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Analysis of gender and institutional level of arrangement in REDD⁺ pilot sites, Cross River State, Nigeria

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CITATION

Basiru AO, Oladoye AO, Adetogun AC, et al. Analysis of gender and institutional level of arrangement in REDD⁺ pilot sites, Cross River State, Nigeria. Sustainable Social Development. 2024; 2(5): 2739.
<https://doi.org/10.54517/ssd.v2i5.2739>

ARTICLE INFO

Received: 22 May 2024

Accepted: 13 August 2024

Available online: 10 September 2024

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Abstract: This study assessed genders' institutional level of arrangement in REDD⁺ pilot sites, Cross River State, Nigeria. Data were collected through literature and policy document review and Focus Group Discussion (FGD). The total number of 270 documents with three, **Level 1:** Non-substantive inclusion, **Level 2:** Superficial inclusion and **Level 3:** Integrated inclusion. The gender were classified as Men and Women for the search engine. The results showed that only 95 of the 270 REDD⁺ related documents mentioned gender (representing 51% of the total documents). Nearly half of the texts that include the crucial phrases were categorized at Level 1, which means that gender concerns were not material. Regardless of how it is seen, the meager inclusion of gender mainstreaming discussion can only be found in Level 3. This 7% translated to only 12 out of the 270 documents which truly and fully understood the gender mainstreaming ideas. The study concluded that communities' policy interventions such as REDD⁺ still exhibit non-compliance of gender mainstreaming and institutional level of arrangement, therefore, this study recommend that "*sincerity*" of gender mainstreaming from the government and other stakeholders is a panacea for the success of any climate change adaptation programme such as REDD⁺.

Keywords: climate change; vulnerability; men; women; adaptation; mainstreaming

1. Introduction

The United Nations Framework Convention on Climate Change (UNFCCC) classified the Reducing Emissions from Deforestation and Forest Degradation (REDD⁺) as a global initiative seeks to lower greenhouse gas emissions by reducing deforestation and forest degradation, enhancing and conserving forest carbon stocks, and promoting sustainable forest management. While maintaining and increasing forest carbon reserves is REDD⁺'s core objective, community welfare is also a crucial component of the framework, as noted by [1]. The countries that participate in REDD⁺ are required by the UNFCCC's Cancun safeguards and Warsaw Framework, respectively, to address and respect social issues and to report on how all safeguard-related issues are being addressed and respected during REDD⁺ implementation.

The emphasis on a gender-responsive climate policy, as shown in the 2016 resolution on gender and climate, and the Paris Agreement has acknowledged women's engagement in climate policy in recent years. Additionally, some multi and bilateral donors as well as third-party certifiers, like the Climate Community and Biodiversity Alliance and the World Bank Forest Carbon Partnership Fund, have additional requirements for demonstrating high social and environmental performance [2]. In addition, since its creation in 2008, UN-REDD has actively promoted gender integration by forging connections and linkages with other REDD thematic areas, including governance, REDD⁺ national strategies/action plans, policies and measures (PAMs), safeguards, multiple benefits, and stakeholder engagement [3]. On the other hand, in order to completely ensure gender equality in global development by 2030, the United Nations has also set out to accomplish Goal 5 of the Sustainable Development Goals (SDGs), which is Gender Equity and Women Empowerment. All of these serve as a reminder to include gender as a fundamental component of any global program, such as REDD⁺ [1].

Nigeria's forestry sector seems fully committed to respect and address gender related issues at least in the policy arena. Among the appropriate action plan are: National Adaptation Strategy and Plan of Action for Climate Change in Nigeria (NASPA-CCN 2011); (ii) Nigeria Climate Change Policy Response and Strategy (2012); (iii) National Agricultural Resilience Framework (2014) ;(iv) Agriculture Promotion Policy (2016); and (v) National Gender Policy 2006 (revised 2015). Other related policy instruments include (vi) Nationally Determined Contributions (NDCs) and its Sectoral Plans. In addition, Nigeria's National REDD⁺ Strategy [4] demonstrates a strong commitment to establishing and bolstering gender-related grievance resolution procedures as well as incorporating and guaranteeing social and environmental protections in REDD programs and activities. However, these documents have warned us to address the possibility of social exclusion of Indigenous people, dalits, and other marginalized communities, as well as gender discrimination against women, in the forestry-cum REDD⁺ program. They have also recommended that women be encouraged and included at all levels, from policy making to program formulation, implementation, monitoring and reporting, and evaluation. Poverty and vulnerability are made worse by climate change's effects on biodiversity, agriculture, energy, health, food security, and physical infrastructure. All countries will be impacted by climate change, but the effects will vary depending on the region. For developing nations in Africa, Asia, and Latin America, for instance, climate change exacerbates already complex development challenges (such as high rates of poverty and inequality, rapid population growth, underdeveloped financial markets, and weak governance systems).

