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## Sustainable Construction Development as the Best Solution for Challenges Are Related to the Traditional Building

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### Abstract

In this paper, sustainability is examined as one of the objectives of enabling man in construction industry. It has been observed that some of the developing countries in the west Africa are yet to practice sustainable building. As the developed countries battles with measures of maintaining and improving the quality of life for its citizens and harmonize within the local climate, tradition, culture, also the environment in the region, this study examines the level of awareness of sustainable construction among the key stakeholders in construction industry. A descriptive survey design using data collection instrument such as questionnaire was adopted. One hundred and forty- three (143) respondents were selected based on years of experience in practice. Structured questionnaires were used in eliciting information from the key stakeholders on their knowledge of sustainable building, and how it can be achieved. The frequency counts and item analysis method were used to analyze the data collected. The result of the findings shows that about 32.2% of the respondents responded with full knowledge about sustainable building, while the remaining 67.9% of the respondents were not fully equipped with the knowledge of sustainable building and what it entails. Of the 100% that heard about sustainable building/construction, 67.9% do not fully know what sustainable building is all about and its benefits. Based on the research findings, recommendations were made in order to overcome most of the construction problems facing the industry and as well improve the livelihood of the citizenry.

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### References

- 1. Arayela, O (2002). Development of Stabilized Laterite Bricks for Building Cost Reduction in South Western Nigeria Unpublished Ph.D Thesis Submitted to the Department of Architecture, Federal University of Technology, Akure. Nigeria. [Google Scholar]
- 2. Atolagbe, A.M.O. (1997). Affordable shelter for the Urban Low Income Class in Nigeria: Local Resources Strategy. *The House in Nigeria: In Proceedings of a National Symposium* Held at Obafemi Awolowo University, Ile-Ife, 23rd–24th July. (pp 274–279). [Google Scholar]
- 3. Atolagbe, A. M. O. (2002). Architecture in Nigeria and the Practice for sustainable development: A Comparative Study of 'Modern' and Indigenous Housing Strategies. *AARCHES Journal*, 2(1), 61–65. [Google Scholar]
- 4. Atolagbe, A. M. O. (2010). An Evaluation of the Adoptability of Nigerian Indigenous Building Tools in Modern Housing Construction Journal of Human Ecology, 32(1), 63–68. [Google Scholar]
- Atolagbe, A. M. O., & Fadamiro, J. A. (2005). Energy Policy for Building Materials Technology: A Global Imperative for Sustainable Housing Architecture EMAS Journal Sains Dan Teknologi, 15(3), 45–58.
  [Google Scholar]
- 6. Chapman, P. E. (1974). *The Energy Costs of Materials*. UK: Energy Research Group, Open University. [Google Scholar]
- 7. Chukwuali, C.B. (1992). The traditional building material—Earth: Old material, new potentialities. *NIAJ Journal of the Nigerian Institute of Architects*, 7(1), 7–11. [Google Scholar]
- 8. Diogu, J.O. & Okonkwo, M.M. (2005). Urbanization and the dynamics of housing intervention in Nigeria: Architecture and Urbanization". *Journal of the Nigerian Institute of Architects* 4(3), 21–25. [Google Scholar]
- 9. Fatiregun, A. A. (1999). A brief history of traditional African architecture. Osogbo: Fatiregun. [Google Scholar]
- 10. Federal Office Statistics-FOS (1996); Multiple Indicator Survey. [Google Scholar]
- 11. Fox, A., & Murrel, R. (1989). *Green Design: A Guide to the Environmental Impact of Building Materials*. London: Architecture Design and Technology Press. [Google Scholar]
- 12. Gartner, E.M. and Smith, M.A (1989). *Energy costs of house construction*, Current Paper C P47/76, Building Research Establishment, UK. [Google Scholar]
- 13. HABITAT (1986). Earth construction technology manual on basic principles of earth application. HS/55/84/E Nairobi. [Google Scholar]
- 14. HABITAT (1991). Development of National Technological Capacity for Production of Indigenous Building Materials HS/247/91E Nairobi. [Google Scholar]
- 15. Haseltine, B. A. (1975). Comparison of Energy Requirements for Building Materials and Structures. *The Structural Engineer*, 53(g), 357. [Google Scholar]

- Ifesanya, A.O. (2007). Building materials production and use. In T. Agbola, L. Egunjobi, & C. O. Olatubara (Eds.), Housing Development and Management (pp 310–349). Ibadan, Nigeria: Department of Urban and Regional Planning, University of Ibadan. [Google Scholar]
- 17. Kalilu, R. O. R. (1997). The House as encapsulation and metaphor of life: New theoretical perspectives on Nigerian Architecture. *The House in Nigeria: In Proceedings of a National Symposium* Held at Obafemi Awolowo University Ile-Ife, 23rd–24th July. (pp. 46–49). [Google Scholar]
- 18. Okpala, D. C. (1982). A note on shifts in housing form: Explaining the paradox of increasing urban housing stock, and increasing shortage of housing units in Nigeria. A Journal of the Nigeria Institute of Town Planners, 2(1, 2), 81–86. [Google Scholar]
- 19. Okwaraejesu, A. (2003). Building materials overview: It's historical antecedents. In *Conference Proceeding on Building Materials Policy for Nigeria;* Organized by the Nigeria Institute of Architects and Held between 10th–13th Dec. 2003. (pp 1–18). [Google Scholar]
- Oladimeji, O. O. (2002). Cultural cum climatic architecture. Unpublished B. Tech (Arch) Project Report Submitted to the Department of Architecture, Federal University of Technology Akure (pp. 1–66). [Google Scholar]
- 21. Olateju, B. (1989). Earth construction technology for housing development. *Studies in Environmental Design in West Africa*, 8, 91–97. [Google Scholar]
- 22. Olateju, B. (1992). Environmental impact of utilizing local building materials in construction. In *Paper presented at the 23rd Annual Conference of the Nigerian Institute of Building at Premier Hotel Ibadan*, 25–26 Sept. [Google Scholar]
- 23. Olubi, O.A (2002); Architecture for the People. The rebirth of the values of African Traditional Architecture. Unpublished B. Tech (Arch) Project Report (pp 1–43). [Google Scholar]
- 24. Onibokun, P. (1985). Housing needs and responses: A planner viewpoints. In P. Onibokun (Ed.), *Housing in Nigeria* (pp. 65–83). Ibadan: NISER. [Google Scholar]
- 25. Saad, T.H. & Ogunsusi, V. (1996). "Unity in diversity continuity in change: The Traditional Architecture of Nigeria" prepared for the colloquium on Nigeria Traditional Architecture at for the Second United Nations Conference on Human Settlements(Habitat II) Istanbul, Turkey June 3–14. [Google Scholar]
- 26. Spence, R. S. J., & Cook, D. J. (1983). *Building materials in developing countries*. New York: Wiley. [Google Scholar]
- 27. Thames and Hudson. (1997). *Dictionary of 20th Century Architecture*. In V. M. Lampugnani (Ed.) Thames and Hudson. [Google Scholar]



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