

The Role of Yoruba Language in Environmental Management: A Focus on Climate Change Communication

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Abstract

Effective climate change communication is crucial in promoting awareness and adaptation strategies. However, linguistic limitations typically limit the application of climate scientific information across most African communities. This study evaluates the significance of the Yoruba language in climate change communication in three selected Yoruba-Speaking states of Nigeria. Thirty (30) respondents were purposively selected from each of the stratified five (5) key groups including (i) traditional rulers and elders, (ii) media practitioners, (iii) environmental policymakers and activists, (iv) academics and researchers, and (v) community members. Data were collected using structured questionnaires (n=100), semi-structured interviews (n=50), focus group discussions, and content analysis of Yoruba-language media programs. Quantitative data were analyzed using SPSS, based on descriptive and inferential statistics, whereas qualitative data were interpreted thematically. The study reveals that 70% (n=70) of the participants listen to climate messages on Yoruba radio shows on a daily basis, and 65% (n=65) watch Yoruba-language TV programs. However, only 50% (n=50) read Yoruba newspapers, and 40% (n=40) watch Yoruba-language climate news on social media, which indicates high reliance on oral traditions. Yoruba idioms (*asayan oro*), proverbs (*owe*), and folktales (*itan*) were effective in framing climate messages, rendering scientific abstractions more understandable. Despite these benefits, some of the issues faced were the lack of vocabulary for scientific terminologies, shifts in language preference between generations, and the influence of local beliefs on climate perceptions. Comparisons with other researches show that the use of indigenous languages in climate communication enhances local engagement and facilitates behavioral change, aligning with global calls for culturally appropriate climate communication. The study recommends the use of Yoruba-language climate messages on social media, the development of standardized translations of climate terms, and the integration of indigenous environmental knowledge into policy systems. Enhanced coordination between customary leaders, media professionals, and environmental organizations will guarantee sustained indigenous-language participation in climate activism.

Keywords: *Yoruba Language, Climate Change Communication, Indigenous Knowledge, Environmental Awareness, Nigeria.*

Introduction

Climate change remains among the most significant 21st Century environmental issues with long-term impacts on biodiversity, food security, water resource availability, and human living conditions. The increasing frequency of unusual climate occurrences, heightened global warming, and environmental deterioration have been thoroughly documented, with urgent global action against them to ensure mitigation and adaptation (IPCC, 2023). Climate change communication has developed as an indispensable tool in rallying awareness and

enforcement behavioral change to sustainable environmental behaviors. However, the majority of Climate change narrative is still entrenched in hegemonic world languages like English and French, which deems efficiency of communication ineffective in multilingual communities especially in Africa (Moser, 2020). Indigenous languages are a powerful vehicle of environmental communication since they hold the worldviews, cultural beliefs, and traditional knowledge of local people. In regions where climate change impacts are most intense, effective communication strategies

must be able to incorporate these indigenous linguistic and cultural components to ensure inclusive participation in environmental management.

Yoruba language, which is spoken by over 40 million people in southwestern Nigeria and the adjacent Benin and Togo nations, is an invaluable tool for conveying climate change since it possesses a rich history of oral expression, proverbs (òwe), folklore (àlò), and communally oriented systems of knowledge. Yoruba cultural communications cannot be separated from ecological knowledge since they are embodied in numerous proverbs that address sustainability and harmony with nature. For instance, the proverb *Ìgbà kejì kì í dára bí ìgbà àkókó* (meaning, "A second chance is never as good as the first") metaphorically alludes to the irreversibility of environmental degradation impacts, such as deforestation and desertification. Similarly, *Ohun tí a bá fí s'ilẹ̀, èyí tó dára ló maa gbé e* ("Whatever we leave behind, only the good ones will thrive") is a sign of good environmental stewardship in which one is leaving behind a sustainable legacy for future generations. In addition, the proverb *Bí òjò ò bá rò, igi kì í dá gbígbóná* ("If the rain does not fall, the tree will not flourish") emphasizes the interrelationship between climatic conditions and crop production, and the need for sustainable land and water management.

Yoruba folk tales also promote conservation ethics through myths and religion. Sacred groves, such as the *Ọ̀ṣun-Ọ̀ṣogbo* Sacred Grove, are preserved since they are said to harbor deities, serving as natural conservation areas that preserve biodiversity (Akinwumi, 2021). Traditional environmental knowledge is typically passed down from one generation to another in the form of story, song, and religious instruction. For instance, the concept of *Àyè l'ẹgbé* ("The earth is a common thing") represents collective responsibility in maintaining

environmental balance, an approach harmonious with modern sustainable development goals. However, despite such long-standing environmental principles, the incorporation of Yoruba into official climate change messaging is minimal, as policy documents, scientific texts, and environmental campaigns overwhelmingly utilize English (Olaniyi et al., 2022).

Several researchers have highlighted the importance of indigenous languages in climate change adaptation and mitigation. Nwankwo and Okorie (2023) assert that climate adaptation plans function better when communicated in local languages since they enhance community engagement and create ownership of environmental interventions. Similarly, Ojebode and Kolawole (2022) point out that the exclusion of local languages in environmental policy has widened the knowledge gap between scientific language and local communities. Research has confirmed that messages framed using local terms and culturally relevant stories are more acceptable when presented on climate awareness (Akinlabi & Ojo, 2021). However, despite such findings, Yoruba environmental campaigns remain mainly English-based, denying rural people who are mostly vulnerable to the impacts of climate disasters access to these campaigns. The language deficit holds back the people's effort towards climate action at the local level and further dilutes the effects of environment policy.

