



The Role of Eco-Musicology in Enhancing Climate Resilience in Nigeria

Usang N Onnoghen¹, Gideon U Nwafor², Christian C Odoh³, Beatrice O Ewa⁴ and Benjamin Anabaraonye^{5*}

¹Department of Environmental Education, University of Calabar, Nigeria

²Department of Mass Communication, Chukwuemeka Odumegwu Ojukwu University, Anambra State, Nigeria

³Department of Environmental Management, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria

⁴Institute of Climate Change Studies, Energy and Environment, University of Nigeria, Nsukka, Nigeria

⁵Benjy Poetry and Music Global Concepts, Nigeria

Submission: May 27, 2024; **Published:** June 06, 2024

***Corresponding author:** Benjamin Anabaraonye, Benjy Poetry and Music Global Concepts, Nigeria. Email: benjaminshines@gmail.com

Abstract

Climate change is a global challenge which must be tackled with alacrity to achieve the United Nations Sustainable Development goals. The trajectory of different nations of the world has recently been fixated on climate actions and sustainability. Nigeria which is one of the countries in Sub-Saharan Africa has joined the train too, as countries begin to take strides toward the United Nations' Sustainable Development Goals (13) which is climate action. Recent floods, erosion, and droughts in some states in Nigeria call for urgent attention to issues of climate change. Based on climate resilience theories advanced in recent times, studies have shown that eco-musicology has a great role to play in enhancing global health, environmental sustainability and enhancing climate resilience. Thus, it becomes necessary to understand the role of eco-musicology in enhancing climate resilience in Nigeria. This study vividly defines the concept of climate resilience and eco-musicology. It vividly explores the role of eco-musicology in enhancing climate resilience for sustainable development in Nigeria. It concludes with clarion call for researchers, musicians, and scholars passionate about climate change issues to dig deeper in research towards maximizing the role of eco-musicology in enhancing climate resilience in Nigeria.

Keywords: Climate Resilience; Eco-Musicology; Music; Sustainable Development

Abbreviations: WBG: World Bank Group; IMF: International Monetary Fund; UNEP: United Nations Environment Program; UNFCCC: United Nations Framework Convention on Climate Change

Introduction

The role of music has been recognized across cultures in religion, celebration, social activities, cultural activities, and as well as satisfying the desire for aesthetic pleasure, entertainment, and social situations [1]. Music has been discovered to be a powerful and valuable tool which can be used to communicate to communities and institutions around the world the message of the impacts of climate change and ways to adapt and mitigate effectively for global sustainability [2]. Numerous studies suggest that music training can improve a variety of cognitive functions; memory, multi-tasking, co-ordination, attention, and brain processing, which is particularly the case for children to the point where it has been suggested that music is an integral part to a child's curriculum [3].

Music can be used in a special way to teach students both in a formal or informal setting about plastic recycling, tree planting strategies and the use of renewable energy which are some of the climate change adaptation and mitigation strategies. It passes the message to the listeners in a pleasurable manner and has the good intention of achieving a pleasurable result in climate change adaptation and mitigation for global sustainability [2].

Music therefore helps individuals to appreciate the harmony of nature and the serenity of fertility. It helps us to see the beauty of keeping the environment clean and green thereby achieving a healthy and sustainable environment for the betterment of communities and institutions globally [4]. Musical training increases cortical thickness which aids in anxiety, depression,

attention problems and aggression. Musicians' brains are structured very differently to non-musicians: music training leads to changes in the grey and white matter of the brain and an increase in brain volume. Studies of how music benefits the brain has blossomed into a field of its own and even listening to music can help heal neurological impairments which include those with stroke, dementia, autism, and Parkinson's disease [3].