According to Basiru et al. [5] there is a correlation between an individual's age, gender, economic group, and occupation and the effects of climate change. Because men and women experience social, economic, and environmental realities differently, there is a gender difference in the effects of climate change on both genders [5]. The contributions made by men and women will differ and be just as significant [5]. Solutions to mitigate and adapt to climate change, such as REDD⁺, must take these gender-specific demands and contributions into account. Therefore, it is imperative that Nigeria promote a gender-sensitive REDD⁺ process. "Gender mainstreaming is

the process of assessing the implications for women and men of any planned action, including legislation, policies and programmes in all areas and at all levels” [6]. It is a tactic for incorporating the issues and experiences of both men and women into the planning, implementing, overseeing, and assessing of policies and programs in all social, economic, and environmental domains in order to achieve equality for both genders by changing the status quo. Gender mainstreaming include affirmative action and gender-specific actions when one or both of the sexes are in a particularly unfavorable situation. To allow women to participate in and benefit equally from development activities, gender-specific interventions might focus only on women, on men and women combined, or simply on men [7]. These are essential short-term steps intended to counteract the direct and collateral damage caused by prior prejudice.

Despite these policy requirements, women were noticeably underrepresented in the drafting of policy documents, and their concerns were disregarded when developing policies and implementing programs [8]. Specifically, there aren’t enough critical evaluations of how Nepal REDD⁺ initiatives address gender issues according to [9]. Women would be deprived of benefits and put in a position of social, economic, and political disadvantage if the gender issues raised by the REDD⁺ program were not acknowledged and addressed [10]. Thus, in order to make the REDD⁺ program or project generally accepted, it is imperative that gender-related concerns be evaluated, acknowledged, and promptly addressed as the case related REDD⁺ in Cross River State, Nigeria.

2. Materials and methods

Geographically, Cross River State (CRS) is situated in the South-Southern part of Nigeria, and bound by Latitudes 4°27’ to 5°32’ N and Longitudes 7°50’ to 9°28’ E with an approximate landmass area of 20,156 square km respectively [11]. A early evaluation of REDD⁺ initiative was reported by the Cross River State Government in 2010 after many scoping missions in Cross River State by officials from UNREDD and the World Bank’s Forest Carbon Partnership Facility, consequently, three primary clusters for the REDD⁺ pilot project were discovered through this evaluation process. Contiguous tropical high forests under community management, adjacent forest reserves, and national parks make up these clusters (The Ekuri, Afi/Mbe and mangrove clusters).

As a result, these regions are combined into a single cluster since it is the only way the project can be made feasible and qualify for international carbon funding under the REDD⁺ initiative. The majority of these communities’ forests are under oversight of Old and New Ekuri villages, which together make up one of the largest surviving tropical forests in West Africa under community-based management. In several of these areas, gender has played distinct and useful roles in community-based conservation initiatives that are now underway in cooperation with international organizations. These consist of the UK-based CERCOPAN and the NGO Ekuri Initiative.

Another cluster for the REDD⁺ investigation includes the Afi River and Mbe Mountain Wildlife Sanctuary, as well as the neighboring community forests and reserves. This cluster, which is in the Boki Local Government Area of the State, is

made up of over 50,000 hectares of forest area and is governed by 18 villages. According to the same deforestation baseline scenario, the PIN also estimated that this cluster had the capacity to release around 12.3 million tons of CO₂ over a two decades. The main forest in this cluster is under the ownership of the villages of Kanyang I and II and Buanchor. The Conservation Association of Mbe Mountain (Camm) is responsible for the conservation efforts of the nine villages that surround the Mbe Mountains [12]. The preliminary assessment study from 2010 also highlighted the Mangrove Cluster, stating that the state's mangrove reserves are extremely rich in forest biodiversity and span an area of about 5% of the overall land area. Currently participating in the REDD⁺ process in Cross River State are more than thirty villages that reside on mangrove swamps. This area, which has been maintained by Cross River National Park, forest reserves, and indigenous forest communities with high species richness and diversity, including both vascular and nonvascular plants that reflect the local microclimatic conditions, is thought to be unique because it contains the last remaining pristine rainforest vegetation in all of Nigeria.

