



Gender Dynamics and Community-Level Factors in Accessing Climate Finance for Sustainable Food Security in Niger State

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Abstract: This research paper argues on the role of gender relations and community level in affecting access to climate finance to facilitate sustainable food security in the Niger state, Nigeria. The research aims at ascertaining the inaccessibility of climate finance particularly in the smallholder farmers including women farmers to address the climate change and agricultural resilience. Mixed methods approach was used to collect data which entailed application of structured survey and semi-structured interviews with farmers, community-based organisations (CBOs) and the local government officials. According to the results, women are being deprived of access to climate finance because of gendered barriers such as access to land, culture and power to make decisions that they can institute climate-resilient agriculture. In addition, CBOs play a very vital role in the opening up to finance, however, in all regions, they do not work depending on local governance and trust by community. To conclude this paper, gender sensitive policies, institutional reinforcement and community-based programs are proposed to enhance the accessibility and effectiveness of climate finance so that the vulnerable population particularly the women would not be left behind in the fight to achieve climate-resilience and sustainable food security.

Keywords: Climate Finance, Gender Dynamics, Community-Level Factors and Sustainable Food Security.

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Introduction

Climatic change is among the most pressing and significant challenges in the 21st century world, and its effects are especially adverse to the developing nations, where agriculture has been the primary source of income of the largest proportion of the population (Magaji and Musa, 2024). Nigeria belongs to the sub-Saharan African regions which are more susceptible to the disruption brought about by climate (Ibrahim et al., 2025). They include unpredictable rainfall, droughts, floods and rise in temperature, which threaten food production and economic stability (Food and Agriculture Organisation of the United Nations, 2020; Kang et al., 2019). Nigeria is primarily an agricultural country, where the largest part of the GDP and, additionally, the largest source of employment is actually the agricultural sector engaged by more than 60 percent of the population, mostly in the rural areas (World Bank, 2021). This dependence enhances risks, intensifies food insecurity, poverty and developmental delays, particularly in agrarian states like in the central Nigeria of Niger state (Sabiou and Magaji, 2024). Here, more than 70 percent of the population is being fed on rain-fed farming of staple foods of maize, rice, yams, and millet, yet the growing climate variability, in the form of the fluctuating rainfalls, soil erosion, prolonged droughts, etc. is escalating the loss of productivity and livelihoods (Idagu et al., 2016; Zougmore et al., 2019).

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To address these problems, climate finance has emerged as a critical concept to assist in adaptation and mitigation to the agricultural sector (Magaji et al., 2025). It may be described as financial assets directed at the reduction of climate impacts and includes international projects like the Green Climate Fund (GCF) and the Adaptation Fund that fund the regions that are vulnerable in sub-Saharan Africa to aid climate-resistant activities, food vulnerability, and emissions by means of sustainable agriculture (Pauw et al., 2022; United Nations Framework Convention on Climate Change, 2021). Although these resources have high potential, the institutional barriers that usually obstruct the implementation process include bad governance, absence of coordination among various governments, and low potential of local management of money (Freitas and Mwanik, 2024; Escalante et al., 2018). What is more, the access to the resources is mediated by the level of the community and gender relations to a large extent (Suleiman et al., 2025). Traditional gender roles and structural forms of decision making in communities can perpetuate exclusions, especially in the rural settings where women and the marginalised groups constitute the majority (Njuki et al., 2011; Chakrabarty and Nag, 2023).

In Niger State, they are acutely experienced and the institutions and socio-cultural barriers to accessing climate finance are among the struggles of subsistence farmers who are confronted by climate stressors. Women farmers are in even more difficulties as they are gendered, insecure in land possession, unable to access credit, and have no voice in decision-making by the household (Abiola et al., 2025), which make them underrepresented in the adaptation funding (Chakrabarty and Nag, 2023; Adeyemi et al., 2020). Community-based organisations (CBOs), which are strategically located as a significant source of local adjustment, may increase access by mobilizing the grassroots level or add to the inequities in case they are characterised by fragmentation, low capacity, or elite capture (Adebayo et al., 2023; Tandukar et al., 2025). Even though funds are no longer the issue, empirically very little is known about how these local factors limit the equitable allocation particularly at the sub-national level in order to develop specific interventions that are geared towards safeguarding food security (Lwesya, 2025; Olsson et al., 2014).

