



Assessment of broadcast media coverage of climate change in Kenya

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ABSTRACT

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Climate change continues to pose significant environmental and socio-economic challenges worldwide, making effective communication essential for raising public awareness and encouraging action. This study aims to examine the coverage of climate change by Radio Lake Victoria and assess its influence on community perceptions and responses. A descriptive survey design was employed, utilizing a mixed-methods approach that combined qualitative in-depth interviews with quantitative questionnaires. Probability sampling was used to select 396 households in Nyando Sub-County, while a census approach targeted 20 members of the radio station's editorial team. The study reveals that Radio Lake Victoria provides coverage on climate change, with particular emphasis on environmental impacts and potential solutions. However, the reporting is limited in depth regarding underlying causes, long-term effects, and practical guidance on sustainable adaptation and mitigation strategies. The findings highlight the need for more analytical, contextualized, and solution-oriented climate reporting. These insights are valuable to journalists seeking to refine editorial approaches, policymakers developing climate communication strategies, and researchers aiming to advance knowledge on grassroots climate change communication and community resilience.

Contribution/Originality: This study contributes to the existing literature by exploring the coverage of climate change by community radio in relation to local adaptation initiatives. It offers insights into the role of community broadcast media in shaping public perceptions and behaviors toward climate change, while revealing the factors that influence the depth and quality of coverage.

1. INTRODUCTION

Climate change presents a significant global challenge with far-reaching environmental and socio-economic impacts. Public understanding and action often depend on how the issue is communicated through the media. The media, particularly radio, plays a crucial role in shaping public perception and guiding responses to climate issues through agenda-setting and framing. In Kenya, climate change affects various aspects of life, including health, food security, livelihoods, and environmental stability. Despite its urgency, coverage of climate change in broadcast media remains limited and is often influenced by journalistic norms and practices that emphasize event-based reporting over sustained and explanatory coverage. This approach has contributed to inadequate public awareness and insufficient community-level action. There is a pressing need to prioritize climate change and give it the importance it deserves. Radio, as the most widely accessible and trusted media platform, especially in rural areas, has the potential to

disseminate timely, solution-oriented climate information. Several radio stations in Kenya and beyond have adopted climate-focused programming, demonstrating radio's capacity to educate, inform, and mobilize communities. However, the depth, framing, and consistency of such coverage vary significantly, posing limitations. Radio Lake Victoria, a key broadcaster in the Nyanza and Western regions, holds a strategic position in disseminating issues of local relevance. Despite its potential influence, there is limited knowledge about how effectively it covers climate change, the nature of the narratives presented, and how audiences interpret and act upon such messages. This study aims to assess Radio Lake Victoria's coverage of climate change, examine how its programming promotes awareness and local adaptation initiatives, and identify the factors and challenges influencing its editorial choices. The rationale for this study is to strengthen climate communication strategies that can enhance informed decision-making, support community resilience, and guide policy formulation. Several studies have focused on national broadcasts, and little is known about the role of community radio at the grassroots level.

1.1. Objectives of the Study

- i. To investigate how community radio programs showcase local initiatives aimed at adapting to climate change.
- ii. To evaluate the influence of community radio coverage on audience attitudes, perceptions, and behaviors related to climate change.
- iii. To determine the factors influencing the comprehensive coverage of climate change on the radio.
- iv. To identify the challenges faced by community radio stations in providing comprehensive and accurate coverage of climate change.

2. LITERATURE REVIEW

Climate change constitutes an imminent and imperative global challenge, characterized by profound environmental perturbations and extensive socio-economic ramifications. It is a global issue; however, in Africa and many other parts of the world, it does not receive the attention it deserves (Osinde, 2014). Africa is grappling with severe floods, extreme heat waves, an invasion of desert locusts, famine, an increase in vector-borne diseases such as malaria, agricultural losses, poor air quality in urban areas, and other problems that have intensified due to climate change (Ahmadalipour, Moradkhani, Castelletti, & Magliocca, 2019; Hammill & McLeman, 2007). Kenya, like other African nations, faces the formidable challenge of climate change. Manifestations of climate change impacts in the Kenyan context are evident in erratic weather patterns, increased occurrences of extreme droughts, unprecedented precipitation leading to flooding, concurrent food scarcity, escalating human-wildlife conflicts, intracommunity disputes, and a rise in disease prevalence, among other observable phenomena.

Radio has played a significant role in shaping public opinion and sentiment regarding climate change. Because radio is highly accessible, it can reach a broad range of audiences, including those in remote or underdeveloped areas. Radio stations serve as platforms for sharing information, providing education, and fostering dialogue about climate change and its consequences. This helps raise awareness of the issue and influences public perceptions.

Many radio programs discuss climate change in both local and international contexts. These programs play a vital role in raising awareness about climate change and its impacts, as well as providing information on how individuals can take action to address it. Radio informs and persuades the public and government to implement social and environmental changes on issues that require attention, such as climate change (Painter & Gavin, 2016; Vu, Liu, & Tran, 2021). The consequences of global warming are severely impacting the climate. Therefore, radio plays a significant role in providing accurate coverage, offering perspective, and promoting more nuanced conversations about mitigation. While greenhouse gas emissions from industry are the primary cause of global warming, human activity and, more specifically, the media's role in raising public awareness of how human behavior affects climate change, cannot be ignored.

