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Community Waste Recycling Programme and Sustainable Tourism Management in Cross River State, Nigeria.		
Nyiam, Agnes Etta. Email: etfavour8@gmail.com	A	Department of Environmental Education, Faculty of Arts and Social Science Education, University of Calabar
Keywords Community waste, recycling, sustainable Tourism, management		Abstract The main purpose of this study was to examine the contribution of community waste recycling programme to sustainable tourism management in Cross River State, Nigeria. To achieve the purpose of this study a null hypothesis was generated to direct the study. Literature review was done according to the variables under study. Correlational research design was adopted for the study. A sample of 1148 respondents was randomly selected for the study. The selection was done through the stratified random sampling technique. The questionnaire was the main instrument used for data collection. Regression analysis was the statistical analysis technique adopted to test the hypotheses under study. This statistical tool was used because of the nature of the variables involved in the study. The hypotheses was subjected to testing at .05 level of significance with relative degrees of freedom. The results of the analysis revealed that, community waste recycling programme significantly contribute to sustainable tourism management in Cross River State, Nigeria. The study concluded that community-driven efforts contribute to sustainable tourism management. Based on the findings of the study it was recommended among others that Government should develop environmental education programmes that promote sustainable tourism practices and environmental awareness among tourists and local communities. Collaborate with stakeholders, including government agencies, NGOs, and local communities, to promote environmental education and awareness.
Correspondence Email: Nikeabang@gmail.com https://doi.org/10.60787/jete.vol9no1.647-656		

INTRODUCTION

Tourism is recognized as one of the swift developing and most dynamic worldwide industries across the globe. Sustainable tourism development is an important topic of discussion in the tourism sector, as it provides opportunities to meet the needs of tourists while strengthening local economic growth and environmental quality, thereby improving residents' Quality of Life (QoL). In particular, sustainable tourism development requires that local residents actively and positively perceive tourism development when considering paths for the economic revitalization of their local communities that maintain a balance between society and the environment (Reindrawati, 2023).

Despite the growing recognition of community waste recycling programme as a vital component of sustainable tourism management, many tourism destinations continue to face significant environmental and

socio-cultural challenges. The lack of effective community engagement, inadequate environmental conservation measures, and inequitable distribution of tourism benefits have hindered the achievement of sustainable tourism outcomes. Furthermore, the limited understanding of the relationship between community waste recycling programme and sustainable tourism management has constrained the development of effective policies and practices. This study seeks to address this knowledge gap by investigating the contribution of community waste recycling programme to sustainable tourism management, with the aim of informing policy and practice in the tourism industry.

Tourism development brings various economic, socio-cultural, and environmental changes to the lives of local communities and individual residents (Budiman, 2018). Drawing on tourism impact analysis, Social Exchange Theory (SET) puts forth certain factors as key contributors in explaining the exchange process that takes place in tourism development. This suggests that when residents perceive that the benefits of tourism development exceed the costs, they will support tourism development. In addition, when residents are aware of the impacts of tourism, their lives are affected materially, emotionally, health-wise, and safety-wise, which in turn can contribute to improving their overall life satisfaction, or QoL (Reindrawati, 2023).

A strategy framework that governs local, national, and even regional tourism growth reasonably and cohesively, both in and relative to the rest of the global and subnational economy, is required for the successful implementation of sustainability policies (Iqbal & Ahmed, 2022). Tourism development is plagued by a slew of difficulties that threaten its long-term viability in Cross River State. Some of the factors that threaten its development includes; involvement of the locals in decision-making, environmental conservation, conceptions of autonomy and cultural exclusivity.

Community environmental conservation is widely accepted as one of the factors that threaten sustainable tourism especially in Cross River State. Local communities represent the group of key players in the development of tourism, while they are also considered as legitimate and moral actors in its development, because their interests influence and are influenced by the decisions of key policy makers (Stefan, 2015). The degree of involvement of local communities in decision-making and various policy issues is determined by the extent to which they affect or are affected by these decisions and policies. Budiman, (2018) noted that the development of local tourism requires people who are influenced by tourism to be involved both in the planning process and in policy implementation and action plans. This ensures that the development meets the perceived needs of local community. If decisions about tourism development were not made in consultation with local communities during the design phase, it will be impossible for local communities to be involved during implementation. Whatever the circumstances, it is vitally important to identify and involve key actors in design phase.

