

## **EFFECTIVE COMMUNICATION FOR CLIMATE CHANGE MITIGATION AND ADAPTATION: A STUDY OF FCT-ABUJA RURAL FARMERS IN NIGERIA**

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### **Abstract**

Effective communication that will enable rural farmers in the Federal Capital Territory Abuja (FCT-Abuja) to adequately understand climate change issues has continued to be a major barrier in mobilizing them for mitigation and adaptation practices. In a study population of predominantly rural farmers in the Dobi community of Gwagwalada Area Council of FCT-Abuja, this study was carried out to provide an understanding of the role of effective communication in climate change mitigation and adaptation. Using Participatory Communication Theory and primary sources of data gathering and analysis methods through Focused Group Discussion and Key Informant Interviews, the study found that climate change communication targeting rural farmers is ineffective because the state and non-state actors rely on the use of English as a language of communication while targeting rural farmers who rely on Indigenous languages as a means of social interaction. The study also found that the use of Indigenous communication strategies is the most appropriate means of climate change communication among the Dobi people because they rely on it as the most acceptable and effective way of communication among themselves. The study established that the lack of community participatory practice in climate change communication results in the rural farmers' poor understanding of the issues. Therefore, the study concluded that the non-involvement of rural farmers in the climate change communication process, and the adoption of English as a language of climate change communication disproportionately affect their understanding of the issues, resulting in poor mitigation and adaptation practices. Hence, the study recommended the active involvement of rural farmers in the communication process and the adoption of local languages for effective climate change communication when targeting rural farmers and population.

**Keywords:** adaptation, climate change, communication, mitigation, rural farmers

### **Background**

Effective communication that will enable rural farmers in the Federal Capital Territory Abuja (FCT-Abuja) to adequately understand climate change issues has continued to be a major barrier in mobilizing farmers for mitigation and adaptation action. This barrier has continued mainly because climate change communication approaches by the state and non-state actors exclude FCT-Abuja rural farmers from actively participating in the communication process including the design and implementation. The challenge persists because the state and non-state actors in their communication intervention targeting rural farmers for mitigation and adaptation action fail to understand that climate change communication is not only about information gathering and dissemination but also the active involvement of the people for discussion and negotiation on problems impacting them for solutions that will better their lives through the communication process.

This underscores the importance of facilitating a communication process that will enable rural farmers to be actively involved in dialogue and negotiation to create consensus among them for sustainable endeavors in pursuit of development issues (Mawa, 2023). This conforms to Mishra (2017), who argues that participatory communication facilitates the active involvement of people in a face-to-face interaction through dialogue on problems impacting them.

Communication processes that enable FCT-Abuja rural farmers to be actively involved in climate change mitigation and adaptation are crucial because they will enable them to understand the issues better, which makes their acceptance of mitigation and adaptation action easier and sustainable. This aligns with Aguda (2024), who points out that the voices of the locals must feature prominently in

climate change communication if we must produce a communication process that will encourage the locals to embrace mitigation and adaptation action.

Communication strategies on climate change mitigation and adaptation targeting FCT-Abuja rural farmers should not only be about information dissemination but also intentional efforts made to understand their intellectual consciousness, environment, and behavioral nature. This will birth community trust, acceptance, and the sustainability of the communication strategies. This aligns with Lorenzoni et al. (2007), who note that in communicating climate change, one needs to understand the target population's intellectual consciousness, their environment, and behavioral nature. Also, Thagard and Findlay (2011), strongly argue that in communicating climate change, it is important to pay attention to people's emotions as that plays a cardinal role in their acceptance of the message and shapes their understanding and actions towards the issues. They maintained that in addressing belief systems that will lead to behavioral change on climate change issues, people's emotions must be carefully handled to achieve results.

Within the context of Dobi community case study, it is safe to say that climate change communication targeting rural farmers should not just be about information dissemination, but rather facilitating a process that enables rural farmers to actively participate in the dialogue and negotiation on how best they can live and interact with their environment. Climate change mitigation and adaptation should be understood and implemented within the local perspective and practices.

It is based on this background that this study investigated the role of effective communication in climate change mitigation and adaptation among rural farmers using the Dobi community in FCT-Abuja, North-Central Nigeria as a case study as its cardinal objective. Insights from the Dobi community will provide a basis for analysis of the role of effective communication in climate change mitigation and adaptation when targeting rural farmers.

## **Theoretical Framework**

This study adopted Participatory Communication Theory as its theoretical framework of analysis. The theory emphasizes the importance of people's participation and their contributions to solutions towards addressing problems affecting them through the communication process (Freire, 1996). Anaeto et al. (2008), note that participatory communication theory makes it possible for knowledge diffusion and facilitates a process for the community members to create homegrown solutions that fit into solving their unique problems and does not give room for the imposition of external readymade solutions on the people.

