

Decolonising Climate Change Communication Language for Sustainable Environmental Management in Plateau State, Nigeria's Jos North Local Government Area

Damar Jennifer Akor¹, Dr. Emmanuel Yusuf Damar²

¹Institute of Strategic and Development Communication, Nasarawa State University Keffi

²World Health Organization. Bauchi State, Nigeria

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ABSTRACT

The effects that climate change is having on current and future generations are multifaceted, with new repercussions constantly surfacing that put human and environmental health at a low point. Due to their oblivious environmental practices, rural areas are more susceptible to climate effects. The language used in communication is examined to determine how effective it is at guiding people through this natural slip to promote understanding of climate causes, mitigation, and adaptation. To encourage environmental awareness and action, it also becomes important to record indigenous languages. In Jos North, Plateau State, Nigeria, the study examines decolonising the Language of Climate Communication for Sustainable Environmental Management. With a foundation in Participatory Communication Theory, the study employed a combination of questionnaires and Focused Group Discussions (FGD) to gather data. Seven wards in the research area were used to distribute a total of 70 questionnaires to 70 responders. Sixty-seven completed surveys were validly returned for constructive analysis. Simple percentages were used to analyse the data and record it in tables. Thirty-five people participated in FDG, five of them represented each of the seven wards. Respondents stressed the importance of using indigenous languages to teach them about the causes, effects, mitigation strategies, and adaptation measures of climate change. The dissemination of information tends to resonate with them, instilling a sense of identity and inspiring them to take action. The study came to the conclusion that to increase participation in climate discussions, rural people must be included, and the best communication channel should be used. To guarantee complete inclusivity in promoting environmental sustainability, it was suggested that both governmental and non-governmental actors urgently need to enhance climate change communication in indigenous languages, employing visual, aural, and graphic arts, whenever possible, with cultural signs.

Keywords: Environment, Culture, Indigenous Languages, Climate Change, and Communication.

BACKGROUND

We are in a position as a community to promote the development and sustainability of our environment for present and future generations. By achieving the aforementioned, we become aware of climate change, one of the greatest hazards to human health and the environment. Compared to the pre-industrial age, our Earth is already 1 degree Celsius warmer today. If global warming continues at its current pace, we expect the temperature to rise by 1.5 degrees Celsius between 2030 and 2050 (IPCC, 2019). The health and physical well-being of the world, its inhabitants, animals, plants, the environment, and other planets are severely harmed by this quantum shift in temperature. Extreme weather events like heatwaves and droughts, along with wildfires and rising sea levels, hurt the health of the ecosystem as a whole. Due to ecological changes, climate change also indirectly affects human health. For example, it can lead to food and water insecurity and the spread of infectious diseases that are sensitive to climate change, which greatly increases the risk of animal-to-human disease transmission, including coronavirus, Zika virus, Ebola, and avian influenza (United Nations Environmental Programme, 2020). In support of this, Amoo, Hambali, and Amoo (2013) contend that to completely comprehend the gravity of climate change and environmental concerns, one must know how they impact society and the natural environment, as well as the necessities for human survival, such as energy, transportation, water, wildlife,

ecosystems, and basic health. Given that drought can lead to decreased food production and that rising sea levels can worsen flooding, disease transmission, and infrastructure destruction, this illustrates a clear relationship between climate change and its effects (Damar and Bwakan, 2024).

Nigeria's location in Africa's sub-Saharan region, where temperatures are rising and rainfall patterns are unpredictable, makes it one of the most susceptible to the consequences of climate change. Heavy rainfall in September 2024 caused severe flooding in several northeastern Nigerian states, including Adamawa and Maiduguri, resulting in food insecurity, infrastructure damage, thousands of displaced people, and a lack of health care. Due to growing desertification brought on by climate change, Nigeria loses about 350,000 hectares of land annually, making the effects of these floods extremely noticeable (Punch, 2024). Desertification of the soil increases the risk of flooding in the impacted areas during periods of high rainfall. Prolonged drought alters the soil's composition, decreasing its ability to absorb water and increasing the likelihood of flooding. Surface erosion produces sediment, increasing the density of water and intensifying the impact of flash floods (UNDRR, 2024).