Communities are typically involved at this stage to gain a better knowledge of their existing requirements or to seek input for better and fresh solutions (El-Kassar & Singh, 2019). It is critical to stress citizens' engagement and role in the renewable-energy transition while dealing with social concerns which necessitate a focus on policy frameworks and social innovation. Thus, developing the notion that includes the locals in the solution fosters a sense of ownership. This, in principle, might lead to a greater inclination among individuals to modify their behaviour, become involved, and stay active in renewable-energy initiatives (Budiman, 2018). Some of the community initiative programmes that contribute to suitability of tourism include: community led conservation initiatives, waste recycling programme, energy efficient practices in accommodation tour operation, sustainable transportation options, sustainable water management practice, community engagement in tourism planning/decision making process, encouragement of responsible travel behaviours and environmental education/ awareness programme.

Cross River State has abundant rich natural and cultural heritage in every community, but she finds it difficult to manage tourism sustainably leading to environmental deterioration, cultural exploitation and economic imbalance. Inadequate waste management and infrastructure has put the state's biodiversity and natural beauty at jeopardy, deterring potential tourists and endangering the development of sustainable tourism. Due to lack of proper tourism planning and management, local communities have lost their cultural heritage and artifacts. The tourism industry is plagued by poor road networks, dearth of services, and inadequate infrastructure, which has hindered the growth of sustainable tourism and lessens the benefits to local populations economically. The absence of a regulatory framework has also, led to cultural exploitation, environmental degradation, and uncontrolled behaviours.

The government of Cross River State and Stakeholders in tourism development has over the years made frantic effort to sustain tourism development in the study area by providing very remarkable programmes. National Strategy for the Sustainable Development of Tourism 2018-2022, equally emphasized

on the importance of implementing sustainable tourism development policies and strategies. It seems that, all the efforts put into tourism programmes and policies in Cross River State are still not applaudable, maybe due to the strategies employed and the deplorable nature of the environment where these tourism activities takes place. It is therefore hope that if community waste recycling programme are adopted it will help to sustain tourism development such as environmental protection, Ecotourism, cultural promotion such as homestay programmes, community workshops, and community engagement such as community-based tourism. It is on this premise that the researcher wishes to examine whether community waste recycling programme contributes to sustainable tourism management in Cross River State, Nigeria.

Purpose of the study

The current research is poised to investigate if community waste recycling programme contribute to sustainable tourism management in Cross River State, Nigeria. More specifically, the study will focus on the following objectives:

To find out if community waste recycling programme contribute to sustainable tourism management.

Research questions

The study is design to provide answers to the following question:

How does community waste recycling programme contribute to sustainable tourism management?

Statement of hypotheses

The following hypothesis was formulated for the study:

HO: Community waste recycling programme does not significantly contribute to sustainable tourism management.

LITERATURE REVIEW

Community waste recycling programme and sustainable tourism management

Community-based waste management programmes are community-led initiatives that promote collaboration between NGOs, government agencies and communities to establish an effective local waste management programme where the local communities are empowered to run these programmes independently. Waste reduction encourages the more effective use of natural resources and prevents the generation of waste in the first place. Reduction is at the top of the waste hierarchy as it is the most effective method of pollution prevention and is often the most cost-effective waste management option in the long term (Razafindravelo, 2017).

According to Stott, and Tracey, (2018), waste reduction means using processes, practices, materials, or products to avoid or minimize the creation of waste or environmental disturbance, and reduce risk to human health or the environment. This involves items being used again for the same or different purposes with the objective of long-term cost savings. Re-use is higher up the hierarchy than recycling as recycling often consumes energy and can produce residuals that require managing. Re-use also includes value retention processes, whereby products can repair or remanufactured to extend a products lifespan. As part of achieving the goals outlined in the Too Good to Waste Strategy, Nigeria will continue to develop and implement recycling programmes for target materials (Stott, and Tracey, 2018). Together a strong, responsible, province wide approach will help to protect and conserve our resources. Value of organics waste should be recovered through composting where appropriate. Energy recovery should only be considered for materials with high heat value and where no viable recycling options are available. The disposal of waste in its final resting place means that there is no added value derived from the material (Muhammad, Muhammad, and Rulia, 2021).