Mishra (2017), argues that participatory communication theory sees the active involvement of persons in a face-to-face interaction through dialogue on problems impacting them as an effective way of addressing them. Furthermore, Mefalopulos (2008) identified the three elements participatory communication theory is built on:

- a. people are its major priority,
- b. development is understood from the local and Indigenous viewpoints, and
- c. development is about empowering people.

The theory views development from the perspective of people's active participation that empowers them to contribute to solving problems that are impacting them. It is based on the theory support for the active participation of people on issues affecting them through a communication process that informs its adoption as a theoretical framework of analysis.

## **Community-Based Climate Change Communication**

Nye and Rydin (2008), strongly argue that state and non-state actors should develop communication strategies that will improve community and people's understanding of the issues that will encourage them to embrace mitigation and adaptation actions. In a similar discourse, Depoux et al. (2017) point out that the extent to which community will go in addressing climate change is largely dependent on how it is communicated to them. The authors agree that effective communication is fundamental to community understanding of climate change and that every communication ought to achieve three objectives which are:

- a. increase people's understanding and enlightenment,
- b. encourage and make people feel involved, and
- c. persuade people to take action.

Ugba (2024), in a study that examined a community-based climate change communication approach, used the qualitative method of focused group discussion and key informant interviews among 128 rural farmers and communication for adaptation theory. The study found that climate change communication targeting rural communities must adopt a collaborative approach for it to be effective and successful. The study established that state and non-state actors in climate change communication must put in place a collaborative approach that will facilitate community active involvement in awareness raising, education, and capacity building on climate change issues. The study recommended that climate change communication targeting rural communities should identify trusted community members, and train, equip, and facilitate their active participation in the climate change dialogue through a communication process. This approach when implemented will strengthen community climate change literacy, and boost their mobilizing capacity for mitigation and adaptation action.

### **Community-Based Climate Change Mitigation and Adaptation**

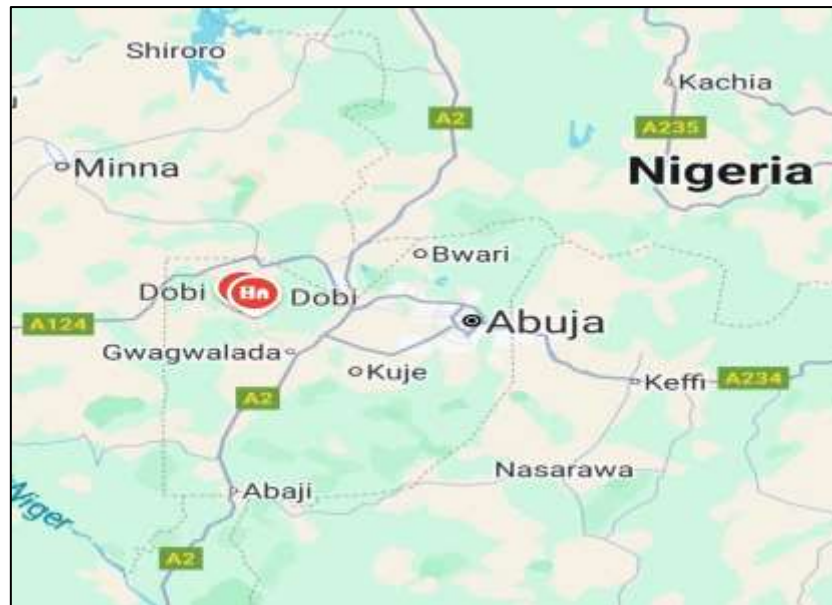
Dauda (2023), in a study that examined the role of Indigenous knowledge in climate change mitigation and adaptation, used qualitative approaches of focused group discussions and key informant interviews and community-based adaptation theory among 96 rural farmers in the Chibiri community of FCT-Abuja. The study found that rural farmers over the years had adopted the use of Indigenous knowledge of crop rotation, improved grazing, and forest protection as their climate change mitigation and adaptation strategies. The study recommended that state and non-state actors should recognize and integrate Indigenous knowledge in climate change mitigation and intervention that targets rural farmers.

Ugwuanyi (2023), who examined rural perspective on climate change adaptation and used the qualitative method of focused group discussions among 24 rural farmers in the Uke Community of Nasarwa State, North-Central Nigeria and community-based adaptation (CBA) theory, found that rural farmers over the years have relied on Indigenous knowledge and communication strategies such as storytelling and community gathering as the best approaches for climate change information sharing, and shifting cultivation and planting of cover crops as their mitigation and adaptation strategies. The study established that community-based adaptation (CBA) allows the community to facilitate a process where they can be actively involved in determining the best adaptation approach and its outcome that will be most suitable in line with the people's needs and environment. This enables each community to design and implement strategies that are best suited to its unique challenges. The study localizes climate change adaptation among vulnerable communities and advocates for local expertise and collaboration in curbing climate change risks. The study recommended that climate change communication targeting rural communities should facilitate a participatory approach that will enable the rural population to have a full understanding of the issues through their active involvement in climate change discourse.

