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The Role of Yuluthi Community Radio in Climate Risk Communication: A Study of Farmers in Mogovolas District

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Abstract: Climate risk communication is relevant to rural communities whose livelihoods depend on agriculture and which face irregular rainfall, droughts and floods. This study examines the role of Yuluthi Community Radio in communicating climate risks to farmers in Mogovolas District, Nampula Province, Mozambique. It adopted a qualitative case study approach. Thirty-three participants took part: 25 farmers, five radio professionals and three agricultural technicians. Data were collected through semi-structured interviews and participant observation and examined through thematic analysis. The findings indicate that the station performs an informational, linguistic and sociocultural mediation role, bringing information closer to farmers' experiences. The use of Emakhuwa and community proximity support accessibility, while opportunities for expression enable the circulation of local experiences. Constraints remain regarding technical clarity, territorial contextualisation, continuity of messages and available resources. The study concludes that the radio's contribution lies in mediating between technical information, local knowledge and community needs. The data do not establish causal effects on agricultural productivity or farmers' adaptive capacity.

Keywords*: Climate Risk Communication; Community Radio; Sociocultural Mediation; Farmers; Mogovolas.*

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I. INTRODUCTION

Climate change constitutes a significant challenge for contemporary societies, particularly in territories where livelihoods depend directly on natural resources. Irregular rainfall, droughts, floods and other extreme weather events can undermine agricultural systems, food security and the living conditions of rural populations. In Africa, exposure to these phenomena intersects with economic dependence on agriculture and structural constraints that limit prevention and adaptation capacity (IPCC, 2022).

In Mozambique, recurrent exposure to cyclones, floods and periods of drought places pressure on livelihoods, infrastructure and production systems. In rural communities, where rain-fed agriculture is particularly important, irregular rainfall can disrupt agricultural calendars, increase uncertainty about sowing periods and intensify household vulnerability (World Bank, 2023). In Mogovolas District, Nampula Province, this issue is particularly relevant to farmers whose activities depend on climatic conditions.

Meteorological and climate information can support the interpretation of hazards and decision-making, but its mere availability does not guarantee that it will be understood or used. Risk communication requires messages to reach people in a timely manner, identify the phenomenon and the area to which they refer, explain possible consequences and be formulated in accessible language. It also requires consideration of trust in information sources, recipients' experiences and their actual opportunities to respond. Communication, therefore, is not limited to the transmission of warnings: it involves the production, circulation, interpretation and social appropriation of information.

It is within this framework that Yuluthi Community Radio is situated. Through its territorial presence, its potential use of Emakhuwa and its relationship with local audiences, the station may bring specialised information closer to farmers' experiences. Community radio may also provide a space for expression and the circulation of knowledge, enabling listeners to raise concerns and share experiences.

However, the community label does not, in itself, guarantee horizontal practices or ensure the accuracy, regularity or comprehensibility of messages. The station's

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intervention depends on production routines, staff preparation, access to technical sources, available resources and genuine opportunities for participation.

Literature on community communication and development highlights the need to move beyond vertical models in which communities are treated as recipients of messages designed by external institutions. Manyozo (2017) and Tufte (2017) emphasise citizen participation, contextualisation and the construction of processes with communities.

In Mozambique, studies on the media and climate communication highlight the importance of media outlets in circulating information about environmental issues (Conjo et al., 2021). It is nevertheless important to understand how these dimensions materialise in specific local experiences and how they relate to farmers' information needs.

The scientific problem addressed by this study is therefore not merely whether Yuluthi Community Radio disseminates information related to climate risks, but how it conducts this intervention, how farmers interpret the messages and which factors facilitate or constrain communication. The research is guided by the following question: "What is the role of Yuluthi Community Radio in communicating climate risks to farmers in Mogovolas District?"

The general objective is to analyse the role of Yuluthi Community Radio in communicating climate risks to farmers in Mogovolas District. Specifically, the study seeks to: (a) characterise the communication practices, formats and content used by the station when addressing climate risks; (b) describe how farmers interpret radio messages and incorporate them into their agricultural practices and decisions; and (c) identify the institutional, technical and communication-related constraints, as well as the sociocultural potentialities, that shape the station's intervention.

