

The Utility of a Community Radio in Mitigating Drought Effects. A Case Study of Jangwani Radio in Marsabit County

**Ali Diba¹, Dr. Susan W. Mwangi², Shadrach M. Mwanthi³
St. Paul's University**

Abstract

This journal article explored the role of community radio as a tool for drought early warning systems, focusing on Jangwani Radio in Marsabit County. The objective was to examine how Jangwani Radio serves the local community by providing early warning information, how the station helps the community adapt to drought conditions, via programs that support drought management and mitigation efforts. This study used a qualitative case study approach to investigate the radio's contribution to drought management and mitigation efforts. Data were gathered through interviews and limited document review, as most of the documents were not easily accessible. The data collected were analyzed thematically to present the findings in chapter four. The respondents included staff at Jangwani Radio from the editorial team, staff from the National Drought Management Authority's drought monitoring unit, and members of the council of elders involved in Marsabit County rangeland use. These participants were purposively selected because of their managerial roles and direct involvement in the subject, making their insights valuable. The findings of this study support the argument that community radio is an important partner to the community and has served to bridge communication gaps, however, in a very limited way, given the numerous challenges that confront the radio station. Some of the challenges identified are operational in nature and can be remedied. However, some are geographical and structural in nature, and while they are not beyond the radio station to address them, it will require substantial investment, which, unfortunately, the radio station is not in position to handle as it currently stands. This study recommends creating necessary synergy between this radio and all other relevant stakeholders in drought management and mitigation efforts. This dissertation was based on the participatory communication model and agenda-setting theory.

Keywords: Community Radio, Drought Early Warning, Climate Change Communication, Participatory Media

Introduction

Drought, driven by climate change, severely impacts humanity, especially in poor areas (WMO, 2022; UNDP, 2024). This hardship raises global concern (World Bank, 2021; Agalo, 2023). Annual damages, estimated at \$6-\$8 billion, are preventable (World Bank, 2021; Mamo et al., 2025). Costs can decrease through informed decisions and regional actions. Drought itself is not a disaster; mismanagement worsens its devastating effects (Greyling, 2015). Addressing drought requires shifting from emergency responses to long-term resilience strategies (Kaoga et al., 2016). While all regions are affected, those least able to cope suffer the most (NDMA, 2018).

Residents of Marsabit's arid regions have faced droughts for generations (Koga et al., 2016; Mamo et al., 2025). Although adaptation continues, the increasing frequency of droughts worsens their plight. While progress has been made since the adoption of the Sendai Framework, significant risks persist. Drought management is hindered by inadequate infrastructure, rendering many efforts ineffective (Mogaito et al., 2023).

Marsabit County in northern Kenya has faced historic marginalization, especially in its limited media presence. This lack of media prevents communities from using platforms to address drought and its effects (Fayo, 2023; Sungu & Kapoka, 2019).

Like other pastoralists in ecologically degraded areas, Marsabit's communities are highly vulnerable to climate shocks (Mamo et al., 2025). Each adverse weather pattern increases their vulnerability, requiring targeted resilience efforts. Policy reforms and early warning systems aim to address these issues; however, the system's effectiveness depends on all components functioning properly (WMO, 2022; Duguma et al., 2015; Mogambi & Ochola, 2015).

Early warning systems depend on people's awareness of risks. When communities understand these dangers, they are more likely to act (WMO, 2022; Greyling, 2015). Observation and forecasting provide reliable information to those who need it. Media, especially radio, play a crucial role in disseminating warnings, but without them, messages may not reach their intended audiences (Mungai, 2021).

Marsabit County, with its vast land and nomadic pastoralism, relies heavily on early warning data, which can be life-saving (Mamo et al., 2025). Limited media coverage worsens the information gap. Early warning systems depend on all components; in Marsabit, this cycle is incomplete due to communication gaps. Radio is a vital educational tool, especially for those with limited access (Kankam et al., 2022). Community radio, built on local ownership, engages local voices, promotes dialogue, and shares content in indigenous languages for community benefit.