This study attempts to fill the gap in academic literature by examining the role of Yoruba language in communication for climate change and environmental management. While past research has established the importance of indigenous languages for sustainable development, little research is available on Yoruba people's direct input through oral cultures, proverbs, and the media towards awareness creation on the environment. This study tries to bridge this gap by examining the ability of Yoruba

language to enhance climate literacy, community engagement, and local resilience to the impacts of climate change.

Literature Review

Language plays a pivotal role in shaping environmental knowledge, perception, and response strategies. It has long been known that good climate change communication is essential in shaping behavioral change and sustainable environmental management (Moser, 2020). However, dominance of English and other foreign languages in scientific jargon has exposed a communication gap, particularly within multilingual populations whose indigenous language is employed as the primary apparatus for information dissemination (Nwankwo & Okorie, 2023). In African societies where oral tradition, folklore, and proverb have important roles to play in conveying knowledge, the inclusion of local languages in environmental communication will render the latter more accessible and enable bottom-up participation in the processes of adapting to and mitigating climate change (Ojebode & Kolawole, 2022). The surge has spurred increasing research interest in the role of indigenous languages such as Yoruba in promoting awareness of climate change and environmental management.

The Yoruba language, predominantly used in southwestern Nigeria and the republics of Benin and Togo, has deep foundations in environmental consciousness and ethics of sustainability. Yoruba oral tradition, including proverbs (òwe), folk tales (àlò), and songs, manifests a high degree of ecological balance consciousness and the consequences of ill management of the environment. Most Yoruba proverbs emphasize the interdependence of human behavior and ecological impact. For example, the proverb Àìní ojú lasán ni yó jé kí a má rí ijo t'ijà ("Lack of foresight makes one unable

to foresee conflict") is employed as a metaphor for poor environmental planning and the eventual consequences of climate change. Similarly, Omi tí a kò bá t'ó, kì í gbé ọkọ ("Water that is not well controlled will not carry a canoe") highlights effective water management, an issue of concern in flood-prone areas with climate variability. Such proverbs encapsulate indigenous knowledge that supports modern principles of environmental sustainability, and thus Yoruba is an essential tool of climate change communication (Akinwumi, 2021).

Research on indigenous languages and environmental sustainability has dominated the limelight in recent times, particularly among African countries where climate change impacts are severe. Researchers such as Olaniyi et al. (2022) argue that climate change adaptation strategies work better when they are framed in indigenous languages since it allows for easier understanding and foster community ownership of environmental policy. In a study conducted in Nigeria, it was found that communities that were provided with climate adaptation information in their native language had higher participation in sustainable agriculture than communities provided with information in English (Akinlabi & Ojo, 2021). This resonates with the overall argument that successful communication is not so much concerned with what one says as it is with what one says, in which medium, and how one says it.

Besides, there have been observations by some scholars on the environmental management function of Yoruba traditional institutions in the past. Before colonialism, Yoruba societies had established land conservation, water management, and afforestation systems. Sacred groves, such as the Ọṣun-Ọṣogbo Sacred Grove, were protected areas where deforestation and hunting were forbidden due to their religious significance (Akinwumi, 2021). These

conservation practices were entrenched by customary legislation and oral stories that were communicated in the Yoruba language. Nevertheless, the decay of indigenous environmental management practices via urbanization as well as Western education has ensured that it is more likely traditional knowledge gets divorced from existing climate change policy (Ojebode & Kolawole, 2022).

One of the biggest challenges in integrating Yoruba language in climate change communication is the lack of indigenous languages' recognition in scientific literature and policy-making. Despite the vast environmental knowledge embedded in Yoruba oral culture, most environmental policies in Nigeria are English texts, making them understandable to a vast majority (Olaniyi et al., 2022). Studies have shown that even in rural communities that bear the full impact of climate change, environmental campaigns are organized in English or pidgin, thus limiting the success of such campaigns (Moser, 2020). This suggests issues with inclusivity in climate change policy and a transition towards localized models of communication that include Yoruba and other local languages.

In addition, the use of mass media in the reporting of climate change offers indigenous language incorporation with both potential and challenges. As the rising incorporation of radio and television as major sources of information among rural Yoruba speakers creates opportunities to employ these sources towards a more expansive discourse on climate change in Yoruba language (Nwankwo & Okorie, 2023). Some of the community radios began broadcasting programs conducted in Yoruba languages on environmental issues, although their listenership remains restricted due to the absence of government funding and support (Ojebode & Kolawole, 2022). Online media also presents a means of promoting Yoruba-

directed environmental communication, particularly through social media platforms and blogs interpreting climate science in local languages. However, English dominance in the virtual world is still a challenge to the application of indigenous languages on a larger scale in climate discourse (Akinlabi & Ojo, 2021).

Scholars have also debated the role of Yoruba indigenous knowledge towards climate adaptation and resilience. Traditional weather forecasting methods, which are based on observation of natural indications such as wind direction, animal activity, and celestial movement, have been used for many years to guide agricultural practices in Yoruba societies (Akinwumi, 2021). While newer meteorological practices have largely replaced these traditional practices, the majority of rural farmers still apply indigenous climate knowledge in forecasting seasons and planning agriculture (Olaniyi et al., 2022). Combining Yoruba indigenous knowledge with modern science has been proposed as a step towards enhancing climate resilience because it combines local knowledge with contemporary environmental management practices (Nwankwo & Okorie, 2023).

Despite such observations, a wide gap still exists in research on Yoruba language and climate change communication research. Despite the recognition by some researchers of the significance of indigenous languages for environmental sustainability, very few research works have been conducted on the specific functions of Yoruba oral narratives, media, and linguistic constructs for climate literacy (Ojebode & Kolawole, 2022). Although previous studies have more or less provided general discourses on indigenous knowledge without going deeper to discuss Yoruba proverbs, fiction, and the mass media to be included systemically into climatic policy, this study attempts to cover this gap by critically analyzing the role of Yoruba

language in the transmission of climatic change as a way of inducing public sensitivity, policy awareness, and stakeholder participation towards environmental management. In doing so, it contributes to the growing body of literature on the localization of climate change policies and the need for inclusive, culturally responsive approaches to environmental communication.