The study has scientific, social and practical relevance. Scientifically, it seeks to contribute to research on community communication and climate risk communication through a rural Mozambican experience. Socially, it seeks to understand the conditions under which radio information can respond to farmers' needs. In practical terms, the findings may inform reflection on message production, coordination with technical services and community participation.

The research adopts a qualitative approach and a case study design, using semi-structured interviews and participant observation. The findings are not intended to statistically represent all radio stations or rural communities in the country, but to offer a contextualised interpretation of the experience under study.

II. THEORETICAL FRAMEWORK

- *Community Communication, Participation and Power Relations*

Community communication challenges strictly linear models that conceive information as content produced by a sender and transmitted to recipients whose role is limited to receiving it. Alternatively, it understands communication as a social process of dialogue, participation and the production of meaning. This distinction is important when studying media that identify themselves as community-based: proximity to a territory does not necessarily mean that its inhabitants participate in communication-related decisions.

Freire (1983) is a central reference for this discussion. By questioning extension as the unilateral transfer of knowledge, the author proposes a dialogical conception grounded in the critical examination of reality and the shared construction of knowledge. Communication does not simply mean delivering a message to a recipient; it entails recognising interlocutors as subjects capable of interpreting reality, comparing experiences and producing knowledge.

Applied to community radio, this perspective makes it possible to distinguish the occasional provision of airtime to listeners from forms of participation that give them influence over the identification of problems, the selection of topics and the construction of responses.

Beltrán (2006) converges with this critique by advocating horizontal communication models as an alternative to vertical and instrumental practices. Tufte (2017), in turn, connects communication, citizenship and social change, emphasising the possibility of citizens intervening in processes that affect collective life.

Manyozo (2017) adds a critical dimension: development processes are shaped by power relations that determine who defines problems and which forms of knowledge are recognised as legitimate. While Freire emphasises the dialogical and epistemological dimensions, Tufte highlights citizenship and participation, and Manyozo draws attention to institutional asymmetries that may persist even in initiatives adopting participatory language. These contributions are complementary, but should not be treated as identical formulations.

This synthesis leads to an analytical question: participation should be assessed according to the degree of intervention by community actors, rather than merely the existence of channels for expression. The opportunity to telephone, submit questions or take part in a broadcast may broaden access, but does not, by itself, demonstrate that farmers influence topic selection, the sources consulted or editorial direction.

It is important to distinguish access to broadcasts, opportunities for expression, dialogue with specialists and participation in production decisions. This distinction prevents a station from being classified in advance as

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horizontal or participatory simply because it is described as community-based.

➢ *Community Radio and Sociocultural Mediation*

Community radio should be understood simultaneously as a medium of proximity and as an institution. Its specificity derives not only from broadcasting within a particular geographical area, but also from the relationship it establishes with the interests, information needs and cultural expressions of the groups to which it is connected.

The community mission, however, does not remove the need to examine ownership, management, production routines, editorial criteria, participation mechanisms and operating conditions.

Mangue (2022) situates Mozambican community radio within the field of content production and communication for development, showing the range of functions these stations may perform in circulating information and enabling citizens' expression.

Paula (2009) also highlights the relevance of these media to development-oriented communication. Proximity, however, should not be reduced to the distance between the station and its listeners. It involves the ability to address recognisable problems, use shared cultural references and establish relationships with local actors. A station may be geographically close and still fail to represent the diversity of experiences within its territory.

Orality and the possibility of listening in different settings make radio relevant in contexts where access to print media and the Internet is unequal (Castro & Joanguete, 2025). This characteristic does not mean universal accessibility: reception depends on signal coverage, the availability of devices and electricity, and the actual conditions in which listening takes place. Radio mediation therefore requires consideration not only of broadcasting, but also of reception and interpretation conditions.

Language is a central dimension of this mediation. Onyenankeya and Salawu (2023) relate community radio acceptance in rural African contexts to language and cultural affinity. Chikaipa (2023) demonstrates the relevance of local languages to the expression of community voices and the circulation of information in development programmes.

These studies converge in recognising that language can facilitate access and strengthen the relationship between a station and its audiences. Chauke and Govenden (2024), however, introduce an important qualification: language policies may also reproduce forms of hegemony and exclusion. The use of a local language therefore does not automatically resolve inequalities of representation or guarantee that technically complex messages will be understood.