The gaps will be addressed in the research, which will discuss the impact of gender relationship and community scale events on the accessibility of climate finance to the agricultural adaptation and sustainable food security of the Niger State. The primary goal will be to find some of the limitations and opportunities which follow the gendered role and community patterns and therefore will shape inclusive policies which can potentially empower the vulnerable populations, especially women farmers. Areas of concern include the assessment of the gender influences on the financial access, the facilitative role of CBOs, the impediments facing women to embrace climate-sensitive practices, the effectiveness of the local governance in allocating funds and the gender-sensitive community based strategies. The most urgent gaps in the existing literature are affiliated to this study since most of it is dedicated to national institutions and international mechanisms and still neglects the sub-national governance and the intersection of gender, and even community dynamics (Pauw et al., 2022; Kuhl, 2021).

This is a study that has been warranted since it can lead to the development of equitable climate financing governance. The existing body of research is inclined towards global/national aspects, failing to consider local specific barriers that sustain gender inequalities and marginalisation within the community that limit adaptive capacity (Freitas and Mwanik, 2024; Browne et al., 2020). The perpetrators of the cycles of poverty and food insecurity are related to gender inequalities in Niger State, which is necessary to consider to use climate finance to establish resilience and food production sustainability (Chakrabarty and Nag, 2023; Miller et al., 2018). The policy implication of the findings will make practical policy recommendations to the donors, governments and CBOs as to gender mainstreaming as well as participatory practice to achieve higher fund utilisation as well as minimize vulnerabilities. Last but not the least, this article can be incorporated into the literature of climate justice in general, because it gives information concerning the sub-Saharan African context, which the inclusion can utilize to benefit the community in the long run, that is, through food security (Njuki et al., 2011; Adisa et al., 2024).

Literature Review

Concept of Climate Finance

Climate finance is the mobilised financial resources, including governmental funds, foreign financial funds, or personal investments, and certain innovative instruments, including green bonds, with a view to assist in the shift to low-carbon and climate-resilient economies (Al-Amin et al., 2025). It is indispensable in the context of the agriculture adaptation because farmers in developing countries will be enabled to take part in climate-sensitive operations that mitigate the effects of droughts, floods, and erratic rainfall (United Nations Framework Convention on Climate Change, 2021). The most famous ones, such as the Green Climate Fund (GCF), Adaptation Fund, and Global Environment Facility (GEF) are designed to support vulnerable nations in sub-Saharan Africa, yet they are still not accessed because of institutional barriers, lack of capacity issues, and coordination problems (Pauw et al., 2022; Kuhl, 2021). They are enhanced by socio-economic inequalities (Olusola et al., 2025), gender (Yakubu et al., 2025), and community-level concerns (that determine the level to which funds are accessed by the smallholder farmers particularly the women in an effort to make them more resilient and food security assured) (Abubakar et al., 2025).

Concept of Gender Dynamics

The issue of gender relations in climate financing comes to the limelight to highlight inequalities in roles and expectations that individuals attribute to both men and women that influence the ability of each section of the gender to access, exert control over, and enjoy the resources in the process of climate adaptation. Women farmers (who are often the majority of agricultural labourers) in sub-Saharan Africa, including Nigeria, cannot access financial programs because of systemic inequalities; this can be lack of land ownership, credit access, and decision-making power, which render access to credit less harmful to women farmers (Musa et al., 2025). Culture, lack of financial literacy, and property rights have continued to institutionalize the inequality and reduce the uptake of resilient practices amongst women (Sunderlin et al., 2020; Hess et al., 2014). It is, thus, essential to mitigate these inequities by providing gender-specific interventions, including the emphasis on the inclusive participation, training, and priority set (Freitas and Mwanik, 2024; Olsson et al., 2014). Such dynamics are not only those that give rise to the vulnerability but also those that are adverse to processes of adaptation of wider communities in rural Niger State where gender roles are still predominantly maintained by tradition.

Gender is added to these considerations of gender, to community considerations, which involve local structures, practices and networks of mediation of access to resources, in which community based organisations (CBOs) feature prominently in the community grassroots. These organisations promote international finance to local farmers by mobilising, training and simplified application procedures thereby enhancing adaptation within the rural setting (Adebayo et al., 2023; Tandukar et al., 2025). CBOs rely on social capital-relationship network that fosters collective action and resilience, local government, and community confidence, to be effective (Pauw et al., 2022; Browne et al., 2020). The Niger State has strong leadership and communities that can improve the viable financial effects, promoting the practices of sustainability, and this effect can be underutilised and the marginalised communities are typically

disfavoured by fragmented communities, dysfunctional institutions, and mistrust (Escalante et al., 2018; Lwesya, 2025). This set of factors justifies the necessity of combining community-based initiatives to ensure that agrarian regions that are vulnerable to climate are equitable to food security in terms of climate finance.

