

Women in Climate Change for Sustainable Impact: Ecotourism for Poverty Alleviation in Rural Akwa Ibom State

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ABSTRACT

This study sought to assess the contributions of ecotourism as poverty alleviation strategy amongst women in rural Akwa Ibom State. The study was descriptive in nature and employed survey research design. Based on reconnaissance survey, three major ecotourism sites were purposively selected for the study, one from each of the senatorial districts in Akwa Ibom State, making a sample size of three (3). Fifty questionnaire forms were administered in each study site using simple random sampling method and same were returned. This makes a total of one hundred and fifty (150) questionnaire forms. Data were analysed descriptively based on the questionnaire responses. Furthermore, to evaluate the impact of women on sustainable ecotourism development, chi-square (χ^2) statistical method was employed for the hypothesis test. The result shows that women have significant impacts on sustainable ecotourism development. This indicates that women are the integral part of development. Also, new ecotourism attraction sites were discovered during the inventory. Therefore, the researcher recommends that women should actively participate and involve in ecotourism related activities. They should reinforce positive conservation habit towards natural resource base. Also, biodiversity should be advocated and women should be integrated in planning and decision making towards tourism development since they are more vulnerable.

KEYWORDS

Ecotourism; poverty alleviation; climate change; vulnerability; environment

INTRODUCTION

Researchers, practitioners and the United Nations World Tourism Organisation (UNWTO) have acknowledged tourism as the largest industry in the world and as an economic elixir to ameliorate poverty and especially in the developing nations (UNWTO 2007). Largely known for the multi-sectorial nature which elicits the multiplier effects, tourism is a veritable tool to alleviate poverty. Generally, in the developing countries the major occupation is farming and allied activities. This stems from the fact that it is largely rural and an agrarian landscape (Shinbrot *et al.*, 2019). Women play a pivotal role in agrarian matters and thus their influences in sustainable development are crucial and recognized. Research has shown that women are the most vulnerable and disadvantaged to the challenging impacts of climate change. In the developing countries this is easily understood from the hindsight that women by their roles and responsibilities in their traditional settings are closer to the environment than their male counterparts (Imikan and Udofia 2016b). Akinsemolu and Olukoya (2020) who carried out a research on the

vulnerability of women to climate change confirmed the vulnerability of women largely as their dependent on environmental resources for their sustenance and their respective families. Arora-Jonsson (2011) and Glazebrook (2011) collaborated this stance on the premises of the adverse effects on agricultural activities, seasonal migration, food insecurity and general well-being. They further argued that women are more prone because they contribute a sizeable number of the world's poor population.

From the foregoing, existing studies generally agree that women are mostly affected to climate change and thus concomitant consequences on their overall contributions to individuals' families and communities, Nevertheless as would be expected, despite the generalization, there exists exceptions. The role of women in sustainable development especially in the tropics can never be overemphasized. More so when taken into cognizance that women form the bulk of the work force in agriculture and allied activities. It's on this platform that programmes geared towards eradicating poverty, providing palliatives to victims of environmental disasters, protecting the fragile and vulnerable ecosystem and contributing to the socio-economic wellbeing of the largely rural inhabitants (UN Sustainable Development 2015).

At the 1992 United Nations Conference on Environmental and Development in Rio de Janeiro, over 170 countries overwhelmingly endorsed the 27 guiding principles for sustainable development and accepted that women are crucial and pivotal in environmental management and sustainable development (Agenda 21 1992; UN General Assembly 1992). A major challenge that constraint women from contributing significantly to the alleviation of poverty using ecotourism as a strategy is the patriarchal structure. This impediment hinders women to express their potential and thus inhibit them to maximally get to their desired aspiration. The first factor dovetail into the second factor that of complex. Since the culture has conditioned them to perceive they do not belong, they play the second, fiddle which hinder their capability and capacity to bring their inert talents to the fore. To redress this disturbing situation, (Shinbrot *et al.* 2019) posited that women's movement in synergy with their male counterpart should redress the hierarchical domination and cultural oppression.