In the case of Yuluthi, the use of Emakhuwa should be considered a resource for accessibility and cultural expression, but also assessed in terms of the clarity of terminology, the explanation of concepts and the linguistic diversity of listeners. Translation is not equivalent to mechanically replacing Portuguese words with local-language words.

Mediation requires contextualising information without changing its technical meaning. Credibility, in turn, should not be confused with familiarity: proximity may foster trust, but accuracy, source identification, updating and transparency remain essential.

Institutional sustainability also conditions mediation. Regular content production depends on equipment, electricity, staff, training, access to sources and financial resources. Jambe (2023), in studying communication strategies and the monetisation of community radio stations in Nampula Province, draws attention to the economic dimension of maintaining these institutions. There is a tension between the mission of serving communities and the need to obtain resources to ensure continued operation. Sustainability should therefore be considered in its economic, organisational and communication dimensions.

➢ *Climate Risk Communication and Early Warning Systems*

Climate risk communication should not be confused with environmental communication in the broad sense or with communication about climate change. Environmental communication encompasses relationships between society and the environment, including conservation, pollution, natural resources and environmental justice (Nhampoça, 2023). Communication about climate change focuses on changes in the climate system, their causes and consequences, and social responses.

Moser (2010) identifies challenges specific to this field, such as scientific complexity, uncertainty and the temporal and spatial distance of certain impacts. Risk communication, in turn, is organised around hazards, exposure, vulnerability and potential consequences, seeking to support understanding, prevention, preparedness and decision-making.

Climate risk communication is a specific application of risk communication to climate-related hazards. The World Health Organization (WHO, 2020) characterises risk communication as the exchange of information, advice and opinions between experts, authorities and people facing a threat. This formulation highlights the interactive dimension of the process and the need to consider the perceptions, concerns, beliefs and practices of the groups involved. A technically accurate message may not be understood or considered relevant if it does not take account of the social and material conditions in which it is received.

The IPCC (2022) understands risk as the result of interactions between climate hazards, exposure and vulnerability. A hazard refers to the possibility of a potentially damaging phenomenon occurring; exposure concerns the presence of people, activities and assets in

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locations that may be affected; and vulnerability refers to the predisposition to suffer harm, including sensitivity and limited response capacity.

This approach prevents effects on farmers from being explained solely by the weather phenomenon: resources, economic conditions, access to information and opportunities to respond also influence vulnerability.

It is necessary to distinguish forecasts, warnings and recommendations. A forecast provides an estimate of expected weather conditions; a warning alerts people to the possibility of a dangerous phenomenon or its impacts; a recommendation indicates measures that may be considered in response to the situation. Meteorological information tends to refer to shorter time scales, whereas climate information may support seasonal and longer-term decisions. For farmers, usefulness depends on territorial relevance, advance notice, explanation of uncertainty and connection with the agricultural calendar. A regional forecast should not be presented as if it described every locality with equal precision.

Early warning systems bring together risk knowledge, monitoring, forecasting, warning dissemination and response preparedness. UNDRR (2017) defines them as integrated systems that enable individuals, communities and institutions to act in a timely manner to reduce risks.

The World Meteorological Organization's Early Warnings for All initiative (WMO, 2023) organises action around four pillars: disaster risk knowledge and management; detection, observation, monitoring, analysis and forecasting; dissemination and communication of warnings; and preparedness and response capabilities. Communication is therefore not an ancillary stage. It connects technical information with potentially affected populations.

Last-mile communication concerns the ability to deliver information to its intended recipients, ensuring that it is received, understood and considered relevant. Community radio stations may contribute to this stage through proximity, orality and the use of local languages. They do not, however, replace the institutions responsible for meteorological observation, technical assessment or response coordination.

Their role is to mediate and disseminate information while preserving the origin and limitations of the data transmitted. The Mozambican experience described by the World Bank (2023), involving INAM, the Social Communication Institute and community structures, demonstrates the importance of institutional coordination in disseminating warnings.

- *Local Knowledge, Adaptation and Resilience*

Farmers are not recipients devoid of knowledge about the environment. Observations of rainfall cycles, crops, soils and local conditions generate situated knowledge accumulated through experience and intergenerational transmission. Risk communication should recognise this knowledge without idealising it, just as it should not treat technical and scientific information as sufficient in every circumstance.