Founded in 2016 by the Catholic Diocese of Marsabit, Jangwani Radio plays a vital role in Marsabit's communities. Originally for church communication and evangelization, it expanded to address local challenges. Marsabit, Kenya's largest county, faces arid conditions, erratic weather, frequent droughts, and a fragile livestock economy. Poverty is at 80%, well above the national 34%, mainly due to an unsustainable livestock sector and lack of any fallback due to the absence of any other alternative means of earning a livelihood.

Literature Review

The history of community radio dates back to an early period, with documented evidence (Kemei et al., 2023; Pavarala & Malik, 2021). Many stations emerged from the intersection of militarism and democratization (Lawrence, 2020; Mhagama, 2015). Radio Sutatenza, the first community station, was started by Bolivian miners seeking recognition. In developing countries, community media evolved from communication tools to service platforms, driven by societal change through innovative programs (Nguyen, 2021; Mpehongwa, 2014).

Community radios empower marginalized groups via participatory debates (Asuman, 2025; Thurair, 2020). Their rise in the late 1990s aimed to challenge dominant narratives from commercial and state media and reject outdated development theories. Paul Freire criticizes modernization and dependency theories as top-down and restrictive.

Community Radio and Community Development

Every society is inherently aspirational, a trait that has characterized humanity throughout history. Attaining this aspiration has consistently posed challenges, motivating humans to pursue it diligently. The origin of community radio is rooted in this pursuit, reflecting humanity's need to satisfy their informational requirements. Information is regarded as a valuable commodity, appreciated not only for its possession but also for its capacity to meet specific needs. The movement toward liberalization of airwaves emerged because existing media were perceived as inadequate or biased against marginalized groups, thus creating a necessity for alternative sources (Pavarala & Malik, 2021). This led to the establishment of community radio.

Community media, not driven by profit motives, have intensified calls for democratization, especially to benefit marginalized groups (Kimani, 2017; Ntshangaze, 2021). This aims to restore the media's role as an empowering and educational tool. However, commercial interests aligned with the bourgeoisie influence media priorities (Harvey & Hoffman, 2016). State-led initiatives, even in public broadcasting, often lack authority or resources. The media's neglect of its duty of care creates information poverty, hindering development and forcing individuals to focus on survival (Thurair, 2020).

Motivated by their marginalized status, the most underserved communities created their own alternatives. Community radio, as recognized today, originated from this context. Communities

collaborated to develop strategies that helped them overcome their challenges. By enabling participatory communication through engaging in dialogic and egalitarian interactions, community radio fostered a discursive environment characterized by collective gatherings and the use of collaborative problem-solving methods. This effectively helped reduce development challenges that prevented individuals from reaching their full potential. Through grassroots efforts and active community involvement, community radio, also known as alternative media, began to focus on local issues and work diligently to resolve them. An example is Koch FM, located in Korogocho, Nairobi's second-largest slum, mainly inhabited by marginalized and economically disadvantaged residents. The station uses broadcast media to address the specific daily challenges faced by its residents.

Most community radio stations arise from unmet local needs (Sungu & Kapoka, 2019). Despite many media outlets, commercial stations often prioritize profit over community interests, making them less responsive to underprivileged groups. Critics argue that mainstream media may promote cultural homogenization by promoting foreign content. While globalization expands access to information, it can lead to cultural neglect among marginalized communities. Kenya Broadcasting Services and other national broadcasters struggle to meet the diverse needs of a heterogeneous society and often lack resources to address local issues effectively (ALIN, 2010; Agalo, 2023).

Community radios emerged from community frustrations, filling a void by serving as bridges for social connections and information, often acting as agricultural extension officers. As Lawrence (2020) and Mhagama (2015) noted, global decentralization efforts driven by population growth and the need for tailored communication have fueled the rise of community radio. The increasing population and demand for localized content have exceeded the capacity of commercial and public broadcasters, leading to the establishment of more community radio stations.