Overtime, climate change has been in the front burner consequence upon human activities globally. The vulnerability of women to climate changes differs from region to region and society to society. The vulnerability is largely a function of local life styles or tradition, economics, political, level of education and salient environmental factors (Akinsemolu and Olukoya 2020). The appraisal of the plethora of literature on the vulnerability of women to climate change seem overwhelmingly tilting towards the generalisation that women are more prone to the adverse effects of climate change or agricultural activities and related activities. Climate change has disproportionately affects women more and exacerbates the inequalities between genders. Women are more susceptible to climate change impacts compared to men, because they are more vulnerable because they make up a more significant proportion of the world's poor (Adzawla *et al.* 2019; Leslie *et al.* 2018; Ma *et al.* 2019; McKune *et al.* 2015; Ngigi, Mueller and Birner 2017; Salehi *et al.* 2015; Wilcox and Akadi 2015). This is irrespective of the contextual differences in socio-cultural, political and economic dynamics and peculiarities of the eco-system involved. In the light of this therefore this paper delves into the study area that constitutes three sensational districts in Akwa Ibom State located in Niger Delta region of Nigeria. The women here like in most countries of the tropics are artisans, farmers; others are involved in fishing and petty trading (Ekanem 2018).

The relevant literatures that have been perused are mostly on case studies, relating to the localities where the tourist points are located. Tourism receipts do improve the exchange rate and upgrade tourism infrastructure, but does it translate in improving the income vis a vis the living standard of the locals? Poverty alleviation is a multi-dimensional concept, fluid and could be understood and applied in more ways than one. It encompasses economic indices such as levels of income and consumption patterns, non-economic indices- access to health facilities, education, portable water and general well-being (Medina-Muñoz, Medina-Muñoz and Gutiérrez-Pérez 2016). A cursory look the large plethora of literature, seem to agree that the different facts of tourism (marine tourism, medical tourism, cultural tourism, community based tourism, ecotourism, impact positively on the locals where these are in operation thus ameliorating poverty (Coles, Fenclova and Dinan 2013; Kry *et al.* 2020; Pan *et al.* 2018; Reimer and Walter 2013; Zapata *et al.* 2011). This study in tends to investigate: to what extent has ecotourism impacted on the rural poor, what are the ways, or what could be done to employ ecotourism to better the lives of the locals. The task becomes more interesting, when mass tourism is considered as all encompassing, more profitable and beneficial compared to ecotourism, considered to be on a small scale (Burns 2004; Butler 1989).

Ecotourism as a strategy in favoured or chosen because of its grass-root oriented with a widespread benefits for locals and its environmentally friendly (Ashley and Roe 2002; Zapata *et al.* 2011). (Butcher 2011) opined that Ecotourism is a valuable approach to alleviating poverty while at same time provides benefits to the locals for environmental conservation.

In their conclusion, they emphasised that tourism generally can contribute to poverty alleviation through education, building human capital assets training in social skills and in the tourism industry. This culminates into meaningful employment, promote local communities empowerment, that would encourage ownership and management of physical assets (Esin, Ebong and Utting 2018).

In Nigeria, several strategies have been employed and adapted to transforming the rural landscape as well as the inhabitants within the past 30 years, about eight programmes meant to transform the rural areas and the locals but with no remarkable progress (Imikan and Udofia 2016a). The relevance of ecotourism to the development of the rural areas cannot be overstressed. Ecotourism has become the means by which third world countries with little to offer, but with nature based endowment could accumulate capital and ultimately kick-start their development process. Hence, the root cause of this study.

RESEARCH METHODS

The study was descriptive in nature and employed survey research design. The researcher incorporated both qualitative and quantitative statistical methods of data collection and analysis from primary and secondary sources. Tables, charts and graph were used to support the study. Based on reconnaissance survey, three major ecotourism sites were purposively selected for the study, one from each of the senatorial districts in Akwa Ibom State, making a sample size of three (3). Fifty questionnaire forms were distributed in each study site and same were returned. This makes a total of one hundred and fifty (150) questionnaire forms. Simple random sampling method was used to administer the questionnaire forms. People of utmost consideration were the rural dwellers especially the women. However, interview and direct observation were also employed.