Theoretical Review

The article uses the agency theory, institutional theory, and stakeholder theory in conceptualizing these dynamics. Agency-principal relationships in climate finance where the international donors (principals) sends their tasks to the national governments, local institutions and NGOs (agents) can be explained using the agency theory which may result in information asymmetries, moral hazards and costs associated with mismanagement or corruption (Jensen and Meckling, 1976). The issues that influence the distribution of funds in this aspect in the Niger state can be regarded in the context of the weakness of governance that contributes to the misappropriation of funds and the necessity to introduce transparency and accountability to harmonize the actions with the adaptation goals (Pauw et al., 2022; Adeyemi et al., 2020). This is accomplished through the institutional theory that examines the existence of formal and informal rules including policies, laws and norms which shape the organisational behaviours as well as resource distribution (DiMaggio and Powell, 1983). Such weak structures as the lack of inter-agency coordination and capacity weakness are the reasons why finance is not deployed effectively in Niger State, which brings the need to implement changes and capacity-building, as well as local capacity to optimize the outcomes of the adaptation process (Lwesya, 2025; Miller et al., 2018). The theory of stakeholders is based on the development of these concepts to suggest an open and comprehensive approach to decisions that involves all parties to the decisions including the farmers, the officials, the NGOs, the CBOs and the financiers to make decisions that are more equitable and effective (Freeman, 1984). In this respect, the collaborative governance will be able to serve women and rural voices first, fund to locals, reduce exclusions, and therefore, become more resilient (Adebayo et al., 2023; Kuhl, 2021).

Empirical Review

These constructs can be underpinned by empirical research that demonstrates the ways in which gender and community can affect climate financing. Chakrabarty and Nag (2023) demonstrate that in rural India, women do not use financial services more often in rural regions due to cultural practices and land access barriers, and the authors suggest that policies must be gender-sensitive to enhance the uptake of financial services by rural community members, which is an overall trend in African countries (Sunderlin et al., 2020; Njuki et al., 2011). Adebayo et al. (2023) found that CBOs are the primary actors in rural access and local leadership and social capital were related to 50 percent higher utilisation in Kenya. Simultaneously, as mentioned by Pauw et al. (2022), in order to make it successful, communities have to be involved in sub-Saharan Africa. Since Freitas and Mwanik (2024) also focus on the institutional reforms in Nigeria to deal with gendered exclusions, and Zougmore et al. (2019) focus on the same process in West Africa, where community networks assist in adapting to it but are unable to do so due to fragmentation. All these publications demonstrate that the power of the finance on the agricultural resilience and food security is reinforced by the use of the gender and community factors (Kang et al., 2019; Millan et al., 2019).

Literature Gap

Despite this accomplishment, one can still find some major gaps in the literature. The current gaps in the empirical research on gender interactions and the conditions in the community specific to the Niger State lack the focus on the specific agro-climatic and socio-cultural conditions in the state that determine the accessibility (Lwesya, 2025; Idagu et al., 2016). The correlation between CBOs and gender equality and food security in rural setting of the Nigerian countries is not as in-depth, as it applies to other countries (Adebayo et al., 2023; Tandukar et al., 2025). Moreover, much of the study is dedicated to discussing macro-level governance instead of micro-level interaction within the community without taking into account the connection between the local institutions and gendered norms that constitute equitable distribution (Pauw et al., 2022; Escalante et al., 2018). These gaps of analysis at the sub-national level will assist in bridging the gaps in knowledge of the direction of inclusive policy and consequently the application of climate finance in supporting sustainable agricultural adaptation and food security in the areas that are most at risk such as Niger state.