The media is a potent tool for communication, facilitating the transmission of information and promoting dialogue on matters of public interest. Environmental experts and scientists may know a great deal about climate change, but that knowledge would be of little benefit without the media to convey it to the public [Hulme \(2009\)](#). Most citizens will not come into contact with these specialists through extended conversations. Still, they will continue to rely on messages conveyed through the media. Community radio, as an alternative to public, commercial, and social media, is characterized by its accountability to and participation within the communities it serves. It focuses primarily on local issues and provides public forums for debate and discussion [\(United Nations Educational Scientific and Cultural Organization, 2021\)](#). Operated by and for communities in local languages, community radio effectively reaches a broader audience, including illiterate rural populations, by broadcasting in languages they understand. Programming often centers on issues critical to local development and daily life, such as climate change, health, education, agriculture, nutrition, and community governance. Information about climate change risks and impacts can be disseminated through interactive talk shows, documentaries, dramas, and music, enabling communities to learn about these impacts and share their experiences and responses. Many community radio initiatives in developing countries currently emphasize providing listeners with information and messages about short- and medium-term weather forecasts for farmers, alerts for extreme weather events, and messages discouraging environmentally harmful behaviors [\(United Nations Framework Convention on Climate Change, 2022\)](#).

The results will clarify how effective broadcast media are in informing the public about climate change, fostering public discussion, and inspiring meaningful action on this urgent issue. The study showed that while Kenyan broadcast media, especially the community radio stations examined, provided coverage of environmental issues and climate change, the focus mainly highlighted the extent of the damage and suggested measures to address these challenges. However, the coverage was limited in exploring the underlying causes and effects in detail, and it lacked comprehensive guidance on alternative approaches to reduce future risks. As a result, the findings highlight the need for more in-depth reporting to improve coverage quality and increase its prominence, especially given growing global concerns about environmental issues.

Participation in community radio fosters a sense of empowerment among community members, which can help build local, institutional, and organizational capacities [\(United Nations Framework Convention on Climate Change, 2022\)](#). Through community radio, rural communities can develop messages in the languages they understand. Community radio encourages debate on various issues, facilitates access to government policies, and helps community members make decisions, organize themselves, and evolve to manage their own affairs. Local radio stations broadcasting in indigenous languages demonstrate sensitivity to the needs of rural communities.

3. METHODOLOGY

The study is grounded in agenda-setting and framing theories and aims to assess Radio Lake Victoria's broadcast media coverage of climate change. The objectives of the study are to: a) evaluate the effects of community radio coverage on behavioral change related to climate change, and b) assess factors influencing climate change coverage on radio.

The target population consisted of 20,139 households in Nyando Sub-County. A sample of 396 households was determined using the [Yamane \(1967\)](#) formula at a 95% confidence level. The sample was proportionally allocated across wards through stratified random sampling. Additionally, 20 employees from Radio Lake Victoria, including the editorial team, were included in the study. The research employed a descriptive survey design with a mixed-methods approach, combining quantitative household surveys with qualitative interviews. This methodology facilitated data validation and offered both numerical insights and a deeper understanding of Radio Lake Victoria's coverage of climate change.

Data was collected through structured questionnaires administered to household heads and in-depth interviews with radio staff. The questionnaires recorded audience perceptions, programme engagement, and attitudes towards climate change coverage, while the interviews examined editorial policies and challenges in reporting climate issues.

4. FINDINGS

This section presents the results of the study, based on data collected and analyzed in accordance with the research objectives. The findings are organized thematically to highlight key patterns, trends, and relationships emerging from the data. Both qualitative and quantitative outcomes are discussed to provide a comprehensive understanding of the research findings.

4.1. *Role of Programs in Promoting Climate Change Adaptation by Radio Lake Victoria*

Table 1 presents respondents' perceptions of the role of radio programming in promoting climate change adaptation within communities around Lake Victoria. It summarizes responses from 288 participants across five levels of agreement.

Table 1. The role of programming in promoting climate change adaptation (N=288).

Rate	Frequency	Percentage (%)
Strongly disagree	105	36.5
Disagree	69	24.0
Neutral	51	17.6
Agree	16	5.6
Strongly agree	47	16.3
Total	288	100.0

The findings indicate that a majority of respondents (60.5%) disagreed with the statement under review, with 36.5% strongly disagreeing and 24.0% disagreeing. This reflects a predominant sense of skepticism or opposition within the community. A smaller proportion (21.6%) expressed agreement, with 5.6% agreeing and 16.3% strongly agreeing, while 17.6% remained neutral, indicating uncertainty or indifference. Overall, the results reveal a lack of consensus, with attitudes leaning more towards disapproval than support.

4.2. *The Rate of Listenership on Matters of Climate Change and Its Impacts*

Table 2 presents the listenership rate for Radio Lake Victoria on climate change and its impacts among the 288 respondents. The table categorizes respondents according to how frequently they tune in to climate-related programming.