To identify the ecotourism sites in Akwa Ibom State, inventory on ecotourism attractions were carried out. However, data were analysed descriptively based on the questionnaire responses. Furthermore, to evaluate the impact of women on sustainable

ecotourism development, chi-square (χ^2) statistical method was employed for the hypothesis test. Thus the formula: $\chi^2 = \frac{\sum [O-E]^2}{E}$

- where, χ^2 = Chi-square
- O = the observed frequency
- E = the expected frequency
- \sum = the sum of or summation

Data Presentation and Analysis

The research study shows that forty-nine (49) respondents representing 32.7 per cent of the respondents were male while one hundred and one (101) respondents representing 67.3 per cent of the respondents were female. This shows a good representation and involvement of men and women in the tourism industry and also indicates that people in the communities engaged in ecotourism activities were mostly women

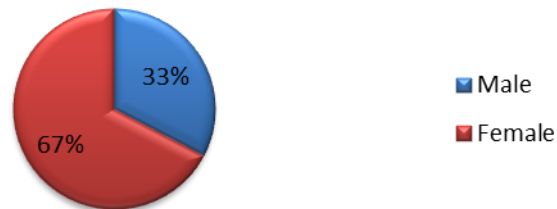


Figure 1. Demographic Distribution of Respondent's Sex

On the age status, it was discovered that more respondents were within the range of 36-45 years with sixty-six (66) respondents representing 44.0 per cent of the total respondents. Age 45 and above years was next in line with a total of forty (40) respondents representing 26.7 per cent of the total respondents. 26-35 years were thirty-two (32) respondents representing 22.3 per cent of the total respondent while 18-25 years were twelve (12) respondents representing 8.0 per cent of the total sampled population for the study.

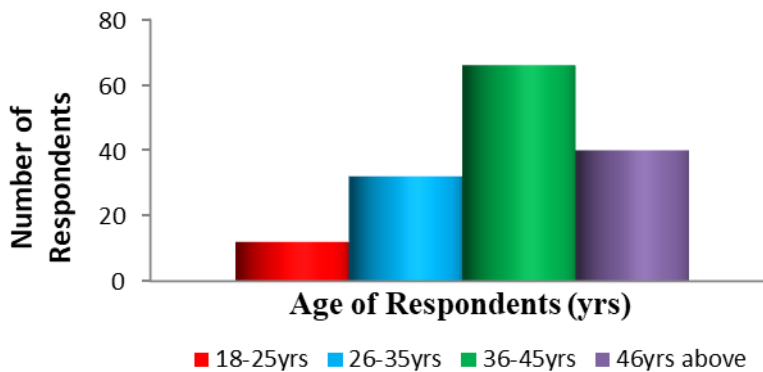


Figure 2. Demographic Distribution of Respondent's Age

In respond to the marital status, it was revealed that twenty-two (22) respondents representing 14.6 per cent of the sampled population were single while one hundred and seventeen (117) representing 78.0 per cent of the total respondents were married and only two (2) of the respondents representing 1.3 per cent were divorced. However, nine (9) respondents representing 6.0 per cent of the total respondents were widow/widower. This indicated that the research study cut across all categories of marital experience.

Table 1. Demographic Distribution of Respondent’s Marital Status

Category	No. of Respondents	Percentage
Single	22	14.7
Married	117	78.0
Divorced	2	1.3
Widow/widower	9	6.0
Total	150	100.0

On educational status, eleven (11) respondents representing 7.3 per cent of the total respondents were first school leavers; thirty-eight (38) respondents representing 25.3 per cent had their secondary school certificate. A total of thirty two (32) respondents representing 21.3 per cent of the total respondents had National Certificate in Education (NCE) or an Ordinary National Diploma (OND) while sixty-nine (69) respondents representing 46.0 per cent of the sampled population had at least Higher National Diploma (HND) or University Degree. This shows that all the respondents were literates and could understand and contribute to the research work to achieving to aim of the research.