Methodology

Research Design

The study is founded on the sequential explanatory design of mixed-method that will determine the influence of the factors of gender dynamics and community-level on access to climate finance to achieve sustainable food security in the Niger State, Nigeria (Creswell & Plano Clark, 2017). The methodology is anchored on quantitative data followed by analyses in the first stage to demonstrate patterns and relationships, and then the qualitative data to elaborate and contextualise results obtained, hence, offering triangulation to the results to give a higher level of validity and depth. The quantitative survey and semi-structured interviews, the methods of which are qualitative and semi-structured, provide more detailed information on the factors that contain barriers, e.g., gendered norms and community governance. A combination of these methods would see design pick up measurable patterns and narratives of stakeholders, and react to the compound dynamics of local climate finance in vulnerable agrarian settings (Yin, 2018).

Study Area

The region of interest is the Niger State, which is found in the North-Central geopolitical region of Nigeria, due to its huge geographical area which is estimated as the biggest in the country, and the large percentage of the population depends on rain-fed agriculture as a source of livelihood (Idagu et al., 2016). The large scale crops are maize, rice, millet, and yams, although the state is acutely exposed to climate that may come in form of irregular rainfall, prolonged droughts, soil erosion, and heat waves to aggravate the food insecurity situation and reduce the level of productivity (Zougmore et al., 2019; Food and Agriculture Organisation of the United Nations, 2020). The state of Nigeria has a mixture of smallholder and commercial farmers with a broad spectrum of socio-economic profile in the three agro-geographical locations consisting of Northern (Sudan Savanna), Central (Guinean Savanna), and Southern (Derived Savanna) with varied farming systems, access to resources, and climate risk factors. The international and local agencies have played a role in these areas by offering climate finance on adaptation, and since the disparity between genders remains an issue, and decisions are made by

communities, then fair benefits are not witnessed (Adebayo et al., 2023). With the three zones being focused on, it can be achieved to analyse the variations on the region in terms of finance utilisation and institutional capacities.

Population and Sample

The target population will be divided into smallholder farmers (primarily beneficiaries), agricultural extension officers, local government representatives, and NGOs and community-based organisations (CBOs) working in the area of climate finance and climate adaptation in the state estimated to comprise of over 1.5 million agricultural stakeholders (World Bank, 2021). The stratified random sampling was conducted in the three agro-geographical zones but further stratified according to gender, farm size and prior access to finance so as to have inclusivity and capture the various types of vulnerabilities with women being the most vulnerable being the most marginalized (Hair et al., 2019).

The chosen 262 respondents were statistically reliable (calculated using Yamane formula of finite population where the population was 95 percent and margin of error was 5 percent), in terms of gender balance (150 smallholder farmers, 75 men and 75 women), 40 extension officers, 30 local officials and 42 NGO/CBO representatives. This distribution will enable to perform a strong quantitative analysis and create a chance to perform a particular qualitative interaction, which will represent the key actors in the climate finance ecosystem in the area (Babbie, 2019).

Data Collection Methods

The data collection procedures were a combination of surveys and semi-structured interviews and offered some quantitative and qualitative findings, and were done over a period of three months with presence of field assistants who had been trained in ethical practices.

Quantitative measures of climate finance access, gender (e.g., decision-making, resource control) dynamics, community (e.g., CBO roles, trust levels) and agricultural resilience (e.g., adoption of climate-smart practices) were quantitatively measured with survey questionnaires that were distributed to all participants (n=262). Both tools were the Likert (1-5 on the levels of agreement) and closed-ended ones, which were piloted on reliability (Cronbach $\alpha = 0.85$) to resolve the problem of measuring both the perceptions of the barriers and the outcomes in the most efficient way (Babbie, 2019).

Within an open-ended guide format (45-60 minutes) of semi-structured interviews, 42 key informants (purposely selected) were interviewed on the subject of institutional challenges (including gendered exclusions and community facilitation of finance) in their role as leaders, officials, and NGO staff. These were audio-taped and word-to-letter and created contextual depth on the local forces, cultural norms which were an obstacle to the access by women (Braun and Clarke, 2006). Further document content analysis of 20 or higher sources (e.g., policy of state, NGO reports, GCF submissions) provided historical and institutional context on finance flows (Yin, 2018).

Methods of Data Analysis and Estimation

Quantitative data were analysed in SPSS where descriptive statistics (means, frequencies and cross-tabulations) were applied

to depict patterns of access and inequalities and the multiple linear regression was subsequently applied to predict the predictors of financial access. The primary equation is:

$$FINACC = \beta_0 + \beta_1 GENDER + \beta_2 CBO + \beta_3 + CTRUST + \beta_4 SEC + \varepsilon_i \dots 1$$

Here, an access index is the dependent variable (continuous, 0-100) and there are independent variables, namely, the gender roles (decision power binary indicators), community factors (e.g., CBO involvement scale), and institutional strength (e.g., governance efficacy score); the controls are the socio-economic variables (e.g., age, education); and, the error term is represented as epsilon i. The multicollinearity of latent constructs was reduced by factor analysis (Hair et al., 2019).

