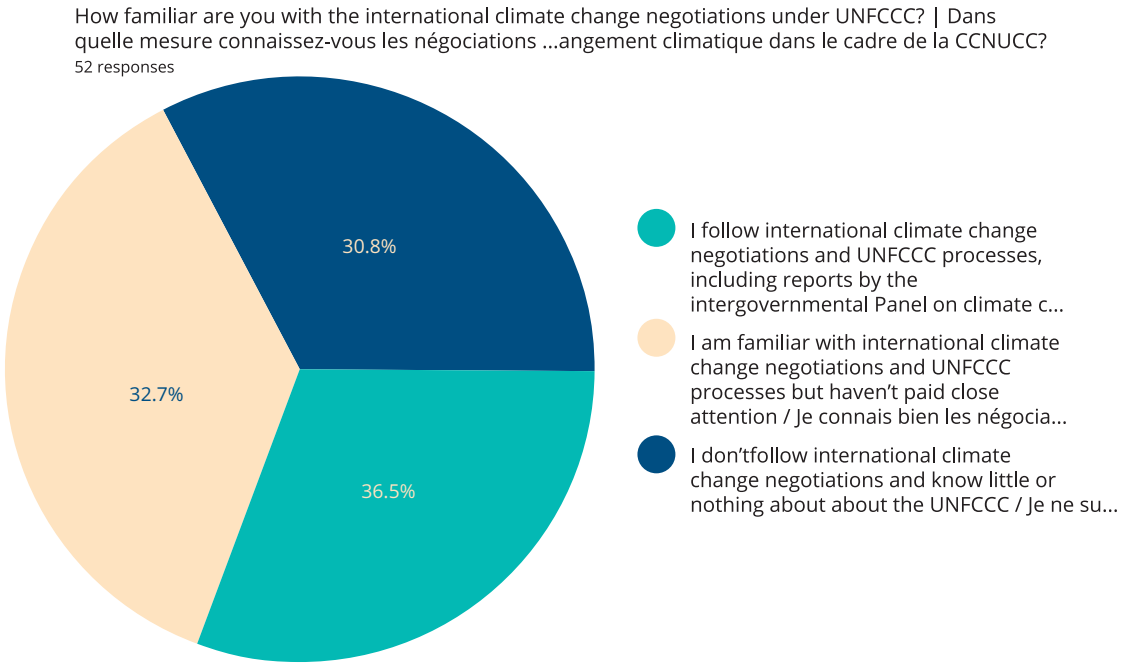


Figure 20: Familiarity with UNFCCC processes

Surveyed on the African Common Position in international climate change negotiations, 44.2% said they were familiar with the position, compared to 34.6% who said they were barely familiar and 17% who were "not at all familiar". Only a tiny percentage of respondents (4.9%) as per below diagram "very familiar" (Figure 21).

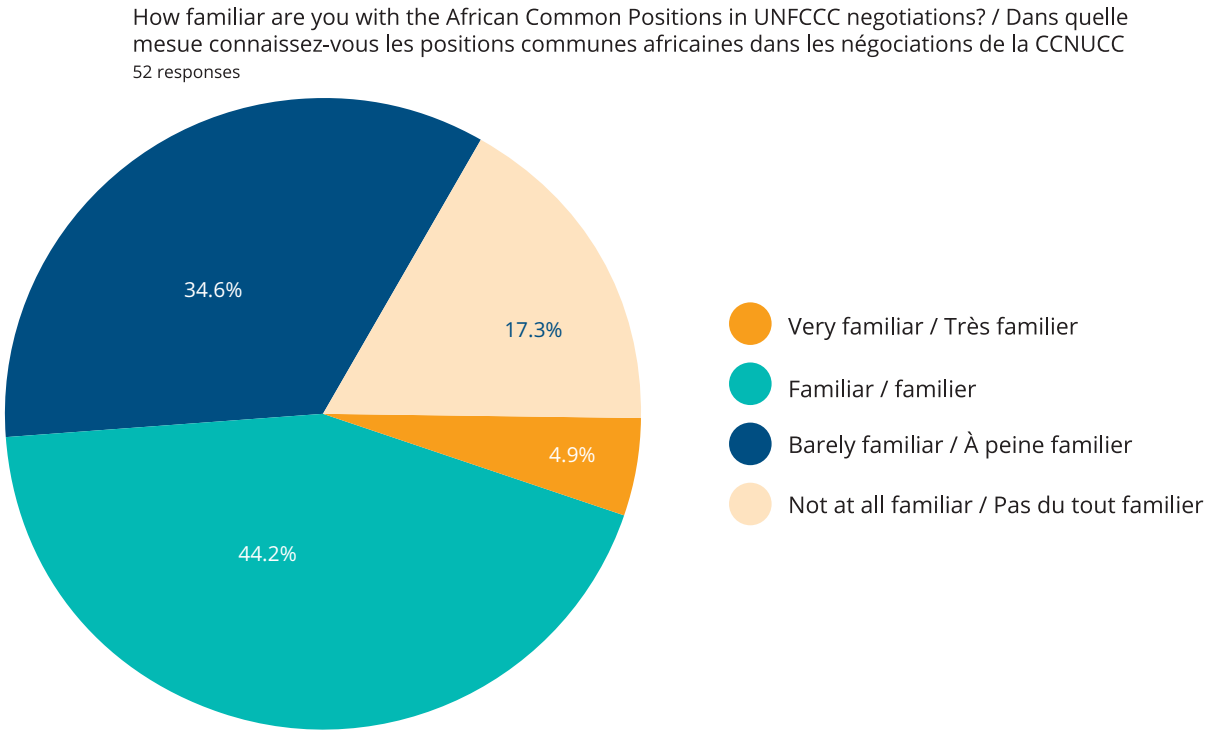


Figure 21: Familiarity with regional positions in international climate change negotiations