Table 2. Demographic Distribution of the Respondent’s Educational Status

Category	No. of Respondents	Percentage (%)
FSLC	11	7.3
SSCE	38	25.3
OND or NCE	32	21.3
HND, B.Sc and above	69	46.0
Total	150	100.0

Based on the income level of the respondents per month, sixteen (16) respondents representing 10.7 per cent of the respondents revealed that their income levels are below N10, 000. Thirty-six (36) respondents representing 24.0 per cent of the participants revealed that their income level is within N11, 000 and N30, 000 per month. A total of forty-five (45) or 30.0 per cent of the total respondents revealed their income level to be within the range of N31, 000 and N45, 000 per month while fifty-three (53) respondents representing 35.3 per cent of the total respondents revealed their income level to be above N46, 000 per month. This shows that ecotourism industry has the potential to enhance lives in a sustainable framework through wealth creation, innovations and increased income.

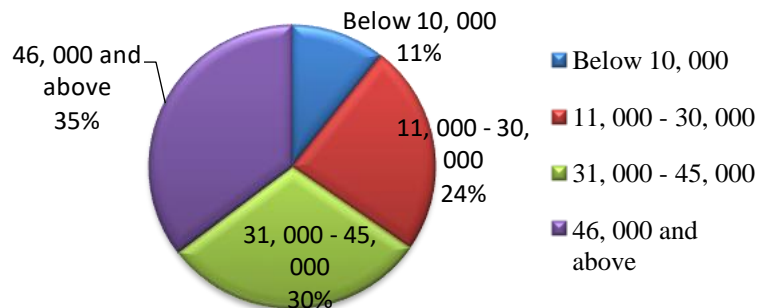


Figure 3. Income Levels of Respondents

On rating the level of women’s vulnerability to climate change, it was revealed that ninety-two (92) or 61.3 per cent of the respondents rated it very high, fifty-four (54) or 36.0 per cent of the total respondents rated it high while four (4) or 2.7 per cent of the

respondents were moderate. However, none of the respondents rated it low or very low. This indicates that the level of women’s vulnerability to climate change is alarming.

In the respondents’ responses to the reasons for women’s vulnerability to climate change, all (150 or 100.0%) the respondents accepted the propositions respectively that low ability to adapt, reliance on natural resources for livelihood and dependent on agriculture for livelihood are the major reasons for women’s vulnerability on climate change in the study area.

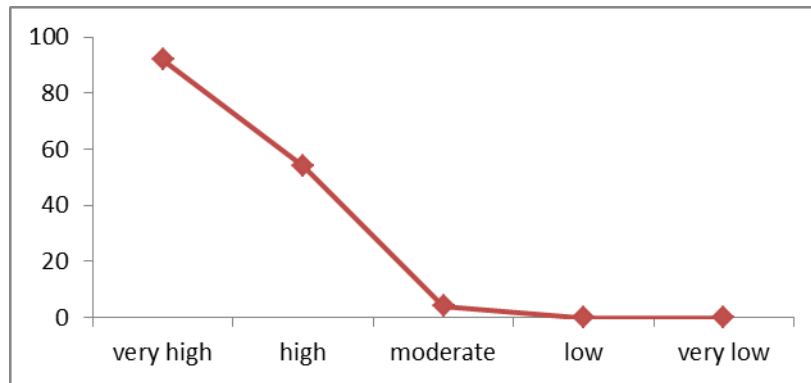


Figure 4. Women’s Vulnerability Level

To assess the tourism resource base for ecotourism development and poverty alleviation, inventorying and identification of existing and potential ecotourism attractions in Akwa Ibom State were carried out. Five major ecotourism attraction sites were identified. Out of the five identified ecotourism sites, the result shows that majority (3 out of 5) are located in Ikot Ekpene senatorial district while the other two are located in Eket and Uyo senatorial districts respectively.

Table 3. Ecotourism Attraction Sites and their Location

S/n	Tourism Attraction	L.G.As
1	Stubb Creek Forest Reserve	Eket, Esit Eket, Ibeno and Mbo
2	Ibom Le’Meridian and Golf Resort	Uruan
3	Nigerian Institute for Oil Palm Research (NIFOR) Substation	Oruk Anam
4	Usaka Forest Reserve	Obot Akara
5	Rice Farm	Ini