To support the survival and wellbeing of mankind, various technologies and systems have been invented. These technologies and systems have focused on several aspects of survival. One sector in which these technologies and systems, have contributed massively is the manufacturing sector (Muhammad, Muhammad, and Rulia, 2021). This sector has produced many products that continue to excite mankind as well as present opportunities for innovation. Nevertheless, among the many industries that exist in the manufacturing sector is the recycling industry. This industry continues to contribute to many goals for achieving sustainability and circular economy. As a result of numerous benefits and challenges associated with recycling, it is important to provide a detailed overview on recycling with particular interest to the plastic industry.

Recycling involves activities in which unwanted/or waste materials are reused for the reproduction of new products. Jinkun, Linchuan, and Haitao, (2022), affirm that, recycling reintroduces unwanted materials and/or energy back into the production system. The unwanted materials reintroduced into the production system can be plastics, metals, papers etc. The materials used in the recycling activities are substitutes for virgin materials that would have been obtained from scarce natural resources such as

petroleum, trees, coal and many others. From the sustainability angle, there are many benefits associated to recycling other than virgin material substitution. Razafindravelo, (2017) adds that, recycling is important for various causes including oil preservation, minimization of greenhouse gas (GHG) emissions, energy preservation, and tourism sustainability. Recycling is a cardinal element in the waste management (WM) hierarchy where it sits as the third strategy on the 3Rs “Reduce, Reuse and Recycle.

In a study carried out by Perkumienė, Ahmet, Safaa, and Grigienė, (2023), in Lithuania, Turkey and Morocco determined the opinions of experts working in tourism and recreation areas in Lithuania, Turkey and Morocco with respect to waste management problems. Interviews were held in Turkey, Lithuania and Morocco in order to determine the attitudes of experts about recreational activities with respect to a clean environment and sustainability. A semi structured interview form was used for interviews with forest operators and other experts. The sample group consisted of 24 experts from Turkey, Lithuania and Morocco. The prominent results of the interviews conducted in the three countries regarding waste and sustainable waste management can be listed as follows: intensive waste production caused by participants, inadequate legal regulation, insufficient recycling and damage to the environment and natural structures, inadequate control and inspections, lack of education and awareness activities, an insufficient number of personnel and insufficient infrastructure. Sustainable waste management strategies, such as reducing waste generation, improving waste collection and disposal methods, and promoting recycling and composting, can help to mitigate these negative impacts.

In another study carried out by Ahmet, Perkumiene, Aleinikovas, and Skema, (2023), in Turkey and Lithuania, determined the recreational activities organized in forest areas in Turkey and Lithuania, the environmental effects of these activities and the precautions to be taken. In Turkey and Lithuania, interviews were conducted to determine the attitudes of experts involved in recreational activity processes towards a clean environment and environmental sustainability. A semi-structured interview form was used in the interviews with forest operators and other experts. The sample group of the research consists of 17 experts from Turkey and Lithuania. According to the results of the research, recreational activities are organized in forest areas in both countries, but the most important problem related to these activities is waste production. In addition, there is also damage to the natural environment. Although there are legal regulations in both countries, there are no definite results in solving environmental problems. It can be said that necessary measures such as raising awareness of people and ecological education should be taken in order to ensure the right of individuals to live in a safe and clean environment, at the same time to ensure sustainability in forest areas as well as the improvement of legal regulation.

