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Enhancing Eco-Tourism Through Eco-Volunteerism in Nigeria

Usang Nkanu Onnoghen [1] ***, Jude Ubuh Kujoh*** [1] ***, Somkenechi. S. Unachukwu*** [2]***, Evelyn Ijeoma Orji*** [3] ***, Benjamin Anabaraonye*** [4*]

[1] *Department of Environmental Education, Faculty of Education, University of Calabar, Calabar 540281, Nigeria*

[2] *Department of Urban and Regional Planning, Faculty of Environmental Science, Nnamdi Azikiwe University, Awka 420007, Nigeria*

[3] *Institute of Education, Faculty of Education, University of Calabar, Calabar 540281, Nigeria*

[4] *National Centre for Energy Research and Development, University of Nigeria, Nsukka 410001, Nigeria*

ABSTRACT

Climate change is a global problem which requires both local and global efforts to adapt and mitigate its impacts. The impacts of climate change are greatly felt on agricultural, educational and socio-economic sectors in Nigeria. Climate action is one of the sustainable development goals which can be enhanced through eco-volunteerism and eco-tourism in Nigeria today. Sustainable economic growth can be achieved through maximizing the opportunities in eco-tourism and eco-volunteerism in Nigeria. Through systematic literature review and participant observation, this study identifies the role of eco-volunteerism in enhancing eco-tourism for climate resilience and sustainable economic growth in Nigeria. This study vividly defines the concept of eco-tourism and eco-volunteerism. It further highlights the psychological benefits of eco-volunteerism and eco-tourism in Nigeria. This paper is therefore very significant as it explores new opportunities, practices and strategies in the engagement of eco-volunteerism for enhancing eco-tourism for climate resilience and sustainable economic growth in Nigeria. It recommends the innovative use of social media in awareness creation, green financing from multilateral organizations and enactment of relevant policies by the Nigerian government towards advancing eco-volunteerism and eco-tourism in Nigeria. It concludes with a clarion call for deeper research on eco-volunteerism and

*CORRESPONDING AUTHOR:

Benjamin Anabaraonye, National Centre for Energy Research and Development, University of Nigeria, Nsukka 410001, Nigeria;
Email: benjaminshines@gmail.com

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eco-tourism for climate resilience and sustainable economic growth in Nigeria.

Keywords: Climate Change; Eco-Tourism; Eco-Volunteerism; Resilience; Sustainable Economic Growth

1. Introduction

Eco-tourism is a concept which has become increasingly popular in our digital age. It is a type of sustainable tourism that aims to promote the conservation and protection of the environment while providing opportunities for tourists to appreciate the natural and cultural heritage of a destination[1]. Eco-tourism is environmentally friendly and enhances the eco-tourist's appreciation and enjoyment of nature including any cultural features that promote and encourage conservation[2]. Eco-tourism as a field of study is considered a sub-component of sustainable tourism. Eco-tourism's potential is an effective tool for sustainable development which is why developing and third-world countries are now embracing it and making it a tool in their conservation strategies and economic development[3]. Eco-tourism goes beyond mere travel and sightseeing; it involves a deliberate effort to travel with the purpose of enhancing climate resilience and sustainable economic growth. It includes discovering natural marvels, engaging with indigenous cultures, and making a beneficial contribution to the environment and local communities[4]. Eco-tourism in Nigeria involves sustainable tourism focused on nature and culture, with potential sites including Yankari National Park, Gashaka-Gumti National Park, and the Lekki Conservation Centre. The country's rich biodiversity, vast rainforests, and unique cultural heritage offer significant opportunities for eco-tourism development, which can boost the economy, fund community infrastructure, and promote cultural and environmental conservation. However, the sector faces challenges such as inadequate infrastructure, poor funding, lack of awareness, and security concerns[1, 2]. Nigeria is enriched with diverse wildlife, including rare species like forest elephants, as well as diverse natural landscapes like rainforests, savannahs, and waterfalls. With over 250 ethnic groups, Nigeria's rich cultural diversity offers rich opportunities for cultural immersion and appreciation as part of eco-tourism experiences. Eco-tourism supports the well-being of local communities and helps protect Nigeria's unique natural and cultural heritage, aligning with broader goals for sustainable development[5]. Eco-tourism helps people to appreciate the beauty of nature and inspires new ways of preserving the environment. Eco-tourism can also aid in nature education research which has been identified as one of the ways of enhancing climate resilience in Nigeria[6]. The impacts of climate change are being felt on Nigeria's economic growth in a profound way[7]. Ecotourism can work hand in hand with eco-musicology and eco-theology towards enhancing climate resilience in Nigeria[8, 9]. Eco-photography with its aesthetic benefits and green entrepreneurial opportunities will also help the eco-tourist enjoy a rich and fulfilling adventure in the course of ecotourism[10]. Researchers have recently identified the role of eco-tourism in enhancing economic development in Nigeria[11]. This study further identifies eco-volunteerism as a valuable tool for enhancing eco-tourism for climate resilience and sustainable economic growth in Nigeria.