On the Paris Agreement, 46.2% said: "I have only heard of the Paris Agreement in the Media and have no idea what its stipulations are". 42% said they knew the stipulations of the Paris Agreements and their implications for global climate action, and 11.5% said they had not heard about the Paris Agreement (Figure 22).

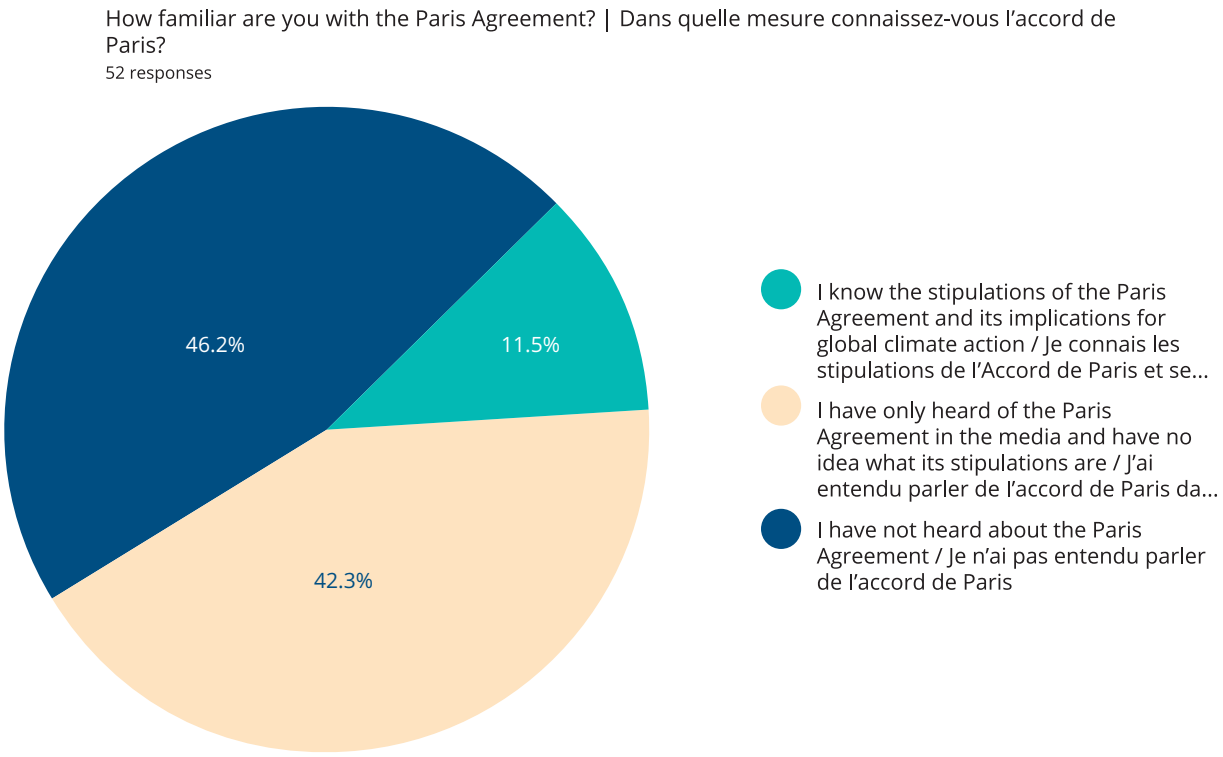


Figure 22: Familiarity with the Paris Agreement

3.7. Dominant Frames of Climate Change in the African Media

Interviews, content analysis and a look at the literature on media reporting of climate change reveal a wide range of frames, which vary across different contexts and are dependent on the interests that media seek to promote or discredit. Nonetheless, some frames standout.

- ***Climate change is a human-induced crisis, with risks and benefits, that requires urgent and broad action to correct.***

Consistent with the generally accepted position, most respondents (59.6%) said climate change was caused by "human interferences with the climatic system." A quarter or 25% of those surveyed said climate change was the result of "natural changes in the climatic system" while a small percentage (9.6%) attributed climate change to "supernatural forces that control the climate system."

Media reporting promotes a frame of climate change that is consistent with the idea that climate change is "a harmful, human induced-risk", usually to the detriment of differing views (Brüggemanna & Engesserb, 2017: 1). It seems that when it comes to climate change, journalists are willing to take sides, projecting the science and arguments that they have chosen to believe. But more significantly, a shift towards interpretative reporting and advocacy journalism has emerged, along with an elite group of climate change journalists who not only shape the topics of coverage but also become sources for other journalists (Brüggemann, 2017).