Floods in Jos North were worsened by climate change and human-caused environmental patterns in 2022 and 2024, resulting in the displacement of people and the submersion of farmlands in the settlements of Angwan Rogo, Bauchi Road, and Naraguta (Daily Trust, 2023). Given the negative effects of climate change and the susceptibility of communities in Jos North, it is critical to examine the communication channels for climate change to make a crucial first step in developing an environmentally conscious community capable of adapting to and mitigating climate changes. According to McGahey and Lumosi (2018), various stakeholder groups' responses to climate change adaptation are increasingly influenced by appropriate and effective communication about the issue. By enabling people and communities to comprehend the issue, increase awareness, promote discussion, and affect behavioural change, effective communication can aid in closing the action gap on climate change. Inadequate use of indigenous languages hinders learning and creates assimilation gaps among the people. Presenting information in a language they don't understand exacerbates this situation. The most often spoken languages in the research area are Hausa, Afizere, Berom, and Anaguta.

The study thus examines how effectively decolonising the language of climate change communication can imprint the proper understanding, attitudes, environmental habits, and behaviours in response to changing climatic patterns and their accompanying difficulties.

CONCEPTUAL CLARIFICATIONS

Climate Change

According to the World Health Organisation (2024), climate change has a variety of effects on people's lives and health. It can undo decades of advancements in global health and threatens the fundamental components of good health, including clean air, safe drinking water, a wholesome food supply, and safer housing. In support of this, the UNFCCC's Conference of the Parties declares that one of the most significant issues of our day is climate change. In addition to the natural climate variability seen over similar time periods, climate change is characterised as a shift in the climate that is either directly or indirectly caused by human activity and modifies the composition of the global atmosphere (United Nations Statistics Division, 2016).

The growing effects of climate change have brought it to the forefront of international discussion. Our modern society intricately weaves greenhouse gases (GHGs) into its production and consumption processes, major contributors to climate change. This results in elevated carbon monoxide (CO) concentrations in the atmosphere, which hinder heat transfer from the planet. This process has the effect of raising the temperature and humidity, which drastically alters the patterns of the climate. Every year, 1.2 million people die from respiratory and cardiovascular illnesses as a result of high temperatures that increase ozone and other pollutants (WHO, 2016).

Climate Change Communication

Deciphering climate change and its associated impacts on humans, the natural cycle, and the environment makes it important to identify efficient channels for spreading climate awareness, adaptation, resilience, and mitigation

measures. Ekeka and Adikuru (2022) assert that choices concerning the location, timing, and mode of message delivery might be just as significant as choices regarding the content of the message. This implies that figuring out the most effective and suitable way to reach the largest audience is crucial.

Reducing losses and establishing a breathing atmosphere depend heavily on the effective communication of underlying climate messages. Enquiries about what and how will become stepping stones for awareness-raising and adaptation. Information plays a crucial role in this situation, helping to combat ignorance and fostering a proactive psychological awakening among the enlightened. According to the National Environmental, Economic, and Development Study (NEEDS) report, a lack of knowledge is one of the difficulties in developing climate change policies in Nigeria. It emphasised that current data must be logical and easily accessible to be used for climate change analysis and information dissemination, as well as to enhance our understanding of the climate issue (Olatumile and Tunde-Awe, 2019). An effective climate change communication model can be used to increase public knowledge and promote different connections about how the environment functions in accordance with preserving and repairing nature's ecosystem. Such knowledge becomes crucial for handling the numerous socioeconomic issues brought on by the effects of climate change.

Decolonising Climate Change Communication Language

When it comes to efforts to mitigate and adapt to climate change, indigenous languages are crucial. Accessible climate communication is essential as the globe struggles with the environmental damage and socioeconomic decline brought on by climate change (SAIS, 2023). To communicate climatic information inclusively, language is an essential component of culture that can be internalised. Here, the use of indigenous languages for communication enables those who struggle with English to understand the meaning. In a survey of 166 nations worldwide, the United Nations Conference on Trade and Development (UNCTAD) states that Latin American and African nations are the "least prepared" to use cutting-edge production techniques, which can help stakeholders socialise their local climate solutions into globally applicable and contextually adapted inclusive innovation strategies through inclusive communication (2023).