Communication and Drought Management

It is possible to reduce the impact of drought disasters through education aimed at enhancing people's resilient capacity and ensuring adaptability is ingrained in people's life patterns. However, such an ambitious dream cannot be easily realized without communication to facilitate education of the communities (Greyling, 2015; Wanja, 2018; Duguma et al., 2015). Drought, like every other natural disaster, is part of our life, and because it cannot be eradicated, effort should

be directed at ameliorating its effects. Thiongo (2014) avers that when people are better equipped with the requisite climate intelligence, they adapt better to drought phenomena and have their resilient capacity enhanced. Unfortunately, much as people have devised ways and means to better understand drought situations, the severity and the frequency of the drought situation today have overwhelmed all the traditional means. The devastation experienced is blamed on inadequate early warning systems and a lack of coordination between the different stakeholders (Duguma et al. 2015; Greyling, 2015). The global cost of drought is estimated at between 6 to 8 billion US dollars, however, much of that cost is borne by Africa, averred Melin (2025). The unfortunate drought statistic in Africa is blamed on the little efforts by the authorities, with the inadequate support and budgetary allocations being the hallmark of this abdication (Wanja, 2018).

Drought is not a disaster by itself; however if it's left unattended, coupled with low resilient capacity and poor adaptive means, it can easily become chronic and its effects spiraling out of control. Drought is costly and its impact is also dependent on different areas sense of vulnerability (Greyling, 2015). Relief, much as it provides a cushion against hard situations, is never a long-term answers as it exacerbates vulnerability and erodes traditional wisdom. It's therefore important that drought preparedness is enhanced via a properly thought-out early warning system, which enhances better drought management. An effective early warning system can be effectively realized through knowledge generations, deepening understanding and, facilitating decision making through to taking actions. The place of communication should be seen from the aspect of facilitating a locally focused outlook and giving people a window of opportunity to stay ahead of the curve in as far as drought management and the mitigation effort is concerned. An early warning system is an effort by a network of social interaction via which important data is collected, analyzed, and also disseminated to those who need such information. Community radio, with its ladder of citizen participation, can facilitate the engendering of a community early warning system and keep the community posted via clarion calls, advocacy efforts, and long-term development efforts (Samra, 2021). Media holds an important but often misunderstood role (Marhamah & Fauzi, 2020). The misunderstanding often comes from not knowing how to properly contextualize the experience, a lack of means to reach everyone, and limited public trust in media information (Marhamah & Fauzi, 2020). What, who, and when to communicate is also an issue, particularly in an environment where drought and disaster is politicized. In the situation of disaster, it can help in mitigating the effect of drought through relaying early warning information and alerting

everyone, and in the process creating heightened awareness (Samra, 2021; Thiongo, 2014; WMO, 2019). Proper drought management can only happen when the situation is properly understood, where situational analysis, vulnerability index, and response required are properly contextualized (Armstrong et al. 2025).

Drought Early Warning System

If unmitigated, drought can cause significant societal damage, and prevention is more cost-effective than response (UNDP, 2024). The UN and World Meteorological Organization show that every dollar invested in early warning systems saves seven dollars. The system's success depends on systematic thinking, with each component supporting others (Asuman, 2015; NDMA, 2018). It includes community-based disaster risk knowledge, emphasizing the understanding of drought impacts and preparedness, which influences community actions. Monitoring and forecasting involve collecting ground data to assess the situation, primarily handled by drought specialists and meteorological organizations, who develop understanding and communication strategies.

The third phase of the early warning system involves disseminating warnings and forecasts after their development. These expert-crafted, scientific forecasts often lack clarity for the public. Simplifying and effectively communicating this information to vulnerable communities is critical. Radio, especially community radio, plays a key role, as marginalized, socioeconomically disadvantaged groups often inhabit areas with little media coverage due to neglect. This exclusion worsens their vulnerability, and without trusted media channels, the system's effectiveness diminishes.

The void due to the lack of an effective early warning medium causes unpreparedness and system failure (Thiongo, 2014). An early warning system's value is in enabling a prepared community, based on collected information, to act quickly to prevent harm.

Community radio can be trusted to support the community and effectively disseminate early warning data, encouraging collaborative problem-solving (Kimani, 2017; Pavarala & Malik, 2021).

Theoretical Framework

This study employed the Agenda-Setting theory and the Participatory Communication Model as frameworks, providing a strong theoretical foundation.