- ***Risk-benefits framing of climate change***

In this risk-benefit framing of climate change journalists tend to focus on damages associated with climate change rather than opportunities for new sustainable businesses, green growth initiatives and resilient-development approached. The majority (40.4%) of respondents with a clear stand said climate change was a crisis, compared to 17.3% who saw climate change as an opportunity for innovation and new approaches to development. A larger proportion (42.3%) framed climate change both in terms of risks and opportunities.

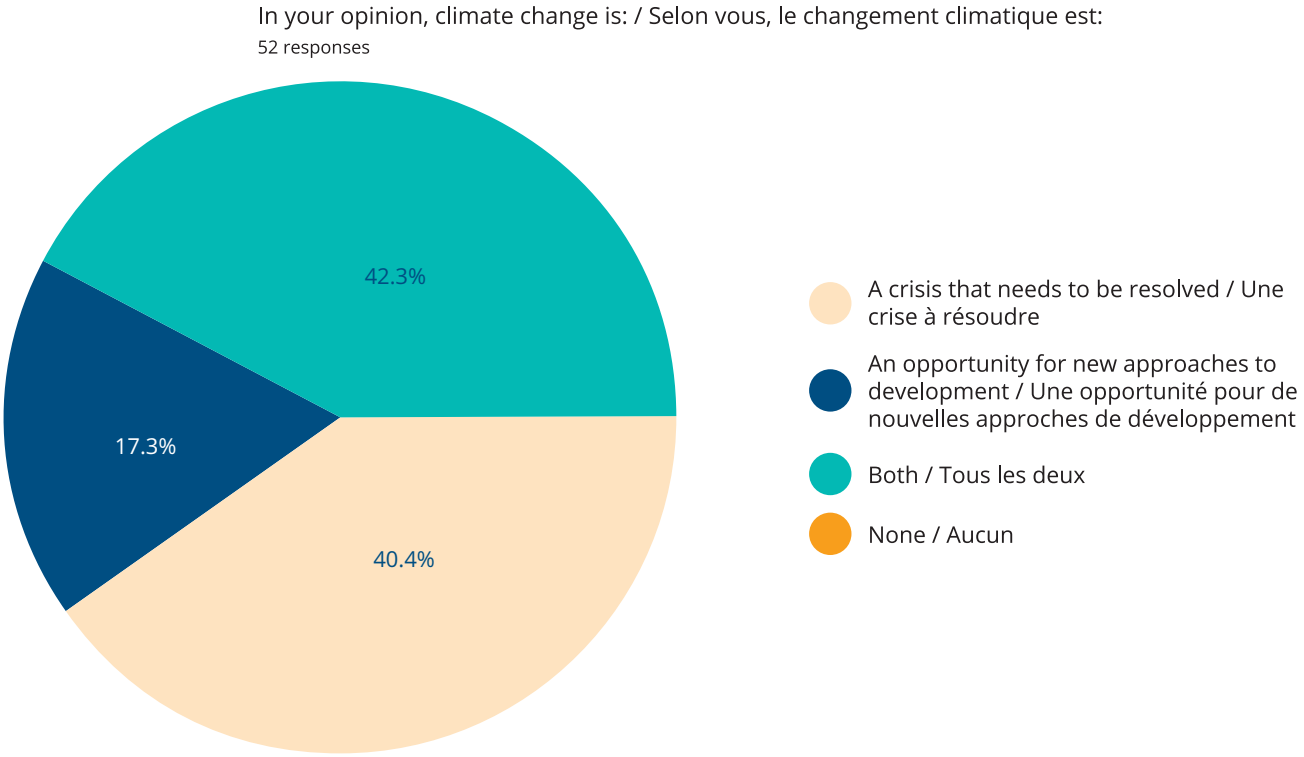


Figure 23: Perception of climate change as risks and opportunities

When asked to select from a list of six possible actions to tackle climate change, respondents picked "disaster risk management" more frequently than "environmental protection" and "poverty reduction". Actions that reduce greenhouse gas emissions were least frequent, accounting for only 1.9% of choices. Yet, when we looked at news reports from 210 news organisations from across the continent, we saw a marked preference (43%) for stories that focused on solutions to climate change, such as adaptation and mitigation (Figure 24). In contrast, only 25% of stories reported the impacts of climate change and 11% took an interest in climate change policy. Despite the wealth of knowledge now available about the complexity of the climate change thematic, some media, still present climate change as a trade-off between economic benefits and environmental risks (Dusyk et al., 2018).