Table 2. Radio Lake Victoria Listenership rate. (N=288)

Rate	Frequency	Percentage (%)
Always	106	36.8
Frequently	97	33.7
Occasionally	41	14.2
Rarely	44	15.3
Total	288	100.0

The analysis indicates that most respondents engage with Radio Lake Victoria on climate change issues, with 36.8% listening "always" and 33.7% "frequently." This high level of regular listenership underscores the station's effectiveness as a trusted channel for environmental communication. A smaller proportion, 14.2%, reported listening "occasionally," suggesting lower or more selective engagement.

4.3. Basis of Programming in Radio Lake Victoria

Table 3 illustrates the basis of programming at Radio Lake Victoria by showing audience engagement levels across different program types, based on responses from 288 participants. The table compares the frequency of listenership for sports, music, entertainment, politics, and talk shows, alongside their respective mean scores.

Table 3. Programming in Radio Lake Victoria. (N=288)

Shows	Never	Rarely	Neutral	Often	Always	Mean
Sports	8.0% (n=23)	13.5% (n=39)	35.1% (n=101)	7.3% (n=21)	36.1% (n=104)	3.67
Music	11.8% (n=34)	15.6% (n=45)	12.8% (n=37)	25.4% (n=73)	34.4% (n=99)	3.45
Entertainment	6.9% (n=20)	19.8% (n=57)	4.5% (n=13)	27.8% (n=80)	41.0% (n=118)	3.44
Politics	9.0% (n=26)	41.3% (n=119)	27.8% (n=80)	13.9% (n=40)	8.0% (n=23)	3.01
Talk shows	29.1% (n=80)	18.0% (n=41)	11.5% (n=26)	20.5% (n=112)	20.9% (n=29)	3.00

The analysis highlights notable variations in audience engagement across Radio Lake Victoria's programming. Sports emerged as the most popular segment ($M = 3.67$), confirming prior observations that sports broadcasting cultivates strong loyalty through its immediacy, dynamism, and emotional resonance (Boyle & Haynes, 2021). Music ($M = 3.45$) and entertainment ($M = 3.44$) recorded neutral yet relatively strong listenership, underscoring their continued relevance as accessible and mood-enhancing formats (Hendricks & Gill, 2022; Morris & Patterson, 2020). By contrast, political programmes ($M = 3.01$) and talk show programmes ($M = 3.00$) recorded the lowest engagement, suggesting audience fatigue, limited interactivity, or perceived irrelevance (Ngomba, 2023).

4.4. Programmes Aired on Radio Lake Victoria on Climate Change

Table 4 outlines the levels of audience listenership for climate change-focused programmes broadcast by Radio Lake Victoria, namely *Aluora Makare* and *Ratil Mar Ratiro*.

Table 4. Programmes on Climate Change (N=288)

Radio program	Never	Rarely	Neutral	Often	Always	Mean
Aluora makare	13.1% (n=38)	17.7% (n=51)	10.1% (n=29)	22.9% (n=66)	36.1% (n=104)	3.45
Ratilmar ratiro	18.4% (n=53)	15.3% (n=44)	9.4% (n=27)	23.6% (n=68)	33.3% (n=96)	3.35

The study assessed audience engagement with two climate-focused programmes on Radio Lake Victoria, *Aluora Makare* and *Ratil Mar Ratiro*, using mean scores as indicators of listening behavior. *Aluora Makare* recorded a mean of 3.45, and *Ratil Mar Ratiro* 3.35, both indicating neutral levels of engagement. These scores show that while the programmes reach a substantial audience, listener interest is inconsistent, thereby limiting their potential to drive sustained dialogue and collective action on climate adaptation.

4.5. Programs in Promoting Climate Change Adaptation by Radio Lake Victoria

Table 5 illustrates the frequency of different programme types aired on Radio Lake Victoria, as perceived by the 288 respondents. The table compares the audience's exposure to sports, music, entertainment, politics, and talk shows, using a five-point scale from *never* to *always*, along with mean scores.

Table 5. Role of programming in the promotion of climate change adaptation. (N=288)

Rate	Frequency	Percentage (%)
Strongly disagree	105	36.5
Disagree	69	24.0
Neutral	51	17.6
Agree	16	5.6
Strongly agree	47	16.3
Total	288	100.0

The findings demonstrate that a majority of respondents (60.5%) expressed disagreement with the statement under review, with 36.5% strongly disagreeing and 24.0% disagreeing. This indicates a prevailing sense of skepticism or opposition within the community.

A smaller proportion (21.6%) expressed agreement, with 5.6% agreeing and 16.3% strongly agreeing, while 17.6% adopted a neutral stance, suggesting uncertainty or indifference. The results indicate a lack of consensus, with attitudes leaning toward disapproval rather than support.

4.6. Basis of Programming in Radio Lake Victoria

Table 6 presents respondents' perceptions of Radio Lake Victoria's role in promoting climate change awareness through its programming. The table summarizes the distribution of responses from 288 participants across different levels of agreement.

