

COULD ACCESS TO WEATHER INFORMATION STRENGTHEN RURAL WOMEN AND YOUTH'S CLIMATE RESILIENCE IN NIGERIA?

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Key Messages

- Rural women are more exposed to climate change threats and risks in the agricultural sector
- Access to weather information could strengthen rural women resilience to climate change
- Rural radio, use of text messages and farmer to farmer contact are major means of sharing farm information among rural women and youths.

EXECUTIVE SUMMARY

The Policy Brief titled "Could Access to Weather Information Strengthen Rural Women and Youth's Climate Resilience in Nigeria?" highlights the critical importance of providing rural women and youth with access to weather information to enhance their resilience to climate change in the agricultural sector. The brief emphasizes that rural women, constituting over 60% of the agricultural labour force in Nigeria, are disproportionately vulnerable to climate change impacts due to limited access to resources and information. Key findings from the document underscore the necessity of empowering rural women and youth with weather information to enable effective planning and adaptation strategies in the face of changing climatic conditions. The use of rural radio, text messages, and farmer-to-farmer communication emerges as crucial channels for disseminating farm information among these vulnerable groups. The brief concludes with recommendations for enhancing access to weather information among rural women and youth, emphasizing the importance of collaboration among relevant organizations and the integration of gender-responsive approaches in all interventions. By addressing these key issues, stakeholders can work towards building the climate resilience of rural communities in Nigeria and promoting sustainable agricultural practices. There is the urgent need to bridge the information gap for rural women and youth, equipping them with the tools and knowledge necessary to navigate the challenges posed by climate change in the agricultural sector.

Introduction

Climate change has continued to exact adverse effects on farmers in Nigeria, especially small scale farmers dominantly residing rural areas. Evidence has shown that rural women comprised over 60% of the agricultural labour force in the rural areas, yet less likely to have access to resources and information in the sector.¹ This inequality in the sector has continued to further heighten the vulnerability of women to climate change effects. Unfortunately, in many rural settings, gender inequality is interwoven with some traditional belief and practices, hence even more difficult to completely eradicate. Coping strategies becomes very important to support the marginalized group in overcoming the challenge. Discriminatory social norms and rules affecting women and girls are at the heart of gender inequality and are slow to change². Similarly, some indices of social exclusion of women are covered up in some cultural practices making it difficult to explicitly deal with them³. Furthermore, women are marginalised in many rural community leaderships, excluding them from discussions and decision-making processes related to climate change.

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2. FAO. (2023). *The status of women in agrifood systems* – Overview. Rome. <https://doi.org/10.4060/cc5060en>
3. Ifeanyi-obi, C. C.1 & Ugorji, E. C. (2020). Effect of social exclusion on climate change adaptation of female arable crop farmers in Abia state, Nigeria. *South African Journal of Agricultural Extension*, 48(1), 55 – 69. <http://dx.doi.org/10.17159/2413-3221/2020/v48n1a526>
4. Department of Climate Change Federal Ministry of Environment (2020) National Action Plan on Gender and Climate Change for Nigeria. www.climatechange.gov.org
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8. Huyer S. (2016). Closing the Gender Gap in Agriculture. *Gender, Technology and Development* 20:105-116
9. International Fund for Agricultural Development, (2001). *Assessment of rural poverty in Western and Central Africa*. IFAD, Palombi, Italy, 111
10. World Health Organisation (2012). Gender, Climate Change and Health. Available from <https://www.who.int/globalchange/GenderClimateChangeHealthfinal.pdf>

Studies have shown that access to information on weather, improved crop varieties, credit facilities are crucial to affective adaptation of women to climate change. Without timely weather information, they may never be able to effectively plan their farming calendar hence exposed to losses as a result of weather variation. Successful adaptation to climate change requires holistic efforts, unrestricted access to information and resources, and team effort. These may not be possible where exclusion still thrive. In the bid to contribute to building the climate smart agriculture knowledge and create sustainable access to weather information among rural women and youth in Nigeria, the 'Equip to Adapt' (ETA) programme was born. The Equip to Adapt (ETA) programme for rural women and Youth Leaders in Rivers and Enugu State was jointly implemented by the Society for Climate Action (SCAN) in Nigeria, University of Port Harcourt and University of Nigeria Nsukka in collaboration with the Nigeria Meteorological Agency (NIMET) and International Institute of Tropical Agriculture (IITA). The programme targeted at strengthening the knowledge and capacity of rural women and youth leaders on Climate Smart Agricultural practices and technology as well as creating sustainable access to weather information among climate smart rural women and youth groups. It also contributed in providing platform for research-policy-industry-public engagement hence provided evidence for policy decisions. The programme was funded by the Adaptation Research Alliance (ARA) under its micro grants scheme.