The relationship between local knowledge and specialised information should be understood as critical complementarity. Manyozo (2017) makes it possible to question models in which institutions unilaterally define problems and responses, relegating community experiences to a secondary position. In agricultural adaptation, the review by Apraku, Morton and Apraku-Gyampoh (2021), together with studies on knowledge integration in African contexts, points to the importance of considering local conditions when developing responses. Farmers' experience may provide reference points concerning observed changes, while technical services can help interpret trends, clarify uncertainties and present alternatives.

Adaptation, however, does not follow automatically from receiving information. The adoption of a practice depends on the availability of seeds, tools, financial resources, labour, access to land and environmental conditions. Information may broaden decision-making resources, but it does not eliminate structural constraints.

Folke (2016) understands the resilience of socio-ecological systems in terms of learning, reorganisation and the capacity to respond to disturbances. Resilience should therefore not be reduced to an individual's ability to endure adverse events, nor attributed directly to the intervention of a media outlet.

For this study, the four theoretical strands are brought together in a common analytical framework: radio is examined as an institution of proximity and mediation; participation is assessed through actual opportunities for expression and influence; risk communication is considered in terms of message clarity, timeliness and contextualisation; and the relationship between local and technical knowledge is examined without presuming causal effects on production or adaptation. This framework makes it possible to analyse the potential of Yuluthi Community Radio without confusing its communication role with the responsibilities of other actors.

III. METHODOLOGY

The research adopted a qualitative approach aimed at understanding and interpreting the climate risk communication practices developed by Yuluthi Community Radio among farmers in Mogovolas District. This choice followed from the nature of the problem, which requires an understanding of experiences, meanings and the social conditions under which information is produced and received, rather than a statistical measurement of the station's effectiveness or the establishment of causal relationships between radio exposure and agricultural outcomes.

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A case study was used as the research strategy, with Yuluthi Community Radio and its intervention in climate risk communication among farmers in Mogovolas as the unit of analysis. Yin (2018) considers the case study appropriate for the in-depth investigation of contemporary phenomena in their real-life context, particularly when the boundaries between the phenomenon and its context are not clearly defined. The study adopted an interpretative orientation, seeking to understand the meanings participants attributed to the practices and messages under examination, without declaring a specific epistemological paradigm.

Thirty-three people participated: 25 farmers, five radio professionals and three agricultural technicians. Participants were selected purposively, prioritising people whose experience and position were relevant to the research question. Among the farmers, selection considered membership in local associations and direct experience of agricultural activity, while seeking to include participants of different ages and genders.

Purposive sampling is appropriate in qualitative studies when participants are selected because they can provide relevant and in-depth information (Palinkas et al., 2015). The participating farmers belonged to three local associations; their accounts therefore do not necessarily represent all producers in the district.

Data collection combined semi-structured interviews and participant observation. Interviews were conducted with all three participant groups, using guiding protocols adapted to their roles and experiences. The flexibility of this technique made it possible to explore responses in greater depth and request clarification while maintaining a connection with the study's objectives (Patton, 2015).

Conversations took place in Portuguese or Emakhuwa, according to participants' needs. Testimonies were transcribed for analysis, with an effort to preserve the meanings expressed, particularly where translation was required. The movement between languages was treated as an interpretative operation rather than a mechanical substitution of words.

Participant observation took place in community spaces where radio broadcasts were listened to and discussed. Attention focused on interactions, reactions to messages, comments and forms of information circulation in the settings observed. Observation complemented interview accounts by making it possible to consider practices that participants' memories may not fully reconstruct. Musante and DeWalt (2010) emphasise precisely the importance of observing social practices in the contexts in which they occur.

The data were examined through thematic analysis, following Braun and Clarke (2006): familiarisation with the material; initial coding; grouping codes into categories; identifying and reviewing themes; and interpretation. Reading the transcripts and observation records made it possible to identify units of meaning, recurring patterns and differences between the perspectives of farmers, radio professionals and technicians. Themes were organised in relation to the research question and objectives, without reducing testimonies to categories established in advance.

Triangulation involved exclusively the two sources actually used: semi-structured interviews and participant observation. The comparison sought to identify convergences, divergences and complementarities between accounts and observed practices. No systematic content analysis of radio programmes was conducted; consequently, conclusions about the station's activity should not be interpreted as the result of an independent analysis of a broadcast schedule or programme corpus. Triangulation was understood as a means of deepening interpretation, not as an automatic guarantee of truth (Maxwell, 2013).