Agenda-setting theory, initially proposed by Walter Lippmann, asserts that the media shape societal priorities by framing issues, as later expanded by McCombs and Shaw in 1972 (Ireru et al., 2018). It emphasizes the media's influence in highlighting topics on the public agenda.

The theory links media emphasis to public perceptions of issues (Hassan, 2018). Its ongoing influence highlights its fundamental role in analyzing media impact despite landscape changes, demonstrating lasting relevance and adaptability. Kiambili, cited in Hassan (2018), notes that agenda-setting evolved from reporting news (first-level) to priming and framing (second-level), shaping public interest and agenda (Ireru et al., 2018; Hassan, 2018).

Paulo Freire's 1970 participatory communication model shows men and women can collectively understand and solve problems without marginalization (Mefalopulos, 2003). It highlights listening, internalizing, and sharing perspectives, making communication more interactive (Kimani, 2017; Faissal & Alhassan, 2017). This model emerged after earlier development approaches failed (Mefalopulos, 2003).

Research Method

This study used a qualitative research design to understand the phenomena, focusing on in-depth responses rather than generalization (Cropley, 2023; Alele & Malau-Aduli, 2023). It involved a small, purposively selected sample from Jangwani Radio, NDMA, and the council of elders in Marsabit County. Radio staff, especially the editorial team, were chosen for their content roles. NDMA participants were from the Drought Monitoring and Early Warning Division, and the former council chair and secretary were interviewed as they had relevant experience. The purposive sampling aimed to select knowledgeable participants whose insights were vital for exploring the role of community radio in drought mitigation, ensuring rich and valuable data despite the small sample.

Data Collection

Data collection involved semi-structured interviews and limited document review. The interviews aimed to be guided but not restrictive, encouraging open responses (Cropley, 2023; Kapur, 2018). While valuable, interviews have drawbacks that can be mitigated (Muzari, Shara, Shonhiwa, 2023). Document review was limited due to restricted access caused by organizational privacy policies.

The data analysis was conducted thematically by inductively breaking down data, systematically reviewing it to identify key themes, and reporting the findings (Belotto, 2018; Archer, 2018; Busetto et al, 2020).

Key Findings

Community Service and Outreach Efforts

Jangwani Radio in Marsabit County, the main link to the world, serves an illiterate community by reporting, translating, and delivering news in the local language, thereby supporting the usefulness of community radio. It addresses local information needs, particularly regarding global events, by bridging the information gap in an area with limited media outlets, thereby keeping residents connected and ensuring that no one is left behind (Fayo, 2023).

The station hosts programs and discussions on topical subjects. Their talk show features experts providing information, with listeners able to ask questions and participate. It features monthly themes centered around activities like school holidays, December's anti-violence activism, peace talks, and community programs. Lawrence (2020) considers this essential to the role of community radio in fostering a knowledge society.

The station serves as a casual learning hub, offering a diverse range of educational topics, from health to entrepreneurship. It is the most significant source of knowledge for the community, popular among organizations and government agencies. The national drought office frequently utilizes it to engage locals on drought-related issues, while the local government and police use it to promote peace and support ongoing efforts.

The Community's Reservoir of Knowledge

This station effectively documents the community's history, aligning with Kauffman et al. (2012), who state that stored content reduces content development costs. In communities with oral traditions, it helps preserve cultural stories and experiences, which are vulnerable to fading over time, risking the loss of cultural knowledge that is essential during challenging times. Jangwani Radio's programs transmit knowledge and involve community veterans to inform listeners about historical events that affected their lives.

“We were advised not to leave anyone behind, which led us to create content focused on youths' interests, like stories and oral literature, for their learning,” said the research officer and content lead.

The station enhances its relevance and community role through the program. However, despite efforts, young people prefer social media, especially TikTok (Njeru & Buma, n.d.), which consumes their time and reduces their engagement with Radio Jangwani.

Community’s Platform of Activism

This station has served as the community’s advocacy platform, encouraging discussions on relevant topics. Marsabit County faces social and cultural challenges, including outdated practices that hinder progress. The station manager, also the editorial director, stated:

We have some deeply rooted cultural practices, some of which have been outdated by events. This radio station has successfully advocated against them and encouraged the community to abandon them. Of course, we have done this in partnership with other organizations.

