

# Environmental Technology & Science Journal

Vol. 15 Number 2

December 2024

## Aim and Scope

The Environmental Technology and Science Journal (ETSJ) is devoted to the publication of papers which advance knowledge of practical and theoretical issues that daily plague our society. The aim of the journal is to provide an avenue for the dissemination of academic research findings from various disciplines of the environment, engineering, pure and applied sciences, arts and social sciences, which have materials that emphasize on environmental issues.

## ETSJ Policy

Environmental Technology and Science Journal is a multidisciplinary Journal that is devoted to the publication of scholarly articles with the sole aim of becoming a flagship in built environment research internationally. Based on this, the editorial policy/implementation plan of the Editorial Committee Members is provided below as the basis for editorial decisions in order to improve the quality and visibility of the Journal.

1. The focus of the journal is to provide an avenue for the dissemination of academic research findings from various disciplines of the environment, engineering, pure and applied sciences, arts and social sciences which have materials that emphasize on environmental issues. To this end, all published papers in ETSJ are expected to be aligned with the focus of the Journal.
2. Previously published articles shall not be accepted. Manuscripts should not be under consideration elsewhere, hence, they shall be original. The Author/s should check the manuscript for any possible plagiarism using any software such as TurnItIn or any other software before submitting the manuscripts to ETSJ.
3. Any manuscript submitted to ETSJ after initial editorial review (for scope, contents and subjecting it to Turnitin software) shall be blind peer reviewed by two reviewers who in the opinion of the Editorial Secretary and Managing Editor are experts in the area of the manuscript submitted. In the event of a tie, a third reviewer shall be sought.
4. Both empirical and desktop manuscripts shall be accepted for review as long as they reflect the focus of ETSJ. Desktop manuscripts are expected to be well synthesised and arguments are to be presented logically.
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7. The Editorial Secretary shall be duly informed of the addition or removal of contributor/s when any manuscript has been accepted for publication. Reason/s must be given to justify the addition or removal.
8. The Editorial Board shall meet twice in a year, that is, before the publication of each issue in June and December. Meetings shall also be called at other times.
9. Efforts shall be made to review manuscripts within four (4) weeks, however, the review process may take longer than four (4) weeks as there may be the need to re-assign the manuscripts to other reviewers.
10. ETSJ is open access that publishes both hard copy and online versions (<https://etsj.futminna.edu.ng> and <https://www.ajol.info/index.php/etsj>) in June and December of every year.

11. Where the number of articles accepted is more than what could be published in any edition (in June or December), the accepted articles will be split into two (2) as issues 1 and 2 of that particular edition.
12. Where the number of articles accepted is not up to the required number of articles to be published, only the online version shall be published, and this shall be updated until the required number is obtained when the hard copy version shall be published.
13. The School of Environmental Technology, Federal University of Technology, Minna is the owner of ETSJ and therefore, determines the tenure of each Board Member.

## Guide for Authors

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4. Each article should contain an abstract of not more than 300 words. The abstract should be in the following format: Introduction; purpose of the study; method/s/methodology; major results; general conclusion; recommendation and implication of findings to practice.
5. Each article should contain between 5 to 7 key words (avoid use of phrases)
6. The body of the manuscript should be interrogated along the following format:  
Introduction: It is expected that the following three (3) issues shall be brought to bear in this section. One, putting the study in context in terms of background; two, stating in clear terms the problem/s identified and three, highlighting the research gap in the subject area.

Literature Review: This has to do with synthesising the current and related studies in line with the extent of work carried out in that area of study.

Methodology/materials and methods: This should be explicit in order to make replication easier.

Results and Discussion: Apart from interpreting the results, robust discussion in relation to relevant literature has to be done in order to bring to the fore areas of convergence or divergence.

Conclusion: It is expected that based on the results obtained, inference has to be drawn which will form the basis for the recommendations/suggestions/way forward that will be espoused.

Reference list: The acceptable referencing style is the American Psychological Association (APA). The in-text citations should be as shown:

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One author (Jimoh, 2012)

Two authors (Ogunbode & Jimoh, 2020)

Three or more authors (Jimoh *et al.*, 2017)

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Jimoh (2012)

Ogunbode and Jimoh (2020)

Jimoh *et al.* (2017)

In a related development, the reference list should be as shown below:

Ogunbode, E.B, Makun, C.S, Ango, J.A, Hassan, I.O, Lawal, A.T. & Ibrahim S.M. (2021). Chloride Ingress Resistance of Rice Husk Ash Based Green Concrete Composites Containing Steel Fibres. *Environmental Technology & Science Journal*, 12(1), 65-73, <https://dx.doi.org/10.4314/etsj.v12i1.9>

Jimoh, R.A. & Adama, S.M. (2014). Assessment of preliminaries in relation to the total cost of renovation work in public schools in Abuja, Nigeria. *Proceedings of ICEC 2014-IX World Congress conference, Total Cost Management in Difficult Times*, organised by the Italian Association for Total Cost Management in Milan, 20th-22nd October 1-9

Jimoh, R.A (2014). Contribution of Co-operatives to Housing Provision: The Road Less Travelled in the Last 100 Years. In Y.A Sanusi, A.M Junaid, O.O Morenikeji, S.N. Zubairu, R.A. Jimoh & O.F. Adedayo (Eds.), *100 Years of Urbanisation in Nigeria* (pp. 219 – 236). School of Environmental Technology, Federal University of Technology, Minna

Oyewobi, L.O. (2014). *Modelling performance differentials in large construction organisations in South Africa*. Unpublished PhD thesis, University of Cape Town, Cape Town.