Researcher reflexivity was also considered, recognising that the researcher's presence and assumptions may influence relationships with participants and the interpretation of data (Berger, 2015). The principles of informed consent, confidentiality, identity protection and respect for participants' dignity were observed. Testimonies were identified by codes, avoiding public association between statements and personal identities.

The study has limitations. Focusing on one station and one district restricts the direct transferability of findings to other contexts. The participation of farmers from three associations does not make it possible to represent all producers in Mogovolas. In addition, some information depends on participants' accounts, which are subject to memory and individual experience. These limitations define the scope of the conclusions: the data support an interpretation of communication practices and perceptions, but do not demonstrate causal effects on productivity, agricultural losses, adaptive capacity or the overall effectiveness of warning systems.

IV. PRESENTATION OF FINDINGS

The analysis of semi-structured interviews and observation records identified five dimensions: farmers' perceptions of risks affecting agricultural activity; linguistic accessibility and sociocultural proximity; mediation of technical information and message comprehension; community participation and the circulation of knowledge; and technical, institutional and communication-related limitations.

- *Farmers' Perceptions of Climate Risks and Agricultural Activity*

Farmers situated climate risks within the everyday difficulties of production, highlighting irregular rainfall, uncertainty about the beginning of agricultural seasons and the possibility of crop losses.

One participant summarised the difficulty of deciding when to sow: "The problem is that we no longer know when to sow; the rain deceives us, and then the entire field is lost" (EA1). Another stated that "in the past, we had a clearer idea

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of when the rains would begin. Now, sometimes the rain comes and then disappears for many days" (EA6).

These accounts show that climate uncertainty interferes with work organisation and decision-making. Information about rainfall is considered important, but farmers seek to understand its implications for land preparation and sowing.

One participant stated: "Information about the rain is important, but we need to know whether we should sow at that moment or wait a few more days. It keeps changing. If we hurry, the crops dry out. If we delay, we lose them" (EA8). The concern is therefore not limited to the occurrence of rainfall, but involves its relationship with concrete agricultural decisions.

The testimonies also show that production vulnerability does not depend exclusively on climate. One farmer recalled that livestock represents wealth but may damage crops when it is not properly managed: "Livestock is a source of wealth, but it also damages maize and cassava if we do not look after our animals properly" (EA3). This testimony highlights the need not to attribute all agricultural problems to weather conditions, since management and organisational factors also affect production.

- *Linguistic Accessibility and Sociocultural Proximity*

Language emerged as an important condition for message comprehension. One farmer stated: "When we listen in Portuguese, sometimes we do not understand properly, but when they speak in our language, Emakhuwa, we immediately know what to do" (EA2). Another emphasised the importance of explaining terms and adapting the pace of communication: "Not everyone can understand difficult words. When they explain slowly and in our language, the message gets through better and without noise" (EA9).

From the perspective of a radio professional, technical information needs to be explained in accessible terms: "When we deal with climate-related issues, we try to use language that people can understand. Technical information may be accurate, but if it is not explained simply, it is unlikely to be useful to our listeners" (ER1).

The convergence between farmers' accounts and the radio professional's testimony points to the importance of linguistic mediation. The use of Emakhuwa facilitates proximity, but comprehension also depends on clarity, examples and the explanation of concepts.

Proximity is also expressed through the circulation of experiences. One farmer observed: "On the radio, we talk about what we do in our village; others listen and also start doing the same thing. That is good" (EA4). The testimony suggests that radio may facilitate the sharing of experiences between communities. It does not, however, make it possible to conclude that all farmers participate regularly in programming or that their experiences are systematically incorporated into editorial decisions.

- *Mediation of Technical Information and Understanding of Risks*

Participants identified a gap between specialised information and the conditions required for its comprehension. One technician acknowledged: "Sometimes we receive information from the meteorological service, but we do not know how to explain it so that farmers can understand" (ET1). Another stressed that "meteorological information needs to be interpreted according to local conditions. It is not enough to transmit the forecast; it is necessary to explain its meaning and the possible consequences for agricultural activities" (ET2).