Table 6. The Role of Programming in Promoting Climate Change Awareness. (N=288)

Rate	Frequency	Percentage (%)
Strongly disagree	90	31.25
Disagree	69	24.0
Neutral	51	17.7
Agree	16	10.65
Strongly agree	47	16.3
Total	288	100.0

The analysis indicates that a significant portion of respondents hold a negative view of the statement in question. More than half of the participants (55.25%) either strongly disagree (31.25%) or disagree (24.0%). This suggests a prevailing skepticism or opposition to the subject being evaluated.

Meanwhile, 17.7% of respondents remain neutral, indicating some uncertainty or indifference. On the other hand, a smaller segment of respondents agrees, with 10.65% agreeing and 16.3% strongly agreeing, totaling 26.95%. Overall, the results suggest that while some respondents support the statement, the majority either oppose it or are undecided, indicating a general lack of consensus or a trend toward disapproval.

4.7. Selection of Climate Change Topics for the Stations' Programs

Table 7 outlines the structured approaches Radio Lake Victoria used to select climate change topics for its programmes. The table summarizes responses from programme staff (n = 12) regarding the criteria and processes that guide topic selection.

Table 7. Selection of climate change topics.

Structured approaches (n=12)	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Address diverse community needs.	0.00% (n=0)	0.00% (n=0)	8.33% (n=1)	50.0% (n=6)	41.67% (n=5)	4.95
Conduct community needs assessment.	0.00% (n=0)	0.00% (n=0)	16.67% (n=2)	41.67% (n=5)	41.67% (n=5)	4.90
Interactive sessions and feedback mechanisms	8.33% (n=1)	8.33% (n=1)	8.33% (n=1)	41.67% (n=5)	33.3% (n=4)	4.89
Engage with local experts and organizations	8.33% (n=1)	8.33% (n=1)	16.67% (n=2)	33.3% (n=4)	33.3% (n=4)	4.81
Align with station's mission and goals	8.33% (n=1)	8.33% (n=1)	25.0% (n=3)	33.3% (n=4)	25.0% (n=3)	4.80
Global and national trends	16.67% (n=2)	16.67% (n=2)	16.67% (n=2)	25.0% (n=3)	25.0% (n=3)	4.71

The findings indicate that Radio Lake Victoria employs a structured and participatory approach to selecting climate change topics, with community needs being the most influential factor ($M = 4.95$). This demonstrates a strong commitment to inclusivity and relevance, ensuring that programming aligns with listeners' priorities. High ratings were also observed for community needs assessments ($M = 4.90$), interactive sessions and feedback mechanisms ($M = 4.89$), and the involvement of local experts and organizations ($M = 4.81$). Collectively, these aspects highlight the importance of audience engagement and credibility in shaping content. Additionally, aligning topics with the station's mission ($M = 4.80$) and broader global and national agendas ($M = 4.71$) further reflects an objective and purposeful planning approach.

4.8. Inclusion of the Voice of Local Communities

Table 8 explores the extent to which the voices and perspectives of local communities are represented and integrated within the study context. It examines how community members participate in shaping narratives, contributing knowledge, and influencing decision-making processes. Emphasis is placed on understanding the degree of inclusivity, authenticity, and agency afforded to local voices, as well as the implications this has for the relevance, acceptance, and sustainability of the interventions discussed.

Table 8. Inclusivity.

Variable (n=12)	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Interactive radio shows	8.33% (N=1)	8.33% (N=1)	16.67% (N=2)	16.67% (N=2)	50.0% (N=6)	4.82
Inclusivity	8.33% (N=1)	8.33% (N=1)	16.67% (N=2)	33.3% (N=4)	33.3% (N=4)	4.81
Local partnership and resource support	8.33% (N=1)	16.67% (N=2)	16.67% (N=2)	25.0% (N=3)	33.3% (N=4)	4.72
Educational programmes	8.33% (N=1)	16.67% (N=2)	16.67% (N=2)	25.0% (N=3)	33.3% (N=4)	4.42
Action of local community inclusion in programming	8.33% (N=1)	8.33% (N=1)	16.67% (N=2)	25.0% (N=3)	41.67% (N=5)	4.35
Participatory content creation	8.33% (N=1)	16.67% (N=2)	16.67% (N=2)	25.0% (N=3)	33.3% (N=4)	4.21
Feedback mechanism	8.33% (N=1)	16.67% (N=2)	16.67% (N=2)	25.0% (N=3)	33.3% (N=4)	4.12

The findings demonstrate that Radio Lake Victoria plays an important role in fostering community participation in climate change adaptation programming. High mean scores for interactive shows (4.82) and inclusive discussions (4.81) underscore the value of audience engagement in creating a sense of ownership and relevance. This aligns with

Carpentier (2019), the argument that participation empowers communities to drive social change, and with Al-Hassan, Andani, and Abdul-Malik (2011), the recognition of community radio as a platform for marginalized voices.