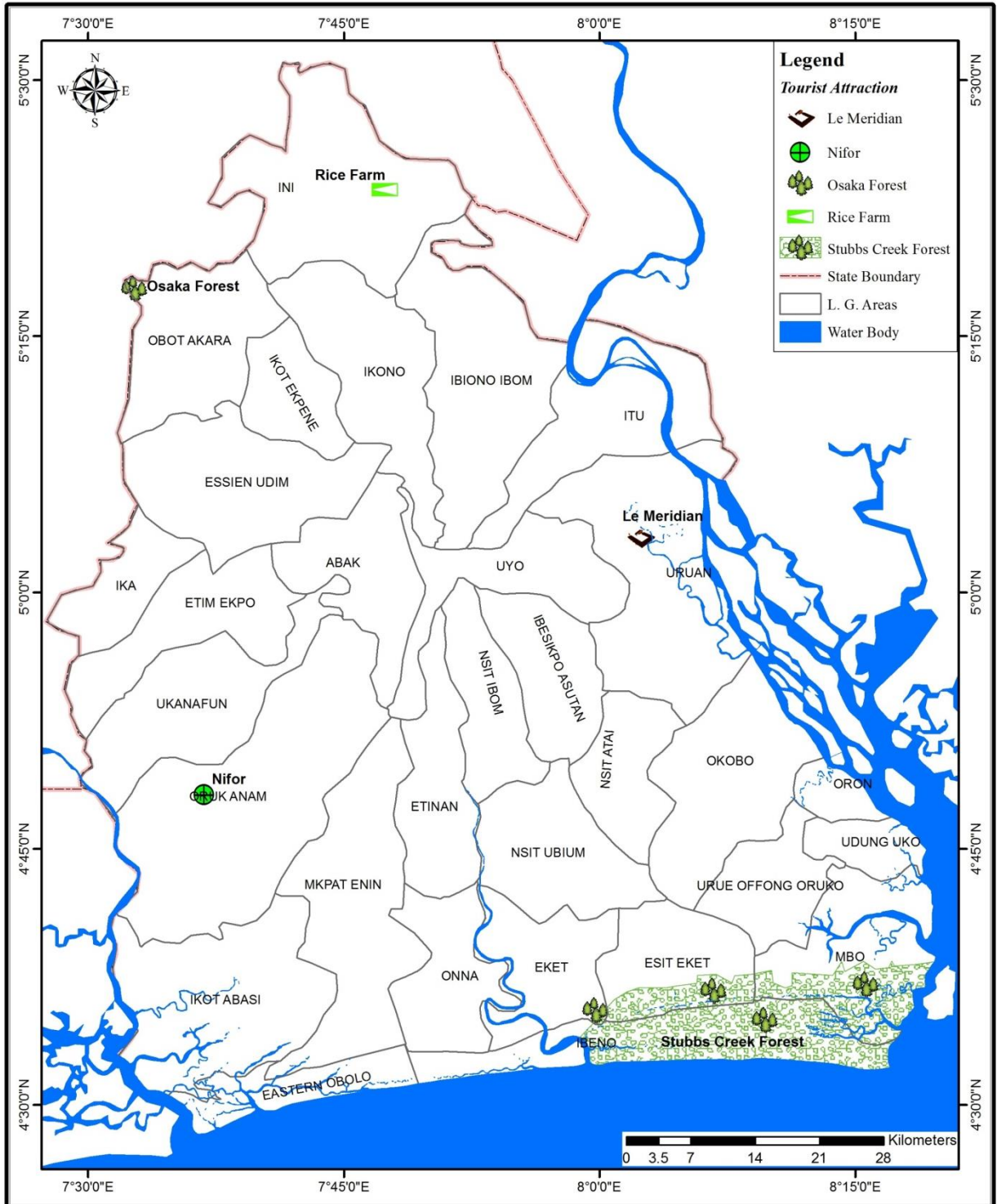


Figure 5. Akwa Ibom State showing Ecotourism Attraction site

On the proposition that active participation in ecotourism related activities inhibit ecotourism development, it was revealed that seventy-two (72) or 48.0 per cent of the respondents strongly agreed and seventy-eight (78) or 52.0 per cent of the total respondents agreed on the proposition. This shows that women participation and involvement in ecotourism related activities plays a vital role in ecotourism development. A total of thirty (30) or 20.0 per cent of the sampled population strongly agreed that reliance on natural resources for livelihood while one hundred and eighteen (118) respondents representing