Also, in a related study carried out by Herdiansyah, Saiya, Afkarina, and Indra, (2021), carried out in coastal area of Ambon Bay reviewed people’s perspectives on the dynamics of waste in the coastal areas. Community perception data were compiled through semi-structured interviews with the surrounding communities in coastal areas. ArcGIS and load count analysis were used to analyze the waste density. Waste was collected from the coastal area in Ambon Bay and analyzed using waste density calculation and spatial analysis. The results show that the total waste density obtained at the coastal area of Ambon Bay is 0.249 kg/m², of which 0.078 kg/m² is the density of plastic waste, and 0.171 kg/m² is the density of non-plastic waste. Communities in coastal areas have made efforts to deal with waste problems, but the efforts made are still ineffective in overcoming these problems. That problem happens because there is a lack of knowledge of the community and lack of infrastructure in coastal areas. The research results have the potential for replication in other coastal areas and are used as the basis of decision making for waste management improvement.

In a related study carried out by Safaa, Ahmet, Makutėnienė, Perkumienė, and El Bouazzaoui (2023), that took place in Marrakech/Morocco estimated the carbon footprint of aircraft and road transportation due to international and domestic touristic trips to Marrakech/Morocco between 2010 and 2018. In this research, the preferred means of transportation and the distances traveled by the tourists who visited Marrakech/Morocco between 2010 and 2018 were used as a data set. Carbon footprint calculations were made according to each transportation vehicle preference. The total carbon footprint was calculated at the same time. In general, the average 9-year carbon footprint of touristic trips to Morocco from different parts of the world has been found to be 7148.90 tons in total. The per capita carbon footprint of all visitors from different countries of the world has been determined as 0.416 kg. However, tourism, due to its transport intensity, particularly air transport, is a growing source of greenhouse gas emissions. It should be taken into account in the definition of climate policies following the Paris Agreement.

Also, in another study carried out in Ekiti state university, Ado by Taiwo, Alawaye, and Olaoluwa (2023), to investigate the potential of a community-based recycling programme as a means to reduce waste, promote sustainable living, and contribute to poverty reduction measurement. The descriptive survey research design was used. The population of this study comprised educational community dwellers in Ekiti state university, Ado. Random sampling techniques was used to drawn one hundred and fifty (150) sample size of this study which consists of all Educational community dwellers of Ekiti state university, Ado. Convenient sample technique was use to select 25 respondents from six (6) faculties in Ekiti state university. The Research instrument used for this study is a self-developed questionnaire named “developing a community based recycling programme to reduce waste and promote sustainable living measurement questionnaire (DCBRPWPSLM). All data gathered were analyzed using descriptive statistics and t-test method of data analysis. The findings of this study revealed that there is significant impact of challenges faced in the implementation of community-based recycling programme by students in promoting sustainable living community. It was concluded from the findings that Public education and properly planned waste management programmes need to be introduced into the current waste management system, hence poverty reduction measurement.

Another related study carried out in Lagos State, Nigeria by Chikezie, Adedeji, Onihunwa, Meduna, and Joshua (2023), determined waste management practices influencing the operational performance of accommodation tours in Lagos State, Nigeria using 120 structured questionnaire that was administered to 20 accommodation tours. Results showed that waste management practices in accommodation tours are very important (3.83), while levels of their operational performance are to a large extent (3.16). Linear Regression showed that waste reduction, reuse and recycling practices ($\beta = 0.383$), waste collection and depositing practices ($\beta = 0.413$) and waste composting and treatment practices ($\beta = 0.258$) significantly ($p < 0.05$) influenced the operational performance of accommodation tours in the study area. The study concluded that waste reduction, reuse, recycling, waste collection, depositing, composting and treatment practices are important contributors in determining the operational performance of accommodation tours. It was recommended that waste management guiding principles, framework and policies be developed and communicated to all stakeholders for proper and effective implementation.

Filimonau, and Tochukwu (2020), in Lagos State, Nigeria, established the approaches to managing solid waste and evaluate their effectiveness in a sample of tourists' accommodation tours in Lagos. To this end, it applied the method of in-depth, semi-structured interviews with 17 accommodation touriers to reveal the role of organizational (managerial and staff attitudes and corporate policies), institutional (governmental policies) and consumption market related (consumer attitudes) factors in shaping the scope of solid waste mitigation. The interview results have demonstrated that Lagos accommodation tours do very little to mitigate solid waste generation. This was attributed to the insufficient support received from the government, but also to the disinterest of accommodation tour guests, managers and employees in environmental conservation. To improve the quality of solid waste management in Nigerian accommodation tours, it is necessary to raise environmental commitment of managers and improve environmental awareness of guests and staff. Governmental involvement is required in the form of educating accommodation tour guests and providing environmental training and 'green' incentives to accommodation tourists.