2. Materials and Methods

Data used for this study is derived from published works including academic journal articles, book chapters, conference proceedings, textbooks and internet materials. The researchers gathered a lot of materials for the research but summarized the characteristics of the papers that focused more on "Enhancing ecotourism through eco-volunteerism for climate resilience and sustainable economic growth in Nigeria".

3. Results

3.1. Climate Resilience, Eco-Tourism and Eco-Volunteerism Nexus

Nigeria, one of the countries in sub-Saharan Africa, is highly vulnerable to climate change. However, eco-tourism and eco-volunteerism can help build community capacity to manage these impacts and adapt to changing conditions. Climate change is a global challenge which poses a negative impact on sustainable economic growth[7]. However, eco-volunteerism has been identified as one of the valuable strate-

gies for mitigating the impacts of climate change in Nigeria. Eco-volunteerism in Nigeria contributes to mitigating climate change by promoting sustainable practices through tree planting and community conservation, raising awareness about environmental protection, and fostering environmental leadership among youth[12]. The impacts of climate change are greatly felt on Nigeria's agricultural sector especially as it relates to soil fertility and food security[13]. Climate change education is also identified as a valuable tool for enhancing eco-volunteerism for climate resilience and sustainable economic growth in Nigeria[14]. Eco-volunteers engage in climate change mitigation and adaptation efforts, such as building wells for improved water security, and supporting disaster preparedness. By empowering communities and young people to take ownership of their environment, eco-volunteerism strengthens resilience against climate impacts like biodiversity loss and food insecurity[15]. Nigeria possesses diverse ecosystems, from lush rainforests to coastlines and rich wildlife, providing a strong foundation for ecotourism. There is growing international interest in nature-based and responsible tourism, which Nigeria can capitalize on to attract eco-conscious travelers. Identified eco-tourism sites in states like Cross River, Enugu, and Akwa Ibom offer significant potential for development. By prioritizing eco-friendly practices and community involvement, Nigeria can harness its unique natural and cultural assets to foster sustainable development, protect its natural heritage, and create meaningful economic opportunities for its people. Eco-tourism and Eco-Volunteerism therefore play a great role in enhancing climate resilience in Nigeria.

3.2. Empirical Research Works on Eco-Tourism

In a study conducted in 2016, researchers identified that ecotourism research has been progressive through their systematic review of a total of 2531 publication records during the last 27 years[11, 16]. **Figure 1** highlights articles, proceedings papers and book reviews as three major document types which enhanced ecotourism research within the last 27 years since 2020. **Figure 2** further revealed that the tourism sector in Nigeria needs to be upgraded to enhance the green economy[17]. **Table 1** revealed that private companies generated more for the government through tourism across Enugu State in Nigeria with 41% of the overall revenue. This was closely followed by the banking industry with 24% of the total revenue within the period under investigation[17].