This station has addressed these issues by supporting key stakeholders. It has excelled as a community radio, fulfilling its role in service. People in Marsabit County are grateful for the efforts made to support and improve their lives.

This radio station's advocacy efforts have decreased female genital mutilation, gender violence, and early marriage, while increasing girls' enrollment in schools. These results support Merlin (2023) and Mhagama (2015), who found that community media are essential for community mobilization. For instance, residents in Marsabit organized to move the traders' market after a serious accident raised safety concerns.

Natural Resources Information Crowdsourcing

Marsabit County has a community-formed rangeland management committee that promotes sustainable use of natural resources. It oversees zoning to prevent depletion and supports pastoralists during periods of drought. Radio alerts the public about local leadership decisions, fostering social networks via radio listener clubs, which act as community centers and extension services, as noted by Mhagama (2015). The council of elders monitors pasture, water, and the situation, keeping everyone informed. This guide resource helps access areas safely and avoid

unsafe areas, especially during droughts that can lead to conflicts. The radio, in conjunction with the council of elders, has historically monitored and assisted pastoralists in finding pastures (Njeru & Buma, n.d.). However, at the time of data collection, a new committee had not yet been formed, as the previous team's term had come to an end.

Discussion Forums and Talk Shows

Jangwani Radio hosts discussions on various topics, inviting experts to participate in talk shows where they engage the community in question-and-answer sessions, allowing everyone to benefit from the experts. Locals highly patronize such sessions because they provide an opportunity for them to learn directly from professionals in the field. The station managers believe that this type of service and talk show is the station's way of giving back to society and showing appreciation for their long-standing solidarity and support.

Respondent 1(d) said this when asked how the station helps in providing early warning information, *“Amongst the organizations we constantly engage are the National Drought Management Authority and other community-based organizations, like Pacida and Action Against Hunger.* In contrast to major urban centers, where inhabitants have access to a variety of paid services and advisory resources, Marsabit lacks such amenities. Jangwani Radio serves to bridge this deficiency. Asuman (2025) and Pavarala & Malid (2021) observed that community radio functions as a communal think-tank, fostering discussions led by experts. They further contended that community radio collects audience feedback to enhance content, a conclusion that aligns with the findings of this research.

Amplifying Adaptive Climate Calls

This radio has helped amplify adaptive calls by sharing tested experiences. While drought is unavoidable, famine is preventable. Avoiding famine requires understanding vulnerability and alternatives. Wanja (2018) and Greyling (2015) demonstrated that community radios help marginalized communities cope with droughts and disasters.

Enhancing adaptive initiatives has prompted communities to choose climate-resilient animals. They acknowledge the importance of foliage and hay for inclement weather and are considering commercializing livestock to transform them into economic assets that can endure climate adversities.

Collaboration with Local Organizations

This radio station, constrained by its size, has established partnerships with local organizations to broadcast programs that serve the community's interests. It collaborates with non-governmental organizations (NGOs) to address issues related to climate change and development. The station manager emphasized its contribution to drought management initiatives.

“You realize we are only a radio station, and therefore we cannot say we have any expertise on many issues; however, we have collaborated with many organizations to be able to enrich our broadcast, so that we offer content which are rich and relevant. It is not only on drought, but a myriad of other subjects, which we feel our people need to be enlightened on”.

It has functioned as a community platform, facilitating the achievement of objectives such as relocating the Marsabit market after accidents. The media connects the community and emergency organizations, alerting them to hazards and safety issues. This exemplifies how communities can utilize media partnerships to address and overcome challenges.

Helping in Demystifying Climate Updates

Climate discussions are complex, and in the absence of clear explanations from experts, comprehension is hindered. This radio station effectively participates in ongoing climate dialogues, articulating them clearly and disseminating information to its audience. The radio station assists the community in addressing drought challenges; however, data also highlight the station's capacity limitations as the primary issue, accompanied by various sub-themes.

Capacity Challenge Experienced by the Radio

Inadequate Capacity

Although the station is innovative, it faces limitations. Asuman (2025) states that capacity issues limit the goodwill of community media. These stations depend on community and donor support, which can't guarantee steady backing. Without independent funding, capacity constraints force stations to rely on volunteers and community members while seeking better opportunities.