RESEARCH METHODOLOGY

The research design adopted for the study is correlational research design. According to Asim, Idaka and Eni (2017) correlational research design investigates relationships between variables without the researcher controlling or manipulating any of them. A correlation reflects the strength and/or direction of the relationship between two (or more) variables. The direction of a correlation can be either positive or negative. Inference about relations among variables is made without direct intervention from concomitant variables of independent and dependent variables. The correlational research design is suitable for this study because of the nature and magnitude of relationship among independent variable and the dependent variable. It is economical for measuring several variables and their interrelationship simultaneously.

The area of study is Cross River State; the state was created from the South Eastern State of Nigeria in 1976 by the Federal Military Government led by General Murtala Mohammed. Calabar is the state capital. Geographically, Cross River State is located in the rain forest Zone of West Africa. It is found between latitudes $5^{\circ} 53$ and $4^{\circ} 32$ North of the equator and longitudes $7^{\circ} 50$ and $9^{\circ} 28$ East of the Greenwich meridian.

The population of this study includes all the 4,407,812 staff of Department of Arts & Culture, Department of Tourism, Department of Diaspora Affairs, department of Entertainment, Head of Service, National population commission average projection of (2023), Calabar Education Zone, Calabar Education

Zone and Calabar Education Zone as presented in Table 1. Source: (Head of Service, 2024 and National population commission average projection of 2023).

The sampling technique adopted for the study was stratified sampling technique. The stratification was based on education zones. Thus a total of 3 strata were formed where each of the public university was made a stratum. From each of the public university 5% of students were randomly sampled for the study. To ensure adequacy of sample size, the Taro Yamene's method of estimating sample size was applied with students' population of 7020, the Taro Yamene's estimation was applied as:

$$n = \frac{N}{1 + N(e^2)}$$

Where n = sample size; N = Population; I = Constant; e – degree of error expected (.05)

$$\begin{aligned} \text{Therefore } n &= \frac{4,407,812}{1 + 4,407,812 (.0025)} \\ &= \frac{4,407,812}{4,407,813 (.0025)} \\ &= \frac{4,407,812}{11,019.53} = 400 \end{aligned}$$

This means that a sample of 400 respondents out of the entire population of 407,812 was the lowest acceptance number of respondents required to maintain a 95% confidence level. In other words, any sample size lower than 400 would not have been accepted. Therefore, the sample size of 1182 representing .027% used in this study is acceptable, being above the Taro Yamene's estimated sample size. The breakdown is as presented in Table 1.

The sample of the study consist of one thousand one hundred and eighty two (1182) stakeholders and local residents with randomly and purposely sampled from 4 departments in the ministry of culture and tourism and 3 education zones in Cross River State. This sample size was a good representative or proportion of the finite population. Full details of the sample distribution are presented in Table 1.

TABLE 1

Distribution of the study population based on education zones

S/N	Education zones	Total	Sampled
1	Calabar Education Zone	1,457,600	394
2	Calabar Education Zone	1,866,219	504
3	Calabar Education Zone	1,082,381	284
Total		4,407,812	1,182

Source: (Head of Service, 2024 and National population commission average projection of 2025).

The instrument was used for data collection was a questionnaire designed by the researcher. The instrument is titled "Community Waste Recycling Programme and Sustainable Tourism Management Questionnaire" (CWRPSTMQ). The questionnaire has four sections. Section A of the questionnaire is the respondents demographic information and section B provided information on community strategies, section C provided information on environmental strategies and section D provided information on sustainable tourism management. The respondents ticked (✓) according to the agreed items. Respectively, items on a modified four Likert scale were designed to measure each of the variable or programmes. Each item on the questionnaire required the respondents to indicate their opinions under; strongly agree (SA), Agree (A), disagree (D), and strongly disagree (SD). In rating the scale, positively worded items were rated 4,3,2,1 while negative worded items were rated 1,2,3,4.