How is climate change affecting rural women and youth farmers in Nigeria?

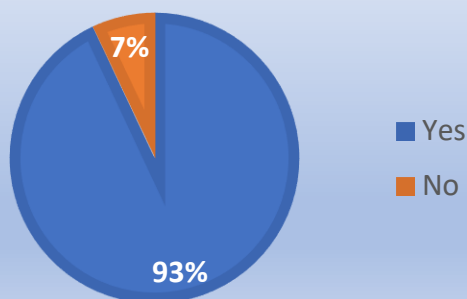
The issue of climate change is no longer a distant threat, it is a pressing reality that is modifying environments particularly, rural communities with significant implications for the vulnerable groups especially women, children, farmers and youths⁴. This vulnerability results from unfavourable social norms, cultural practices, limited access to resource, poor decision making power and institutional constraints⁵. It has been noted that women are poor and more engaged in sectors that are very sensitive to climate change⁶. To a great extent, the basic factor responsible for the disparity in the effect of climate change on men, women and youths revolves around societal behaviours built around division of roles on the basis of gender. Climate change worsens the already existing societal threats to gender imbalance in Nigeria. The effects of climate change on women and youths in Nigeria are numerous. Women represent a significant percentage of smallholder producers and contribute 60-79% to the agricultural value chain ranging from food production, processing and marketing⁷. It has been documented that the effects of climate change would be huge on smallholder farmers, of which women are the majority; farmers that are highly dependent on rainwater and other climate-sensitive input and resources. Often, women's agricultural activities are characterized by gaps in information and resource access, with deficiencies in several areas: land, labour, credit, information, extension, and technology, which have eroded their decision-making power in building resilience for climate change adaptation, hence putting much pressure on their sources livelihood⁸. Thereby, bringing about reduced food production which exacerbates food insecurity, forcing rural women to cope with inadequate diets and increased malnutrition risks for themselves and their families. Again, it has been disclosed that more frequent and severe extreme events are expected to have largely adverse effects on key determinants of human health, including clean air and water, sufficient food and adequate shelter, which will aggravate existing inequalities⁹. Women in rural areas in Nigeria would face increased health risks due to climate-related illnesses⁵. Limited access to healthcare facilities and resources further compounds these risks. Nigeria has suffered multiplicity of climatic forces which includes the increasing incidence of drought in the Northern Nigeria, erosion in the South East, continued cases of flooding in the North Central and South West, and the rising sea levels in the South – South of Nigeria is fast endangering the prospects of rural livelihood¹⁰.

Climate change-induced environmental degradation and resource scarcity contribute to rural-urban migration as people seek alternative livelihood opportunities, but more importantly to national security, is the migration to the south by the Fulani herdsmen, their animals in search of pasturelands and water¹¹. Women and youths are disproportionately affected by this migration¹², often leaving behind traditional family structures and support networks. Migration poses risks of exploitation, gender-based violence, and social dislocation, particularly for vulnerable groups like women and youths. Displacement also disrupts cultural practices and community cohesion, further exacerbating social and economic challenges. Climate change is a threat multiplier, it accelerates and worsens the problem of marginalization of women and young adults. Women and youths in rural areas are saddled with the responsibility of fetching water for household needs, agriculture, and livestock. Climate change-induced water scarcity, coupled with deteriorating water quality, increases the time and effort required for water collection and poses health risks. The burden of water scarcity disproportionately falls on women and girls, who may have to travel longer distances to access water sources. This impacts on their time for education, economic activities, and personal well-being. Moreover, inadequate sanitation facilities exacerbate health risks, particularly for pregnant women and young children. The effects of climate change on rural women and youths in rural Nigeria are many-sided, ranging from low agricultural productivity, water and sanitation, health, livelihood opportunities, and social vulnerability. Addressing these issues require gender-responsive policies and interventions that empower women and youths, enhance their adaptive capacity, and promote equitable development in rural communities.