These regions together make up over 900,000 hectares of forest land. The population is culturally varied, speaking over 39 distinct regional languages and dialects that are dispersed unevenly throughout all eighteen local government areas (LGAs). According to Akindele et al. [13] the languages spoken in the state of Cross River are classified into three groups: native, English, and Nigerian pidgin. Both the majority and minority populations speak Efik, the most widely used of the indigenous languages. The Efik language has been used for trade, religious instruction, and other business-related activities for many generations. The educated elite speaks English frequently, and it continues to be the official language of communication and administration.

Most of the communities have a diverse range of traditional religious belief systems. Some tribes continue to preserve locations of worship that are symbolic of their ancient gods and customs, such as prohibited woods, sacred ponds, evil streams, and bad forests. This suggests that the majority of African communities have benefited from decades of resource conservation thanks in part to these traditional methods. Fishing, Non Timber Forest Products (NTFP) harvesting, logging, ecotourism, and agricultural potentials are all strong points of the research site economy. Due to the strong gendered nature of family systems in Cross River State communities, men and women perform separate culturally assigned tasks. For instance, Juma et al. [14] argued that married women in Cross River State towns around protected areas are expected to stay at home and take care of the family while males attend meetings on forest management. The authors contended that despite their extensive backgrounds in forest management, women still find it extremely challenging to participate in these meetings because they are typically held at night. They said that even if some ladies are eager to take part, they are not well-educated or linguistically proficient enough to converse in English. A significant amount of the tropical high forests in Cross River State are maintained as Community Forest Estates, Forest Reserves, and National Parks.

2.1. Gender, REDD⁺, Institutional level of arrangement and implementation in Cross River State, Nigeria

In Cross River State, the Forestry Commission oversaw the whole REDD⁺ implementation process. The Forestry Commission has the manpower and resources required to fulfill its legislative purpose. The REDD⁺ Technical Committee offers technical advice on all REDD⁺ related issues, and the REDD⁺ Unit is in charge of implementation. The Cross River State Climate Change Council, chaired by the State Executive Governor, is the top coordinating body for all climate change matters in CRS. The national Safeguards Information System (SIS) was managed by the Forestry Commission, which was also responsible for forest inventory, GHG emissions reporting, remote sensing and GIS, and information management. Relevant Ministries were in charge of ground implementation, as were departments and agencies, non-governmental organizations (NGOs), local communities, CBOs, traditional authorities (TAs), local government authorities (LGAs), university and research institutions, the business sector, and the media [4]. For the purpose of defining equitable opportunities for women and other vulnerable groups in REDD⁺ planning, decision-making, and implementation, stakeholders have recognized gender and equality as a critical aim. Addressing the gender gaps that come from sociocultural norms, low literacy rates, and deeply held patriarchal beliefs is crucial since these factors all impede the adoption of new concepts, ideas, and attitudes. It was necessary to take gender issues into account while interacting with both men and women as well as marginalized and vulnerable groups in order to exchange information, build capacity, promote, and push for the utilization of forest resources [4].

2.2. Instrument of data collection

Using Google, a search for documentation of REDD⁺ initiatives in Nigeria was carried out in May 2021. We accessed and inspected every page that came up when we typed in the search keywords “REDD Nigeria,” “REDD⁺ Nigeria,” “REDD projects Nigeria,” or “REDD⁺ projects Nigeria” to make sure it was indeed about REDD⁺ in Nigeria. There were no new websites or REDD⁺ initiatives found despite searching till saturation. The following crucial phrases were looked for in every document: “gender,” “man or woman,” “men or women,” or “male or female.” There were no mentions of a female animal. The document was designated as “includes gender” and included in the study if the crucial phrases appeared in it at least once. By using this search technique, 270 documents that correspond to 95 were identified and analysed. Each every one of the 270 papers were composed in English. Additionally, questions were asked about (a) how gender and the REDD⁺ initiative were perceived; (b) policy discourses on institutional level of arrangement; (c) opinions and perceptions on bottlenecks; and (d) how gender were perceived and evaluated using actors and institutions standard in forest resource governance. The interview groups included Village Head, Principal Officers of the Cross River State Forestry Commission, and REDD⁺ staff.