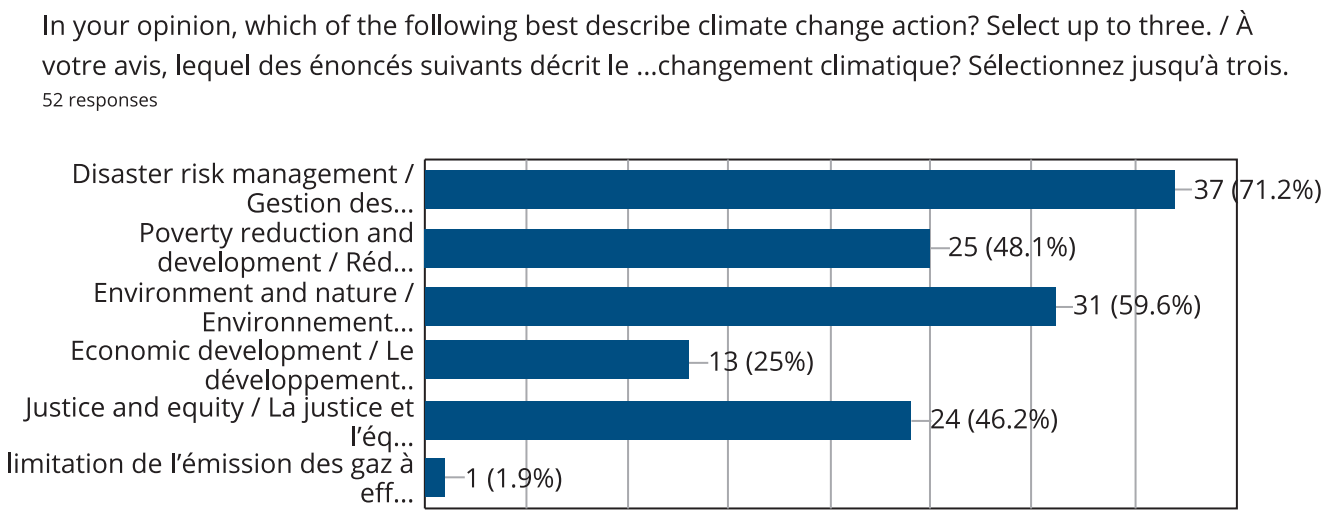


Figure 24: Perceptions of climate action

- ***Climate change is inherently political and intersects other public debates and policy processes***

Media reflect the shifting climate change narrative, which emerged first as an environmental problem primarily of interest to environmental protection and scientific communities but evolved into an existential crisis that has taken on political and economic dimensions. In South Africa, for example, journalists said the droughts-induced water crisis in the Western Cape received more media attention because of its affluent, mostly white population, while similar crises in poorer, black communities either went unreported or were sensationalized. As such, media reporting quickly drifted from the water and climate crisis to a national discussion on race and inequality in post-Apartheid South Africa. According to Young and Douglas, 2011, this framing, which they refer to as "decontextualization" is evident where "[less attention is paid to] issues of causation, scientific claims, and potential impacts, while more attention is granted to how climate change superficially intersects with everyday politicking and business issues."

- ***The poor suffer most from climate change even though they have contributed least to the problem***

African media have taken interest in the distributive justice questions associated with climate change negotiations. Debates about who is responsible for climate change, who should bear the burden of climate action and who should benefit from climate action often find their way in the media and guide journalistic decision-making (Han et al., 2017).

The majority (84.6%) of survey respondents said industrialised countries were responsible for climate change, compared to only 1.9% who blamed unindustrialised countries (Figure 25). A similarly large proportion of respondents (76.9%) said industrialised countries should pay for climate action, compared to 21.2% who said it did not matter who bore the cost of climate action (Figure 26).