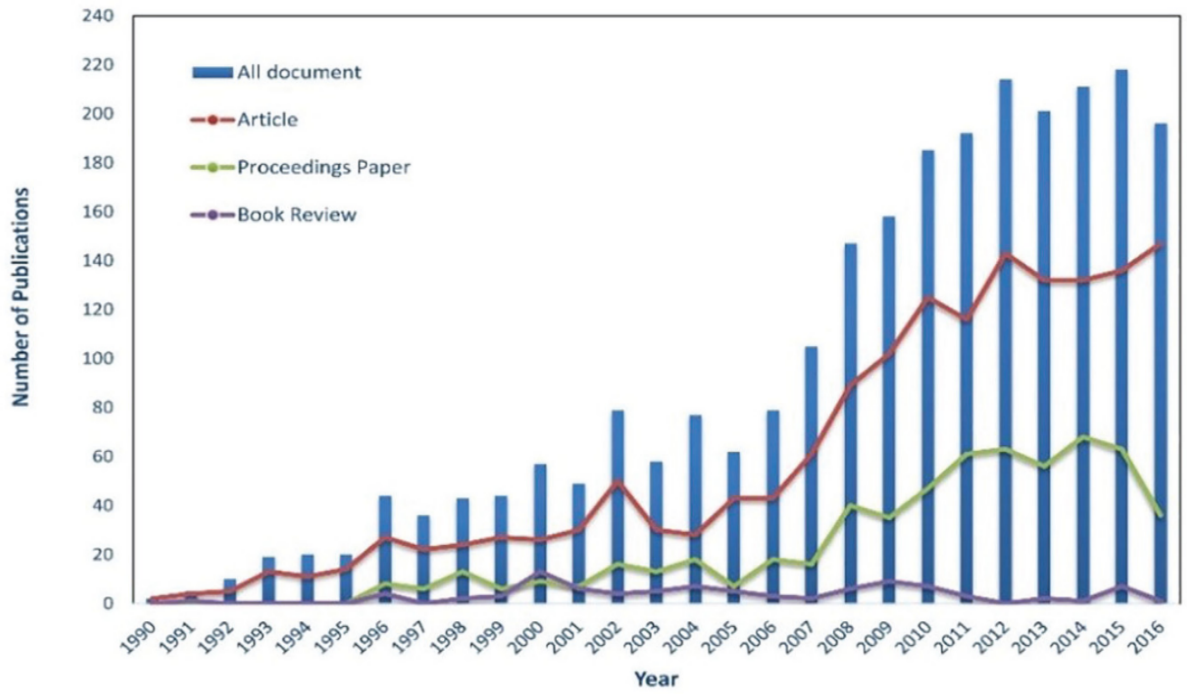

Figure 1. Annual amount of all documents and the top three document types related to ecotourism during the last 27 years.
Source: Liu et al., 2020.

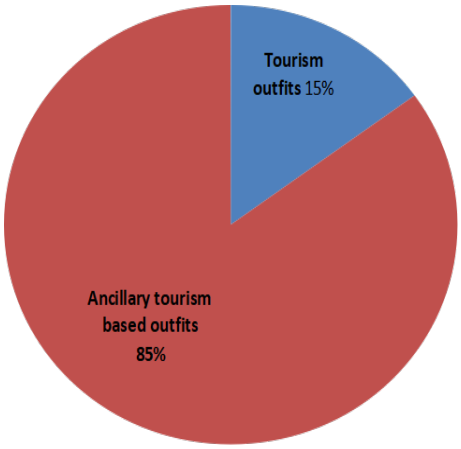

Figure 2. Differentials of generated revenue from tourism and ancillary tourism based outfits (2007–2016).
Source: Amalu et al., 2017.

Table 1. Government revenue from ecotourism attractions and non-ecotourism outfits in the state (2007–2016).

Sectors	2007 (N)	2008 (N)	2009 (N)	2010 (N)	2011 (N)	2012 (N)	2013 (N)	2014 (N)	2015 (N)	2016 (N)	Total (N)	(%)
Tourism based activities												
Hotels	2.05	3.21	3.11	4.52	4.77	3.32	5.18	6.84	8.97	8.28	50.25	5
Restaurants	1.65	1.51	s1.72	2.77	1.83	1.99	2.82	1.69	2.89	3.61	22.48	2
Drinking spots	0.56	0.75	0.89	0.92	1.34	1.54	0.96	1.87	1.45	2.31	12.59	1
Super markets	1.02	1.76	1.98	2.43	2.12	1.89	1.78	2.1	2.43	2.98	20.49	2
Airport	2.3	3.21	3.76	3.7	4.19	4.42	4.52	5.5	6.23	7.2	45.03	4
Total	7.58	10.44	11.46	14.34	14.25	13.16	15.26	18	21.97	24.38	150.84	0
Ancillary tourism based activities												
Banks	18.5	17.2	20.9	25.8	23.9	22.9	22.7	26.7	28.9	36.6	244.1	24
Telecommunication	1.82	2.96	2.54	3.75	4.1	3.98	2.67	3.89	4.2	5.5	35.41	4
Private companies	25.8	26.9	30.6	37.66	38.9	42.54	44.7	50.67	56.77	60.82	415.36	41
Schools	5.67	5.89	6.4	6.67	8.13	7.89	8.6	9.2	10.89	11.2	80.54	8
Medical	2.09	3.04	3.56	3.18	3.68	4.41	4.49	5.52	5.9	6.6	42.47	4
Fueling stations	2.02	2.85	2.43	2.39	2.48	3.12	3.26	4.05	4.09	5.98	32.67	3
Total	55.9	58.84	66.43	79.45	81.19	84.84	86.42	100.03	110.75	126.7	850.55	0
G. total	63.48	69.28	77.89	93.79	95.44	98	101.68	118.03	132.72	151.08	1001.39	0
N Naira in Million												

Source: Amalu et al., 2017.

3.3. How Eco-Volunteerism Mitigates Climate Change in Nigeria

a) **Reforestation and Conservation:** Eco-Volunteers replant forests and lead community conservation efforts, which help protect natural ecosystems and promote sustainable land use.

b) **Raising Awareness and Education:** Through educational programs and community engagement, volunteers inform the public about environmental issues and encourage sustainable practices.

c) **Building Environmental Leadership:** Eco-Volunteerism nurtures environmental leaders, particularly among youth, equipping them with the skills and knowledge to address environmental challenges.

d) **Community Resilience and Adaptation:** Eco-Volunteers contribute to adaptation efforts by, for example, helping build wells, which improve access to clean water and enhance community resilience to climate impacts like reduced water security.

e) **Disaster Preparedness:** Eco-Volunteers provide assistance during humanitarian and natural disaster emergencies, helping communities prepare for and respond to climate-related crises.

f) **Promoting Sustainable Lifestyles:** By engaging in environmental initiatives, eco-volunteers make tangible contributions and inspire others to adopt more sustainable behaviors and lifestyles.