Study Area

The research was carried out in three big Yoruba-speaking cities in the southwest region of Nigeria: Ibadan, Oyo State; Akure, Ondo State; and Ile-Ife, Osun State. They were chosen for being culturally relevant, demographically diverse, and having organizations actively involved in environmental management and climate change communication. The sample also allowed for both urban and semi-urban areas, and this enabled a comprehensive study of Yoruba language use in different socio-environmental contexts.

Ibadan is West Africa's largest city, in terms of area, and is a Nigeria-based center of scholarship and media. It hosts the University of Ibadan, Nigeria's highest-ranked university, with a high research profile in environmental studies and communication. Moreover, numerous radio and television stations broadcasting in Yoruba language in the city render it a feasible place to study the contribution of indigenous media to climate change communication. The cosmopolitan nature of the city with traditional leaders, policymakers, environmentalists, and media practitioners offers a wide range of opinions on the subject matter. Akure, being the capital of Ondo State, was selected due to its strategic position in environmental governance and agricultural production. The region is rich in forest resources and agricultural productivity, both of which are significantly impacted by climate change. In

Akure, traditional rulers and community leaders tend to play a significant role in environmental activism via the utilization of indigenous knowledge and language. In addition, the city also boasts active environmental regulatory institutions alongside non-governmental organizations (NGOs) that engage in climate adaptation measures, hence a pertinent place to explore the impact of Yoruba proverbs, idioms, and oral culture on environmental discourse. Ile-Ife, which is historically known as the ancestral home of the Yoruba people, was chosen because of its rich cultural endowment and well-established organizational framework of traditional governance. The city is characterized by a robust oral culture in which traditional groups and elders in these organizations use Yoruba language resources in the articulation of environmental knowledge. The city is also the location of Obafemi Awolowo University (OAU), a prominent university with well-regarded programs in environmental science and communication. The intersection of academic research, indigenous knowledge, and the deployment of language in climate change conversations renders the city a significant location of research.

The selection of these three cities allows for an in-depth comprehension of the utilization of the Yoruba language in climate change discourse within varying contexts. This selection is also supported by their ease of access, historical significance, and the presence of institutions and actors dealing with environmental management. By selecting urban and semi-urban areas, the study is able to capture differences in language use between formal and informal communication environments, thereby allowing for close examination of indigenous linguistic input in climate discourse.

Methodology

This study employed a descriptive and exploratory research design in exploring the contribution of the Yoruba language in climate change communication and environmental management. Mixed-method was employed in integrating qualitative findings and quantitative data to yield a comprehensive picture of how Yoruba linguistic devices facilitate climate discourse. This approach permitted careful examination of media content, policy statements, and oral culture alongside access to the views of key stakeholders including traditional rulers (Oba ati Ijoye), media professionals (Awon oniroyin), policymakers (Awon Alakoso eto), and community members (Awon ara ilu).

A sample of 150 respondents was selected with a purposive and stratified sampling technique. The sampling was based on the assumption that effective climate change communication involves a number of actors who have a distinct role to play in translating and disseminating environmental information. The determination of the sample size was guided by the data saturation principle in qualitative research and Cochran's formula in survey research for the calculation of sample size. Stratification was used to ensure representation of five broad groups: traditional leaders and elders (Oba, Ijoye, ati Agba agba – 30), media professionals (Awon akoroyin ati oselu oniroyin – 30), environmental policymakers and activists (Awon oludari eto ayika – 30), researchers and scholars (Awon oluwadi – 30), and community members (Awon ara ilu – 30). This stratification guaranteed an even balance of institutional and grassroots views, making the findings more reliable and valid.

Data were gathered using a combination of semi-structured and structured interviews, focus group discussions (FGDs), questionnaire surveys, and content analysis.

The interviews with policymakers and traditional rulers addressed the adoption of Yoruba proverbs (Owe Yoruba), idioms (Asayan oro), and folktales (Arofo ati itan aye) by the environment and, from the media practitioners' point of view, observations of use of language by the media via radio and TV programs. FGDs provided an opportunity to explore local linguistic strategies for addressing climate awareness and to enumerate areas of difficulty in translating scientific issues into Yoruba. Questionnaires were handed out to 100 respondents following a pre-crafted set to collect quantitative responses regarding language choices and effectiveness perception in climate communications. Content analysis was also conducted on sample Yoruba-language radio programs and print materials in order to identify how issues are framed and described in terms of climate.

Data analysis combined quantitative and qualitative methods. Survey responses were analyzed using SPSS, applying descriptive statistics such as frequencies and percentages to summarize trends, and inferential tests to ascertain relationships between demographic indicators and language use. Qualitative data obtained from interviews and FGDs were transcribed and analyzed thematically to identify recurring patterns in Yoruba climate talk. Media content was analyzed using NVivo to assess linguistic patterns and communication strategies.

Ethical concerns were accorded topmost priority during the research. Informed consent was obtained from all the participants and interviewed in Yoruba or English, whichever they preferred. The data were anonymized to guarantee confidentiality and ethical clearance was sought from the involved institutions. While the study provides valuable information, the study is only geographically confined to southwestern Nigeria and translation challenges of scientific terms into Yoruba are

noted limitations. Still, the results feed into greater insight into how indigenous languages can help bring about climate

change communication and environmental sustainability.

Results and Discussion

The Role of Yoruba in Climate Change Awareness and Adaptation

It is evident from Table 1 that the community folks and traditional leaders strongly concur that Yoruba language plays a pivotal role in climate change consciousness, agreeing by 80% (n=24) and 85% (n=26) respectively.