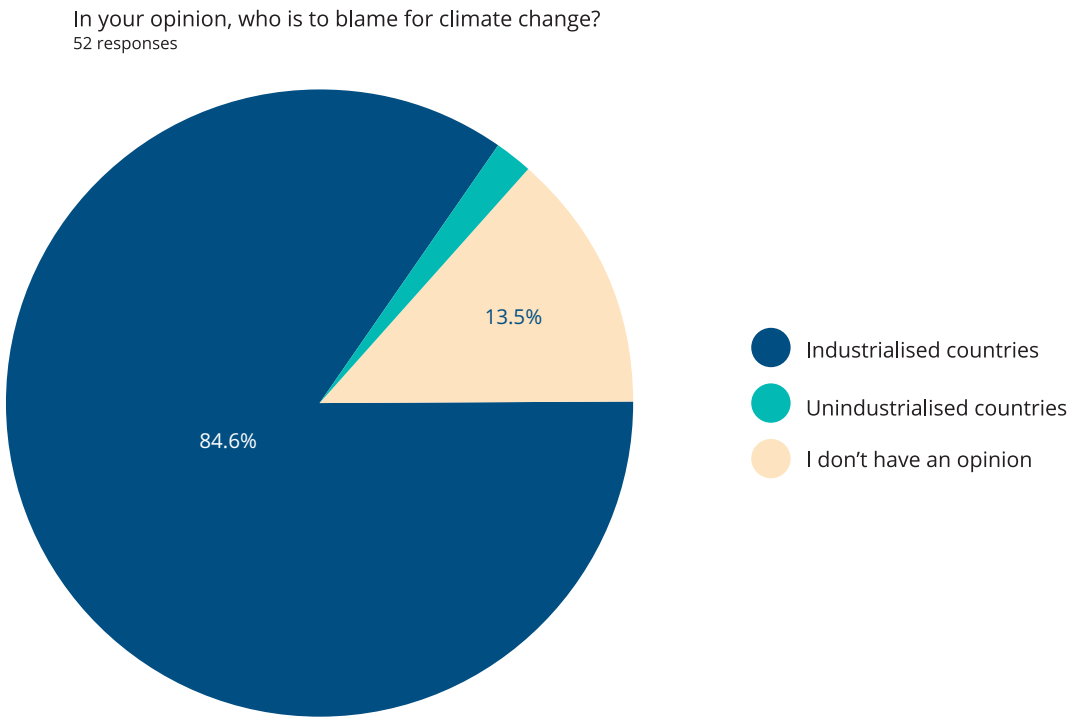


Figure 25: Responsibility for climate change

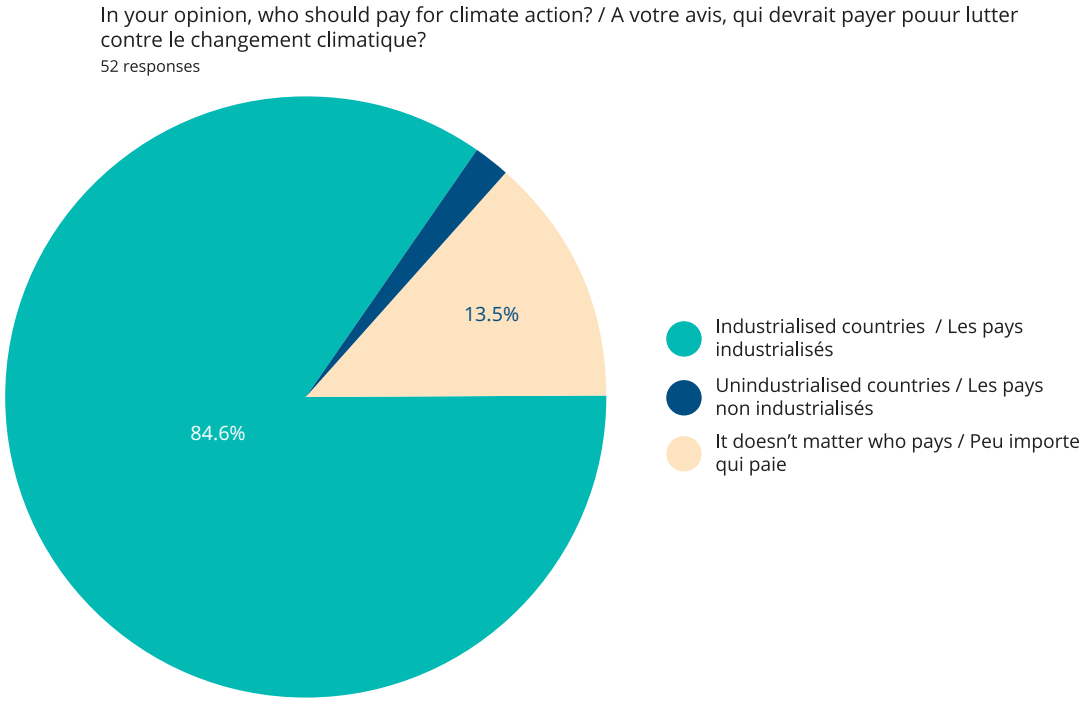


Figure 26: Responsibility for climate action

Frames of climate action as inherently one of justice and equity are more predominant in the media of the Global South, where climate justice is more forcefully articulated. Climate change is thus reported both as a global problem with diverse local implications, as well as one that affects industrialized and developing countries differently.

4.

Conclusion and Recommendations

We find evidence of high awareness of and a strong interest in climate change among editors and reporters in the seven countries surveyed. This can be explained by multiple factors. As news- making climate events have become frequent across the continent, journalists said they could neither miss nor ignore the subject. In many instances, journalists self-described not only as reporters but also as citizens with first-hand experiences of the impacts of floods, droughts and unpredictable rains. Besides, donor funding and training, mainly through international and national NGOs, has helped position climate change on the coverage agenda of both journalists and newsrooms.

However, discrepancies become visible at a closer look. Despite high levels of awareness, climate literacy was low among journalists. Respondents struggled to explain or recognise essential facts and critical issues around climate change; demonstrate a grasp of international and regional climate change governance mechanisms, instruments and processes, as well as the major debates that shape international climate change negotiations. For example, more than 73% of journalists surveyed were unaware that the average global temperature has risen by 1.1 C since the industrial revolution in the 19th Century.

Similarly, high levels of interests among editors and reporters were not matched by adequate dedication of time and resources to climate change coverage. Climate and environmental news still fall behind other subjects such as politics, business and sports, in part because climate change does not sell copies or increase audience ratings. Newsrooms are permanently making tradeoffs between climate change stories and their economic or political benefits and fallouts.

Evidence of limited skills and resources to do a good job correlated not only with a low quality of reporting but also with narrow media perceptions of climate change, with the risk of rendering media ineffective in driving climate action. We find evidence that most coverage fails to explore the full range of issues critical for facilitating informed choice and adequate policy responses. Heavy reliance on a small category of stakeholders for information, notably NGOs and international organisations, exposed journalists to a limited set of narratives about climate change and left little room for a diversity of views.

As a result, news reports also frame climate change narrowly. For example, we uncovered a risk- benefit framing that pitted climate change against economic development and failed to recognise the economic and developmental co-benefits of climate action that are useful for making policy and designing interventions. Thanks to a strong justice theme in the discourses promoted by southern NGOs, journalists also placed most of the responsibility for and duties of climate change action on industrialised countries and downplayed critical local action.