NVivo was used to analyse qualitative data through thematic analysis that complies with six phases of familiarisation, coding, theme generation, review, definition, and reporting (Braun and Clarke, 2006). The results of the quantitative analysis were merged with the prevalent themes (e.g., "gendered gatekeeping," "CBO mediation) using joint displays, which explained variances, e.g., the mediation of the effect of gender barriers by the level of community trust (Creswell and Plano Clark, 2017).

Diagnostic Tests

Diagnostics were used to test the robustness of the models, Variance Inflation Factor ($VIF < 5$) to ensure that the multicollinearity did not exist; Breusch-Pagan tests to evaluate heteroscedasticity which was addressed through standard errors that were robust (White, 1980); R-Squared (>0.30) and F-tests to assess the fit with the supplementary tests of multicollinearity that was resolved by Hosmer-Lemeshow by the use of heteroscedasticity. They ensured proper inferences on the effects of factors (Hair et al., 2019).

Ethical Considerations

According to the national guidelines, it was given an ethical clearance by the Research Ethics Committee of the University of Abuja (Babbie, 2019). Informed consent was signed by the participants with the simplified forms in the local languages (Hausa/English), stating the study objectives, voluntariness of the participation and the right to quit. Anonymity and confidentiality were provided with the assistance of pseudonyms and data storage, gender-sensitive methods (e.g. female enumerators were employed to conduct work with women respondents) which did not infringe the cultural norms and minimized the sources of power imbalance in the rural communities.

Results

Descriptive Statistics

Descriptive statistics gives an overview of the key variables of the research that involve the availability of climate finance, institutional strength, quality of governance, socio-economic factors, security concerns and agricultural resilience that summarized the central tendencies and variability among the 262 respondents in Niger state. Such measures are founded on the findings of the surveys and determine the tendencies of resource allocation and situational sensitivity of adaptability.

Table 1: Descriptive Statistics for Key Variables

Variable	Mean	Std. Deviation	Minimum	Maximum
Climate Finance Access (Naira)	3,500,000	2,400,000	500,000	10,000,000
Institutional Strength (1-5 scale)	3.2	1.2	1	5
Governance Quality (1-5 scale)	3.1	1.1	1	5
Socio-Economic Factors (1-5 scale)	3.5	0.9	1	5
Security Issues (1-5 scale)	3.4	1.3	1	5
Agricultural Resilience (1-5 scale)	3.6	1.1	1	5

Source: Researcher's Computation, 2025

The average accessibility is the average access to climate finance of 3,500,000 Naira. However, this big variance (500,000 to 10,000,000 Naira) and standard deviation point at the existence of sharp differences, which might be created due to skewed institutional support, geographic variation, and qualifications (Freitas and Mwanik, 2024). The moderately high effectiveness of the institutional strength (mean = 3.2) and the quality of governance (mean = 3.1) is also noted, and the positive results are achieved in the zones where local governments and community-based organisations (CBOs) are active as well which is also in line with the literature on the role of governance in the finance deployment (Pauw et al., 2022). Socio-economic factors had a mean of 3.5 that means a typical rural profile where access is not controlled by land size and income. The most diversified (SD =

1.3) and the highest scores were in conflict-affected areas and this caused interference in participation. This finding is consistent with the previous study on the compounding effects of insecurity in adaptation (Fisher et al., 2017). Agricultural resilience (mean = 3.6) is a half-step, which can be related to the inflows of finances, but there still remain gaps.

Survey Responses

The survey data also enlightens the gender relations and the community aspects and reveals the unfairness in access and enabling positions. The 262 responses indicate variations in the take up of finance especially regarding the gender and usage of CBO.