2.3. Document analysis of gender mainstreaming and institutional arrangement of REDD⁺ in Nigeria

Three “levels” were used to code each document. The ideas listed for this study are closely connected to levels two and three. Documents that draw a link between the social/gendered and ecological systems are included in level two. These materials explain why gender matters for REDD⁺ efforts, but they don’t go into detail about how to best include gender and women’s issues into them. Level three documents are those that examine the obstacles to include women in these programs and policies or provide detailed instructions on how to improve their involvement and capabilities. Though level one papers have some mention of gender but do not match the requirements for any of the other two levels, this is based on the understanding that any consideration of gender in these REDD⁺ related documents is a positive start in the right direction. **Table 1** presented each level’s concept and examples in a clear and concise manner.

2.4. Focus group discussion

The following member breakdowns were achieved through focus group discussions (FGDs) in the selected communities across the pilot sites: adult men and women aged 36–59, male and female youth aged 18–35, and elderly men and women aged 60 and above. The purpose of the group discussions was to gain an understanding of the perceptions, participation, decision making, and institutional level of arrangement of REDD⁺ in Cross River state. The emphasis on gender disaggregation allowed for full participation of gender representative sections of the community members.

The discussions were guided and focused on pertinent topics related to the major research questions using a check-list or FGD guide of questions. Each participant was given an equal opportunity to voice their views without any person suppressing the opinions of others.

2.5. Statistical analysis

After literature review, data were entered into MS Excel, and then analyzed with SPSS (version 25) using descriptive and inferential statistics and the results were presented in form of tables.

3. Results and discussion

Gender and Institutional level of arrangement in REDD⁺ pilot site, Cross River State

Approximately two hundred and seventy (270) linked documents on the REDD⁺ projects were analyzed using criteria in **Table 1**, of which 95 includes gender at some level and 175 do not at all. Each occurrence of the key phrases in the papers was categorized into one of the three levels after they had been located (**Table 1**). The document was coded at that level if all occurrences of the keywords were coded at the same level. The whole document was coded at the highest level present in the document when a single document included many levels, which was common.

Table 1. Gender inclusion and mainstreaming level by in REDD⁺ initiative.

Levels	Types of gender references included at each level
Level 1: Non-substantive inclusion	Demographics/statistics alone without any explanation
	Men/Male and Women/Female basic appearance
	Lists of potential partners, organizations, policies etc.
	Gender acknowledgement and consideration without any further explanation on why both acknowledgement and consideration is priority
Level 2: Superficial inclusion	Explanation of best practices or definitions of concepts without specific details or plans of how they were integrated into the policy/project
	Statements that male/men and women/female were included, but without details of their level of participation or inclusion
	Acknowledgement of <i>why</i> gender should be considered and/or the importance of gender inclusion, but without details of how it has been or were integrated into policy or projects.
Level 3: Integrated inclusion	Discussions of the potential barriers to men and women's participation, and how barriers were been addressed
	Explanation of <i>how</i> gender considerations has been or were been included in the policy project

Based on the results of this analysis's fundamental level, it is clear that gender is neither mainstreamed nor given significant consideration in Nigeria's REDD⁺ programs, especially at the institutional level of arrangement when putting resilience measures into practice. Only 95 of the 270 REDD⁺ related documents in the nation, mentioned gender or men/women at all. (translated to 51% of the total). Nearly half of the texts that include the crucial phrases were categorized at level 1, which means that gender concerns were not material. Gender were discussed in 7% of the total number of papers in a way that was substantial, integrated, and mainstreamed. Regardless of how it is seen, the significant inclusion of gender issues, which appears in 7% of the 270 publications relating to REDD⁺, does not reflect mainstreaming. A breakdown of the number and percentage of documents categorized at each level is shown in **Table 2**. A closer look at how gender is constructed at every level makes it more evident that gender mainstreaming remains mostly theoretical rather than useful in day-to-day affairs. At this level, documents would often include organizations, a women's or gender organization being one of many, but they would seldom explain or consider why their involvement was important for REDD⁺ efforts or policy. Alternatively, by reporting on the number of men and women living in a certain village of interest, these publications may have appeared to provide gender-disaggregated statistics, but without offering a thorough context through which such data may potentially not be evaluated. The majority of the time, this data was provided as extremely basic demographic data without any connection to potentially interesting outcome factors. The following excerpt from a design paper for the REDD⁺ documents in Cross River State provides another example of how the keywords are typically used at this level. This text does not truly consider women as stakeholders, even though it is clear that they are involved in the forest activities and are active participants. Rather, it simply enumerates the involvement of women without delving deeper into how men and women have influenced the forest's changes in comparable or different ways, or how these changes have affected individuals whose lives and livelihoods depend on the