Ugwuanyi's study appears to be the most appealing within the context of community-based climate change adaptation. It offers significant merits in integrating climate change adaptation actions into a community-driven approach that is most relevant to those impacted. However, the study identified limitations, such as expensive to implement, time-consuming in deliberation and negotiation among the target population, and hijacked by the rural elites with a dominant voice while minority groups who are the most impacted are left out of the entire process, often lead to the non-acceptance of the process by those who are excluded.

### **Materials and Methods for the Research**

This study adopted the Dobi community in the Gwagwalada Area Council of Federal Capital Territory (FCT-Abuja), North-Central Nigeria as a case study. The community is predominantly rural with the farmers engaging in subsistence farming, cultivating crops such as maize, yam, and cassava. Qualitative methods involving focused group discussion (FGD) and key informant interviews (KII) were used for data gathering and analysis.



**Figure 1: The Study Area**

### Study Sample

A total of 45 rural farmers participated in this study. Thirty-three rural farmers were purposively selected and divided into three groups of 11 members each for three different FGDs. Also, 12 participants were selected among farmer leaders, agricultural extension officers, local government representatives, and climate change experts for the KII. The FGD participants were Dobi community rural farmers selected based on their knowledge of Indigenous communication approaches for climate change mitigation and adaptation and sustainable agricultural practices. Also, KII participants were selected based on their expertise and knowledge of community-based climate change adaptation and mitigation approaches.

The 45-sample size provided a reasonable number of respondents for the study to explore the significance of effective communication for climate change mitigation and adaptation among rural farmers. Also, FGDs enabled the collective sharing of experiences and knowledge among rural farmers and provided diverse perspectives and insights from group members. It revealed social dynamics in Indigenous knowledge and communication patterns within the community and provided a contextual understanding of local practices and beliefs that contributed significantly to addressing the research objective. The KII provided in-depth insights from experts and offered perspectives and reflections on issues around effective climate change communication and its importance to sustainable traditional agricultural practices.

### Content Area

This study contributes to the understanding of climate change and environmental communication in the development communication field. It also contributes knowledge to the development of effective climate change communication when targeting rural farmers and identifies communication gaps between farmers and policymakers, which hinder effective mitigation and adaptation practices among rural farmers.

### Results and Discussion

While the Dobi community rural farmers studied does not represent the entire FCT-Abuja, it gives insight into a primary understanding of effective communication role in climate change mitigation and adaptation practices among rural farmers.

Total of 30 out of 33 (90%) participants in the FGDs, who are predominantly rural farmers and have over the years relied on Indigenous communication strategies for climate change information, said they have not been able to understand climate change issues from information that have been disseminated from the state and non-state actors. According to them, the use of English as the language of climate change communication by the state and non-state actors does not allow for their understanding of the issues. The rural farmers who are not English literate, said they rely on Hausa and Gbagyi as means of social interaction. Therefore, conveying climate change information to them using English instead of their Indigenous language is noise and not communication.

Moreover, 27 out of 33 (81%) of the FGD participants, who are predominantly rural farmers and do not have English language literacy, said they rely on Indigenous communication approaches such as storytelling and community gathering as the means of receiving and understanding climate change information.

A total of 25 out of 33 (75%) rural farmers who do not have formal education and participated in the FGD said that farmers in the community have relied on Indigenous knowledge handed over to them by their forefathers to interact with and protect their environment. According to them, rural farmers have relied on Indigenous communication approaches such as storytelling and community gatherings to gain knowledge of using Indigenous knowledge of shifting cultivation and crop rotation practices as mitigation strategies for sustainable agricultural practices.

All 33 (100%) rural farmers in FGDs who do not have formal education and rely on Indigenous knowledge systems for climate change information, said the reliance of the state and non-state actors on the mass media for climate change information is ineffective and does not facilitate rural farmers' understanding of the issues, which hinders their motivation for mitigation and adaptation action. According to them, climate change issues are local, and information targeted towards achieving mitigation and adaptation among rural populations should be conveyed using Indigenous languages and communication approaches of storytelling, dance, and elders teaching to enable the locals to understand the issues better. They explained that when the rural farmers actively take part in climate change communication and when the information is disseminated through Indigenous means of communication, each of them will understand what is being said and that will make it easy to mobilize them for adaptation and mitigation practices.