3.4. How Eco-Tourism Mitigates Climate Change in Nigeria

Eco-tourism mitigates climate change in Nigeria by funding forest and wildlife conservation, which acts as a natural carbon sink, and by empowering local communities to protect these natural resources, reducing reliance on destructive practices. By shifting focus to sustainable practices and raising environmental awareness, eco-tourism helps create carbon credits, promotes forest regeneration, and reduces the negative environmental impacts of traditional mass tourism. Here's a more detailed look:

a) **Carbon sinks:** Eco-tourism directly supports the conservation and preservation of Nigeria's forests, which are vital carbon sinks. Trees and vegetation absorb atmospheric carbon dioxide through photosynthesis, sequestering carbon and reducing its concentration in the atmosphere.

b) **Reduced deforestation:** A healthy and protected forest ecosystem serves as a habitat for diverse flora and fauna. By promoting ecotourism, there is a direct incentive to protect these forests and their biodiversity, which are crucial for climate change mitigation.

c) **Community-led conservation:** Eco-tourism involves local communities in the stewardship of their natural environments. When communities lead projects for wildlife protection and environmental cleanup, they become stakeholders in preserving these ecosystems, leading to more effective conservation efforts.

d) **Alternative livelihoods:** Eco-tourism provides sustainable economic opportunities for local people through activities like guiding, selling local goods, and offering homestays. These benefits reduce the pressure on communities to rely on unsustainable practices, such as deforestation or poaching, to survive.

e) **Environmental awareness:** Eco-tourism educates both visitors and locals about the importance of ecological balance and conservation. This heightened awareness fosters more sustainable behavior and a deeper commitment to environmental protection.

f) **Low-impact practices:** Unlike mass tourism, eco-tourism is designed to be small-scale with limited ecological and social impacts. This approach aligns with conservation objectives and is more likely to avoid the negative consequences associated with traditional, large-scale tourism.

g) **Government support:** For eco-tourism to be effective, the government must enforce wildlife protection laws, ensure the principles of ecotourism are followed, and support rangers and park management. This creates a framework where eco-tourism can genuinely contribute to climate change mitigation efforts.

4. Understanding Eco-Volunteerism

Eco-volunteering shines as a beacon of hope for enhancing nature's preservation which comes along with the joy of adventure in a world of environmental challenges [15]. Eco-volunteerism is the act of donating time and effort to nature conservation and environmental protection, focusing on animal welfare, habitat restoration, and environmental education. It involves hands-on activities like tree planting and beach clean-ups, and can be a solidarity action where volunteers receive no financial compensation [18]. Eco-volunteerism emerges as a valuable tool for enhancing eco-poetry, eco-musicology and eco-photography which also play a great role in advancing eco-tourism in Nigeria [8, 12]. An eco-volunteer willingly assists an individual or organization by providing their time, energy and resources towards helping them achieve environmental sustainability [19]. Eco-volunteerism benefits ecosystems by restoring landscapes and improving ecosystem services, while also providing social benefits such as skill development, knowledge sharing, and a stronger sense of community [18]. Eco-volunteerism acts as a catalyst for change, providing individuals with an opportunity to directly contribute to a cleaner and healthier planet. Through volunteer efforts, communities can unite to combat plastic pollution (and other forms of pollution) while inspiring others to do the same [12]. Eco-volunteering is a form of environmental volunteering that encourages participants to actively play their role in environmental protection and nature conservation without expectation of financial incentives [15]. During their tourist visit, an eco-volunteer is motivated by passion and determination to offer services, knowledge and expertise for the betterment of the environment without charging any fee [19]. Eco-volunteers are motivated by a mix of intrinsic and extrinsic factors, including a deep desire to help the environment and protect nature, per-

sonal growth through learning new skills and gaining environmental knowledge, social connection by working with like-minded people and building community, and personal well-being through reflection, being outdoors, and enjoying physical activity. Other factors include expressing personal values, improving recreational areas, and contributing to a well-organized and effective project.

Here's a breakdown of the key motivational factors:

a) Environmental Concern & Values

- A core motivation is the desire to make a positive environmental impact, whether by restoring ecosystems or preventing further damage.
- Eco-volunteers may also have strong personal values and a sense of environmental citizenship, believing in their responsibility to protect the environment.

b) Personal & Skill Development

- Learning and knowledge acquisition: about the natural environment is a significant motivator.
- Eco-volunteers may seek opportunities to improve their skills, such as hands-on experience with environmental projects.

c) Social & Community Connection

- A desire for social interaction and connecting with other people who share similar interests is a powerful driver.
- Eco-volunteering can also be motivated by attachment to a local environment and a need to contribute to the community.

d) Well-being & Reflection

- The chance to reflect on themselves and gain peace of mind in a reflective activity is important to many.
- Being outdoors, enjoying nature, and engaging in physical activity are also common motivating factors.

e) Project & Organizational Factors

- Some eco-volunteers are drawn to well-organized projects with effective leaders.
- Feeling needed and that their time is being used efficiently can also be a strong motivator.