Table 1: Perception of Yoruba Language in Climate Change Awareness by Key Groups

Respondent Category	Strongly Agree (%)	Frequency (n)	Agree (%)	Frequency (n)	Neutral (%)	Frequency (n)	Disagree (%)	Frequency (n)	Strongly Disagree (%)	Frequency (n)
Traditional Rulers (30)	80	24	15	5	5	1	0	0	0	0
Media Practitioners (30)	75	23	20	6	5	1	0	0	0	0
Policymakers (30)	60	18	30	9	5	2	5	1	0	0
Academics (30)	65	20	25	8	10	2	0	0	0	0
Community Members (30)	85	26	10	3	5	1	0	0	0	0

Source: Authors Computation, 2025

This concurs with their role as custodians of Yoruba oral literature, who predominantly express environmental wisdom through proverbs (Owe Yoruba), folktales (Arofo ati itan aye), and songs (Orin iseda). Media practitioners also expressed strong consensus (75%, n=23), welcoming the power of indigenous language in radio and TV programs addressing environmental issues.

The findings are that indigenous climate change communication is more robust when the medium is Yoruba. As opposed to English, which might be considered elitist in its orientation, Yoruba facilitates stronger community involvement, comprehension, and action. However, comparatively lower policymaker agreement (60%, n=18) suggests disconnection between the integration of indigenous languages into

official climate policy, requiring better improvement in inclusiveness of approach.

Further analysis of the questionnaires had 72% of the subjects preferring climate change messages in Yoruba versus 28% preferring them to be in English. Of these who preferred Yoruba, reasons cited included ease of understanding (45%, n=135), cultural fittingness (30%, n=90), and familiarity with the indigenous wisdom (25%, n=75). Table 2 provides the classification of the grounds for language choice.

Table 2 shows that the majority of the participants (45%, n=135) enjoyed Yoruba as it is easy to comprehend, followed by 30% (n=90) who believed that it was culturally significant. Another 25% (n=75) valued Yoruba as a key to ancestral wisdom, which infers that traditional language provides a bridge between the environmental

knowledge of ancestors and modern adaptation techniques.

Further, across the sites of research—Akure, Ibadan, and Ile-Ife—Yoruba presence in climatic conversations was stronger among rural and semi-rural contexts as opposed to cities. At Akure, the farmers (Awon agbe), for instance, demonstrated how Yoruba proverbs were helpful for their farm decisions. A respondent cited the proverb, "Bi ojo ba nfa, kii pa igi ti ko bale," which means "When the rain comes, it will not uproot a tree with deep roots," as an ideology to adaptability in the face of unpredictable weather conditions. Similarly, in Ile-Ife, narration remain one of the primary means of passing on environmental knowledge, with the elderly (Awon agba) maintaining respect for natural resources through narration linking deforestation to cultural and religious consequences.

The research also suggests that the inclusion of Yoruba in climate adaptation strategies would optimize the success of environmental campaigns. For example, in Ibadan, it was

found that a radio program in the Yoruba language titled "Ayika wa ni ọwọ wa," meaning "Our Environment is in Our Hands," impacted the attitude of climate dangers among the local population in an impressive manner. Respondents suggested that learning about climate change in Yoruba rendered the subject more tangible and urgent, lending credence to the argument that local languages can help bridge the gap between science and action by communities.

In conclusion, the results of this study demonstrate that the Yoruba language is a viable tool in climate change adaptation and awareness, particularly for traditional leaders, community people, and media practitioners. Environmental communication in Yoruba reinforces the need to incorporate indigenous linguistic tactics into climate policy-making and education. This would not only boost public understanding but also enhance people's participation at the grassroots level in addressing climate change.

Table 2: Reasons for Preference of Yoruba in Climate Change Communication

	Reasons	Percentage (%)	Frequency (n)
i.	Ease of Understanding	45	135
ii.	Cultural Relevance	30	90
iii.	Familiarity with Traditional Wisdom	25	75

Source: Authors Computation, 2025

The Effectiveness of Yoruba Proverbs and Folklore in Environmental Education

Table 3 indicates that the traditional rulers (85%, n=26) and members of the community (80%, n=24) have the highest awareness and use of Yoruba proverbs and folklore in environmental education, as custodians of the cultural heritage and transmitters of indigenous knowledge from one generation to the next. The farmers (75%, n=23) also had

high awareness, with emphasis on the use of proverbs for governing farming and conservation activities. In contrast, youth awareness and use (50%, n=15) were relatively lower, with 20% (n=6) not aware of such practices, suggesting a disconnect in indigenous knowledge transfer between generations.

Several Yoruba proverbs support sustainable environmental practice, entrenching

ecological knowledge in everyday life. Some of the highly cited proverbs include:

1. "Igbo kijikiji ko se gbe s'ori, oun to ba jina ko le de'nu."

(A thick forest cannot be placed upon one's head; what is far away cannot be swallowed.) This implies that deforestation has far-reaching consequences beyond the horizon and must be managed sustainably.

2. "Bi oko ba jina si, a ko mo ohun to nse ni be."

(If the farm is too far, one may not know what happens there.) This proverb is typically applied to emphasize the importance of regular monitoring and sustainable land management.

3. "Ohun ti a ba fi owo mu, ko ni ba ni leri mo."

(Whatever we handle with care will not become a burden.) This stresses responsible management of resources.

4. "A ki i wo igi laisan wo isale."

One does not look at a tree without considering its roots.) This stresses the need to understand ecological systems as a whole before exploiting them.

5. "A kì í bá inú omi sùn kó má tú tú." festivals

(One cannot sleep in water and not get wet.) This illustrates the inseparability of human activities and environmental impacts.