The questionnaire was the main instrument used for data collection. The questionnaire was administered in each of the sample departments in the ministry of culture and tourism and citizens in Cross-River State. The respondents were informed of the exercise and the essence of given objective responses to the items as the information obtained were treated with all amount of confidentiality and would be used as data for research only.

The instrument were administered personally by the researcher with the help of trained research assistants. Out of one thousand one hundred and eighty two (1182) copies of questionnaires administered only one thousand one hundred and forty-eight (1148) were successfully completed and retrieved and were used as sample for that study. After collecting the questionnaire, codes and scores will be assigned to each item. For ease of data preparation, a coding schedule was prepared by developing a key for each of the constructs of the instruments in a tabular form.

RESULTS AND DISCUSSION

Presentation of result

In this section each hypothesis is re-stated, and the result of data analysis carried out to test it is presented. Each hypothesis of the study was tested at .05 level of significance.

Hypothesis

Community waste recycling programme does not significantly sustainable tourism management. The independent variable in this hypothesis is community waste recycling programme; while the dependent variable is sustainable tourism management. Simple regression analysis was employed to test this hypothesis. The result of the analysis is presented in Table 3.

The simple regression analysis of the contribution of community waste recycling programme on the sustainable tourism management yielded a coefficient of multiple regression (R) of .983 and a multiple regression R-square (R^2) of .966 and an adjusted R^2 of .966. The adjusted R^2 of .966 indicated that the community waste recycling programme accounted for 96.6% of the variance in sustainable tourism management in the study area. This finding is a critical indication that community waste recycling programme is relatively high in the area of the study. The F-value of the Analysis of Variance (ANOVA) obtained from the regression table was $F = 32567.212$ and the sig. value of .000 (or $p < .05$) at the degree of freedom (df) 1 and 1146. The implication of this result is that community waste recycling programme is significant relate to sustainable tourism management. The identified equation to understand this relationship was that sustainable tourism management = $-1.851 + 1.751$ (community waste recycling programme).

The implication of this result is that community waste recycling programme significantly relate to sustainable tourism management. The finding of this hypothesis is in line with view of Perkumienė, Ahmet, Safaa, and Grigienė, (2023) who listed as follows: intensive waste production caused by participants, inadequate legal regulation, insufficient recycling and damage to the environment and natural structures, inadequate control and inspections, lack of education and awareness activities, an insufficient number of personnel and insufficient infrastructure. Sustainable waste management strategies, such as reducing waste generation, improving waste collection and disposal methods, and promoting recycling and composting, can help to mitigate these negative impacts. Ahmet, Perkumienė, Aleinikovas, and Skema, (2023) also observed that recreational activities are organised in forest areas in both countries, but the most important problem related to these activities is waste production. In addition, there is also damage to the natural environment. Although there are legal regulations in both countries, there are no definite results in solving environmental problems. It can be said that necessary measures such as raising awareness of people and ecological education should be taken in order to ensure the right of individuals to live in a safe and clean environment, at the same time to ensure sustainability in forest areas as well as the improvement of legal regulation.

Herdiansyah, Saiya, Afkarina, and Indra, (2021) also showed that the total waste density obtained at the coastal area of Ambon Bay is 0.249 kg/m², of which 0.078 kg/m² is the density of plastic waste, and 0.171 kg/m² is the density of non-plastic waste. Communities in coastal areas have made efforts to deal with waste problems, but the efforts made are still ineffective in overcoming these problems. That problem happens because there is a lack of knowledge of the community and lack of infrastructure in coastal areas. The research results have the potential for replication in other coastal areas and are used as the basis of decision making for waste management improvement. Safaa, Ahmet, Makutėnienė, Perkumienė, and El Bouazzaoui (2023), also stated that in general, the average 9-year carbon footprint of touristic trips to Morocco from different parts of the world has been found to be 7148.90 tons in total. The per capita carbon footprint of all visitors from different countries of the world has been determined as 0.416 kg. However, tourism, due to its transport intensity, particularly air transport, is a growing source of greenhouse gas emissions. It should be taken into account in the definition of climate policies following the Paris Agreement.