78.7 per cent of the total participants concurred. Two (2) respondents or 1.3 per cent of the total respondents were undecided. A total of fifty-eight (58) or 38.7 per cent of the sampled population strongly agreed that Interest and perception of the local on ecotourism while ninety-two (92) respondents representing 61.3 per cent of the total participants concurred. Responding to the assertion that awareness of ecotourism benefits inhibit the development of ecotourism, sixty-five (65) or 43.3 per cent of the respondents strongly agreed to the assertion while eighty-five (85) or 56.7 per cent of the total respondents affirmed the assertion. On the proposition that sustainable use of resources inhibit ecotourism development, thirty (30) or 20.0 per cent of the respondents strongly agreed and one hundred and twenty (120) or 80.0 per cent of the total respondents supported the proposition.

A total of ninety-three (93) or 62.0 per cent of the sampled population strongly agreed that lack of interest and motivation on ecotourism is a constraint to ecotourism development while fifty-seven (57) respondents representing 38.0 per cent of the total participants concurred. Eighty-four (84) or 56.0 per cent of the total respondents and sixty-six (66) or 44.0 per cent of the total respondents strongly agreed and agreed respectively to the proposition that negative perception of locals on ecotourism is a challenge to ecotourism development. Furthermore, a total of eighty-one (81) or 54.0 per cent of the sampled population strongly agreed that ignorance of ecotourism benefits among rural women is a constraint to ecotourism development while sixty-nine (69) respondents representing 46.0 per cent of the total participants concurred. In ascertaining conflicts over resource ownership as a challenge to ecotourism development, fifty-five (55) or 36.7 per cent of the sampled population strongly agreed while ninety-five (95) or 46.0 per cent of the total participants concurred.

In responding to the assertion that advocating for natural resources conservation is a major impact of women on sustainable ecotourism development and poverty alleviation, sixty-three (63) or 42.0 per cent of the respondents strongly agreed to the assertion while eighty-seven (87) or 58.0 per cent of the total respondents affirmed the assertion. A total of twenty-eight (28) or 18.7 per cent of the sampled population strongly agreed that improving food security through intensive agriculture by women are impacts of sustainable ecotourism development and poverty alleviation while one hundred and twenty (120) respondents representing 80.0 per cent of the total participants concurred. However, two (2) respondents or 1.3 per cent of the sampled population were undecided. Ninety-one (91) or 60.7 per cent and fifty-nine (59) or 39.3 per cent of the total respondents strongly agreed and agreed respectively to the proposition that advocating for biodiversity is women's impact on sustainable ecotourism development and poverty alleviation

In ascertaining increased locals' income through active participation as the impact of women on sustainable ecotourism development and poverty alleviation, thirty-six (36) or 24.0 per cent of the sampled population strongly agreed while one hundred and fourteen (114) or 76.0 per cent of the total participants concurred. A total of thirty-seven (37) or 24.7 per cent of the sampled population strongly agreed that creating access to tourism market and resource use is one of the impacts of women on sustainable ecotourism development and poverty alleviation while one hundred and twelve (112) respondents representing 74.6 per cent of the total participants concurred. Meanwhile, one (1) respondent representing 0.7 per cent of the sampled population was undecided.

Table 4. Hypothesis Testing

Variables	Strongly Agreed	Agreed	Undecided	Strongly Disagreed	Disagreed	Total
Resource Conservation	63	87	0	0	0	150
Intensive Agriculture	28	120	2	0	0	150
Biodiversity	91	59	0	0	0	150
Active Participation	36	114	0	0	0	150
Market Access	37	112	1	0	0	150

Based on the data computation from field survey, the calculated Chi-square (X^2) value of 366.1 and the table value of 26.3 at 0.05 per cent level of significance were derived. Comparing these results, the calculated Chi-square (X^2) value is greater than the table value. Therefore, the null hypothesis (H_0) is rejected while the alternate hypothesis (H_1) is accepted. The result shows that women have impacts on sustainable ecotourism development. This indicates that women are the integral part of development viz-a-viz ecotourism development since they are too close to the environment and as such, are more vulnerable due to their dependents on environmental resources for livelihood. This is in line with and affirmed the work of Akinsemolu and Olukoya (2020) that the vulnerability of women is largely on their dependent on environmental resources for their sustenance and that of their respective families. In essence, women have the capacity to salvage themselves with basic strategies for ecotourism development which would in turn exacerbate poverty alleviation.