4.1. Key Aspects of Eco-Volunteerism

a) Focus on Conservation: Eco-volunteers work to protect and preserve the natural world, including its plant and animal life, habitats, and overall environmental health.

b) Hands-on Activities: Actions include tree planting, species conservation, removing invasive species, monitoring wildlife, cleaning beaches, and participating in environmental awareness campaigns.

c) Voluntary & Free: It is a voluntary, participative action performed during free time without financial compensation.

d) Benefits for the Environment: Eco-volunteerism contributes to restoring damaged landscapes, enhancing ecosystems, and promoting the resilience of natural environments.

e) Benefits for Volunteers: Volunteers gain new skills, learn about nature, share knowledge with others, and develop a stronger community spirit and social networks.

f) Diverse Locations: Eco-volunteers can be found in various settings, from national parks and forests to coastal areas and communities in need of local conservation efforts.

4.2. Eco-Volunteerism and Its Impact on Sustainable Economic Growth in Nigeria

Eco-volunteerism drives sustainable economic growth in Nigeria by fostering community-led conservation, generating revenue through eco-tourism and local crafts, creating green jobs, and building a resilient, skilled workforce through environmental education and hands-on experience. By raising awareness on environmental issues and participating in conservation efforts, volunteers enhance human capital, strengthen community ownership of natural resources, and contribute to a greener, more productive economy aligned with the Sustainable Development Goals.

4.3. How Eco-Volunteerism Enhances Sustainable Economic Growth

a) Drives Eco-Tourism and Local Economies: Eco-volunteers participate in community-led conservation and eco-tourism projects, such as protecting wildlife

and cleaning natural areas. This not only preserves natural assets but also generates income through tours, sales of local goods, and homestays, directly benefiting local economies and encouraging sustainable practices.

b) **Fosters Green Entrepreneurship:** By engaging in environmental projects, volunteers gain skills and exposure to green business opportunities, such as in wastewater management. This can lead to the development of green entrepreneurship, creating new economic avenues and jobs within the sustainable sector.

c) **Builds a Skilled Workforce:** Eco-volunteerism provides practical experience and training, improving the employability of youth and other volunteers. This human capital development is crucial for a more productive and resilient economy, aligning with goals for green growth.

d) **Promotes Resource Management and Circular Economy:** Eco-volunteers participate in activities like awareness campaigns on responsible consumption, land, and water resource management. These efforts support efforts to recover resources from waste, such as wastewater, fostering a more circular and sustainable economy.

e) **Strengthens Community Resilience and Engagement:** Through collective action on environmental issues, eco-volunteers build community ownership and resilience, fostering solidarity and trust. This strengthened social fabric is essential for sustainable development and the effective implementation of environmental initiatives.

f) **Contributes to National and Global Goals:** Eco-volunteerism directly supports Nigeria's efforts to achieve the Sustainable Development Goals (SDGs), particularly those related to climate action, economic growth, and responsible resource management. The work of volunteers contributes to a more productive, competitive, and resilient national economy.

4.4. Enhancing Climate Resilience Through Eco-Volunteerism in Nigeria

Eco-volunteerism enhances climate resilience in Nigeria by driving community engagement and knowledge sharing on climate adaptation, plastic pollution mitigation, implementing grassroots solutions like rainwater harvesting and climate-smart agriculture, promoting educational campaigns for a climate-literate population, advocating for policy change, and fostering youth leadership in climate action through community-led initiatives [12, 15]. Eco-volunteers also contribute to disaster preparedness and response, working with NGOs and government to address local environmental challenges and promote sustainable practices such as tree planting and waste management.

4.4.1. Community-Level Initiatives to Enhance Climate Resilience Include:

a) **Sensitization and Education:** Eco-volunteers conduct dialogue sessions and training to educate communities about climate resilience, equipping them with knowledge and skills to mitigate risks like flooding and erosion.

b) **Grassroots Solutions:** Eco-volunteers facilitate the adoption of tangible solutions, such as implementing rainwater harvesting techniques and climate-smart agricultural practices, which build community capacity and ensure sustainability.

c) **Community Ownership:** Through active participation and co-creation processes, volunteers foster local ownership of climate adaptation projects, making initiatives more sustainable and effective in addressing local challenges.

4.4.2. Knowledge and Capacity Building Initiatives to Enhance Climate Resilience Include:

a) **Climate Literacy:** Eco-volunteers contribute to building a climate-literate population by disseminating information through social media, public forums, and educational programs, creating informed citizens who can integrate climate solutions into all aspects of society.

b) **Skill Transfer:** They provide hands-on training and knowledge sharing, building local capacity for implementing and maintaining climate resilience measures.