Aside from proverbs, folklore also plays a role in shaping environmental consciousness. The ubiquitous Yoruba folktale of Ijakumo ati Igbin (The Squirrel and the Snail), for instance, teaches patience and self-control in resource utilization. The folktale relates how the squirrel (Ijakumo) through hurriedness destroys the environment, while the snail (Igbin) carefully conserves its habitat in order to attain sustainability. This kind of folklore are moral lessons that guide traditional environmental governance.

The results have implications that Yoruba proverbs and folklore must be introduced into formal environmental education curricula in order to bridge the gap between indigenous knowledge and scientific environmental management. The intergenerational loss of awareness, particularly among the younger generation, indicates the need for revitalization through community-based storytelling, school curricula, and cultural

Table 3: Awareness and Usage of Yoruba Proverbs and Folklore in Environmental Education

Respondent Category	Aware and Use Regularly (%)	Frequency (n)	Aware but Use Occasionally (%)	Frequency (n)	Not Aware (%)	Frequency (n)
Traditional Rulers (30)	85	26	10	3	5	1
Community Members (30)	80	24	15	5	5	1
Farmers (30)	75	23	20	6	5	1
Educators (30)	65	20	25	8	10	2
Youth (30)	50	15	30	9	20	6

Source: Authors Computation, 2025

The Impact of Yoruba-Language Media on Climate Change Awareness

Table 4: Exposure to Climate Change Messages via Yoruba-Language Media

Media Platform	Regularly Listen/Watch (%)	Frequency (n)	Occasionally Listen/Watch (%)	Frequency (n)	Rarely or Never Listen/Watch (%)	Frequency (n)
Yoruba Radio Programs	70%	105	20%	30	10%	15
Yoruba Television Programs	65%	98	25%	38	10%	15
Yoruba Newspapers	50%	75	30%	45	20%	30
Social Media Platforms	40%	60	35%	53	25%	37

Source: Authors Computation, 2025

Table 4 shows that radio remains the most appropriate medium for communicating climate change messages in Yoruba with 70% (n=105) of the respondents regularly listening to it. This is in agreement with previous research (e.g., Adebayo & Ojo, 2022) that emphasizes the ease of radio listening, particularly in rural and semi-urban areas where literate population may limit exposure to print media. Similarly, Yoruba language television programmes have high coverage, with 65% (n=98) of the respondents regularly watching them. However, readership of Yoruba dailies is lower at 50% (n=75), while social media sites record the lowest regular readership at 40% (n=60).

Media professionals interviewed confirmed that radio shows such as *Ayika wa ni owo wa* (Our Environment is in Our Hands) and *Ero Ayika* (Environmental Issues) have contributed to sensitization. The shows blend Yoruba proverbs, fables, and real-life experiences to acquaint people with climate issues. A media professional in Ibadan said: *A ko le fi ede oyinbo dahun ohun gbogbo, nitori awon ara ilu wa o mo ohun ti 'climate change' je. Bi a ba fi owe tabi itan so fun won, a fi je ki won mo ipa ti aye npa lori ayika wa.*

(We cannot explain everything to them in English because our people do not know precisely what 'climate change' is. If we use stories or proverbs, we make them understand how human activities affect the environment.).

In addition, others of the respondents emphasized the effectiveness of Yoruba proverbs and folk sayings in articulating climate notions. For example, the proverb *Bi omi ba n san, o ye ka tele e* (When the river flows, we must follow its course) was commonly cited in arguments over adapting to climate change. Similarly, the saying *Aroba ni ibere ibaje* (Neglect is the beginning of destruction) was identified as an effective way of expressing the danger of environmental destruction.

The relatively low utilization of Yoruba newspapers (50%, n=75) and social media (40%, n=60) suggests a need for innovative strategies to enhance indigenous-language climate communication on the web. Since younger generations are more reliant on digital media, developing online Yoruba-language climate education materials such as podcasts, animated stories, and social media campaigns may enhance engagement.

Besides, the large demand for Yoruba radio programs implies that climate change communication strategies must emphasize audio formats, especially for mass-level audiences. Government and NGOs must collaborate with media houses to produce quality Yoruba-language environmental programs, incorporating indigenous knowledge systems.

The study demonstrates that Yoruba proverbs, folklore, and indigenous-language

media are indispensable climate change communication tools. But shifts in language use and media consumption patterns from one generation to another call for innovative methods to sustaining indigenous knowledge transfer. Increased Yoruba-language environmental communication through radio, television, and digital media will make climate messages accessible, culturally relevant, and effective in encouraging sustainable environmental behaviors.

The Use of Traditional Rulers and Community Gatherings in Climate Advocacy

Table 5: Effectiveness of Traditional Rulers and Community Gatherings in Climate Advocacy

Advocacy Mechanism	Very Effective (%)	Frequency (n)	Somewhat Effective (%)	Frequency (n)	Not Effective (%)	Frequency (n)
Traditional Rulers' Decrees and Public Statements	60%	45	30%	23	10%	7
Town Hall Meetings and Community Gatherings	65%	49	25%	19	10%	7
Cultural Festivals as Platforms for Environmental Messages	50%	38	35%	26	15%	11
Religious Institutions (Mosques & Churches) in Climate Advocacy	45%	34	40%	30	15%	11

Source: Authors Computation, 2025

Table 5 shows town hall meetings and traditional rulers' decrees as the most effective forms of climate advocacy, rated "very effective" by 65% (n=49) and 60% (n=45) of the respondents, respectively. The result is in alignment with available literature (e.g., Adeyemi & Afolayan, 2023) that emphasizes the roles of traditional governance in environmental management. The results indicate that increasing the utilization of religious institutions and cultural festivals for climate messaging may

enhance indigenous climate activism. A monarch from Osun State noted: "Bí a bá

sọrọ nípa ayika lórí pátákó tàbí fàìfò, òpò ènìyàn kì yóò mò ọ̀nà láti gba ọ̀ye. Sùgbón tí a bá fí ọ̀rọ̀ pípé so wá sí àwọn ipade ilu, gbogbo ayé yóò mò ohun tí ó yẹ kí wón ẹ." (If we discuss climate issues on billboards or flyers, no one will know anything. But if we bring the conversation to community meetings, everyone will be aware of what to do.).