Listening to soothing music reduces stress, blood pressure, depression, anxiety, and post-operative trauma [5,6]. Music connects with the automatic nervous system (brain function, blood pressure and heartbeat) and the limbic system (feelings and emotions). When slow music is played, the bodily reaction follows suit- the heart slows down and blood pressure drops. This causes the breath to slow, which helps release tension in the neck, shoulders, stomach and back. Listening to slow or calming music on a regular basis can help our bodies relax, which over time, means less pain and faster recovery time. [7] Music industry no doubt has potential for social and cultural sustainability. The roles of music in the transition towards social and cultural sustainability have been recognized [8-13]. Climate change music will certainly do good to the listeners, help them to memorize the message of climate change adaptation and mitigation and further inspire them to rise to become positive change agents to achieve global sustainability [2].

Methodology

This study examined "the role of eco-musicology in enhancing climate resilience in Nigeria" through existing literature review and participant observation. The main purpose of this research work was to survey theoretical Backgrounds and previous studies on "the role of eco-musicology in enhancing climate resilience in Nigeria" and the current progress with the implementation of eco-theology strategies in enhancing climate resilience and ensuring sustainable development in Nigeria.

Understanding Climate Resilience

Climate change is one of the global issues which we must tackle with alacrity to prevent global warming from becoming too unbearable for the survival of mankind. There is a general consensus among environmental scholars and scientists that the world is experiencing a rapid global climate change but separately differs on its nature, dimension, and effects [14,15]. The United Nations Framework Convention on Climate Change (UNFCCC) defines climate change as a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods [16]. Climate change is the most significant challenge to achieving sustainable development, not only because it affects the global physical environment directly, but also because it affects nearly all aspects of socio-economic development [17]. Climate change has been described as an existential threat to human well-being. Climate change impact is intensely felt on soil fertility in

Nigeria [18] and on her biodiversity which affects sustainable development and economic growth of the nation and continent either positively or negatively [19]. Recent floods, erosion, and droughts in some states in Nigeria call for urgent attention to issues of climate change [20,18]. Climate change is recognized as a true global emergency that requires concerted efforts by all countries, businesses, and even individuals to achieve the Paris Agreement goals aimed at addressing the crisis. These goals include holding the rise of average global temperatures to well below 2 degrees Celsius (2°C) above pre-industrial levels and pursuing actions to limit the temperature increase to 1.5°C above pre-industrial levels. "Climate change mitigation is any action taken to eliminate or reduce the long-term risk and hazards of climate change to human life, property, and society [21]. "Climate adaptation refers to the ability of a system to adjust to climate change (including climate variability and extremes) to moderate potential damage, to take advantage of opportunities, or to cope with the consequences" [21]. Climate resilience is the capacity for a socio-ecological system to absorb pressures and maintain function in the face of external stresses imposed upon it by climate change [22-24]. It also includes the ability and capacity of an ecosystem to adapt, reorganize, and evolve into more desirable configurations that improve the sustainability of the system, leaving it better prepared for future climate impacts [25,26]. Climate change education is therefore very vital to enable individuals and communities to adapt and mitigate the impacts of climate towards sustainability in Nigeria [27,28]. This study identifies the role of eco-theology in enhancing climate resilience for sustainable development in Nigeria.

What Is Eco-Musicology?

Debate over the relationship between music and nature has increased since the emergence of the new concept called "eco-musicology" which was dated back to the nineteenth century [29,30]. Eco-musicology is an area of study that explores the relationships between music or sound, and the natural environment [31]. It is a study which encompasses a variety of academic disciplines including musicology, biology, ecology, and anthropology. Eco-musicology combines these disciplines to explore how sound is produced by natural environments and, more broadly, how cultural values and concerns about nature are expressed through music [32]. Eco-musicology explores the ways that music is composed to replicate natural imagery, as well as how sounds produced within the natural environment are used within musical composition [32]. Ecological studies of sounds produced by animals within their habitat are also considered to be part of the field of eco-musicology [33]. Eco-musicology is concerned with the study of music, culture, and nature, and considers musical and sonic issues, both textual and performative, related to ecology and the natural environment. It is in essence a mixture of eco-criticism and musicology (rather than "ecology" and "musicology"), in Charles Seeger's holistic definition [31]. Eco-musicology's relevance to such a wide range of other research