Similarly, Payakumbhby Aziz, and Jefri, (2020) found that the need of the infrastructures and equipment are; the individual and communal waste storage with three sorting types consisted of compostable waste, recyclable, and other wastes, with a volume of 60 L of each. Waste collection applies an indirect communal scheme into a TPS3R located in TMSBK using motorized tricycles and waste cart with 1.5m³

and 1m3 capacities, respectively. The area of the TPS3R is 240m2, with a loading capacity of 10m3 per day. Treatment that applied is composting with the Takakura method, while recyclable material sale into souvenirs and handicrafts. Residual waste is transferred into a container with 8 m3 volume and disposed into the Regional Landfill in Payakumbuh by using an arm roll truck. Taiwo, Alawaye, and Olaoluwa (2023) also revealed that there is significant impact of challenges faced in the implementation of community-based recycling programme by students in promoting sustainable living community. It was concluded from the findings that Public education and properly planned waste management programmes need to be introduced into the current waste management system, hence poverty reduction measurement.

TABLE 3

Simple regression result of the contribution of community waste recycling programme and sustainable tourism management

Model	R	R. square	Adjusted R. Square	Std error of the estimate		
1	.983(a)	.966	.966	.55287		
Model	Sum of square	Df	Mean square	F	p-value	
Regression	9954.793	1	9954.793	32567.212	.000(a)	
Residual	350.297	1146	.306			
Total	10305.090	1147				
Variables	Unstandardized regression weight B		Standardized regression weight	Beta weight	t	p-value
(Constant)	-1.851		.210		-8.836	.000
Community waste recycling programme	1.751		.010	.983	180.464	.000

* Significant at .05 level.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study provides conclusive evidence that community waste recycling programme play a significant role in promoting sustainable tourism management in Cross River State, Nigeria. The findings suggest that various community-driven efforts, including waste reduction and recycling programs, contribute to sustainable tourism management.

The study's results highlight the importance of community involvement and participation in sustainable tourism management. The findings suggest that when local communities are engaged and empowered to take ownership of sustainable tourism initiatives, it can lead to more effective and sustainable outcomes.

The study's findings have significant implications for tourism stakeholders, policymakers, and local communities. The results emphasize the need for collaborative efforts between local communities, tourism operators, and government agencies to promote sustainable tourism practices and ensure that tourism development benefits both the local economy and the environment.

This study contributes to the existing body of knowledge on sustainable tourism management and community-led initiatives. The findings provide valuable insights for stakeholders seeking to develop and implement effective sustainable tourism strategies in similar contexts.

The study's findings underscore the importance of adopting a holistic approach to sustainable tourism management that incorporates community-led initiatives, sustainable practices, and environmental education and awareness. By prioritizing sustainable tourism management, Cross River State can promote economic development while protecting its natural resources and cultural heritage for future generations.

Implications of the findings

The study's findings have significant implications for sustainable tourism management in Cross River State, Nigeria. The results indicate that various community-led initiatives and practices contribute to sustainable tourism management, including community-led conservation initiatives, waste reduction and recycling programs, energy-efficient practices, sustainable transportation options, sustainable water management practices, community engagement in tourism planning and decision-making, encouragement of responsible travel behaviours, and environmental education and awareness programs.

The findings suggest that community-led conservation initiatives can play a crucial role in protecting and preserving natural resources, which is essential for sustainable tourism development. By empowering local communities to take ownership of conservation efforts, tourism stakeholders can promote sustainable tourism practices that benefit both the environment and local communities.

Recommendations

Based on the findings of the study, the following recommendations are made to promote sustainable tourism management in Cross River State, Nigeria:

- 1 Government should empower local communities to take ownership of conservation initiatives and involve them in decision-making processes. This will encourage local communities' members to participate in conservation initiatives.
- 2 Government should provide support and resources to community-based conservation initiatives that promote sustainable tourism practices.
- 3 Government should implement effective waste management systems that promote recycling and minimize waste in tourist areas. Educate tourists and local communities on the importance of waste reduction and recycling.

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