forest in different ways according to their gender. The document goes on to analyze and discuss important changes that have occurred in the communities that have been assessed, including concerns about land ownership, economic activity, providing for basic needs, and opinions about the future of the forest. However, it fails to consider how these important aspects of community life may differ depending on a person's gender or affect men and women differently.

Table 2. Gender inclusion in REDD⁺ documents by level and language in Nigeria.

Total number of documents analyzed: 270							
Any level		Level 1		Level 2		Level 3	
Language	Number	% of total	% of gender	% of total	% of gender	% of total	% of gender
English	95 (100%)	(51%)	(40%)	(26%)	(19%)	(14%)	(7%)

Source: Field survey.

*Figures in parenthesis are percentages of total and gender inclusion levels in REDD⁺ overall analysed documents.

The second most prevalent inclusion at level 2 is (26%) of which gender consideration accounted for (19%). Gender concerns in these papers are more extensive than in level one, although they are still *superficial*. The great majority of these publications mention gender mainstreaming explicitly as a recommended practice, suggesting that these guidelines were followed or ought to be followed, but they don't go into any depth about how that inclusion was achieved. They have a broad understanding of the significance of gender issues, frequently establishing a connection between gendered and ecological social systems, but they lack specifics about how these factors should be included. Without these facts, it is unclear whether the authors of the documents actually comprehend the value of gender mainstreaming and support its use, or if they are merely repeating the required axioms in order to meet gender mainstreaming standards.

This kind of rhetorical gender inclusiveness was recorded in level 3, which prioritizes involvement to appearance. Only 12 out of 270 documents showed that they truly and fully understood the gender mainstreaming ideas. Gender had to be incorporated throughout the text for it to be coded at this level, and specifics on how gender was or will be taken into account had to be included. These articles consciously attempt to investigate the obstacles to gender mainstreaming and/or the methods of effectively incorporating women and their experiences, concerns, and ideas into programs and policies, clearly surpassing a cursory and procedural inclusion of gender. Rather of being just or even predominately defined as "vulnerable," women are respected and entire members of society who take part in REDD⁺ and forest management initiatives. The terms, for instance, may be found almost everywhere in the 2011 annual national REDD⁺ program report (2012). Additionally, it offers specific instances of the gender mainstreaming initiatives implemented so far in the national REDD⁺ program, such as a national communications plan to inform the public about the connection between gender issues, climate change, and REDD⁺. Additionally, it offers recommendations, suggestions and objectives for further development. This outcome demonstrates the formation of a team to address issues related to gender equality, roles, and land rights, knowledge access, and economic

activity. In order to make sure their goals are achieved, the team may also collaborate with external non-profits, which are listed. It is interesting to note that this national semi-annual report, which is submitted to UN-REDD for review, was coded as level three, despite the National REDD⁺ Strategy, which directs the national level REDD⁺ program, being categorized at level two. The method clearly took gender issues into account, but it did not go beyond stating that gender should be taken into account and why.

The goal of applying the principles, criteria, and indicators within the social safeguards framework is to offer a strong basis for both the general governance process and the full restoration of the public's right. Therefore, it is essential that the social safeguards framework be specifically created to benefit marginalized groups, such as women who are disproportionately affected by changes in family income, indigenous peoples, local communities that live near forests, and other societal groups whose status in society makes it difficult for them to exercise their human rights.

The National REDD⁺ Strategy's inclusion of gender issues is best exemplified by this quotation. It emphasizes that women should be involved in the process for a number of reasons, including their potential vulnerability, but it makes no recommendations for how to do so. It also serves to illustrate the variations discovered between the organizations in charge of document writing and publication, as seen in **Table 3**.

Table 3. Level of inclusion by responsible agencies.

	Any level	Level 1	Level 2	Level 3
Total documents at any level				
Intergovernmental	27	14 (52%)	15 (56%)	5 (19%)
National/Sub-national	15	10 (67%)	11 (73%)	2 (13%)
International NGO	28	18 (64%)	9 (32%)	5 (18%)
Business	6	6 (100%)	0 (0%)	0 (0%)
Total	95	48	35	12

Source: Field survey.