Table 2: Survey Responses on Gender Dynamics and Community-Level Factors in Accessing Climate Finance

Variable	Coefficient	Std. Error	t-Statistic	p-Value
Gender (Female)	-0.45	0.10	-4.50	0.000
Community-Based Organisation Involvement (Yes)	0.36	0.12	3.00	0.003
Institutional Strength (1-5 scale)	0.25	0.08	3.13	0.002
Governance Quality (1-5 scale)	0.18	0.09	2.00	0.048
Socio-Economic Status (1-5 scale)	0.12	0.10	1.20	0.234
Security Issues (1-5 scale)	0.05	0.07	0.71	0.477

Source: Researcher's Computation, 2025

According to a survey, 40.1 percent of the interviewees had received climate finance, and 59.9 percent had not received it demonstrating that the Niger State had fundamental problems with the climate finance distribution. This is augmented by gender disaggregates, where the males possessed 28.6% of access beneficiaries, unlike females who had 12.6% that demonstrate that such constraints as cultural beliefs, tenure restrictions and decision making exclusions isolate the females (Chakrabarty and Nag, 2023; Njuki et al., 2011). Conversely, the role of CBOs was closely connected with access (57.3% yes), and these organisations were the primary providers of access to resources through mobilisation and support as has been done in prior research in Africa (Adebayo et al., 2023). Uptake by non-CBO affiliates (42.7)

was less, and this points to the key yet skewed contribution of community-based organisations (CBOs).

Estimation Results

In order to model the predictors of access to climate finance, the multiple linear regression was conducted, adjusting the predictors with confounders, the results of which demonstrated significant effects of the gender, community, and institutional variables ($F(6, 255) = 12.45$, $p < 0.001$; $R^2 = 0.42$). The model explains 42 percent of the access variance which is strong and this is after the diagnostics ($VIF < 5$; post-adjustment heteroscedasticity).

Table 3: Regression Results for Access to Climate Finance

Response Category	Frequency	Percentage
Access to Climate Finance (Yes)	105	40.1%
Access to Climate Finance (No)	157	59.9%
Gendered Access (Male)	72	28.6%
Gendered Access (Female)	33	12.6%
Community-Based Organisation Involvement (Yes)	150	57.3%
Community-Based Organisation Involvement (No)	112	42.7%

Source: Researcher's Computation, 2025

Gender emerged as one of the strong negative predictors ($b = -0.45$, $p < 0.001$), and this finding can be attributed to the fact that women are less accessible than men which can be explained through the socio-cultural constraints (Freitas and Mwanik, 2024). Positive access ($b = 0.36$, $p = 0.003$) was found between CBOs and between applications and building trust, which means that the use of CBOs is valuable in between applications (Adebayo et al., 2023). The results were also reinforced by institutional strength ($b = 0.25$, $p = 0.002$) and quality of governance ($b = 0.18$, $p = 0.048$), thereby pointing to the high power of local structures as equitable distributor (Pauw et al., 2022). The socio-economic and security were not significant ($p > 0.05$), which means that personal or external risks are not significant in the case of institutional and community mediators.

Discussion

These findings integrate the quantitative trends with the contextual information, which substantiates gender dynamics and community-based contributions as a key factor to access to climate finance in the Niger state. The low female access (12.6% access rate; $b = -0.45$) supports the existence of the adaptation differences, as women are the main food producers who are highly discriminated coverage-access, which is attribute to the world-based evidence on the gender inequalities of access to resources (Chakrabarty and Nag, 2023; Njuki et al., 2011). Not only does it have a detrimental effect on the individual resiliency but also the food security of the community, which demands certain measures such as quotas and training.

CBOs are equity levers (57.3% participation; $b = 0.36$) facilitative, which enables joint implementation and advocacy but inclusive loopholes are encouraged, resulting in elite takeover (Adebayo et al., 2023; Tandukar et al., 2025). The moderate positions of the governance that are reflected in the predictors of governance ($b = 0.25$ and 0.18) indicate that modest levels of strength (means -3.1-3.2) boost the potential of finance when there are failures in coordination (Pauw et al., 2022; Escalante et al., 2018). The fact that they are not significant means that the structural reforms have the potential to mitigate them, facilitating a more comprehensive resilience (mean = 3.6). Together with agency theory and the stakeholder theory, the results theory proposes participatory transparent models to align the local needs with donors (Jensen and Meckling, 1976; Freeman, 1984).