4.4.3. Policy and Governance Initiatives to Enhance Climate Resilience Include:

a) **Advocacy:** Youth and other volunteers play a crucial role in influencing policy and decision-making, advocating for stronger climate policies and ensuring that underserved communities are included in climate jus-

tice efforts.

b) Climate Governance: Volunteers participate in climate governance, contributing their ideas, talents, and skills to national and local sustainable development plans.

4.4.4. Youth Empowerment Initiatives to Enhance Climate Resilience Include:

a) Driving Change: Eco-volunteerism empowers young people, providing them with the knowledge, skills, and experience to become present-day climate champions and future leaders.

b) Promoting Green Entrepreneurship: By engaging youth, volunteer efforts can foster green entrepreneurship and green innovation in climate solutions, contributing to both community development and youth employability.

4.5. The Benefits of Enhancing Climate Resilience in Nigeria

Enhancing climate resilience in Nigeria offers substantial benefits, including protecting human health and food security by ensuring access to vital resources and adapting agriculture to changing conditions, promoting economic growth through new green technologies and market linkages for rural communities, reducing environmental degradation via sustainable land management and pollution control, and strengthening national stability by mitigating disaster risks and improving infrastructure in vulnerable urban and rural areas [13, 14].

a) Improved food security: Climate-resilient agriculture, including the use of drought-tolerant crops and improved land management, helps sustain yields and protects smallholder farmers from livelihood and food security threats.

b) Healthier populations: By protecting access to clean air, water, and food, climate resilience directly contributes to the health of citizens, a critical concern in the face of climate change.

Economic Benefits:

c) New economic opportunities: Investing in green technologies like renewable energy, fuel-efficient infrastructure, and sustainable land use creates jobs and stimulates economic development.

d) Reduced losses: Greater resilience helps prevent economic losses from climate-related disasters, which can cost Nigeria hundreds of billions of dollars.

e) Enhanced rural economies: Initiatives focused on climate-resilient agriculture and market access for smallholders can foster sustainable economic growth in rural areas, supporting poverty reduction.

Environmental Benefits:

f) Reduced deforestation and pollution: Strategies like scaling up sustainable land management, promoting fuel-efficient technologies, and transitioning from fossil fuels to renewable energy sources help to mitigate climate change impacts and protect natural resources.

g) Ecosystem health: Enhancing climate resilience includes measures like afforestation and sustainable water management, which contribute to a healthier environment and protect crucial ecosystems.

Social and Governance Benefits:

h) Strengthened governance: Implementing climate resilience measures improves governance frameworks, promotes multi-sectoral cooperation, and empowers communities to manage natural resources effectively.

i) Reduced disaster risk: Better climate adaptation strategies strengthen the capacity to respond to climate-related disasters, safeguarding lives and reducing damage to infrastructure.

j) More resilient cities: Green urban planning and construction solutions like green roofs and permeable pavements mitigate urban heat islands and manage stormwater, making cities more sustainable and resilient to urban growth.

4.6. The Benefits of Sustainable Economic Growth in Nigeria

Sustainable economic growth in Nigeria offers benefits like poverty reduction, improved living standards, and social inclusion by creating decent and stable employment opportunities, particularly for women and youth. It also enhances national competitiveness, attracts investment through a fo-

cus on environmental responsibility and green innovation, and fosters long-term, diversified economic development by integrating economic, social, and environmental goals [7, 8].

a) **Poverty Reduction and Improved Living Standards:** Sustainable growth creates stable jobs and increases household incomes, enabling people to access better housing, healthcare, and education.
b) **Social Inclusion:** It promotes the integration of all segments of society, including women and youth, ensuring a broader distribution of economic benefits.
c) **Enhanced Workforce Productivity:** Investments in human capital and fair labor practices lead to a more productive and skilled workforce.
d) **Environmental Stewardship:** By promoting green innovation, renewable energy adoption, and responsible resource management, Nigeria can reduce pollution and protect its natural capital for future generations.
e) **Economic Resilience and Diversification:** A commitment to sustainability strengthens existing markets and creates new opportunities in green industries, reducing reliance on single sectors like oil.
f) **Increased Investment and Competitiveness:** Adopting sustainable practices and developing a green economy attracts foreign investment and enhances Nigeria's competitive edge in the global market.