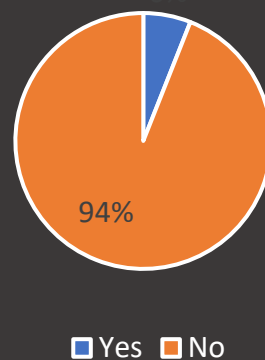
Challenges to climate change adaptation among rural women and youth farmers in Nigeria

Rural women and Youth are making conscientious effort to adapt their farming systems to climate change. Unfortunately, there exists numerous challenges to their successful adaptation. Most of the challenges tend to be rooted in the non-involvement of rural women in the decision-making process in climate interventions as these interventions end up not addressing their needs and concerns. Socio-cultural barriers and gender-based stereotypes limit women's access to production resources including land, decision making power and agricultural information. These challenges limit the adaptive capacity of women which therefore place them at the bottom of the ladder in terms of resilience to climate change. According to research, the major challenges experienced by the rural women in adaptation to climate change adaptation are poor state feeder roads for easy access to markets, financial incapacitation, non-functional government climate change adaptation frameworks, unavailability of needed resources and inputs, low knowledge and capacity to adapt, barriers and limitations placed on women by traditional beliefs, inadequate government support, relegation of women needs in community development projects and programmes, crude/traditional storage methods and facilities and unfavourable land tenure system, limited access to needed information¹³. Poor access to roads hinders evacuation of agricultural produce, resulting in postharvest losses. This reduces farmers' access to the market and further causes economic losses. The problem of adequate finance and capacity building cannot be over emphasized in the Nigerian context. Most rural women lack the basic knowledge and capacity to utilize available adaptation options. Even when they eventually develop capacity, finance becomes a major constraint as majority of them are small scale farmers who may not be able to finance adaptation options as they are capital intensive. For instance, WhatsApp has been observed to be very effective in timely information delivery among farmers, but this cannot be utilized among rural women as many of them cannot afford android phones nor purchase data bundle hence they are not on WhatsApp.

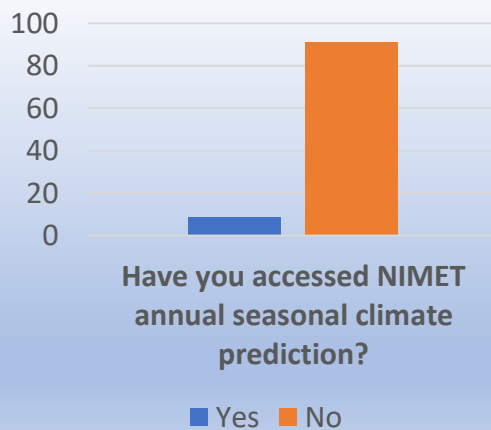
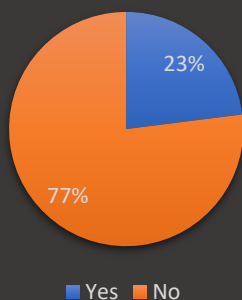
Could access to weather information strengthen climate resilience of rural women and youths?



Do you have access to weather information?



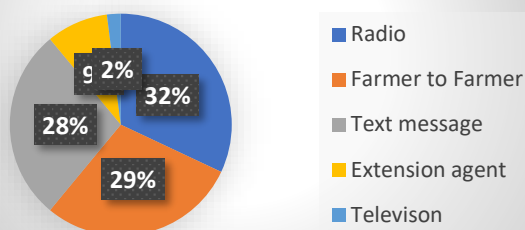
Have you Heard of NIMET before now?



Creating
SMART
&
Gender-responsive
Adaptation
Options
Require
Timely
And
Consistent
Access
To
Weather
Information

11. Odoh, S. I. & Chilaka, F. C. (2012). Climate change and conflict in Nigeria: a theoretical and empirical examination of the worsening incidence of conflict between Fulani Herdsmen and farmers in Northern Nigeria. *Arabian Journal of Business and Management Review*, 113.
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Sources of farm information



Could access to weather information strengthen rural women and youth's climate resilience?