The station struggles to attract media professionals due to its modest pay, which limits coverage across the large, spread-out county. Lacking modern equipment, it performs only basic functions, without a vehicle or correspondents for breaking news, relying on social media instead. This

restricts its role compared to other outlets. These issues hinder investigative work and limit its capacity beyond news reporting. Lawrence (2020) notes that licensing restrictions impede advertising, reducing revenue and increasing reliance on donors, which results in poorly designed programs with limited audiences.

Content production necessitates coordination across various disciplines. Limited capacity and revenue hinder research efforts due to personnel and resource constraints, ultimately affecting the quality of programs. This results in dependence on secondary content that may fail to persuade the audience or align with the station's objectives.

The station's limited staff hampers its ability to serve the community fully, addressing only surface-level issues and struggling to address societal problems. Complex topics like climate change require experts, but resource limitations and distance prevent staffing or discussions.

Lack of Coordinated Effort

The deficiency of climate information in Marsabit County is not attributable to its unavailability but rather to inadequate coordination in its dissemination. The National Drought Management Authority (NDMA) routinely gathers and disseminates climate and drought data via its monthly Drought Monitoring bulletin, which is made available on its website for policymakers and impacted communities. Nonetheless, these efforts are limited, thereby restricting access.

Interested parties are encouraged to visit their website for materials. However, capacity issues may hinder effective radio dissemination or understanding without expert help.

The primary obstacle to comprehending drought and climate issues is the absence of a collaborative approach to problem-solving. Authorities must go beyond basic measures; they are required to disseminate information proactively to enhance their effectiveness. Merely collecting data is insufficient if it lacks accessibility or transparency. Data becomes more valuable when it is both comprehensible and easily accessible; however, many entities fulfill only the minimum requirements. Community radio stations encounter capacity limitations and will face difficulties in serving their constituents effectively unless they receive support to alleviate their workload (Kimani, 2017).

Drought management involves numerous stakeholders, including both trained professionals and experienced individuals. However, they are rarely coordinated effectively to enhance their impact (Kinyua & Ngugi, 2014). Organizing stakeholders into forums for sharing expertise and resources can improve management and mitigation. Without such coordination, efforts stay fragmented and ineffective (Mwita, 2021).

High Turnover of Employees

Since its establishment, the primary challenge has been high employee turnover (Kinyua & Ngugi, 2014). The small radio station relies on unpredictable community donations, which constrain its income and hinder the recruitment of highly qualified personnel. Individuals recruited frequently depart for more favorable opportunities, corroborating the findings of Kinyua & Ngugi (2014). Numerous presenters from nearby county stations commenced their careers at this station.

The effectiveness of a radio station depends on its well-researched, professional content and programming. High employee turnover leads to capacity issues, which in turn reduce service quality and hinder the station's ability to address community concerns.

Volunteer Burnout

Jangwani Radio, like all community radio stations, heavily relies on volunteers. These volunteers join the station hoping to be hired either full-time or on a contract. However, when this does not happen quickly, they begin to disengage and become apathetic, which affects the quality of their services. Volunteer burnout also manifests through declining community support, which in turn impacts the station's operations and reduces the variety of programs and content produced. These findings align with the arguments of Lawrence (2020) and Kinyua & Ngugi (2014), who, in their studies, argued that the biggest obstacle to the success of most community radio stations is a lack of commitment by volunteers, who see the radio as a way to stay active and look for better opportunities.

Limited Reach and Poor Signal

Initially, a church-based radio program focused on evangelism but did not anticipate its influence. Weak signals and limited range restrict its reach, reducing effectiveness. Lawrence (2020) noted that community radios, often small and church-operated, face regulations preventing commercial activities, limiting access to costly equipment. Geography, terrain, and limited resources, such as vehicles, also hinder growth. Kauffman et al. (2012) argue that these factors make expanding community radio challenging.