Overcoming the inadequacies in climate change coverage in Africa will thus require action in three core areas:

i. Strengthening the capacities of African media to cover climate change

Journalists play a critical role in keeping the public informed, shaping public policy on climate change and advancing climate action. However, they are unable to fulfil this role without the right skills and tools. Respondents identified specialised training and skills development to be essential to improving the quality of climate change coverage on the continent. Useful capacity-building programs will be those that equip journalists to adequately communicate critical climate change debates, understand and translate the science, politics and economics of climate change and produce news stories that engage the public and promote action.

Journalists noted that capacity building has traditionally been donor-driven but this has remained inadequate and has contributed to the narrow framing of climate change along the priority areas of these donor agencies and the NGOs through which they act. To properly equip journalists to cover the full range of issues around the climate crisis, capacity building and training initiatives need to involve a wider range of approaches and stakeholders, particularly newsrooms, national media training centres and national governments. This might include introducing climate change reporting modules in journalism schools as well as incentivising specialisation in climate change reporting.

ii. Improving journalists' access to credible and diverse sources of information, including scientific knowledge

Increasing the opportunities for journalists to access credible information and sources can lead to more factual stories that cover the full range of issues surrounding the climate crisis. These opportunities can be created by supporting journalists to cover national and international climate change conferences; creating and facilitating networks of journalists, scientists and policy actors; and advocating for an enabling environment, such as through access to information legislation where they do not exist, and translating scientific knowledge into a language that journalists can understand, notably through special publications such as climate change reporting guides, manuals and glossaries. Media literacy programs can also be useful in raising awareness of media roles within different communities such as science, policy and practice.

iii. Scaling up the financing climate change coverage

We find that newsrooms invest proportionately lower in the coverage of climate change, for reasons that range from the scarcity of resources and the prioritisation of other themes such as politics and sports by editors.

Despite evidence of donor-spin on climate change reporting, external funding remains critical for advancing climate change coverage in sub-Sahara Africa if accompanied by the right safeguards to minimise multiple risks of donor interference with editorial independence. Interventions can take the form of fellowships that combine training and microgrant making to support media coverage of climate change.

Scaling up financing for climate change coverage will also require recognising media roles in advancing climate action, thereby extending climate finance to support a strong and independent media actively covering climate change and providing citizens with climate information.

Furthermore, newsrooms need to develop new economic models that support climate change coverage. This can include the development of strategic partnerships with external stakeholders similar to the development reporting partnership between The Guardian in the United Kingdom and the Bill and Melinda Gates Foundation.

Across the world, non-profit media is growing as a means of increasing coverage of subjects that cannot be sustained through market mechanisms alone, and this can be equally considered in Africa. A notable example is Mongabay.com, which runs entirely on donor and crowd-funding yet thrives to maintain its editorial independence.

Reference

Ardèvol-Abreu, A., 2015. Framing theory in communication research: origins, developments and current situation in Spain. Revista Latina de Comunicación Social, Volume 70, pp. 423- 450.

Atieno, L. & Njoroge, J., 2014. Climate Change Impact Representation in Kenya's News Media. European Journal of Business and Social Sciences, 3(8), pp. 7-20.

Boko, M. et al., 2007. Africa. In: M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, ed. Climate Change 2007:: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge UK: Cambridge University Press, pp. 433-467.

Boykoff, M. T. & Roberts, J. T., 2007. Human Development Report 2007. (Background Paper) Media Coverage of Climate Change: Current Trends, Strengths, Weaknesses, s.l.: United Nations Development Program.

Brüggemanna, M. & Engesserb, S., 2017. Beyond false balance: How interpretive journalism shapes media coverage of climate change. Global Environmental Change, Volume 42, pp. 58-67.

Brüggemann, M., 2017. Shifting Roles of Science Journalists Covering Climate Change. Climate Science.

Buntaine, M., Brigham, D. & Devlin, C., 2018. Can information outreach increase participation in community-driven development? A field experiment near Bwindi National Park, Uganda. World Development 106, Volume 106, pp. 407-421.

Capitant, S. & Frère, M.-S., 2011. Africa's Media Landscape: A Thematic Introduction. Afrique contemporaine, 4(240), p. 190.

Dusyk, N., Axsen, J. & Dullemond, K., 2018. Who cares about climate change? The mass media and socio-political acceptance of Canada's oil sands and Nothern Gateway Pipeline. Energy Research and Social Science, Volume 37, pp. 12-21.

Efron, R., 1969. What is Perception?. In: C. R. S. & W. M. W, eds. Proceedings of the Boston Colloquium for the Philosophy of Science 1966/1968. Boston Studies in the Philosophy of Science. Dordrecht: Springer, pp. 137-138.

Esipisu, I., 2018. African Media Poorly Represented at the United Nations Climate Change Negotiations. [Online]
Available at: http://www.ipsnews.net/2018/12/african-media-poorly-represented-united-nations-climate-change-negotiations/
[Accessed 26 June 2019].

Gbetibouo, G. & Hassan, R., 2005. Measuring the economic impact on climate change on major South African field crops: a Ricardian approach. Global and Planetary Change, 47(2-4), pp. 143-152.

Gershon, L., 2016. When Did the Media Become a "Watchdog"?. [Online] Available at: https://daily.jstor.org/when-did-the-media-become-a-watchdog/ [Accessed 14 July 2019].

Han, J., S., S. & Lu, K., 2017. Framing climate change: a content analysis of Chinese mainstream newspapers from 2005 to 2015. International Journal of Communication, Volume 11, pp. 2889-2911.