areas is exactly what makes it somewhat ambiguous to define [32]. On one hand, eco-musicology is a unique field of research which helps to make connections between a variety of music-related and environmental studies. Yet, by functioning as a collective term, it is often difficult to frame eco-musicology within a static set of descriptive definitions. In the 21st century, studies within the field the eco-musicology have also become increasingly interested in the sustainability of music production and performance [34]. Musicologist Aaron S. Allen, the author of multiple published works on eco-musicology, defines eco-musicology as “the study of music, culture, and nature in all the complexities of those terms. Eco-musicology considers musical and sonic issues, both textual and performative, related to ecology and the natural environment [32].

Recommendations

Eco-musicology can be enhanced through television, radio, social media such as Facebook, Instagram, TikTok, etc. Educational blogs such as the Project Green Blog(www.projectgreeninitiative.wordpress.com) can further be used to educate communities, campuses, companies, and churches across Nigeria on eco-musicology and innovative strategies for enhancing climate resilience. There is great need to promote a better understanding of eco-musicology across communities, cities, companies, and campuses thereby enhancing climate resilience for sustainable development in Nigeria.

Conclusion

Multilateral organizations such as the World Bank Group (WBG), International Monetary Fund (IMF), United Nations Environment Program (UNEP) who are active in green financing are encouraged to allocate some funds towards enhancing eco-musicology in Nigeria and beyond [35]. Researchers, Musicians and Educationists who are passionate about resolving the climate crisis need to delve further into deeper research on the role of eco-musicology in enhancing climate resilience for sustainable development in Nigeria.

References

- Jiang J, Li N, Meng Q, Kang J (2019) The Influence of Background Music on Interactive Behavior in an Indoor Space. In *INTER-NOISE and NOISE-CON Congress and Conference Proceedings*. Madrid: Institute of Noise Control Engineering PPP: 5866-5876
- Anabaraonye B, Ewa B, Hope J, Anthony P, Okoro K (2020) The therapeutic use of poetry and music in climate change adaptation and mitigation for global sustainability. *Journal of Public Health and Disease Prevention* 3(1): 1-6.
- Dodge D (2015) The science of music: The brain on music
- Messana M (2018) The Science of Music: A Talk with Pascal Wallisch.
- Iyendo TO (2016) Exploring the effect of sound and music on health in hospital settings: A narrative review. *International Journal of Nursing Studies* 63: 82-100.
- Keller J (2019) How to create a stress-reducing playlist.
- Baker MD (2020) The Science of Music.
- Barbaroux M, Dittinger E, Besson M (2019) Music training with Démos program positively influences cognitive functions in children from low socio-economic backgrounds. *PLoS ONE* 14(5): e0216874.
- Hallam S (2015) The power of music: A research synthesis of the impact of actively making music on the intellectual, social and personal development of children and young people. London: Music Education Council.
- Hawkes J (2001) The Fourth Pillar of Sustainability. Culture's essential in Public Planning. Victoria: Common Ground Publishing Pty Ltd.
- Martin D (2017) Cultural value and urban governance: A place for Melbourne's music community at the policymaking table. *Perfect Beat* 18(2): 110-130.
- Van der Hoeven A, Hitters E (2019) The social and cultural values of live music: Sustaining urban live music ecologies. *Cities* 9: 263-271.
- Wolcott SJ (2016) The role of music in the transition towards a culture of sustainability. *Empowering Sustainability International Journal* 3(1): 1-9.
- Umar OJ, Ozohu OA (2015) Impact of climate change on agricultural production and food supply in Africa. Paper presented at the international conference on latest trends in food, biological & ecological sciences, Dubai.
- Tsojon JD (2017) Impact of climate change on agricultural production by farmers in Taraba state. *Niger Int J Entrep Dev Educ Sci Res* 4(1): 178-190
- UNFCCC (1992) United Nations framework convention on climate change.
- World Bank (2016) Climate Change Action Plan 2016-2020. Washington DC: World Bank.
- Anabaraonye B, Okafor JC, Ewa BO, Anukwonke CC (2021) The Impacts of Climate Change on Soil Fertility in Nigeria. In: Choudhary D.K., Mishra A., Varma A. (eds) *Climate Change and the Microbiome*. Soil Biology, Springer, Cham. vol 63.
- Anabaraonye B, Amaechi M, Okolo NV, Adeniyi TF, Nwobu EA (2022) The impacts of climate change on biodiversity in Nigeria. *International Journal of Research in Civil Engineering and Technology* 3(2): 01-05
- Nwafor GU (2021) Influence of Flood Risk Awareness Information on the adaptive behavior of residents in flood prone areas in Southeast Nigeria. *International Journal of Research and Innovation in social science (IJRISS)* V(Xi).
- Global Greenhouse Warming (2018). Climate change mitigation and adaptation.
- Folke C, Carpenter SR, Walker B, Scheffer M, Chapin T, et al. (2010) Resilience Thinking: Integrating Resilience, Adaptability and Transformability. *Ecology and Society* 15(4).
- Moench M (2014) Experiences applying the climate resilience framework: linking theory with practice. *Development in Practice* 24(4): 447-464.
- Shamsuddin S (2020) Resilience resistance: The challenges and implications of urban resilience implementation. *Cities* 103: 102763.
- Carpenter S, Walker B, Anderies JM, Abel N (2001) From Metaphor to Measurement: Resilience of What to What? *Ecosystems* 4(8): 765-781.
- Folke C (2006) Resilience: The emergence of a perspective for social-ecological systems analyses. *Global Environmental Change* 16(3): 253-267.