In order to contribute to bridging the gap in accessing weather information among rural women and youth farmers in Nigeria, the ETA project team hosted a Climate Smart Agriculture (CSA) training workshop on the 22nd of January, 2024 at the Emerald Energy Institute. The objective of the workshop was to strengthen rural women and youth CSA knowledge and capacity and link them up to weather information source. Data collected from training participants revealed that 94% do not have access to weather information hence, extremely difficult for them to plan their farming calendar. It was surprising to find that only 23% know that NIMET exists, out of which only 9.3% have previously accessed the NIMET annual seasonal prediction. Approximately 93% agreed that access to weather information could strengthen their climate resilience as this will enable them plan their farming calendar effectively, hence avoid the usual huge losses as a result of uninformed planning. This finding is worrisome as NIMET has over the years made conscientious effort in ensuring that farmers have access to weather information. This is an indication that the effort is not yet sufficient. There is need to dedicate more attention to scaling down the available weather information to the level comprehensible to rural farmers. Rural radio, trainings and smart phones could be leveraged in disseminating this information as many of the rural women and youth indicated used of radio (32%), farmer-to-farmer contact (29%) and text messages (28%) as the major means of accessing farm information.

Conclusion

In our clime, it is impossible to ignore the fact that rural women are the backbones of their families in the agri-food systems and food value chain. They also play critical parts in adapting and responding to climate change that has impacted agriculture. In both Rivers and Enugu States, they are already observing climate variability impacts. They know something needs be done to mitigate these anomalies and assist their households and communities to not only adapt to climate change but to also build resilience. However, there are noted cases of gender inequalities in climate actions, policies and interventions with evidences that climate change interventions and climate-smart practices have had differential impacts on men and women which however varied across agricultural zones and social characteristics. While the gendered impacts of and responses to climate change cut across wide aspects of lives and livelihoods, women, children and young people are particularly affected facing challenges in their adaptive capacity. Therefore, Social networks and groups as adopted in this project were deemed important to access information, resources and sundry economic opportunities that may be necessary aid in responding to climate change. It provided an important platform for women's capacity development and resilience. Climate-smart and climate-resilient interventions must adequately take gender differences into account in order not to exacerbate gender inequalities in the agri-food value chain. It must be noted that building women's adaptive capacities especially through early and timely weather warnings is a key entry point in trying to reduce their vulnerability and increasing their contribution to climate action and resilience.

Recommendations/Policy Options

The pivotal need for timely dissemination of weather information as a means of strengthening rural farmers resilience to climate change cannot be over emphasized. The following recommendations are made for improved access to weather information among rural women and youth:

1. Synergy among key relevant organisations: Climate change problems are diverse and require integrated actions. Individual organisations may not be able to effectively tackle the multifaceted problems of climate change. It is therefore necessary for relevant agencies and organisation to synergize actions responsible for information dissemination to rural farmers to synergize interventions.
2. ICT, particularly simple and accessible digital tools, could facilitate timely weather information sharing. It is interesting to see that relatively good number of rural women and youths are leveraging mobile phones (not android phones) for information sharing. This could be integrated in the dissemination of weather information to rural women and youth. Federal government could develop digital platforms for rural farmers that could provide timely services at a subsidized rate. Also, collaborating with major network providers in Nigeria to subsidize cost of data plans and call credits for rural women and youth farmers could be considered.
3. Support formation and formal registrations of rural women climate smart groups. Adaptation actions have cost implications which could be high for rural women to bear. Coming together in groups could help them pool resources to tackle more vigorously the effects of climate change as well as facilitate information sharing. Government at local government level should pay special attention to this.
4. The need for capacity building of rural women on both climate smart agricultural practices and use of simple digital tools cannot be over emphasized. Most rural lack the knowledge and capacity to deal with climate risks and threats. Organising regular trainings and capacity building exercises will significantly enhance their resilience to climate change.
5. Involvement of rural women in rural community Leadership and decision making is key to gender responsiveness in climate adaptation. Lack of representation of women in rural community leadership leads to gender blind community activities and policies. It is important to ensure that rural women play active part in community leadership, this will ensure that their interests and needs are integrated into intervention plans.
6. Modalities should be developed to economically empower women. Their economic empowerment will not only be a great enabler to more uptake of climate smart practices, it will also lead to increased income for portfolio diversification and prevent financial shocks.

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