While the station performs well, moderate scores in areas such as educational initiatives (4.42), feedback mechanisms (4.35), participatory content creation (4.21), and local partnerships (4.12) indicate opportunities for development. Strengthening these areas could improve responsiveness and expand the station's developmental role. Comparative evidence, such as Radio Bundelkhand in India, demonstrates how targeted programming can influence local practices, suggesting similar potential for Radio Lake Victoria if collaborations and feedback loops are enhanced (Jallo, 2012; Singh, 2017).

4.9. Community Contributions and Participation in Climate Change Programs

Table 9 presents the extent to which Radio Lake Victoria employs participatory methods to encourage community contributions and engagement in climate change programming, as reported by station staff (n = 12). The table outlines various participatory approaches and their corresponding levels of agreement.

Table 9. Community contributions and participation.

Participatory methods (n=12)	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Interactive radio shows	0.00% (n=0)	0.00% (n=0)	8.33% (n=1)	50.0% (n=6)	41.67% (n=5)	4.96
Community storytelling and testimonials	0.00% (n=0)	0.00% (n=0)	8.33% (n=1)	41.67% (n=5)	41.67% (n=5)	4.92
Feedback and evaluation mechanisms	0.00% (n=0)	8.33% (n=1)	16.67% (n=2)	33.33% (n=4)	41.67% (n=5)	4.90
Local climate watch groups	8.33% (n=1)	8.33% (n=1)	16.67% (n=2)	33.33% (n=4)	33.33% (n=4)	4.88
Participatory workshop and training sessions	8.33% (n=1)	8.33% (n=1)	25.0% (n=3)	25.0% (n=3)	33.33% (n=4)	4.80
Education segments and school collaborations	8.33% (n=1)	16.67% (n=2)	25.0% (n=3)	25.0% (n=3)	25.0% (n=3)	4.79
Community-led reporting	8.33% (n=1)	16.67% (n=2)	33.33% (n=4)	25.0% (n=3)	16.67% (n=2)	4.71

The findings highlight the community's central role in Radio Lake Victoria's climate change programming, with consistently high mean scores across multiple participatory methods. Interactive radio shows ($M = 4.96$) were the most valued approach, enabling dialogue, experience sharing, and collective problem solving in accessible local languages (Manyozo, 2012; Myers, 2008). Storytelling and testimonials ($M = 4.92$) were also highly rated, underscoring the effectiveness of personal narratives in making climate issues tangible and motivating action. This trend has been observed in Ghana and India, highlighting the global relevance of personal storytelling in climate communication (Armah, Yawson, Yengoh, Odoi, & Afrifa, 2010; Bhattacharjee & Behera, 2018).

Feedback and evaluation mechanisms ($M = 4.90$) underscore the importance of ongoing community input in refining content, while participatory workshops ($M = 4.80$) and school collaborations ($M = 4.79$) extend climate knowledge across generations. Local climate watch groups ($M = 4.88$) and community-led reporting ($M = 4.71$) are also recognized as valuable tools for grassroots engagement.

4.10. Efforts by Radio Station to Mitigate the Effects Caused by Climate Change

Table 10 summarizes the efforts undertaken by Radio Lake Victoria to mitigate the effects of climate change, as perceived by respondents. The table presents the distribution of agreement levels across the station's various mitigation initiatives.

Table 10. Efforts by the radio station to mitigate the effects (N=288)

Variable	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Planting trees	0.4% (n=1)	1.0% (n=3)	10.8% (n=31)	45.1% (n=130)	42.7% (n=123)	4.52
Conduct effective weather forecasting	0.7% (n=2)	2.1% (n=6)	9.4% (n=27)	44.4% (n=128)	43.4% (n=125)	4.51
Disaster preparedness tips	2.8% (n=8)	1.7% (n=5)	5.9% (n=17)	45.5% (n=131)	44.1% (n=127)	4.49
Early warning /Sensitization on climate changes	1.0% (n=3)	2.4% (n=7)	4.5% (n=13)	38.5% (n=111)	53.6% (n=154)	4.45
Water conservation tips and awareness	2.4% (n=7)	3.1% (n=9)	4.5% (n=13)	35.1% (n=101)	54.9% (n=158)	4.0

The findings reveal strong community endorsement of climate change mitigation initiatives communicated via radio. Tree planting was the most highly valued strategy ($M = 4.52$), reflecting strong listener appreciation and alignment with Kenya's national campaign to plant 15 billion trees by 2032. Weather forecasting ($M = 4.51$), disaster preparedness tips ($M = 4.49$), and early warning and sensitization initiatives ($M = 4.45$) were also rated highly, underscoring the importance of timely information in enhancing community preparedness and resilience. Although water conservation received a slightly lower mean score ($M = 4.00$), it was still positively perceived, suggesting room for improvement in the framing and delivery of related messages.

4.11. Climate Change and Its Impacts on Residents

Table 11 presents the effects of climate change on residents and the corresponding impacts on their daily lives and livelihoods. The table summarizes respondents' perceptions of various climate-related hazards and their severity.