Recommendations and Conclusions

The paper has discussed why gender interactions and community-based factors are relevant in the process of accessing climate finance to enable sustainable food security in the Niger

state, Nigeria, to address the increased challenges caused by climatic change. The findings can substantiate the position that climate finance is significant in the process of supporting the agricultural adaptation, which is the ability to adopt resilient practices that would aid in mitigating the impact of unpredictable rainfalls and droughts, in addition to the variation of temperatures. However, it has full potential due to institutional weaknesses, structural gender inequality and barriers in the community level to form unequal distribution that has relegated many smallholder farmers, and more so women to the lower rungs, reducing food insecurity in this agricultural area.

The key discoveries are the outstanding gender relations that reveal acute disparities in access to climate finance between male and female farmers. The institutional barriers that women have to contend with include cultural restrictions on their mobility and control, inaccessible land tenure and access to credit, home-based and cooperative decision-making, and lower financial literacy that do not allow women to contribute to funding programs. The reason is that such obstacles do not merely encourage the inability of women to implement climate-wise practices, such as, but not limited to, drought-resistant plants, irrigation, but community resilience in general since in most instances, women happen to be the direct participants in food production, as well as, household care. The solution to these imbalances is gender-sensitive policies in which the inclusion of women is the primary focus and this can be achieved by promoting female leadership of the agricultural governance, giving the females land rights, accessing the females to financial resources which are women friendly, gifting the females with targeted financial literacy, as well as application procedures which are friendly to the females thus enabling the females to receive equitable benefits of the adaptation funds.

The equally influential factors are those that are at the community level and in this regard, the community based organisations (CBOs) take the centre stage in assisting to seal the gap between the international donor and the local farmers. In this paper, it has been demonstrated that CBOs facilitate access by mobilising participants, simplifying multifaceted application processes and providing technical assistance on how projects should be implemented, and it has also been demonstrated that CBO engagement is linked to higher uptake rates. However, their effectiveness relies on the society and they are conditioned by the good local governance, open interaction and social capital, which increases trust and group action. To strengthen this argument, capacity-building to strengthen administrative and technical capacity of CBOs, promote inclusiveness to include women, the youth, and the marginalised, and for them to have formal

relationship with the government agencies to channel resources in a transparent manner, must expand the finance to remote and vulnerable areas in the rural areas.

The institutional framework is also the mediator of these dynamics in the state of Niger whereby bureaucratic inefficiencies, the inability to coordinate the stakeholders, and the vagueness of the process of funds distribution hinder the effects of the program. The medium institutional power and quality of governance by available data means the structures behind the scenes that collapse when the resources are limited and when there is also misalignment where in most instances will lead to stalling or diversion of funds in unpopular means that would not be able to hold up the sustainable adaptation. Reforms are the only alternative: building the capacity of local agencies through training the government agencies as well as the NGOs, creating mechanisms to enhance transparency, simplifying the coordination of the community leaders, CBOs, officials and donors by integrating the platforms. The allocation would be tracked and assessed on a specific system that would show the extent to which the resilience has been enhanced and the way the interventions can be enhanced, in order to ensure the funds are being adequately converted into concrete food security outcomes.

Besides these basic points, it is essential to comment on additional problems such as the security problem in the conflict prone areas. This will involve risk testing, formation of alliances with the peacebuilding organizations and contingency plans that will ensure that the project remains constant and stable. The demystification of the finance mechanisms, particularly in the case of women in remote locations, and the engagement of the private sector via incentives like tax breaks, subsidies and joint ventures with CBOs can be induced by an awareness-raising campaign based on community campaigns, workshops and radio outreach, or digital tools, and help trigger further investments in climate-smart agriculture like green bonds and joint projects with CBOs. Better participation of the community particularly in the design and implementation remains an ideal practice, the social capital of collaboration is established through the utilization of forums, school on the farms and education on adaptation and thereby this aligns the programs with what is being practiced on the ground.

In the compilation of these insights, the paper gives special focus to the concept that gender relations and social level factors are not peripheral but fundamental institutions of climate finance efficacy in the Niger State. Women farmers and rural people have a root cause challenge that suffers them into resilient practice, and continue the vulnerable cycles. These barriers can be overcome by the stakeholders through the implementation of gender sensitive policies, empowering the CBOs, institutional capacity building and the inclusion of women and the marginalised in the climate finance which will see climate finance becoming a force of equitable agricultural adaptation. These reforms will not just have a greater food security and hardiness to weather, but will likewise provide sustainable development in the long term, will provide a template that can be used in agrarian centres of the sub-Saharan Africa, where they are also at risk.

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