4.7. How Eco-Tourism Contributes to Sustainable Economic Growth in Nigeria

Eco-tourism enhances Nigeria's sustainable economic growth by generating revenue, creating jobs, fostering local businesses, and diversifying the economy away from oil dependence. It also promotes the conservation of natural and cultural heritage by providing an economic incentive for protecting ecosystems and supporting community-based conservation efforts. Key sectors that benefit include hospitality, transportation, and local handicrafts, while tourism revenues can be reinvested into conservation projects and the development of eco-friendly infrastructure.

a) **Job Creation:** Ecotourism creates employment opportunities in various sectors, including hospitality, tour operations, transportation, and the handicraft industry.
b) **Revenue Generation:** Visitors generate revenue for local businesses and governments, which can be used to support conservation and development initiatives.
c) **Economic Diversification:** By promoting wildlife tourism and other nature-based attractions, Nigeria can diversify its economy and reduce its reliance on traditional sectors like oil.
d) **Support for Local Businesses and Crafts:** Ecotourism creates markets for local products and services, such as agriculture, handicrafts, and local cuisine, directly benefiting local communities.
e) **Infrastructure Development:** The growth of ecotourism necessitates the development of sustainable infrastructure, including eco-friendly accommodations and transport, which can further stimulate the local economy.
f) **Cultural Preservation:** By valuing local traditions and cultures, ecotourism encourages their preservation and promotes authentic, immersive experiences for visitors.
g) **Conservation:** Ecotourism provides a financial incentive for conserving Nigeria's rich biodiversity and natural heritage, such as its diverse ecosystems and wildlife.
h) **Poverty Alleviation:** It offers new income-generating opportunities for rural and local communities, helping to alleviate poverty and improve livelihoods.
i) **Cultural Preservation:** By valuing local traditions and cultures, ecotourism encourages their preservation and promotes authentic, immersive experiences for visitors.
j) **Community Involvement:** Ecotourism emphasizes the involvement of local communities, ensuring they benefit from and participate in the conservation of their natural and cultural resources.

5. Enhancing Eco-Tourism Through Eco-Volunteerism in Nigeria

Eco-volunteerism directly enhances eco-tourism in Nigeria by actively contributing to conservation efforts like wildlife protection and waste management, and by providing trained local guides and cultural hosts, which improves visitor experiences and creates economic opportunities for local communities, fostering sustainable development and community engagement. This bottom-up approach empow-

ers communities to manage their natural resources, generate income, and build local capacity, thereby strengthening the overall sustainability and success of Nigeria's ecotourism sector[12]. Eco-Volunteerism achieves the goal of enhancing eco-tourism in Nigeria through the following strategies:

a) **Environmental Stewardship:** Eco-volunteers participate in local projects to protect wildlife, clean natural areas, and develop eco-friendly infrastructure, directly improving the sites for eco-tourism.

b) **Waste Management: Eco-**volunteers can help implement and improve waste management systems at eco-tourism sites, reducing environmental impact and enhancing the aesthetic appeal of the locations.

c) **Habitat Preservation**: By directly engaging in conservation activities, eco-volunteers help maintain and restore natural habitats, ensuring the long-term viability of wildlife and natural attractions crucial for eco-tourism.

d) **Training and Skills Development:** Eco-volunteers, often young people, can learn and share skills to become wildlife guides, cultural hosts, and eco-entrepreneurs, leading to a more skilled local workforce for the eco-tourism sector.

e) **Community Involvement:** By working alongside local communities, volunteers help build local capacity for managing and benefiting from eco-tourism, moving from a top-down approach to a more community-driven model.

f) **Awareness and Education:** Eco-volunteer initiatives can raise awareness among local communities and visitors about the importance of conservation and responsible tourism practices, fostering a stronger commitment to sustainability.

g) **Revenue Generation:** By supporting local projects and providing services like guided tours or homestays, eco-volunteers contribute to economic opportunities, generating income for communities.

h) **Local Product Development:** Eco-volunteers can help develop and market eco-friendly local products, creating new income streams and supporting local economies.

i) **Sustainable Livelihoods:** Through skills development and active involvement in eco-tourism management, eco-volunteers help create sustainable livelihoods within local communities, fostering economic growth that aligns with environmental protection.

5.1. Maximizing the Benefits of Eco-Tourism in Nigeria

Ecotourism in Nigeria offers numerous benefits, including environmental protection, local economic development, and increased awareness of biodiversity. It promotes sustainable tourism practices, reduces the negative impacts of tourism on the environment, and enhances the well-being of local communities[20]. There is therefore a great need for the institutions, communities and the government to realize and maximize the benefits of ecotourism for sustainable development in Nigeria.

These benefits are discussed in detail below.

Benefits of Ecotourism in Nigeria:

a) **Environmental Protection:** Ecotourism encourages the preservation of natural habitats and wildlife, contributing to biodiversity conservation.

b) **Local Economic Development:** It creates employment opportunities in tourism-related businesses and supporting industries like hospitality and transportation.

c) **Increased Revenue for Government:** Ecotourism can generate revenue for the government, which can be used to improve infrastructure and support conservation efforts.

d) **Community Empowerment:** Ecotourism provides opportunities for local communities to benefit from tourism, contributing to poverty alleviation and improved living standards.

e) **Promotes Sustainable Development:** Ecotourism encourages responsible travel practices that minimize environmental impact and support local cultures.

f) **Enhanced Cultural Understanding:** Ecotourism can help travellers learn about and appreciate Nigeria's diverse cultural heritage.

g) **Increased Awareness of Biodiversity:** Ecotourism promotes education about the natural world and the importance of conservation.