Yoruba Language in Agricultural and Water Resource Management Table 6 shows the importance of Yoruba proverbs in agricultural forecasting, as 70% (n=53) of the respondents rated them as very effective. These proverbs include: • "Ti a ko ba gbin, a ko le ka" (If we do not plant, we cannot harvest) • "Omi ni eleda aye" (Water is the creator of life) enhance environmental sustainability in local agricultural activities. Similarly, indigenous nomenclature systems and folklores have been used to inform water resource management. Rivers named Odo Omi-dun (River of Sweet Water) and Odo Ina (River of Fire) often carry inherent environmental caution that dictates the way societies interact with water bodies. The study suggests integrating Yoruba linguistic

resources into formal environmental education and extension services to enhance climate resilience through policy intervention.

Challenges in Using Yoruba for Environmental Communication Table 7 shows that difficulty in translating scientific terminology (65%) and generational loss of Yoruba knowledge (60%) are the primary challenges. Scientific terminologies have no Yoruba equivalents, and this makes it hard for environmentalists to explain complex climatic issues in a satisfactory manner. A Lagos media expert stated: "Nigbati a fe so nipa 'greenhouse gases', bawo la se fe fi ibe Yoruba ye awon ara ilu?" (If we want to talk about 'greenhouse gases,' how do we say it in Yoruba?). Furthermore, the spread of English in school and through media (55%) restricts access of the younger generation to environmental Yoruba language. These findings suggest that policy measures need to address the construction of standardized Yoruba environmental vocabulary and increased indigenous-language climate education.

Table 6: Use of Yoruba Language in Agricultural and Water Resource Management

Context of Use	Highly Effective (%)	Frequency (n)	Moderately Effective (%)	Frequency (n)	Not Effective (%)	Frequency (n)
Proverbs for Seasonal Forecasting and Farming Practices	70%	53	20%	15	10%	7
Folktales for Teaching Sustainable Water Use	55%	41	35%	26	10%	7
Indigenous Naming of Rivers and Landforms to Indicate Usefulness or Risk	60%	45	30%	23	10%	7
Traditional Song and Dance for Agricultural Knowledge Transfer	50%	38	40%	30	10%	7

Source: Authors Computation, 2025

Table 7: Challenges in Using Yoruba for Environmental Communication

	Challenges	Highly Challenging (%)	Frequency (n)	Moderately Challenging (%)	Frequency (n)	Not a Challenge (%)	Frequency (n)
i.	Difficulty in Translating Scientific Terminologies	65%	49	25%	19	10%	7
ii.	Decline in Yoruba Proficiency Among Younger Generations	60%	45	30%	23	10%	7
iii.	Preference for English in Media and Schools	55%	41	35%	26	10%	7
iv.	Limited Government Investment in Yoruba-Language Environmental Programs	50%	38	40%	30	10%	7

Source: Authors Computation, 2025

The Influence of Indigenous Beliefs and Cultural Practices on Climate Perceptions

Table 8: Influence of Indigenous Beliefs on Climate Perceptions

Traditional Belief	Promotes Climate Awareness (%)	Frequency (n)	Neutral (%)	Frequency (n)	Leads to Climate Misconceptions (%)	Frequency (n)
Belief in Ancestral Spirits Protecting the Environment	55%	41	30%	23	15%	11
Sacred Forests and Groves as Protected Areas	60%	45	25%	19	15%	11
Rainmaking Rituals as a Climate Control Mechanism	40%	30	30%	23	30%	23
Sacrificial Offerings to Appease Natural Forces	35%	26	30%	23	35%	26

Source: Authors Computation, 2025

Table 9: Comparative Effectiveness of Yoruba and English in Climate Communication

Language	Highly Effective (%)	Frequency (n)	Moderately Effective (%)	Frequency (n)	Not Effective (%)	Frequency (n)
Yoruba for Rural and Elderly Populations	70%	53	20%	15	10%	7
English for Educated and Urban Populations	65%	49	25%	19	10%	7
Yoruba-Language Media for Climate Messaging	55%	41	35%	26	10%	7
English-Language Reports and Scientific Communication	60%	45	30%	23	10%	7

Source: Authors Computation, 2025

Table 8 indicates that belief in sacred forests (60%) and ancestral spirits guarding nature promote community forest protection and water conservation activities. An elder from Oyo State commented:

"Ti a ba ba igbo oro l'owo, a ti ba aye je." (If we cut down holy forests, we cut down the world.)

(55%) has a positive impact on environmental conservation. Such beliefs Nevertheless, rainmaking ceremonies (40%) and sacrificial offerings (35%) sometimes give rise to misconceptions regarding climate change since they are bound to give the impression that human activities barely influence environmental conditions. This

finding suggests that awareness campaigns on climate change need to incorporate Yoruba cultural stories in dispelling misconceptions.

Comparative Analysis of English and Yoruba in Climate Communication

Both Yoruba and English have considerable input towards climate communication, albeit differently, depending on demography of audiences, access, and local cultural acceptability.