From the radio professionals' perspective, the difficulty was described as a process of interpretation: "When we receive technical information, we first need to understand what it means before transmitting it. It is not always easy to turn certain terms into an explanation that farmers can understand. That is our struggle" (ER4). These testimonies show that risk communication involves shared responsibilities: technicians need to provide contextualised information, and radio professionals need to interpret it without compromising accuracy.

The advance timing of messages was also highlighted. One farmer stated: "Sometimes we receive information too late. If we know in advance that a dangerous situation is coming, we can protect our belongings and organise our work better" (EA20). Timely communication is therefore considered important so that recipients can assess the situation and consider preventive measures. The data do not, however, make it possible to measure the regularity or actual advance notice of all warnings broadcast by the station.

- *Community Participation and the Circulation of Local Knowledge*

The testimonies indicate that radio may function as a space for expression and the circulation of experiences. A radio professional considered that "listener participation is important because it allows us to understand the concerns that exist in communities. People should not be seen only as recipients of messages, but also as participants in the communication process" (ER3).

Farmers also identified the possibility of putting questions to technicians through the radio. One participant stated: "We do not always have the opportunity to speak with technicians. The radio helps us pass on our questions and bring answers back to the community. But some of them respond in Portuguese" (EA13). The excerpt simultaneously demonstrates a potential for mediation and a linguistic difficulty that may persist in communication between farmers and specialists.

The diversity of voices was also raised. One woman farmer argued: "It would be important for the radio to give space to women who work in the fields, because we also have experiences and know the difficulties we go through" (EA19). This testimony draws attention to inequalities of expression that may exist within communities themselves.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/26nov635

Participation should not be considered homogeneous: gender, social position and access to public spaces may influence who is able to intervene.

The relationship between local knowledge and technical information was described by one farmer in the following terms: “We cannot depend only on what we hear. We also have our own knowledge of the land, but information from technicians helps us understand certain changes better” (EA22).

A technician acknowledged that “farmers have knowledge built through their experience with the land and environmental conditions. Technical information can complement this knowledge, provided that there is dialogue and understandable communication” (ET3). These accounts converge in valuing complementarity between forms of knowledge, without assuming that one replaces the other.

- *Technical, Institutional and Communication-Related Limitations*

Participants identified constraints that affect the continuity and quality of communication. A radio professional stated: “The regular production of programmes depends on working conditions, equipment and available resources. When technical difficulties arise or resources are lacking, communication with communities may also be disrupted” (ER5).

A farmer, in turn, observed: “When we do not have electricity or the radio is not working, we miss some information. Afterwards, we depend on our neighbours to find out what was announced” (EA18).

Regularity was also identified as an important condition: “The radio is important for the community, but it needs to keep providing information regularly. If programmes are broadcast only occasionally during the rainy season, people eventually stop following them” (EA25).

Another participant emphasised the need to specify the area covered by warnings: “Sometimes the radio announces a situation, but we do not know whether that information also applies to our area. It would be good if they explained more clearly which places are affected” (EA16).

The accounts make it possible to distinguish technical limitations, related to equipment, electricity and reception; institutional limitations, associated with resources, organisation and continuity; and communication-related limitations, linked to message clarity, contextualisation, language and timeliness. These dimensions are connected but not equivalent. Together, they show that a radio station’s presence in a territory does not, in itself, ensure that information reaches everyone, is understood or can be used by farmers.

V. DISCUSSION OF FINDINGS

- *From Transmission to Participation: The Scope and Limits of Community Communication*

The findings show that Yuluthi Community Radio’s intervention cannot be understood solely through the existence of information about climate risks. Farmers value the opportunity to share experiences and submit questions to technicians, while professionals recognise the importance of listener participation.

This dimension is close to Freire’s (1983) dialogical conception, according to which communication presupposes recognition of interlocutors as subjects of knowledge. It also converges with Tufte (2017), who situates participation within citizenship, and Manyozo (2017), who draws attention to the power relations that run through development processes.

The convergence between these authors does not erase their different emphases. Freire places the dialogical relationship and shared knowledge production at the centre; Tufte highlights citizens’ capacity to intervene in social change processes; and Manyozo problematises who defines problems and which forms of knowledge are considered legitimate. Testimonies EA13 and EA19 make these issues concrete: radio may bring farmers and technicians closer together, but responses in Portuguese may limit understanding; and women’s participation needs to be considered so that community expression does not reproduce existing inequalities.