Conclusion

This study demonstrates that community radio serves as a vital conduit for bridging communication gaps in drought-affected regions by facilitating connections between local communities and relevant organizations, while also promoting well-being, climate awareness, and access to market information. Under the guidance of a diverse editorial board, it is commendable for its extensive network. It functions as an educational resource but encounters challenges such as outdated equipment, a scarcity of skilled personnel, and volunteer burnout. Ineffective stakeholder coordination and limited scientific knowledge impede the efficacy of early warning systems. High rates of illiteracy and low awareness of climate change necessitate community education; however, reliance on untrained personnel hampers these initiatives. In expansive, impoverished regions, outreach efforts are limited, thereby restricting overall impact (Asuman, 2015).

Recommendations

There is a need to institutionalize collaboration between the state agencies and the local media, through such partnerships, which are institutionalized, community media can bridge the information gap by facilitating conversation and dialogue. The participatory communication model, which forms part of the theories on which this research is anchored, amplifies the usefulness of collaborative problem solving, which can only be made possible when synergy is created between different institutions (Kimani, 2017). Lastly, due to the low literacy levels, especially in rural counties, there is a need to promote community radio stations as educational platforms so that knowledge and other information can be shared with locals through these stations

(African Union, 2023). Marsabit County has a very limited mainstream media footprint. Consequently, the community relies so heavily on the community radio as an alternative to poor or non-existent extension services.

Policy should strengthen community radio stations, such as Jangwani Radio, through collaboration between the government and the station on resources like weather updates. Developing national policies can ensure sustainability and close information gaps in marginalized areas. Incentives and investments in media can create opportunities and reduce reliance on a single economic activity.

References

- Agalo, R. A. (2023). Saliency of community radio on climate change risks in rural Kenya: A case study of Migori County. *African Social Science and Humanities Journal*, 4(2). <https://doi.org/10.57040/asshj.v4i2.480>
- Alele, F., & Malau-Aduli, B. (2023). *An introduction to research methods for undergraduate health profession students*. James Cook University. <https://doi.org/10.25120/fh2z-yva8>
- Amada, M. F., & Alhassan, A. (2017). *Community access and participation in community radio broadcast: Case of Radio Gaakii in north-eastern Ghana*. *Journal of Communication and Media Studies*, 9(2), 45–57.
- Archer, E. (2018). Qualitative data analysis: A primer on core approaches. In S. Kramer, S. Laher, A. Fynn, & H. H. Janse van Vuuren (Eds.), *Online reading in research methods*. Psychological Society of South Africa. <https://doi.org/10.17605/OSF.IO/BNPFS>
- Arid Lands Information Network. (2010). *Knowledge sharing for the climate change adaptation project*. Arid Lands Information Network.
- Asuman, K. (2025). *Exploring community radio as a strategy for social change: The role of community radio in rural development and social change* (Master's thesis). Western University.
- Attuh, S., & Kankam, P. K. (2024). Community radio as information dissemination tool for sustainable rural development in Ghana. *Journal of Radio & Audio Media*, 31(1), 248–270. <https://doi.org/10.1080/19376529.2022.2146119>
- Bedford, C. (2019). Rethinking the “community” function of community radio online: An ageing punk perspective. *3CMedia: Journal of Community, Citizens' and Third Sector Media*, 9, 33–41.