27. Anabaraonye B, Okafor JC, Hope J (2018) Educating Farmers in Rural Areas on Climate Change Adaptation for Sustainability In Nigeria. In: W. Leal Filho (Eds.), Handbook of Climate Change Resilience, Springer Nature Switzerland Ag.
28. Onnoghen UN, Ojong AA, Omang TN, Obibessong V, Asor LJ (2020) Environmental Education: A Potent Tool for the Attainment of Sustainable Development Goals (Good Health and Wellbeing, Clean Water and Sanitation, Affordable and Clean Energy and Sustainable Cities and Communities) in South-South Nigeria. PalArch's Journal of Archaeology of Egypt/Egyptology 17(8): 1198-1210.
29. Bendrups D, Barney K, Grant C (2013) An introduction to sustainability and eco-musicology in the Australian context. Musicology Australia 35(2): 153-158.
30. Snyder LL (2019) Voicing Mother nature: Eco-musicological perspectives on gender and philosophy in Japanese Shakuhachi practice. Kent State University.
31. Wikipedia (2024) Eco-musicology.
32. Dawe, Kevin, Allen Aaron S (eds) (2016) Current Directions in Eco-musicology: Music, Culture, Nature. New York: Routledge.
33. Boyle WA, Waterman E (2016) The Ecology of Musical Performance: Towards a Robust Performance pp. 26-33
34. Pedelty Mark (2012) Pop Goes the Planet. Eco musicology, Rock, Folk, and the Planet. Philadelphia: Temple University Press.
35. Anabaraonye B, Ezuma S, EmoneE, Olisah NC, Ewa BO (2023) The Role of The World Bank Group in Green Financing to Enhance Green Entrepreneurship in Nigeria. CJoE 7(1): 52-55.



This work is licensed under Creative Commons Attribution 4.0 License

Your next submission with Juniper Publishers
will reach you the below assets

- Quality Editorial service
- Swift Peer Review
- Reprints availability
- E-prints Service
- Manuscript Podcast for convenient understanding
- Global attainment for your research
- Manuscript accessibility in different formats
(Pdf, E-pub, Full Text, Audio)
- Unceasing customer service

Track the below URL for one-step submission

<https://juniperpublishers.com/online-submission.php>