Consequently, the data support the existence of participatory potential, but do not justify classifying all the station’s activity as fully horizontal. There is insufficient evidence to claim that farmers control the editorial agenda or systematically intervene in the selection of sources and content. The distinction between an opportunity for expression and actual influence over decisions remains central to interpreting the community-based nature of communication.

- *Language, Proximity and Sociocultural Mediation*

Testimonies EA2 and EA9 show that language and clarity are relevant conditions for comprehension. This finding converges with Onyenankeya and Salawu (2023) and Chikaipa (2023), who highlight the relationship between local languages, cultural affinity and participation in community radio. The use of Emakhuwa may bring messages closer to farmers’ frames of reference and facilitate the expression of their experiences.

Nevertheless, the analysis must take account of the qualification introduced by Chauke and Govenden (2024): language choices may also involve relations of power and exclusion. Moreover, familiarity with a language does not automatically ensure comprehension of technical concepts. Testimony ER1 confirms that professionals recognise the need to explain specialised information. Linguistic mediation therefore requires more than translation: it calls

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for contextualisation, appropriate examples and preservation of technical meaning.

Mangue (2022) helps situate this issue in the Mozambican context by considering the role of community radio in content production and in its relationship with audiences. Sociocultural proximity, however, does not replace information accuracy.

Credibility also depends on source quality, updating, regularity and transparency. The available data make it possible to recognise the importance attributed to language and proximity, but do not support a general conclusion that all the station's messages are considered credible by all farmers.

- *Translation of Technical Information and Risk Communication*

Testimonies ET1, ET2 and ER4 reveal a mediation difficulty between meteorological information and community understanding. This issue is close to Moser (2010), who identifies scientific complexity and the need to adapt messages to different audiences. Although communication about climate change and climate risk communication are not equivalent concepts, both face the challenge of making specialised information intelligible, often marked by uncertainty and different temporal and spatial scales.

The IPCC framework (2022) makes it possible to understand risk as the interaction between hazard, exposure and vulnerability. For farmers, a forecast acquires practical meaning only when they can relate it to the territory, period and activities potentially affected. A message needs to distinguish forecasts, warnings and recommendations, avoiding the presentation of a meteorological estimate as a guarantee that an event will occur or as sufficient agricultural guidance.

The WMO (2023) and UNDRR (2017) reinforce the importance of integrated early warning systems, in which communication connects technical information with opportunities for preparedness and response. Testimony EA20 highlights the importance of advance notice, but does not make it possible to assess the overall performance of the warning system or the regularity of messages.

Radio may form part of last-mile communication, but it does not replace the institutions responsible for monitoring, forecasting and technical assessment. Its contribution depends on the quality of the information received, the ability to contextualise it and coordination with the relevant services.

- *Local Knowledge, Adaptation and Limits of Inference*

Testimonies EA22 and ET3 indicate that participants recognise complementarity between agricultural experience and technical information. This interpretation converges with Manyozo (2017), in valuing knowledge produced by communities, and with literature on agricultural adaptation in Africa, which recommends taking local conditions into account when integrating different forms of knowledge. Farmers' experience should not be treated as a mere illustration of a technical explanation; it constitutes a situated way of interpreting the environment. At the same time, it should not be idealised as sufficient to anticipate every phenomenon.

Folke (2016) broadens the discussion through the concept of socio-ecological resilience, associated with learning and the capacity to reorganise in response to disturbances. Information may constitute a resource for learning, but it is not sufficient to demonstrate adaptation or resilience. The adoption of practices depends on material resources, economic conditions, access to means of production and the suitability of recommendations.

Thus, the findings support the relevance of knowledge circulation, but do not demonstrate that radio has increased productivity, reduced losses or measurably improved adaptive capacity.

- *Institutional, Technical and Communication-Related Constraints*

The limitations described by ER5, EA18, EA25 and EA16 show that communication depends on conditions that go beyond the quality of an isolated message. Equipment, electricity, coverage, human resources, training, access to sources and regularity condition continuity of activity. Mangue (2022) and Jambe (2023) help explain that community radio stations operate under institutional and economic constraints that may affect content production and sustainability.