*Figures in parenthesis are percentages of total and gender inclusion levels in REDD⁺ analysed documents by agencies.

Reference to assessment of institutional level of arrangement in related to gender and REDD⁺, level three of the assessed document does have the lowest percentage mainly from international organizations such as UN-REDD, Cross River State Government which demonstrated the most consistency. On the other hand, national and subnational level texts are least expected to contain gender issues at level three and most expected to do so at category two. Otherwise, despite the fact that international NGOs like the UN-REDD, World Bank's FCPF, Ministry of Environment, Cross River State Forestry Commission, Community-Based REDD⁺, etc., and the World Wildlife Fund (WWF) produce the most documents related to REDD⁺ in Nigeria and play a crucial role in project implementation, the majority of their documents only briefly mention gender considerations. This implies that agencies display less compliance with the gender mainstreaming rule in their documents which refers to the farther they are to the actual execution of REDD⁺ programs using the

gender lens. As evidenced by their uniformity across all levels and relatively high quantity of papers categorized at level three, intergovernmental agencies naturally appear to have understood gender mainstreaming best with adequate implementation procedures. The majority of level two documents created by Nigerian agencies provide best practices, which shows the gap between policy requirements and actually carried out practice rather than showing that gender mainstreaming is actually understood or how to be included. On the other side, NGOs are perhaps the most closely associated with project execution. They have contacts to, and occasionally representation inside, the communities themselves, and assist in the Free, Prior, and Informed Consent (FPIC) procedure. They work on the ground to bring REDD⁺ initiatives ranging from policy formulation to implementation stage, however the great majority of their publications show a lack of awareness of gender mainstreaming or the reasons why gender considerations can be crucial for the success of these programs.

One of the two issues that consistently appear in many of the papers included in this study is highlighted in the passage from the National REDD⁺ plan that was previously mentioned. Even while it takes into account gender concerns, it also makes the case that women should be involved in REDD⁺ only because of their vulnerability, rather than because they are important stakeholders such as: forestry policy, management, sustainable development, and community involvement respectively. In fact, regardless of degree, the notion of women as vulnerable predominated all the publications. There are various issues with this one-dimensional portrayal of women. First and foremost, gender mainstreaming at its finest considers “observations, practices, acquaintance and interests of women [and] men” in the formulation and execution of projects and policies [15]. The experience of women as a group subject to shifting political, economic, and ecological contexts should not be used as a sole justification for limiting their involvement. Women play a significant role in managing natural resources, forests users, and participating in communities [5]. They contribute to these processes and are both sensitive to a changing environment and degraded and deforested trees. Women have also developed strategies for adjusting to and minimizing these changes. The whole scope of Nigerian women’s encounters with and in the woods is not captured by policy or programs that do not take into account women’s views, experiences, worries, and thoughts beyond their status as a vulnerable group. Similar to how women are regularly identified as a vulnerable group in these publications, men may also feel vulnerability in these forest communities. However, these materials seldom discuss how this vulnerability may affect men and women differently in the framework of REDD⁺ initiative in Nigeria.

The way obstacles to women’s participation were handled was a second issue that was noted in several of the records. Even papers coded at level three mainly failed to identify that, even when and when room is established for them, women may still be prevented from participating in policy creation and project execution due to cultural, social, economic, or political concerns. The majority of the few texts that mention this fail to address these obstacles, much less offer suggestions for how to do so: “Interviewing women informants was challenging given the cultural background and socio-political structure of the community in the research location”. In order to successfully and comprehensively integrate gender mainstreaming principles into REDD⁺ policies and programs, a detailed analysis of the institutions that impede

women's participation in these processes must be conducted. This is closely related to Sen's theory of capabilities. Examining and debating the issues women face is essential in a country like Nigeria where women's relations with the state have historically been unclear. Although women are commonly recruited into sustainable development initiatives and have influential positions within the government structure, the bulk of women in these jobs come from the political and social upper classes. Nonetheless, others may argue that gender has been mainstreamed and is no longer an issue in the country that needs to be solved simply because women do hold positions of leadership and influence. [6].