Han, J., Sato, M. & Ruedy, R., 2012 . Perception of climate change. PNAS, 109 (37), pp. E2415-E2423.

Hay, S. et al., 2002. Climate change and the resurgence of malaria in the Eastern African highlands. Nature, Issue 415, pp. 905-909.

Hinkel, J. et al., 2012. Sea-level rise impacts on Africa and the effects of mitigation and adaptation: an application of DIVA. Regional Climate Change, 12(1), pp. 207-224.

Jasson, 2019. Journalism Professor [Interview] (26 August 2019).

Jasson, 2019. Radio Producer, Cameroon [Interview] (26 09 2019).

Kuthe, A., Körfgen, A., Stötter, J. & Keller, L., 2019. Strengthening their climate change literacy: A case study addressing the weaknesses in young people's climate change awareness. Applied Environmental Education and Communication.

Lineman, M., Do, Y., Kim, J. Y. & Joo, G.-J., 2016. Talking about Climate Change and Global Warming. PLoS One, 10(9), p. e0138996.

Marken, A., 2017. Reframing climate change communication in the Norwegian west coast: What are the framing patterns in the “oil-rich” west coast, how do they affect readers and what can we learned from the journalists,. Masters thesis in Culture, Environment and Sustainability, Center for Development and Environment (CDE), University of Oslo, Norway, p. pp.160.

Meribe, n. C., 2017. The political economy of climate change reporting in Nigeria. African Journalism Studies, 38(1), pp. 40-65.

Mutekwa, V., 2009. Climate change impacts and adaptation in the agricultural sector: the case of smallholder farmers in Zimbabwe. Journal of Sustainable Development in Africa, 11(2), pp. 237-256.

Pasquara, F. A. & Oizzi, P., 2012. How do the media affect public perception of climate change and geohazards? An Italian case study. Global and Planetary Change, Volume 90-91, pp. 152-157.

Poortinga, W. et al., 2019. Climate change perceptions and their individual-level determinants: a cross-European analysis. Global Climate Change, Volume 55, pp. 25-35.

Salormey, E., Dome, M. Z., Osse, L. & Logan, C., 2019. Change ahead: experience and awareness of climate change in Africa. Afrobarometer Policy Papers, August.Issue No. 60.

Sampei, Y. & Ayagi-USUI, M., 2009. Mass media coverage, its influence on public awareness of climate change issues, and implications for Japans national campaign to reduce greenhouse gas emissions. Global Environmental Change, 19(2), pp. 203-2012.

Schafer, M. S., Ivanova, A. & Schmidt., A., 2013. What drives media attention for climate change? Explaining issues attention in Australian, German and Indian print media from 1996 to 2010. International Communication Gazette.

Shanahan, M., Shurbert, W., Scherer, C. & Corcoran, T., 2013. Climate change in Africa: a guidebook for journalists. Paris: UNESCO.

Sharif, A. & Medvecky, F., 2018. Climate change news reporting in Pakistan: a qualitative analysis of environmental journalists and barriers they face. Journal of Science Communication, 17(01), p. A03.

Soroka, S., Lawlor, A., Farnsworth, S. & Young, L., n.d. Mass Media and Policymaking. [Online] Available at: https://s3.amazonaws.com/academia.edu.documents/42218168/Media_Policymaking.pd f?response-content-disposition=inline%3B%20filename%3DMass_media_and_policy- making.pdf&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIWOWYYGZ2Y53UL3A%2F20190625%2Fus-eas
[Accessed 25 June 2019].

Sousa-Silvaa, R. et al., 2018. Adapting forest management to climate change in Europe: Linking perceptions to adaptive responses. Forest Policy and Economics, Volume 90, pp. 22-30.

Tagbo, E., 2010. Media Coverage of Climate Change in Africa: A Case Study of Nigeria and South Africa.

Tanser, F., Sharp, B. & Le Sueur, D., 2003. Potential effect of climate change on malaria transmission in African. The Lancet, 362(9398), pp. 1792-1798.

Tsfati, Y. & Cohen, J., 2013. Perceptions of Media and Media Effects: The Third - Person Effect, Trust in Media, and Hostile Media Perceptions. In: A. N. Valdivia & E. Scharrer, eds. The International Encyclopedia of Media Studies: Media Effects/Media Psychology. s.l.: Blackwell Publishing Ltd, pp. 1-19.

Van't Riet, J. et al., 2016. Does perceived risk influence the effects of message framing? revisiting the link between prospect theory and message framing. Health Psychology Review, 10(4), pp. 447-459.

Wasserman, H., 2012. The challenge of climate change reporting in Africa, Ecquid Novi. African Journalism Studies, 33(1), pp. 1-2.

Young, N. & Dugas, E., 2011. Representations of Climate Change in Canadian National Print Media: The Banalization of Global Warming. Canadian Review of Sociology, 48(1).

Annexes

ANNEX 1. Methodology

For this study, we apply framing and perception theories (Van't Riet, et al., 2016 and Ardèvol-Abreu, 2015) to a hybrid of different qualitative and quantitative methods to collect and analyse data.