Because climate issues and causes are frequently communicated in English, there is a knowledge gap in Nigeria. According to Comfort Onyaga, more than 70% of Nigeria's subsistence farmers, who are most affected by climate change do not have access to enough knowledge to help them adapt to the phenomenon and minimise its effects. These resources aren't available in native languages, even when they do. When they receive information in English, they often adopt a pessimistic perspective (Izau Africa, 2023). This phenomenon is a sad reality in the study area because the language medium used to disseminate the information causes rural communities to lose useful message content about how the environment can be purposefully managed in terms of waste management, harmful gases, health risks, and intentional healthy attitudes. This trend emphasises how important it is to localise climate change content to increase awareness and create inclusive climate action plans. Mbah and Ayegba (2013) reiterate that the main obstacle to effective management of the human environment is the improper transmission of information. A significant portion of people still do not understand how their actions harm the natural cycle. Poor waste management is one example of this; during rainy seasons, some residents of the community dispose of their trash in water drainage systems, believing that the rain will carry it away. However, they are unaware that this action has the long-term consequence of obstructing water channels, which inevitably results in flooding when rainfall patterns increase. A victory for environmental sustainability is the ongoing dissemination of appropriate waste management in a language they can understand.

The primary function of language is to transmit meaning from one individual to another. However, language does not exist independently of culture. As an essential component of culture, language is located within the sociocultural community (Olatumile and Tunde-Awe, 2019). This characteristic makes it an excellent tool for spreading awareness of climate change issues. The effectiveness of communication is crucial to humankind's ability to adapt and mitigate the effects of climate change (Mawa, 2023).

Framework of Theory

The theoretical underpinnings of participatory communication theory serve as the foundation for this

investigation. This approach aims to encourage community members to actively engage in discussions about their concerns, which inevitably leads to improvements in societal issues. Paulo Freire introduced the philosophy of participatory communication in 1983. Freire is a well-known academic whose critical pedagogy, as encapsulated in his book, "Pedagogy of the Oppressed," greatly aided in the development of this philosophy, which development specialists and scholars now recognise for its effectiveness in carrying out development projects. His notion of participation is predicated on the belief that people are capable of critical thought, conceptualisation, decision-making, alternative selection, and the deliberate planning of social change.

Freire also highlights two-way communication or debate as a technique to reach an agreement on sustainable development efforts. Additionally, according to Mishra (2017), participatory communication theory places a strong emphasis on two-way communication practices and principles, which have shifted increasingly towards a horizontal two-way model that enables direct and active interaction between people through consultation and dialogue with the aid of the media. The two main development-based tenets of the idea are communication and involvement. This suggests that participation is based on the belief that ordinary people can conceive and enact the changes they envision to transform society and the environment. They can do this by conversing and participating in empowering processes that are embodied in their communication patterns for behavioural change, as well as by sharing information, knowledge, commitment, trust, and the proper attitudes towards sustainable production and environmental management. The theory provides a suitable platform for participatory communication, enabling members to comprehend the complexities of climate change causes and implications.

Outline of the Problem

The environment is still severely impacted by poor environmental management and ongoing bad human behaviour, demonstrating that people are not fully aware of how habitual attitudes harm the ecosystem. According to Mawa (2024), the inability of state and non-state actors to effectively explain climate change is why many people, particularly those in rural areas, do not take mitigation and adaptation measures seriously, which hinders their understanding of environmental sustainability. Language is the primary means of communicating climate issues, and the type of language used significantly impacts how climate information is produced and understood by the audience. When the language used to communicate climate change information is mostly foreign to the community, it obscures the idea that knowledge equals power. Olatumile and Tunde-Awe (2019) state that the majority of radio and television shows, as well as newspapers, typically broadcast environmental messages in foreign languages. In addition to making the messaging seem foreign and elite-focused, the packaging language causes the intended audience to become disengaged. But as time progresses, radio and television programs are incorporating indigenous languages to communicate climate change issues. But more needs to be done to boost communal acceptance and understanding.

Therefore, to effectively communicate information and encourage deliberate climate awareness, mitigation, and adaptation actions in the study area, the study recommends a strong use of indigenous languages for climate change communication.

The Objectives of The Study

The following goals serve as the study's guidelines:

1. The study aims to assess the effectiveness of community members in Jos North, Plateau State, Nigeria, in communicating the causes, effects, adaptation, and mitigation measures of climate change using indigenous languages.
2. The study aims to integrate indigenous languages into climate change communication by both governmental and non-governmental actors for effective environmental sustainability in Jos North, Plateau State, Nigeria.