The REDD⁺ initiative's activities for women were deemed "exclusionary" in some communities to the point that Cross River State's implementation of REDD⁺ and the conservation laws that go along with it was imposed rather than agreed upon [16]. The local chiefs who were approached were not fully informed on the advantages and effects of the project in their forests, and no prior information about REDD⁺ was supplied. As a result, the REDD⁺ process in Cross River State is comparable to that in Cameroun, where a formal (Free Prior Informed Consent) FPIC process, according to Tegegne et al. [17], was not carried out at the Mount Cameroun project site. The communities in Cameroun were not formally introduced to REDD⁺, which has led to their marginalization. In contrast to the situation in Cameroun, the REDD⁺ project's proponents in Nigeria formally announced it, and alternative livelihoods programs and incentive payments are being explored. However, there are disagreements over adequate livelihood alternatives that are acceptable to all local groups in Cross River State between the REDD⁺ proponents and local people. This study supports the idea that the FPIC procedure is still something that will be planned for the future rather than something that must be done right away. The transformative change anticipated in REDD⁺ does not address uneven power and institutional relationships between actors involves REDD⁺ project in Cross River State, which may weaken collaboration and ultimately compromise policy implementation, especially from the perspective of gender.

Focus group discussions (FGD) were used to conduct gender analysis and community mapping at the local level in order to identify stakeholders and obstacles preventing women and other vulnerable groups from effectively participating in REDD⁺ [18]. The results of the gender analysis and community mapping of focus group discussions (FGD) revealed the specific needs of women and other vulnerable groups in REDD⁺, especially with regard to the institutional level of arrangement. If these needs were met, it would enhance equity and encourage the effective participation of women and other vulnerable groups in REDD⁺.

This study comes to the conclusion that formal free prior and informed consent was not given in the pilot communities because proponents believe the state-selected representatives speak for them. Nuesiri [19] noted that as a result, local representation is lacking in Nigeria, even during UN-REDD policy board meetings and consultation processes during the project's early stages. He said that local government representatives from the state were not invited to meetings because the project's proponents claimed that there were insufficient funds to finance their travel arrangements. Nuesiri argued that the reason local representatives were excluded was because the majority of them lacked the environmental competence necessary to make

significant contributions and were probably only interested in advancing their own interests. Asiyanbi [20] contends that because the government only wants to share authority with NGOs and not with the local groups in charge of managing the woods, there is no decentralized forest governance under REDD⁺ in Nigeria. These ideas are supported by this study's findings.

4. Conclusion

This study concluded that though there was an institution level of arrangement for the implementation of REDD⁺ project in Nigeria created to include many stakeholders through invitation. The institutional arrangement set up follows bureaucratic and social norms with non-compliance of gender mainstreaming, and out of non-substantive, superficial and integrated inclusions this study used to assessed gender and institutional level of arrangement in REDD⁺ pilot site Cross River State, only *integrated* that accommodate element of gender mainstreaming was low.

5. Area for further research

This study on social consideration analysis should be embarked on which will show the power relations between the REDD⁺ actors. Gender indices and social analysis such as:

- Gender socialization and inclusion.
- Role constraint.
- Intra-household and community decision making.
- Intra-household and community participation.
- Gender and Institutional climate change management approach, and Climate change initiative burden and benefit sharing on gender which have remained relatively scanty thus far should be considered.

6. Limitation of the study

Owing to the unique characteristics and UN-REDD's consideration, the study was conducted at a REDD⁺ pilot site that was authorized in Cross River State, Nigeria. Furthermore, researchers need to devote greater time to a number of other important topics. This research specifically does not look at places where women are customarily denied inheritance rights and other social privileges. One of the primary constraints of this study is the gendered dimension of Nigerian REDD⁺.

Lastly, the implementation of the community-based REDD⁺ program by UN-REDD as a parallel project with other readiness demonstration activities is not evaluated in this paper. The current Cross River State government's policy orientation and the escalating disputes between the state and local communities over the revocation of their customary forest rights are two aspects of Nigeria that will be of special relevance.