Additionally, 12 out of 12 (100%) participants in the KII, who are community leaders, agricultural extension workers, local government officials, and climate change experts with a good formal education and climate change knowledge, said climate change communication by the state and non-state actors targeting the rural farmers is yet to educate them on the issues. According to them, what the state and non-state actors are doing is providing climate change awareness that has not been translated into making the rural farmers understand what the issues are. According to them, the poor understanding of climate change issues among rural farmers is a result of ineffective communication by the state and non-state actors.

A total of 7 out of 12 (58%) of the KII participants blamed the reliance on prayers by some rural farmers as adaptation and mitigation practices on ineffective communication from the state and non-state actors that are making rural farmers' understanding of the issues difficult, and hampering mitigation and adaptation actions.

Furthermore, 10 from 12 (83%) of the KII participants explained that the exclusion of rural farmers in the climate change communication process and the use of English as the language of communication by the state and non-state actors disregard the Indigenous communication strategies such as storytelling, community and knowledge sharing by the elders adversely affect rural farmers' understanding of climate change issues which impact their motivation for adaptation and mitigation practices.

Some 6 out of 12 (50%) of the KII participants, who are the local council officials the agricultural extension officials, said that climate change communication from state and non-state actors targeting the rural farmers has not been able to effectively educate them on the issue. According to them, the non-usage of native language and non-involvement of the rural farmers in the communication process does not facilitate effective communication that will enable them to understand climate change issues better, which in turn will motivate them to embrace mitigation and adaptation action. For them, the use of local languages and active participation of the rural farmers in the climate change communication process will lead to effective communication that will enable them to understand the issues better and take mitigation and adaptation practices seriously.

Participants' view from the KII, validates the adoption of participatory communication theory as framework of analysis in this study. The theory postulates that communication is beyond information dissemination. Communication should facilitate a process that enables people's active involvement in issues impacting them. People will have a better understanding of issues impacting them when they actively participate in dialogue and decision-making on solutions to issues impacting them through a communication process. Also, rural farmers' views while responding to questions for the FGDs conform to the study's theoretical framework. The farmers explained that their active involvement in issues affecting them through the communication process empowers them to make decisions on how it impacts them and fashion local solutions that address them better. Their active involvement through the communication process facilitates negotiation and dialogue with the farmers, which results in their acceptability and sustainability of intervention targeted at addressing issues impacting them.

## **Conclusion**

This study provides insight into how effective communication will result in the understanding of climate change issues and facilitate mitigation and adaptation action among rural farmers using Dobi, a predominantly rural farming community in FCT-Abuja as a case study. The study established that rural farmers' engagement on issues affecting them through a communication process and the use of Indigenous communication strategies and local languages as the language of communication, enable rural farmers to understand climate change issues that facilitates and strengthens their mitigation and adaptation practices.

Climate change communication strategies by the state and non-state actors targeting rural farmers have not been effective enough to facilitate their understanding of the issues. Also, the non-involvement of the rural farmers in the climate change communication process and the use of English as the language of climate change communication by the state and non-state actors contribute largely to the inability of the rural farmers to understand climate change issues and adversely affect their mitigation and adaptation practices.

The practice of the state and non-state actors of not facilitating the active involvement of rural farmers in the climate change communication process and the use of English as a language of communication disproportionately affect the rural farmers' knowledge of climate change, and that appears to be one of the greatest challenges facing effective climate change communication which result in lack of motivation in adaptation and mitigation practices among rural farmers.

Climate change information dissemination from state and non-state actors only creates awareness and does not facilitate a communication process that will result in the rural farmers' understanding of the issues. This is why the rural farmers rely on Indigenous knowledge in their understanding of climate change issues making them adopt traditional methods of adaptation which are less effective compared to modern methods.

## **Recommendations**

Based on the study findings, the following recommendations are made:

1. The state and non-state actors should discontinue the use of English as the language of climate change communication when targeting rural farmers and populations. Indigenous languages should be used as a means of social interaction to enable the rural population have better understanding of the issues that will motivate them to take up mitigation and adaptation practices.
2. When implementing climate change communication targeting rural farmers, the state and non-state actors should facilitate full farmers' participation in dialogue and negotiation. This will enable farmers to have a better understanding of the issues, build trust among them, and motivate them to embrace mitigation and adaptation practices.
3. The state and non-state actors should ensure that climate change communication targeting rural farmers goes beyond mere information dissemination and awareness creation. It should make intentional efforts to deploy Indigenous communication strategies and languages that will facilitate rural farmers' understanding of the issues.

4. The state and non-state actors should understand that climate change communication is a behavioral change and the communication should be led by communication experts over a long period. That will guarantee success that will result in the rural population understanding the issues that will encourage them to embrace mitigation and adaptation practices.

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