INTEGRATION OF ECO-FRIENDLY DESIGN STRATEGIES FOR HOLIDAY RESORT CENTRE IN DIKO, NIGERIA

BY

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MTech/SET/2019/9653

DEPARTMENT OF ARCHITECTURE

FEDERAL UNIVERSITY OF TECHNOLOGY MINNA

AUGUST, 2023

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A THESIS SUBMITTED TO THE POSTGRADUATE SCHOOL FEDERAL UNIVERSITY OF TECHNOLOGY MINNA, NIGERIA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF TECHNOLOGY IN ARCHITECTURE.

AUGUST, 2023

DECLARATION

I hereby declare that this thesis titled "**Integration of Eco-Friendly Design Strategies for Holiday Resort Centre in Diko, Nigeria**" is a collection of my original research work and it has not been presented for any other qualification anywhere. Information from sources (published or unpublished) has been duly acknowledged.

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SIGNATURE & DATE

CERTIFICATION

This thesis titled "**Integration of Eco-Friendly Design Strategies for Holiday Resort Centre in Diko, Nigeria**" by TSADO, Seth Baba (MTech/SET/2019/9653) meets the regulations governing the award of the degree of MTech in the Department of Architecture, Federal University of Technology, Minna and it is approved for its contribution to scientific knowledge and literary presentation.

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DEDICATION

I dedicate this research to the glory of God Almighty, my family, my sponsors, my supervisors, my friends and to the entire technical team of the Proposed Walter Miller University Diko, Niger State.

ACKNOWLEDGEMENT

My sincere and deepest gratitude to God Almighty for the grace given to me from the start to finish of this project. I honestly appreciate the Head of Department, Dr. A.D Isah, for his selfless contribution to the success of this research work. I also wish to acknowledge the sacrifices and intellectual support of my supervisors, Dr. O. K Akande and Dr. J.C Eze. By extension, I remain super grateful to all the lecturers of the department for their immeasurable impact on my career pursuit.

I would like to specially thank Prof. Jonathan O. Ndagi OON, who always motivates and supports my dream and quest for knowledge. To my family, friends, and choristers, I am sincerely grateful for all the encouragement, prayers, and support.

ABSTRACT

Environmental Design refers to the construction of shelters under various climatic conditions. Eco-friendly buildings have the potential to provide an opportunity for humans to explore nature and its resources, addressing the growing need to preserve the natural environment. In Nigeria, the consideration of eco-friendliness, green concepts, sustainability, and environmental issues is often lacking in the design and renovation of buildings. This leads to a deficiency in the use of sustainable building materials, among other components, which are frequently overlooked during the design and construction process. However, the challenge facing environmental architecture lies in meeting the increasing demand for innovative architectural solutions while minimizing its impact on the ecosystem. The objective of this research is to investigate the innovative and efficient use of environmentally friendly materials, aiming to integrate eco-friendly design strategies into a proposed holiday resort in Diko, Niger State, Nigeria. The primary data collection methods for this research included questionnaires and observation schedules. The questionnaires were administered to 307 stakeholders of holiday resorts in Northern Nigeria, and observations were conducted at 8 holiday resorts in the same region. The data from the questionnaires was analyzed using the Likert scale, Relative Importance Index, and Mann-Whitney U-Test, while figures, charts, graphs, and tables were used to interpret the results obtained in this study. The findings indicate that the application of eco-friendly strategies and the use of suitable materials for holiday resorts in Northern Nigeria is relatively moderate, with a noticeable decline in the implementation of eco-friendly strategies. In conclusion, the management of pollution, utilization of available resources, preservation of ecological biodiversity, and the incorporation of eco-friendly materials in building design and construction are crucial for achieving a healthy and sustainable environment. This research recommends the adoption of eco-friendly strategies in the fight against climate change to achieve sustainable and healthier buildings.

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