RESEARCH QUESTIONS

Finding answers to the following queries is the primary goal of the study:

1. Can community members in Jos North, Plateau State, Nigeria, effectively communicate the causes, effects, adaptation, and mitigation measures of climate change using indigenous languages?
2. For effective environmental sustainability in Jos North, Plateau State, Nigeria, should governmental and non-governmental actors integrate indigenous languages into their communications about climate change?

THE METHODOLOGY OF RESEARCH

The research utilised a mixed-method approach to collect data, which was necessary to accommodate respondents who were illiterate in English. The techniques were applied in Jos North, Plateau State, Nigeria, to evaluate the effectiveness of decolonised language in communicating about climate change and promoting environmental sustainability. Focused group discussions (FGD) and questionnaires were used. Seven of Jos North's fourteen wards Abba Na Shehu, Ali Kazaure, Garba Daho, Gangare, Jenta Adamu, Naraguta "A," and Tudun Wada were used to select the responders at random.

To learn more about the opinions of the community regarding the use of indigenous languages for climate change communication to create healthier environmental spaces for people and crops in Jos North, Plateau State, Nigeria, a Focused Group Discussion (FGD) was conducted with 35 participants, five from each of the wards that were chosen. The study's target population received seventy (70) copies of the questionnaire, which evaluated how well indigenous languages conveyed information on climate change. Sixty-seven (67) of the seventy (70) questionnaires given to the responders were completed properly and returned. One (1) questionnaire was incomplete, and two (2) questionnaires were not returned. Questions and answers were gathered and calculated as a straightforward percentage.

$$\frac{NR}{TR} \times 100$$

Where NR = Number of respondents

TR = Total number of responses

100 = Is the percentage

1 = Is constant

Data Analysis

Table 1: Demographic Data

Age Bracket	Frequency	Percentage (%)
20-29	25	37.3
30-39	27	40.3
40-49	10	14.9
50 and above	5	7.5
Total	67	100
Gender	Frequency	Percentage (%)
Male	39	58.2
Female	28	41.8
Others	0	0

Total	67	100
Educational Background	Frequency	Percentage (%)
NCE	28	41.8
DEGREE	23	34.3
PGDE	16	23.9
Total	67	100

Source: Field Survey, 2024

Analysis of Table 1

According to the age analysis of Table 1, 37.3% of people are between the ages of 20 and 29, 40.3% are between the ages of 30 and 39, 14.9% are between the ages of 40 and 49, and 7.5% are beyond the age of 50. In terms of gender, 41.8% are women, 58.2% are men, and 0% are others. Of those with educational qualifications, 41.8% possess an NCE, 34.3% have a degree, and 23.9% have a PGDE.

Research Question 1: Can community members in Jos North, Plateau State, Nigeria, effectively communicate the causes, effects, adaptation, and mitigation measures of climate change through indigenous languages?

Table 2: The effectiveness of indigenous languages in communicating about climate change.

Responses	Frequency	Percentage (%)
Very Large Extent	40	59.7
Large Extent	20	29.9
Low Extent	5	7.5
Undecided	2	2.9
Total	67	100

Source: Field Survey, 2024.

Analysis of Table 2

According to the data in Table 2, 40 respondents, or 59.7% of the sample size, agreed that indigenous languages are effective when used to communicate climate change issues, causes, impacts, and actions among community members in Jos North, Plateau State, Nigeria, as "Very Large Extent." Twenty respondents, or 29.9% of the sample size, evaluated the effectiveness of indigenous languages in communicating about climate change as "Large Extent"; five respondents, or 7.5% of the sample size, rated it as "Moderate Extent"; and two respondents, or 2.9% of the sample size, were indifferent.

Research Question 2: To effectively promote environmental sustainability in Jos North, Plateau State, Nigeria, should governmental and non-governmental actors integrate indigenous languages into their communications about climate change?

Table 3: Using native languages to communicate about climate change.

Responses	Frequency	Percentage (%)
Yes	58	86.6
No	5	7.5

Undecided	4	5.9
Total	67	100

Source: Field Survey, 2024.