Author contributions: Conceptualization, AOB and AOO; methodology, AOB, AOO, ACA, OHA and OOA; software, LAA and DSM; validation, VOO and CF; formal analysis, AOB, OOA, AOO, LAA and ACA; investigation, AOB, AOO, ACA,

OHA and CF; resources, AOB and AOO; data curation, AOB, AOO, ACA, OHA and DSM; writing—original draft preparation, AOB, AOO, ACA, OHA and VOO; writing—review and editing, AOO, AOO, ACA, OHA and VOO; visualization, OOA, OOA and CF; project administration, AOB and OOA; funding acquisition, AOB and AOO. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by the UK Research and Innovation (UKRI) through the Global Challenges Research Fund (GCRF) program, Grant Ref: ES/P011306/ under the project Social and Environmental Trade-offs in African Agriculture (SENTINEL) led by the International Institute for Environment and Development (IIED) in part implemented by the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) and African Forest Forum (AFF), World Agroforestry Centre (ICRAF), Nairobi, Kenya. The authors thank them for providing fund, logistics and capacity building for this research.

Conflict of interest: The authors declare no conflict of interest.

References

1. Larson AM, Solis D, Duchelle AE et al. Gender Lessons for Climate Initiatives: A Comparative Study of REDD⁺ Impacts on Subjective Wellbeing. *World Development*. 2018; 108: 86-102.
2. Duchelle AE, de Sassi C, Jagger P, et al. Balancing carrots and sticks in REDD+: implications for social safeguards. *Ecology and Society*. 2017; 22(3). doi: 10.5751/es-09334-220302
3. UN-REDD. UN-REDD Methodological Brief on Gender. United Nations REDD Programme. 2017.
4. Nigeria REDD⁺ Readiness Programme. UN Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries National Programme Document. Federal Ministry of Environment: 2012.
5. Basiru AO, Mukundi JB, Oeba VO. Gender and Social Vulnerability Assessment of Forest-Based Communities to Climate Change and Variability in Southwest Nigeria. *Applied and Social Science International Research Journal*. 2018; 1: 56-68.
6. George T, Anthony O, Olawale O, et al. Factors militating against gender mainstreaming in Nigeria. *Gender and Behaviour* 2019; 11: 14038-14045.
7. UNFCCC. UN Climate Change Annual Report. 2018; 8-49.
8. Igiebor OT. Gender Equity Policies and Women in Academic Leadership Positions in Nigeria. PhD diss., ResearchSpace@Auckland, 2021.
9. Satyal, Poshendra, Esteve C, et al. Justice-related impacts and social differentiation dynamics in Nepal's REDD⁺ projects. *Forest Policy and Economics*. 2020; 117: 102203
10. Basiru AO, Oladoye AO, Adekoya OO. et al. Livelihood vulnerability index: gender dimension to climate change and variability in REDD⁺ piloted sites, Cross River State, Nigeria. *Land* 2022; 11: 1240.
11. Onojeghuo AO, Fonweban J, Godstime KJ. et al. Community participation in forest management across protected areas in south eastern Nigeria. *Ife Journal of Science*. 2016; 18: 213-228.
12. Isyaku U. Beyond Policy Design: REDD⁺ Implementation and Institutional Complexities of Environmental Governance in Cross River State, Nigeria. University of Leicester, Leicester. 2017; 326.
13. Akindele J, Oladepo O, Richard A. Linguistic Diversity, Nigerian Indigenous Languages and the Choice of the English Language for Nigeria's National Sustainability. *Voices: A Journal of English Studies* 2022; 7: 72-83.
14. Juma, Edwin AB, Paul O, et al. Understanding levels and motivations of rural women engaging in Forest Management Institutions: Evidence from developing countries. *Journal of Ecology and The Natural Environment* 2021; 13: 51-62.
15. Duma MG. Gender Mainstreaming Plan for Gender-Responsive Public Schools. *PUPIL: International Journal of Teaching, Education and Learning* 2022; 5: 144-161
16. Asiyanbi AP. A political ecology of REDD⁺: Property rights, militarised protectionism, and carbonised exclusion in Cross River. *Geoforum*. 2016b; 77: 146-156.

17. Tegegne YT, Charles P, Sven W, et al. REDD⁺ and equity outcomes: Two cases from Cameroon. *Environmental Science & Policy* 2021; 124: 324-335.
18. Awono A, Somorin OA, Atyi REA, et al. Tenure and participation in local REDD+ projects: Insights from southern Cameroon. *Environmental Science and Policy*. 2014; 35: 76-86.
19. Nuesiri E. Local government authority and representation in REDD+: a case study from Nigeria. *International Forestry Review*. 2016; 18: 306-318.
20. Asiyanbi AP. Beyond utopia and a ‘power-full’ state: a reply to Nuesiri. *The Geographical Journal*. 2016a; 182: 104-106.