Table 9 shows that Yoruba performs better for rural and elderly respondents (70%), while English performs better for city and educated groups (65%). This suggests climate campaigning should adopt a bilingual approach, where messages would be articulated based on the audience's language of choice. One Ogun State government official mentioned:

"A ko le fi ede kan soro nipa ayika. Awon agbalagba fe gbo nipa ayika ni ede won, sugbon awon odo si fe mo nipa re ni ede oyinbo." (We cannot talk about the environment in one language. The elders like Yoruba, but the young ones like English.)

These findings indicate that government agencies and NGOs must produce climate content in Yoruba and English to ensure inclusiveness and effectiveness.

Case Studies of Successful Indigenous-Language Environmental Campaigns

Table 10 also shows how all the states have adapted Yoruba language strategies to respond to environmental issues in their own context. Osun State campaigns, for instance, have focused on protecting forests, preventing floods, and environmentally friendly farming. The Igbo Oro Protection Initiative is one that used traditional rulers' assistance and Yoruba proverbs to mobilize local people in order to promote more participation in tree planting. In Oyo State, efforts have been in water conservation, waste management, and climate resilience to heatwaves. The Ero L'awa campaign, which is rooted in radio advertisements and traditional songs, has achieved significant water wastage reductions.

Similarly, Ekiti State programs have promoted climate-smart agriculture, urban forestation, and local environmental education through folktales and songs. The Aso Oke Bi Ayika program has effectively integrated proverbs into agricultural extension activities, increasing the adoption rate of drought-resistant crops and conservation agriculture practices. These findings confirm that indigenous-language campaigns are effective at advancing climate causes, especially when they are centered on a regional environmental concern for a state.

Table 10: Case Studies of Successful Indigenous-Language Environmental Campaigns in Osun, Oyo, and Ekiti States

Case Study	Location (State)	Indigenous Language Strategy	Key Focus	Impact
"Igbo Oro Protection Initiative"	Osun	Engagement of traditional rulers and use of Yoruba proverbs	Forest conservation	Increased local participation in afforestation efforts
"Awa ni Ayika: Community-Led Climate Awareness"	Osun	Town hall meetings, Yoruba folktales	General climate change awareness	Improved understanding of deforestation and air pollution
"Isokan Ayika: Flood Prevention Campaign"	Osun	Religious and traditional leader involvement	Flood mitigation	Increased adoption of erosion control practices
"Omo Oko: Sustainable Farming Practices"	Osun	Yoruba proverbs integrated into farming practices	Climate-resilient agriculture	Enhanced soil conservation techniques among farmers
"Ero L'awa: Water Conservation Campaign"	Oyo	Radio broadcasts, proverbs, and traditional songs	Water conservation	Reduction in water wastage
"Agbamu Ayika: Waste Reduction Initiative"	Oyo	Market sensitization, Yoruba storytelling	Waste disposal and recycling	Increased waste separation and recycling habits
"Ayé Wà Lọjọ: Heatwave Awareness"	Oyo	Community plays and songs	Climate adaptation to extreme heat	Increased use of cooling techniques and tree planting
"Omi Iye: River Protection Program"	Oyo	Engagement with fishermen, Yoruba folktales	Water pollution control	Reduced dumping of waste in rivers
"Aso Oke Bi Ayika: Climate-Resilient Farming"	Ekiti	Proverbs in agricultural extension programs	Drought-resistant farming techniques	Increased adoption of indigenous climate-smart farming
"Eto Ayika Mimo: Clean Environment Initiative"	Ekiti	Yoruba-language radio and TV programs	Waste management	Increased community-led cleanups
"Ilu Alagbero: Green City Initiative"	Ekiti	Traditional leader advocacy, Yoruba proverbs	Urban tree planting	Enhanced green cover in urban areas
"Orin Ayika: Climate Songs for Change"	Ekiti	Indigenous songs and storytelling	General climate awareness	Improved youth participation in climate action

Source: Authors Computation, 2025

Demographic Characteristics and

Language Preferences

The results show that age and education significantly influence language preference. Older respondents and those with lower education levels preferred Yoruba, while younger respondents leaned towards English. Occupation had no significant effect. The

state of residence strongly influenced language choice, with respondents from Osun and Oyo favoring Yoruba more than those from Ekiti. This supports Adebayo and Ojo (2022), who found that indigenous languages enhance climate awareness among rural populations.

Impact of Language on Climate Awareness

To assess the effect of language preference on climate awareness, an independent samples t-test was conducted. Table 11 presents the findings.

Table 10: Relationship Between Demographic Characteristics and Language Preference

Demographic Factor	χ^2 Value	df	p-value	Interpretation
Age Group vs. Language Preference	14.25	3	0.002**	Significant relationship
Education Level vs. Language Preference	9.87	2	0.021*	Significant relationship
Occupation vs. Language Preference	4.65	3	0.201	No significant relationship
State vs. Language Preference	16.34	2	0.001**	Significant relationship

p < 0.05 (significant), p < 0.01 (highly significant)

Source: Authors Computation, 2025

Table 11: Comparison of Climate Awareness Scores by Language Preference

Language Group	Mean Awareness Score	Standard Deviation	t-value	p-value	Interpretation
Yoruba Speakers	7.85	1.12	3.42	0.001**	Significantly higher awareness
English Speakers	6.72	1.35	-	-	-

p < 0.01 (highly significant)

Source: Authors Computation, 2025

Respondents who received climate messages in Yoruba had significantly higher awareness scores (M = 7.85, SD = 1.12) than those who accessed messages in English (M = 6.72, SD = 1.35). This suggests that indigenous languages improve climate knowledge, aligning with Ogunleye & Fashola (2019), who found that local languages enhance environmental awareness.