Analysis of Table 3

According to the data in the above table, 58 respondents, or 86.6% of the sample size, agreed that both governmental and non-governmental actors should integrate indigenous languages into climate change communication for effective environmental sustainability in Jos North, Plateau State, Nigeria. Five respondents, or 7.5% of the sample size, appeared to disagree on the location of integrating indigenous languages for climate change communication, while four respondents, or 5.9% of the sample size, expressed no opinion.

DISCUSSION OF FINDINGS

Research questions were developed based on the framework of the questionnaire distributed to study participants to address the problem statement. According to the theory and literature examined in the study, the research questions are given corresponding responses. The results are provided and further examined in accordance with the stated goals of the study.

Research Objective 1: To evaluate how well indigenous languages in Jos North, Plateau State, Nigeria, convey the causes, effects, adaptation, and mitigation strategies of climate change to the local population.

In Jos North, Plateau State, Nigeria, 59.7% of respondents acknowledged that indigenous languages are highly functional in enhancing the communication of climate change messages, giving it a "Very Large Extent" rating when asked if they are effective in communicating climate change issues to community members. When asked how effective indigenous languages are at communicating issues related to climate change, 29.9% of respondents assessed it as "Large Extent," 7.5% as "Low Extent," and 2.9% as "Indifferent." This implies unequivocally that indigenous languages are effective tools that improve community mobilisation. This is consistent with the findings of Okafo and Noah (2014), who found that 98.07% of survey participants believed that the language used to carry out developmental activities that include environmental sustainability is crucial to the project's success. According to 59.7% and 29.9% of the respondents, indigenous languages play a crucial role in improving community members' comprehension and subsequent actions. According to Epelle (2023), accessible communication is essential, given the environmental damage and socioeconomic decline brought by climate change. To greatly encourage beneficial climate activities, it is important that communications about climate adaptation and mitigation be translated into indigenous languages and made accessible to diverse groups.

According to 29 community members who participated in the focused group discussions, discussing climate change in their native tongues foster a sense of ownership, encourages learning coping mechanisms, and teaches the proper attitudes and behaviours that will help preserve their environment, and climate change concepts like the ozone layer, ecosystems, greenhouse gases, and a variety of climatic terminologies that are foreign to them provide a significant obstacle, particularly when the means of communication is in a language they do not fully comprehend. Recommending that these be made simpler in native tongues such as Hausa, Afizere, Anaguta, Berom, etc. The result improves their cognitive dispositions and assimilation, which helps them set long-term objectives to create safer, greener environments.

Research Objective 2: To effectively promote environmental sustainability in Jos North, Plateau State, Nigeria, both governmental and non-governmental actors must incorporate indigenous languages into their communications about climate change.

In order to accomplish this goal, research question 2 is essential. 86.6% of respondents agreed, 7.5% disagreed, and 5.9% were undecided when asked if indigenous languages should be used in climate change communication by both governmental and non-governmental entities for successful environmental sustainability. As a result, the

federal and state ministries of the environment must coordinate their efforts to combat climate change by establishing the role of indigenous languages in teaching their citizens—particularly those living in rural areas—about environmental challenges and sustainability. In support of the aforementioned, Oyero (2017) claims that the relationship between language variety and climate action involvement recognises the critical role that language plays in determining how people and communities view, comprehend, and interact with environmental concerns. According to Theresa (2024), identifying and removing language barriers is crucial to advancing inclusive and equitable environmental initiatives that appeal to a variety of demographics and support international efforts to address climate change.

Additionally, adaptation is acknowledged by the United Nations Framework Convention on Climate Change (UNFCCC) as a crucial strategy that nations should employ in order to lessen the effects of climate change. Additionally, this change must be conveyed in an efficient and effective language medium. In the "2050 Long-Term Vision for Nigeria," the Nigerian government, through the Federal Ministry of Environment's Department of Climate Change, acknowledges the necessity of creating efficient adaptation programs to lessen climate change vulnerabilities. In order to accomplish this, the study suggests that all chances to increase climate resilience be investigated while including indigenous languages to facilitate active and successful climate change communication in Jos North, Plateau State, Nigeria.