RESULTS AND DISCUSSION

Akwa Ibom state is blessed with natural resources which could trigger tourism development in the state. During the inventory on ecotourism in the state, the researcher discovered five (5) ecotourism attraction sites with unique attractions. These include Stubbs Creek Forest Reserve, Ibom Golf Resort, Usaka Forest, Rice Farm and NIFOR. The location of Ibom Golf Resort is so unique and eco-friendly. The resort stretches to Nwanaiba beach where tourist could hang around the beach and even buy directly from the locals. Rice farm was also discovered. Rice farming is the major activity of the people of Ikpe Ikot Nkon in Ini local government Area and it is only the soil of that area that could yield good fruit. The area is unique and attractive couple with the topography of the area. The Usaka forest is another ecotourism attraction discovered and it is one of the biggest forests in Obot Akara, Akwa Ibom State. It was used in 2012 for the year Gulder Ultimate Search Game (series 9), a Nigerian reality television series sponsored by Nigerian Breweries Plc to promote Gulder lager beer. NIFOR (Nigeria Institute for Oil Palm Research) is another ecotourism attraction site located in Oruk Anam. It is an attraction site to behold and a research centre for researchers.

Lastly, the Stubbs Creek Forest Reserve is unique and attractive ecotourism site in Akwa Ibom State. The Stubbs Creek Forest Reserve is the largest gazetted forest reserve in Akwa Ibom State and it is the only gazetted mangrove forest reserve in Nigeria. As a tropical rainforest, it is of significant environmental and ecological importance. It helps to regulate climate, protect soils from erosion, and provide habitats for millions of species of plants and animals. It protects the natural resource base and the environment. It is located within four Local Government Areas of Eket, Esit Eket, Ibeno and Mbo and lies between Qua Iboe River and the Cross River estuaries.

This ecotourism attraction could enhance socio-economic development in the state and improve the quality of life if properly tapped and harnessed and would promote the image

of the state in global tourism market. Furthermore, the research study revealed that women are more vulnerable to climate change due to their low or inability to adapt to the changes, their reliance on natural resources and dependents on agriculture for livelihood. With this, women are seen to be more populated among the poor. However, the result of the hypothesis tested in this research shows that women have great impacts in the development of sustainable ecotourism which in turn would exacerbate poverty alleviation among them due to climate change effect on the environment. These impacts could be reckoned in women's active participation and involvement in ecotourism related activities. Similarly, the study revealed a direct impact of women on ecotourism development to include advocating for natural resource conservation, improving food security through intensive agriculture, advocating for biodiversity and creating access to tourism market and resource use in the area. This may improve the quality of life of women and generate income earnings among women.

The level of local participation and involvement in tourism activities is essential in achieving the global aim of development that is sustainable. In developing ecotourism as a strategy to curb climate change effect and poverty alleviation, the study revealed some challenges faced which include lack of interest and motivation by the people, negative perception of the locals towards ecotourism, ignorance of the women towards ecotourism benefits and conflicts among community members towards resource ownership. With this, it shows that many people are ignorant of ecotourism and its benefits. The researcher also discovered the factors that may inhibit the development of ecotourism to include active participation, interest and good perception of the locals on ecotourism, reliance on natural resources for livelihood, ecotourism awareness and sustainable resource use.

CONCLUSION

Sustainable ecotourism plays a vital and essential role in climate change and poverty alleviation among women especially in the rural areas. Though women are the most vulnerable in climate change effects due to some factors, they are still the major people to curb the challenge with great impact since they are more close to the environment. Therefore the researchers recommend that women should actively participate and involve in ecotourism related activities. Secondly, they should reinforce positive conservation habit towards natural resource base. Thirdly, biodiversity should be advocated and lastly, women should be involved in planning and decision making towards tourism development since they are more vulnerable.

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