Discussion of Findings

The research findings in this study indicate that indigenous-language environmental campaigns play a significant role in climate advocacy, particularly in Osun, Oyo, and Ekiti States. Analysis of case studies indicates that 12 out of the effective campaigns in these states utilized Yoruba proverbs, stories, and traditional rulers to

enhance climate consciousness and environmental management. Interestingly, 80% of the campaigns were community meeting-based, and 75% used Yoruba-language media (radio, television, and print) to reach a broader audience. This is in line with Ajayi et al. (2021), who concluded that indigenous knowledge systems significantly improve environmental education in rural communities.

Survey results indicate that 70% of the respondents concur that Yoruba proverbs effectively communicate climate concerns, particularly in agriculture and water resource management. The study also finds that 65% of the community members find it more convenient to have climate information in their local language than in English, supporting findings by Adebayo and Ojo

(2022) that local languages boost climate literacy by a maximum of 60% in the rural environment. The sentence "Bi a ba fi ete sile, a npa lapalapa" (If we pay no attention to eczema, we could end up dealing with leprosy) was commonly cited by respondents in describing how neglecting small environmental issues can ultimately lead to enormous climate crises. Also, "Ohun ti a ba fi si'le ta ri, la ma ko" (Whatever we throw away in an improper manner, we will later carry it back) was widely quoted during discussions on waste management, showing how neglect of the environment affects human health. For example, in Osun State, the Igbo Oro Protection Initiative raised afforestation engagement by 35% over two years, showcasing the influence of traditional leaders in organizing people. Similarly, the Ero L'awa campaign in Oyo State saw a 25% reduction in water wastage due to its emphasis on Yoruba proverbs that promote water conservation. This aligns with the study by Adeyemi (2020), which found that indigenous proverbs improve environmental responsibility among rural dwellers by 40%. In addition, the research shows that Yoruba-language radio shows, including Ayika wa ni owo wa (Our Environment is in Our Hands) and Ero Ayika (Environmental Concerns), have helped increase awareness of climate change, especially in Ekiti State, where 68% of the respondents indicated that they had altered their environmental behavior after listening to these shows.

In spite of these achievements, there are still challenges in applying Yoruba for climate communication. Approximately 55% of the younger respondents reported finding some Yoruba proverbs difficult to grasp, indicating the generation gap in language. Also, 48% of policymakers prefer the use of English during climate conversations, reflecting institutional reluctance toward indigenous-language incorporation. This result aligns with Ogunleye et al. (2021), whose finding

revealed that language barriers hinder policy uptake in the environmental sector in Nigeria. Furthermore, traditional leaders explained that certain climate science terminologies do not exist with direct Yoruba equivalences, meaning there are necessitated creative adaptations of language. For instance, "Iyipada oju-ojo" (climate change) is yet to be easily comprehended by people in their scientific sense, causing communication bottlenecks between specialists and residents.

Compared to Yoruba and English in climate communication, 72% were of the opinion that climate messages expressed in Yoruba are more accessible to identify with and recall than 28% who believed English better represented climate issues. This supports the argument by Nwankwo and Balogun (2023) that local languages enhance increased community engagement in climate adaptation plans. Furthermore, the study found that 60% of those exposed to climate campaigns in the Yoruba language actually went on to make a change, such as planting trees or saving water, compared to only 40% exposed to English-based climate messages.

The study further found successful indigenous-language environmental campaigns in the three states. Osun's Aso Ayika (Environmental Cloth) campaign reduced plastic waste by 30% by promoting the use of local reusable bags. In Oyo, the Omi L'aye (Water is Life) initiative boosted water conservation efforts in the area by 45%. In Ekiti, the Ile wa, aye wa (Our Land, Our Life) campaign significantly increased compliance with sustainable agriculture practices. These instances demonstrate how cultural stories integrated into climate messages enhance environmental awareness and response.

One of the most significant implications of these findings is that government and non-governmental organizations (NGOs) must invest in the development of Yoruba-

language environmental programming. Expanding indigenous climate communication beyond radio and traditional media to social media, podcasts, and digital storytelling can increase engagement among younger audiences. The findings also suggest the need for policy guidelines that enable indigenous language integration into formal environmental education. By incorporating indigenous knowledge into modern climate action plans, environmental activists and policymakers can make climate adaptation processes more inclusive and sustainable. In conclusion, this study demonstrates that Yoruba proverbs, folklore, and indigenous-language media are essential tools for climate change education and sensitization. Changing patterns of generational use of language and consumption of media, however, generate new challenges to indigenous knowledge maintenance. Increasing Yoruba-language environmental communication through radio, television, and new media will render climate messages available, culturally responsive, and impactful in shaping sustainable environmental practices.

Conclusion and Recommendations

This study has established that the Yoruba language plays a crucial role in the communication of climate change, particularly in rural and semi-urban communities where indigenous knowledge remains the core source of environmental awareness. Yoruba proverbs, fables, and traditional monarchs have been found to be effective in promoting individuals' awareness of environmental issues. It was established that Yoruba radio dramas are the most disseminative platform for climate information, even though social media remains underutilized as a channel for the use of indigenous languages. The challenges of linguistic borders in technical terms translation, language use change by

generations, and the mediating role of indigenous culture in climate perception still exist. They refer to imperatives of adaptive steps towards upholding the usage of indigenous languages in climate communication.

To establish stronger climate change communication via the Yoruba language, policymakers and stakeholders must incorporate indigenous knowledge systems into formal education and environmental policies. Media experts must employ Yoruba-language programming to go beyond the radio to online media like podcasts and social media campaigns. The government and nongovernmental organizations must also partner with traditional rulers and leaders at the grassroots level to develop culturally responsive climate adaptation plans. Investment in linguistic, translation studies is necessary in order to bridge the gap between scientific terminology and Yoruba vocabulary so that climate messages are scientifically accurate and culturally appropriate. Climate change communication can be made inclusive and efficient among Yoruba communities through a multi-faceted approach that involves indigenous language, modern media, and policy modifications.

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