The Focused Group Discussion participants bemoaned the government's marginalisation of farmers in particular, when it came to climate change intervention initiatives. To avoid drought, taunting their agricultural challenges, the majority of them complained about not receiving accurate information on rainfall patterns to decide when to plant their crops. They added that to ensure that those who do not speak English do not miss out on important information for environmental sustainability, climate change communication should also be distributed in indigenous languages. Non-governmental actors have made an effort to communicate, but they maintain that more work has to be done to ensure human survival and progressive environmental management.

CONCLUSION

In every social setting, knowledge serves as a hub for development and progress, especially within a community of people who collaborate to ensure that the environment in which they live is maintained for the purpose of sustaining life. A deteriorated form becomes apparent where the main idea of environmental sustainability is lost. To keep the lifecycle moving, it is necessary to use a language that people can relate to while discussing climate change issues. Adopting indigenous languages promotes awareness, ownership, and appropriate actions towards environmental sustainability among community members, particularly those living in rural areas who are more susceptible to the effects of climate change. Sustainable development and strengthening our collective response to the climate catastrophe depend on indigenous climate communication based on indigenous-led climate knowledge (Epelle, 2023). Since indigenous languages are ingrained in cultural manifestations that the people identify with, communication in this context should be culturally reflective, which facilitates positive connections to information and increases inclusivity. Other nations in Africa, America, and Asia are recording successes in the indigenization of climate change language, using native languages to increase climate awareness, action, and resilience. A major limitation in this study is the size of its population sample.

Contribution Of The Study

Decolonizing the language of climate change communication has immense benefits that extend beyond the immediate community. This localization impacts indigenous knowledge, acting as a collector of signs and codes that preserve an identity and carry it through a process of growth devoid of indignation and cultural fritter. Here, it stands as a medium in advancing climate change and building the community's resilience, which aligns with SDG 13: Climate Action, one of the Sustainable Development Goals (SDGs) established by the United Nations in 2015. Approaches have been engaged in to indigenize climate language, but a gap still exists in incorporating these indigenous practices and knowledge into prompt actions. The study pragmatically supports ownership of indigenous processes in climate change communication. Further contributions on the decolonization of climate change language are listed below.

- i. It creates a room for inclusivity and access to the information provided. When a group of people find identity in what is being brought forward, it gives a sense of ownership that promotes active engagement and a zeal to create change, no matter how large or small it may seem.
- ii. Indigenous languages that preserve their valued knowledge and cultures aid in creating positive environmental management practices, as it is presented in a medium, they understand. Informing climate change mitigation and adaptation approaches.
- iii. An adoption of indigenous languages for climate change communication creates a space for trust and credibility, especially in communities where local languages are predominant. It empowers them and aligns their thoughts to take collective actions that are practical and directed towards impacting environmental change. This process is not devoid of challenges but is an effective, inclusive, and culturally sensitive channel for climate change communication.

Suggestions

The research offers the following suggestions:

1. To guarantee complete inclusivity in promoting environmental sustainability, the Plateau State government, through the Ministry of Environment, should use audio and visual channels to enhance climate change communication for mitigation and adaptation efforts in indigenous languages.
2. Additionally, appropriate images, symbols, and colours with cultural connotations must be used. People who are unable to read or understand what is being communicated electronically can relate to the images that are provided, which promotes constructive behavioural adjustments.
3. Given their increased vulnerability and susceptibility to the effects of climate change, indigenous populations must be purposefully included in discussions about climate change and community intervention initiatives. However, this does not portray them as defenseless entities; rather, it shows that they are capable of contributing in a meaningful way to the fight against climate challenges.

Implementation Plans

1. To institutionalise mechanisms for the participation of indigenous people in adaptation actions, the Federal Government, through the Ministry of Environment, should adopt policies that are not merely theoretical establishments but rather practical, actionable procedures that are oriented towards indigenous people, as stated in her Adaptation Communication to the United Nations Framework Convention on Climate Change. Since the 2021 adaptation document recognised that more work must be done since indigenous populations have been excluded from climate-related issues, the federal government must take the initiative to include indigenous communities by using language to connect with and support them.
2. To educate and promote climate change discourse, adaptation, and mitigation actions among indigenous communities, as well as to encourage indigenous content that can help address climate challenges, the Ministry of Information and the National Orientation Agency (NOA) need to dust off their books and facilitate more indigenous content in the information airwaves. Nigerian Meteorological Agency (NIMET) can diversify its weather climate messages in various languages especially for rural communities to boost understanding and foster engagement.

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