5.2. Psychological Impacts of Eco-Volunteerism and Eco-Tourism in Nigeria

In Nigeria, eco-volunteerism and ecotourism can lead to positive psychological impacts by increasing environmen-

tal awareness, fostering a sense of identity and responsibility for nature, and enhancing community pride and well-being. For tourists, engaging in these activities can increase satisfaction and positive attitudes toward conservation. For local communities, it can create a deeper connection to their natural and cultural heritage, although negative impacts like hostility can arise if communities feel disempowered by large-scale projects [12, 15].

a) **Increased Environmental Awareness:** Participating in ecotourism activities can enhance tourists' understanding of environmental issues and the importance of conservation, fostering positive attitudes towards nature.

b) **Enhanced Satisfaction:** Satisfying experiences in ecotourism accommodations and nature tours can lead to increased tourist satisfaction and a willingness to recommend these sites to others.

c) **Reinforced Positive Behaviors:** Awareness of and involvement in environmental management practices during ecotourism can reinforce positive attitudes, leading to interest in further ecotourism experiences and environmental actions.

d) **Elevated Sense of Identity and Responsibility:** Ecotourism can deepen residents' sense of connection and responsibility to their natural and cultural heritage, promoting active participation in conservation efforts.

e) **Community Empowerment and Pride:** By engaging with tourists and experiencing their culture being valued, local communities can feel a greater sense of pride and empowerment, according to this document.

f) **Potential for Negative Impacts:** Disempowerment can occur if local communities are not adequately involved in the planning and decision-making processes of ecotourism projects, which can lead to hostility and decreased participation.

g) **Promotes Sustainable Relationships:** Ecotourism fosters a holistic perspective where the well-being of people and the environment are interconnected, promoting long-term benefits for all stakeholders.

h) **Fosters Global Consciousness:** Engaging with different natural and cultural environments can cultivate a broader global awareness of the need for sustainable practices and interconnectedness between local and global communities.

6. Recommendations

a) Social media platforms such as Facebook, Linkedin, Instagram, Tik Tok, etc. can be used as a tool for awareness creation and promotion of eco-volunteerism and eco-tourism for climate resilience and sustainable economic growth in Nigeria.

b) Government should provide incentives such as grants and awards to promising youths in Nigeria thereby enhancing their use of eco-volunteerism in advancing eco-tourism in Nigeria.

c) Artificial Intelligence can be smartly incorporated into higher education institutions' systems thereby advancing the role of eco-volunteerism in enhancing eco-tourism for climate resilience and sustainable economic growth in Nigeria.

d) Green financing from multilateral organizations such as the World Bank Group will also help the country to provide more infrastructure and systems towards maximizing the benefits of eco-volunteerism and eco-tourism for sustainable economic growth in Nigeria [21].

e) Educational blogs can be used as a valuable tool to promote eco-volunteerism and eco-tourism for climate resilience and sustainable economic growth in Nigeria.

f) Policies and Laws should be enacted and enforced by the Nigerian government towards maximizing the benefits of eco-volunteerism and eco-tourism for climate resilience and sustainable economic growth in Nigeria.

7. Conclusions

Nigeria has the potential to be a major contributor to eco-tourism thereby enhancing its climate resilience and sustainable economic growth. Eco-volunteerism when engaged effectively and efficiently in eco-tourism can enhance green entrepreneurship and green leadership which have the capacity to enhance the quality of life for both the eco-volunteers and the eco-tourists [22, 23]. Nigerian Government should therefore work actively with the United Nations towards promoting eco-volunteerism and eco-tourism for enhancing climate resilience and sustainable economic growth. The United Nations promotes ecotourism primarily through the World Tourism Organization (UNWTO) and the United Nations Development Programme (UNDP) to achieve sustainable development, poverty alleviation, and conserva-

tion[24]. The United Nations supports eco-volunteerism primarily through the United Nations Volunteers (UNV) program, which partners with UN agencies like UN Environment (UNEP) to deploy volunteers for conservation and environmental protection efforts[25, 26]. By effectively leveraging the power of eco-tourism and eco-volunteerism, Nigerian government in collaboration with the United Nations can create a more engaging and meaningful tourism experience that not only benefits visitors but also contributes to the conservation and sustainability of its natural heritage. However, there is a need for deeper research on this subject matter which can be carried out by scholars, researchers and professionals at the higher education institutions in Nigeria.

Author Contributions

Conceptualization, B.A. and U.N.O.; methodology, J.U.K. and S.S.U.; software, E.I.O and U.N.O.; validation, B.A. and S.S.U.; writing—review and editing, B.A.; funding acquisition, E.I.O. and J.U.K. All authors have read and agreed to the published version of the manuscript.

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Conflicts of Interest

The authors declare no conflict of interest.

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