The analysis makes it possible to distinguish three levels. Technical limitations affect broadcasting and reception; institutional limitations concern resources, organisation and continuity; and communication-related limitations concern clarity, territorial contextualisation, linguistic appropriateness and timeliness. Testimony EA16, for example, shows that a general announcement of a phenomenon may not enable listeners to identify whether their locality is included. Risk communication should, whenever the available information allows, specify the area, period, nature of the phenomenon and recommended measures.

In summary, Yuluthi Community Radio performs a potentially relevant informational, linguistic and sociocultural mediation function. Its contribution lies in the possibility of bringing technical information closer to farmers' experiences, creating opportunities for expression and facilitating the circulation of knowledge.

However, the reach of this function depends on message accuracy and clarity, regularity, staff preparation, institutional resources and effective audience participation. The station does not produce meteorological forecasts, nor does it independently ensure risk management or agricultural outcomes.

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VI. CONCLUSIONS AND RECOMMENDATIONS

This research sought to analyse the role of Yuluthi Community Radio in communicating climate risks to farmers in Mogovolas District. Using a qualitative approach and a case study design, it examined the communication practices described by participants, the ways in which farmers interpret information and the factors that condition the station's intervention.

In response to the research question, the study concludes that Yuluthi Community Radio performs an informational, linguistic and sociocultural mediation function. Its proximity to communities and use of Emakhuwa may facilitate the circulation and comprehension of messages, while spaces for expression and sharing make it possible to bring agricultural experiences and technical information closer together. The station's role is therefore not limited to transmission: it also includes the possibility of contextualising information and establishing relationships between farmers, communication professionals and technicians.

Regarding the first specific objective, the data demonstrate the importance of communication practices related to risks affecting agricultural activity, but show that their relevance depends on the clarity, contextualisation and regularity of messages. The mere transmission of technical information does not guarantee that recipients understand the phenomenon, the area covered or the possible implications for their activities.

Regarding the second objective, the accounts reveal that farmers interpret information through their experiences, the knowledge developed through their relationship with the land and the concrete conditions of production. The use of Emakhuwa and the explanation of specialised terms improve accessibility, but information becomes more useful when connected with decisions such as land preparation, sowing and the protection of people and property. Farmers should therefore be recognised as interlocutors and producers of knowledge, not merely as recipients.

With regard to the third objective, sociocultural potentialities were identified, particularly proximity, language and the circulation of experiences, alongside technical, institutional and communication-related constraints. The availability of equipment and electricity, continuity of broadcasts, staff training, access to credible sources and the territorial contextualisation of messages condition the station's capacity to intervene.

The findings do not make it possible to claim that the station's activity has directly increased productivity, reduced losses or demonstrably improved farmers' adaptive capacity. The study focused on communication practices, perceptions and experiences, not on measuring causal effects on agricultural production or the overall effectiveness of warning systems. This distinction is essential to avoid attributing to the radio outcomes that also depend on economic, environmental, institutional and social factors.

Based on the findings, it is recommended that Yuluthi Community Radio strengthen the clarity and contextualisation of messages, use Emakhuwa and explain technical terms without compromising accuracy. Whenever possible, warnings should identify the phenomenon, period and areas covered, and distinguish forecasts, warnings and recommendations. Training for radio professionals in risk communication, interpretation of meteorological information, source verification and radio production is also recommended.

Coordination between the radio station, local agricultural services and institutions responsible for producing meteorological and climate information should be strengthened. Such collaboration may facilitate the timely circulation of information and its translation into comprehensible formats. The station's management and supporting institutions should also seek to ensure the technical and material conditions needed for greater continuity of broadcasts.

The participation of farmers' associations and different community groups, including women, should be expanded in identifying information needs, presenting experiences and discussing messages. Participation should go beyond occasional opportunities to speak and create conditions for farmers' contributions to be considered in topic selection and communication evaluation.

From a scientific perspective, comparative studies of community radio stations in different contexts and longitudinal research could deepen understanding of the relationship between information circulation, message interpretation and agricultural decisions. Such studies could also distinguish immediate communication effects from broader outcomes, such as changes in practices, reduced losses or adaptation, which require their own indicators and research designs.

Finally, the conclusions should be read in light of the study's limitations: one station, one district and farmers belonging to three associations. Partial reliance on participants' accounts also requires interpretative caution.

The main contribution lies in a contextualised understanding of how a community radio station may mediate information about climate risks, bringing technical knowledge and local experiences closer together without confusing this function with a guarantee of prevention or agricultural outcomes.

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