Table 11. Effects and impacts of climate change on residents. (N=288)

Climate change effects	Impact on residents	N	Mean
Hotter temperatures	Increased heat and reduced crop yield	56	4.69
Severe storms	Destruction of homes and infrastructure	52	4.55
Rise in oceans, lakes	Flooding, loss of farmlands, homes and displacement of residents	59	4.44
Increased drought	Water scarcity, low crop yields and livestock death	41	4.42
Loss of species	Destruction of ecosystems and reduced fish stock	45	4.40
Health risks	Spread of diseases	35	4.11
Totals		288	

The analysis revealed a strong community awareness of the diverse impacts of climate change on daily life and livelihoods. Hotter temperatures were identified as the most severe concern ($M = 4.69$), primarily linked to declining crop yields and threats to food security. Severe storms followed closely ($M = 4.55$), with residents citing destruction of homes and infrastructure as critical risks to safety and stability.

Other highly ranked effects included rising water levels ($M = 4.44$), which are associated with flooding, displacement, and property loss, as well as increased droughts ($M = 4.42$), which exacerbate water scarcity, weaken crop performance, and contribute to livestock deaths. The loss of species ($M = 4.40$) was also recognized as a pressing issue, particularly due to shrinking fish stocks that directly affect food and income sources. Although health risks linked to climate-related diseases received the lowest mean score ($M = 4.11$), they were still regarded as significant.

5. DISCUSSION OF FINDINGS

This section analyzes and elucidates the importance of the study's results in relation to the research objectives and the existing literature. It links the findings to theoretical frameworks and previous research, emphasizing

consistencies, contradictions, and new insights. The discussion also considers the implications of the results for practice, policy, and future investigations.

5.1. Role of Programs in Promoting Climate Change Adaptation by Radio Lake Victoria

The findings reveal that although Radio Lake Victoria is perceived to play a role in promoting climate change adaptation, most respondents are skeptical about the effectiveness of its programmes. With 60.5% of participants disagreeing or strongly disagreeing that the station's programmes significantly promote adaptation practices, it appears that the intended educational and mobilization goals are not fully realized at the community level. This could indicate limitations in programme reach, relevance, or audience engagement.

The relatively small proportion of respondents who agreed or strongly agreed (21.9%) indicates that, although some listeners recognize the station's contribution, its influence remains limited. The 17.6% neutral responses further suggest possible gaps in awareness or clarity of the message. These findings imply that, despite the station's efforts to disseminate climate-related information, there is a need to strengthen content design, participatory approaches, and communication strategies to ensure messages resonate more effectively with local communities and translate into adaptive action.

5.2. The Rate of Listenership on Matters of Climate Change and Its Impacts

These findings emphasize the fundamental role of community radio in climate communication, particularly in rural settings where global issues must be tailored to local audiences. As [Manyozo \(2005\)](#) observes, community radio fosters participatory communication, while [Tacchi, Slater, and Hearn \(2009\)](#) note its enduring capacity to stimulate dialogue, awareness, and communal initiative. By tailoring content to local environmental concerns, Radio Lake Victoria has become an indispensable platform for advancing climate resilience and sustainable practices in the region.

[Cohen \(1963\)](#) agenda-setting theory emphasizes that while the media may not dictate what people think, it strongly influences what they think about. Applied to Radio Lake Victoria, the station's consistent focus on climate change positions it as a central source of information, shaping community awareness and the prioritization of environmental issues. By regularly framing climate change as a key concern, the station sustains public engagement and reinforces its role as a trusted agenda-setter in promoting climate resilience and sustainability.

5.3. Basis of Programming in Radio Lake Victoria

The findings suggest that sports, music, and entertainment remain key drivers of audience retention, while political and talk programmes require innovative approaches to stimulate interest. Incorporating participatory formats, expert insights, and locally relevant themes may enhance their appeal. Furthermore, embedding core concerns such as climate change within popular genres like music or entertainment could be a strategic pathway to combine education with sustained audience engagement.

5.4. Programmes Aired on Radio Lake Victoria on Climate Change

The prevalence of neutral engagement is significant because it indicates partial message reception and a reduced behavioral impact ([Rogers, 2003](#)). It also highlights shortcomings in the communication strategy, with opportunities for deeper audience connection underutilized. Several factors likely contribute to this trend, including irregular scheduling and weak promotion ([Fraser & Restrepo-Estrada, 2002](#)), repetitive content leading to listener fatigue ([McQuail, 2010](#)), and limited interactivity that restricts participatory communication ([Servaes, 2008](#)). Although neutral responses do not signal programme failure, they highlight challenges in content design, delivery, and audience engagement. Strengthening interactivity through participatory segments, diversifying thematic approaches, and ensuring consistent scheduling could shift more listeners from passive exposure to active involvement. Such

improvements would not only enhance audience loyalty but also increase the programmes' effectiveness in fostering climate awareness, resilience, and grassroots-level action.