Sampling

Clustered sampling was applied to select media participants and participating countries. The clustered sampling approach involved randomly selecting sub-groups of the population as sampling units for inclusion in the study. This approach is typically considered efficient, where the study takes places across a wide geographic region. We identified three main cluster groups:

i) media professional with some interest in climate change reporting; ii) media organizations with strong online presence and iii) major geopolitical blocs that constitute SSA, namely the West, Central, East and Southern Africa communities. We collected data in seven countries (Cameroon, Côte d'Ivoire, Ethiopia, Kenya, Madagascar, Niger, South Africa); including field visits in Cameroon, Madagascar, Niger and South Africa. In all, we surveyed 210 media professionals (30 per participating country). Participants came primarily from climate change and environmental journalism networks or associations, where applicable, or from the broader development journalism field, with "occasional" experience in climate change reporting. We further categorized the sample based on i) interest in climate change reporting but not currently reporting on the topic, ii) experience in climate change reporting and iii) editorial decision-making power in the newsroom. This categorization permitted us to investigate representativeness of the level of knowledge of climate change, motivations for reporting climate change, the frequency, depth and constraints of reporting climate change and the decision-making processes that influence whether and how climate change is reported and framed. The cluster, therefore, included reporters, editors, and producers as applicable.

We also analysed the content of a total of 35 news sources (print, radio, television and online). Online versions of published content (text, audio, video) were preferred since these are better archived and more easily retrievable. Five of the leading news sources, categorized based on periodicity (daily, weekly, periodical); thematic focus (general news, business, people), ownership (public, private) and primary format (print, audio-visual, online) were identified for each country.

Data Collection

Primary and secondary data was collected through a mixture of literature review, content analysis, focus group discussions and surveys in seven (07) countries representing the sample groups.

i) News Content Analysis

Content analysis is a mixed qualitative and quantitative approach that enables the investigators to use text or speech as a basis to shed light on attitudes and values, make comparisons, and draw inferences about perceptions and frames.

We analysed newspapers and online content covering the period between 2015 and 2018. With the PA, we considered 2015 an important turning in international climate change governance and action. Amongst key developments, the PA introduced new issues such as Nationally Determined Contributions (NDC), loss and damages, non-state participation and firmly anchored climate action within the broader sustainable development agenda. The last climate change summit in Katowice, Poland, pushed the debate on the implementation of the Paris Agreement and raised questions about levels of commitment and the urgency of action to keep global warming under 20C. In between, multiple developments with rippling effects in Africa – such as the US withdrawal for the Paris Agreement and a reassessment of the climate challenge by the IPCC – have been the subject of much media reporting.

News content analysis focused on how these developments, relevant debates and climate events were presented in the news, what words and themes were associated with the climate crisis and how frequently they appeared in published content. We also examined how they were associated with other social, political and economic issues and asked, for example, where were climate change stories published (cover, society section, political section, economic section etc)?

ii) Interviews and Focus Group Discussions (Group Interviews)

We conducted interviews and focus group discussions with key informants (participants with a deep knowledge of practices of media coverage locally, including non-media climate change experts) to generate more insights into the forces shaping media reporting and perception of climate change. Our approach was the use of semi-structured interviews to cover questions ranging from personal experiences, participants ability to articulate climate change issues, the choice of words and anecdotes used to discuss climate change, participants' attitudes towards climate change as a news beat and the role journalists ascribe to themselves in climate change reporting, among others. Semi-structured interviews, unlike structured interviews, allowed both us and interviewees to explore other issues that might arise during the interview. This was useful in understanding deep-seated perceptions and motivations. Nonetheless, key questions and thematic areas were developed well in advance to guide discussions.

Existing networks of journalists served as sources for participants, who were interviewed in neutral safe spaces to ensure that participants spoke openly and freely. Interviews were face-to- face in four countries and via telephone or other conferencing technology (Skype) in other locations.

iii) Surveys

We also sent an English and French survey to 125 participants electronically. 52 returned surveys were analysed.

Data Analysis

Thematic analysis was applied to data from interviews, focus group discussions and other qualitative sources (literature) to identify patterns and meanings across that data set. A set of codes was applied to organize and further interpret data to produce conceptual or broad themes and categories to enable us to draw meanings and conclusions. We used a deductive approach that is driven by pre-existing concepts or ideas.

The Konrad-Adenauer-Stiftung (KAS), Regional Programme Energy Security and Climate Change in Sub-Saharan Africa realizes activities around the nexus of energy security and climate change in Sub-Saharan Africa. One of its priorities is to enhance knowledge development and transfer in the field of energy security and climate adaptation and mitigation. The impact of climate change is affecting every single person and it is therefore a matter of public interest to everyone. Collaborative efforts to reduce the effects of climate change are imperative and as different stakeholders work on solutions, decisions and actions need to be based on evidence. This does require adequate and science-based media coverage.

In publishing this study, the Regional Programme on Climate Change and Energy Security in Sub-Saharan Africa seeks to contribute to the debate on how media coverage can effectively and efficiently contribute to create awareness on climate change and its impacts on the African continent.

Contact Details:
KAS Regional Programme Energy Security and
Climate Change in Sub-Saharan Africa
91 United Nations Crescent
P.O. Box 66471-00800
Nairobi, Kenya

Tel. +254 701 092 723
Email : Info-Climate-Nairobi@kas.de

ISBN 978-3-98574-144-1