- Belotto, M. J. (2018). Data analysis methods for qualitative research: Managing the challenges of coding, interrater reliability, and thematic analysis. *The Qualitative Report*, 23(11), 2622–2633. <https://nsuworks.nova.edu/tqr/vol23/iss11/2>
- Braun, V., & Clarke, V. (2018, March 26). Thematic analysis: What is it and how do you do it? [Video]. *YouTube*. <https://www.youtube.com/watch?v=5zFcCLovOVY>
- Busetto, L., Wick, W., & Gumbinger, C. (2020). How to use and assess qualitative research methods. *Neurological Research and Practice*, 2(1), 14. <https://doi.org/10.1186/s42466-020-00059-z>
- Chawla, D., & Sondhi, N. (2020). *Research methods: Concepts and cases* (2nd ed.). Vikas Publishing House.
- Cropley, A. (2023). *Qualitative research methods: A practice-oriented introduction*. University of Hamburg.
- Diepeveen, S., Filer, T., Czibor, E., Ganduri, T., & Mollana-Allen, L. (2023). *Silent crisis: Information, decision-making, and communities on the frontline of climate change*. StateUp. <https://doi.org/10.5281/zenodo.1234567>
- Fayo, G. D. (2023). *An analysis of newspaper coverage of far-flung counties in Kenya* (Unpublished master's dissertation). Aga Khan University, Graduate School of Media and Communications. https://ecommons.aku.edu/theses_dissertations/2093/
- Greyling, C. (2015). *A narrative communication approach towards drought resilience for foundation phase children* (Master's thesis), University of the Free State.
- Kaoga, et al., (2016). Report on climate change-induced conflict and migration in Kenya. University of Nairobi.
- Kapur, R. (2018). *Research methodology: Methods and strategies*. University of Delhi.
- Kenya Meteorological Department. (2018). *Isiolo County climate information service plan*. Kenya Meteorological Department.
- Kenya National Bureau of Statistics. (2019). *Kenya population and housing census 2019*. Kenya National Bureau of Statistics.
- Kenya National Bureau of Statistics. (2023). *Compendium of environmental statistics*. Kenya National Bureau of Statistics.
- Kimani, R. N. (2017). *Kenyan community radio: Players, production, process and participation* (Doctoral dissertation). University of Bayreuth.

- Kisumu, Kenya. (n.d.). *[Master's thesis, Maseno University]*. Maseno University.
<https://repository.maseno.ac.ke/handle/123456789/5210>
- Lawrence, N. (2020). *Exploring the contribution of community radio to local governance in Weinch Municipality, Ghana* (Doctoral dissertation). Aalborg University.
- Mamo, T., et al. (2025). *Climate change adaptation strategy by Gabbra pastoralist in Marsabit County*. National Institute of Ecology.
- Mefalopoulos, P. (2003). *Theory and practice of participatory communication*.
- Mhagama, P. M. (2015). *Community radio as a tool for development: Case study of a community radio station in Malawi* (Doctoral dissertation). University of Leicester.
- Mogaito, M., et al. (2025). The impact of drought on the communication-managed risk reduction strategy in Marsabit County, Kenya. *Journal of Agricultural Science and Technology*, 24(3).
- Mpehongwa, G. (2023). *Community radio & public sphere in Tanzania: Theory and practice*.
- Muzari, J., et al. (2022). Qualitative research paradigm: A key research design for educational researchers, processes, and procedures. A thematic review. *Indian Journal of Humanities and Social Science*, 3(1).
- Mwita, C. (2021). *The Kenya media assessment*. Internews.
<https://internews.org/resource/kenya-media-assesment-2021>
- Naser, B. (2020). Relevance and challenges of the agenda-setting theory in the changed media landscape. *American Journal of Communication*, 8(1), 1–18.
<https://doi.org/10.11648/j.ajc.20200801.11>
- National Drought Management Authority. (2022). *Drought resilience newsletter*. National Drought Management Authority.
- Nguyen, T. C. (2021). *The early history of communication*.
- Okoliko, D. A. (2021). *Media(ted) climate change in South Africa, Nigeria, and Kenya: Reimagining the public for engagement* (Doctoral dissertation). Stellenbosch University. <https://scholar.sun.ac.za>
- Pavarala, V., & Malik, K. K. (2021). *Community radio for social change: Restoring decentralized discursive space perspective*.

Sikdar, S., et al. (2020). Community radio: An optimistic voice for the voiceless and disillusioned rural community. *International Journal of Current Microbiology and Applied Science*, 9(9).

Turkana County Government. (2023). *County climate change action plan (2023–2027)*.

United Nations Development Programme. (2024). *Human development report 2023/2024: Breaking the gridlock Reimagining cooperation in a polarized world*. United Nations Development Programme.

Wanja, E. (2021). *Coverage of climate change issues in Kenyan print media: A case of Daily Nation and Standard newspapers* (Unpublished master's thesis). Aga Khan University. https://ecommons.aku.edu/etd_ke_gsmc_ma-digjour/79/

World Meteorological Organization. (2023). *Guidelines on the definition and characterization of extreme weather and climate events* (WMO-No. 1310). Geneva: WMO. ISBN 978-92-63-11310-8