5.5. Programs in Promoting Climate Change Adaptation by Radio Lake Victoria

These findings emphasize the central role of community radio in climate communication, particularly in rural settings where global issues must be contextualized for local audiences. As [Manyozo \(2005\)](#) observes, community radio fosters participatory communication, while [Tacchi et al. \(2009\)](#) note its enduring capacity to stimulate dialogue, awareness, and collective action. By tailoring content to local environmental concerns, Radio Lake Victoria has become a critical platform for advancing climate resilience and sustainable practices in the region. [Cohen \(1963\)](#), in agenda-setting theory, holds that while the media may not dictate what people think, it strongly influences what they think about. Applied to Radio Lake Victoria, the station's consistent focus on climate change positions it as a central source of information, shaping community awareness and prioritizing environmental issues. By regularly framing climate change as a key concern, the station not only sustains public engagement but also reinforces its role as a trusted agenda-setter in promoting climate resilience and sustainability.

5.6. Basis of Programming in Radio Lake Victoria

The findings indicate that sports, music, and entertainment remain the main drivers of audience retention, while political and talk programmes need innovative strategies to boost interest. Participatory formats, expert insights, and locally relevant themes may enhance their appeal. Additionally, embedding critical issues such as climate change within popular genres like music or entertainment could be a strategic way to combine education with ongoing audience engagement.

5.7. Selection of Climate Change Topics for the Stations' Programs

These results underscore the station's success in translating participatory communication principles into practice, echoing [\(Dagron, 2009\)](#) and [\(Carpentier \(2019\)\)](#) arguments about the role of community radio in giving voice to local communities and ensuring programme relevance. However, divergent evidence from [\(Omondi \(2022\)\)](#) suggests that audience and stakeholder engagement in programming is often minimal across community radio stations. His study found that while stations such as Radio Lake Victoria offer varied content for different audiences, topic selection is frequently guided more by scheduling priorities than by genuine consultation with listeners. This tension highlights a gap between participatory ideals and actual practice, raising questions about how well programming reflects socio-cultural values, environmental priorities, and preferred practices. The findings revealed that community participation plays a pivotal role in shaping Radio Lake Victoria's climate change programming. Station staff stressed that storytelling and personal testimonials from farmers, fisherfolk, and flood victims make climate issues more relatable and compelling to listeners. They also noted that while local climate watch groups provide valuable updates on weather changes, lake levels, and farming conditions, their influence remains limited in particular areas.

5.8. Inclusion of Voice of Local Communities

The results also align with framing theory, which emphasizes tailoring content to the audience's beliefs, values, and lived realities [\(Calabrese, Gaboriaux, & Veniard, 2022; Higher Education Commission, 2008\)](#). By organizing and presenting climate topics in ways that reflect grassroots perspectives, Radio Lake Victoria can further consolidate its role as both a knowledge hub and a catalyst for behavioral change. Overall, mean scores above 4.0 across all variables indicate broad community approval of the station's consolidation of local voices. However, strengthening participatory content creation and feedback systems would enhance engagement, improve program effectiveness, and increase the station's impact on climate resilience. The station managers provided insights into how climate change programs are developed and the extent of collaboration with local or international organizations and experts. One

manager explained that programming is largely guided by concerns raised at the community level, with issues such as dwindling fish stocks, erratic rainfall, and water pollution frequently shaping content decisions. He emphasized that while expert contributions are valued, they should not overshadow the process; instead, community input remains central, particularly as climate-related trends such as droughts, flooding, and fluctuating lake levels directly affect local livelihoods.

Another manager emphasized the need to align media focus with government policies and local initiatives, particularly where these intersect with everyday community life, such as new fishing regulations or adaptation measures. He noted that international events, such as COP meetings or Earth Day, are prioritized only when they have direct grassroots and local relevance. Furthermore, he stressed that pressing issues, such as sudden fish die-offs or extreme flooding, take precedence in programming decisions, underscoring the principle that immediacy and community relevance should guide coverage.

These perspectives reaffirm Radio Lake Victoria's key role in supporting climate change adaptation through inclusive, community-driven programming. The station's strong performance in interactive programming, inclusivity, and responsiveness to community needs demonstrates its role not only as an information outlet but also as a participatory space for dialogue and co-creation of knowledge. This responsiveness helps translate abstract ideas about climate change into real, locally relevant issues, fostering trust, engagement, and a sense of ownership among listeners.

Nevertheless, opportunities for growth remain, particularly in strengthening feedback mechanisms, promoting participatory content creation, and forging deeper partnerships with local stakeholders to ensure that programming continues to reflect evolving community realities. Overall, Radio Lake Victoria exemplifies the transformative potential of community media in addressing climate challenges. It aligns with theoretical frameworks such as framing theory and participatory communication, which emphasize the importance of contextual understanding and audience-centered storytelling.

5.9. Community Contributions and Participation in Climate Change Programs

These results indicate that residents perceive radio as a trusted and effective platform for climate change communication, particularly in promoting practices that directly enhance adaptive capacity and livelihood security. The high approval levels further emphasize radio's role in supporting participatory communication and strengthening grassroots resilience to environmental risks. Targeted improvements in underemphasized areas, such as water conservation, could broaden the station's impact by increasing engagement and promoting more comprehensive climate action within the community.

The findings indicate that Radio Lake Victoria has played a significant role in raising awareness and shaping community perspectives on climate change. Managers reported that listeners have become more cognizant of environmental issues such as deforestation, pollution, and overfishing. The discussions have evolved from merely recognizing these problems to actively planning adaptation and mitigation strategies. Evidence of increased community-led initiatives, including tree planting and waste management, alongside heightened audience participation through calls, SMS feedback, and expert advice, highlights the growing importance of climate issues in daily life.

The study also found that listeners were increasingly participating in policy-related discussions, particularly on fishing regulations and conservation measures. Although some skepticism remained, it had markedly declined, replaced by a more positive outlook on climate change. Audience concerns about rising temperatures, erratic rainfall, and declining fish stocks underscored the direct link between climate impacts and livelihoods in sectors such as agriculture and fisheries. These qualitative insights reinforced the quantitative results, which showed consistently high appreciation for initiatives such as tree planting, weather forecasting, and disaster preparedness.

Administrators emphasized that the station had deliberately promoted climate-smart agriculture, water conservation, and waste reduction. Programs such as *Taka en Mwandi* (focusing on waste recycling and organic farming) and *Tien e Wadu* (on irrigation practices and tree planting) were credited with driving behavioral change at the community level. By incorporating expert-led discussions on organic farming, rainwater harvesting, and drip irrigation, the station positioned itself as a bridge between scientific knowledge and local application. This aligns with the view that community radio is most effective when it delivers actionable, locally relevant content.

Moreover, the adoption of internal climate-friendly practices, such as energy conservation and improved waste management, demonstrated the station's institutional integrity and strengthened its credibility. This dual role of communication and modelling practices aligns with [Fraser and Restrepo-Estrada \(2002\)](#) argument that community radio should function as both a platform and a catalyst for change. The findings suggest that Radio Lake Victoria has evolved from merely disseminating information to actively fostering behavioral change, enhancing resilience, and promoting accountability. The implications point to the need for multi-sectoral collaborations and sustained community engagement to scale up these promising efforts.

5.10. Efforts by Radio Station to Mitigate the Effects Caused by Climate Change

These results demonstrate that Radio Lake Victoria's participatory strategies are both diverse and impactful, effectively integrating local voices, knowledge, and practices into climate adaptation efforts. The views of the two station managers underscored the value of interactive, community-driven content in making Radio Lake Victoria's climate change programming relevant and engaging. Both emphasized that storytelling and testimonials from farmers, fisherfolk, and flood victims are particularly powerful in making climate issues relatable and emotionally resonant. They explained that these personal accounts transform climate change from an abstract concept into tangible realities, thereby fostering a deeper audience connection.

Managers also recognized the potential role of local climate watch groups in providing updates on weather, lake levels, and farming conditions. However, they noted that the uneven distribution and limited presence of these groups across communities constrained their overall effectiveness. Similarly, participatory workshops and training sessions were recognized as valuable platforms for promoting sustainable farming methods and climate-smart practices, although their impact was reported to depend heavily on accessibility and community participation.

Both respondents endorsed interactive radio programming, particularly live calls and SMS, as a means of fostering dynamism and inclusivity by grounding discussions in listeners' lived realities. Community-led reporting was likewise acknowledged as a potentially important tool for amplifying marginalized voices, although both managers maintained neutral views on its current effectiveness, citing capacity limitations and inadequate training.

Feedback mechanisms were also described as useful for refining content and improving relevance. However, the managers observed that their impact was inconsistent, largely because of low listener engagement and limited institutional structures for processing feedback. Overall, the responses highlighted Radio Lake Victoria's strong commitment to participatory programming, while also pointing to structural and capacity gaps that limit the full realization of community-led communication strategies.

5.11. Climate Change and Its Impacts on Residents

The findings indicate widespread agreement among residents that climate change poses multiple, overlapping threats, particularly to food systems, water resources, and household livelihoods.

6. CONCLUSION

The study examined the extent and nature of broadcast media coverage of climate change in Kenya, with an emphasis on community radio. The findings highlighted the pivotal role of community radio in fostering environmental awareness and promoting resilient practices among local populations. Despite the station's

commendable initiatives in disseminating climate change information through diverse programming, the overall influence on behavioral transformation and community-level adaptation remains limited. Although a considerable proportion of the audience reported consistent engagement with the station's climate-related content, a significant number of respondents expressed reservations about the programmes' efficacy in translating awareness into practical adaptation measures.

The results highlight the importance of adopting more participatory, contextual, and dialogic approaches to climate communication that resonate with the lived experiences of local communities. Incorporating interactive strategies such as storytelling, community feedback platforms, and collaboration with local experts can enhance message relevance, understanding, and adoption. Additionally, strategic partnerships between broadcasters, environmental organizations, and community stakeholders are essential for improving message coherence, credibility, and impact. In summary, community radio remains a vital channel for environmental communication in Kenya. To maximize its transformative potential, broadcasters such as Radio Lake Victoria should move beyond traditional awareness-raising methods by fostering ongoing public engagement, empowering locally driven solutions, and encouraging adaptive behaviors that strengthen community resilience to the increasing effects of climate change.

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Transparency: The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

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