Kabir, B. (2021). *Construction management in a developing economy* (3<sup>rd</sup> ed.). Ahmadu Bello University Press

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8. In cases where equations are part of the manuscript, Equation Editor should be used.
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## Frequency of Publication

The journal is published twice a year in June and December

## Subscription Details

The 2024 subscription rates for hardcopies of the journal including postage are:

Individual within Nigeria: ₦3,500 per copy and ₦2,000 for postage (depending on the destination)

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## Editorial

You are welcome to volume 15, number 2, December 2024 edition of Environmental Technology and Science Journal (ETSJ). In this edition, there are 20 articles that cut across the built environment and legal research domains. As usual, it is a potpourri of articles, they are served a la carte, enjoy!

Open spaces in learning environments according to Johnson *et al.* in their paper were designed for various outdoor activities to support users' well-being and educational experiences. The paper evaluated the notions of place-making as a collaborative process for creating quality open spaces in the environment within the University of Lagos Nigeria. The study advocated that stakeholders and built-environment practitioners should adopt the place-making notion as a valuable insight into creating healthier and more productive learning environments.

The study of Ishaya *et al.* assessed slum growth and its impact on climatic elements in Kuje urban area of Nigeria. Multi-criteria and quantitative research design were adopted in this study. It was recommended that slum need to be incorporated into Kuje urban area planning through gentrification of buildings since demolition is not an option due to large concentration of indigenous people within the slum.

Olaniyi *et al.* in their paper asserted that age of timber is one major factor affecting timber strength and timber was usually fetched without knowledge of whether the timber is matured to meet the structural strength required. The study evaluated the effect of age on the strength of some selected timber species so that forester and users likewise could be guided on when to deforest. It was concluded that age of timber affects the strength of timber.

Most people in Minna, Niger State rely on untreated water from wells for their daily supply and intake while some have no or limited access to water and adequate

sanitation facilities. These residents live under the threat of cholera. Hence, the thrust of Mamman *et al.* study was to analyse the risk factors to Cholera Outbreak in parts of Minna. The study recommended that the well water should be treated with water guard at source before drinking especially during rainy season.

Due to the difficulties in maintaining failing concrete structures built with normal concrete (NC), high-performance concrete (HPC), which is extremely dense and has a low water-binder content, has been developed. However, Onogwu *et al.* study observed that inadequate internal curing in HPC can lead to autogenous shrinkage and micro-cracking. This paper presented the report of an effort to replace silica fume in HPC with millet husk ash (MHA) as a SCM material. The results reveal 2.5%MHA performed best when compare with the control (7.5%SF) in resisting 5% MgSO<sub>4</sub> attack with a strength loss factor of 1.89, 1.81 and 1.31% at 28, 56 and 90 days of age and was recommended for use as SCM and IC-agent in HPC.

A resilient safety culture involves continuous improvements in safety performance and the ability to foresee and anticipate the changing nature of safety risks in complex sociotechnical systems. The outcomes of Shehu *et al.* study contributed to construction safety management knowledge by advancing a theoretical foundation and empirical basis for defining and assessing resilient safety culture within the construction firms.

Heavy metals bio-accumulation in fish organs consumed by man generated issues of public health concern. Therefore, Shehu *et al.* study was conducted to determine the levels of Chromium and Lead bioaccumulation in liver and muscles of two fish species (*Clarias gariepinus* and *Oreochromis niloticus*) obtained from Wasai Reservoir in relation to physico-chemical parameters of the surface water. Thus, the highest value of heavy metal in



liver (0.17 mg/L) obtained from Wasai reservoir especially during the dry season of the year should not be consumed by the general populace.

The paper by Olaitan *et al.* argued that notwithstanding the advantages that go with utilization of improved fish processing technologies and practices, many fish processors still do not use the improved technologies optimally. The paper investigated the influence of Standard Fish Processing Practices (SFPP) on the livelihood status of fish processors in Lagos and Osun States. The study recommended that efforts should be intensified by agricultural extension organizations to increase dissemination of SFPP among non-users in Nigeria.

Baba *et al.* stated in their paper that Nigeria is experiencing unfriendly climate condition which has a negative impact on the welfare of millions of people. Their study therefore investigated the effectiveness of remote sensing-based drought assessment, examined the relations between rainfall and vegetation indices and identified the most drought vulnerable areas using remote sensing (RS) and GIS in Borno State. The authority responsible for the state environment management should put in place strategies that can enhance water efficiency, improve resilience and reduce drought vulnerability.

The demand of energy in rural Cameroon has been mainly met by traditional energy sources despite the availability of health and environmentally friendly clean energy options internationally. Nguiffo and Etoa in their paper empirically analysed the determinants of the rural energy transition in Cameroon. The study recommended Cameroonian Government to bring electricity production and distribution points closer to rural populations through a decentralized approach, and to ensure the good quality of energy services offered by the national operator.

Population growth and uncontrolled urbanization according to Baba *et al.*, has made solid waste management an imperative issue for environmental management and sustainability. The study conducted site suitability analysis for solid waste disposal in each wards of Chanchaga Local Government Area (LGA) of Niger State. Based on the EPA 2006 minimum standard, suitable solid waste collection sites were determined and recommended for use in the study area.

The study by Soji *et al.* employed a Delphi survey to evaluate the importance of various green innovation competency components identified from the literature. The findings show the need for increased focus on these competencies in both academic and professional settings, because of their role in promoting adaptability, collaboration, and alignment with sustainable development goals. The study concluded that these competencies can be positioned as benchmarks for trainings and professional developments within the construction industry.

The study by Abubakar and Idi addressed the critical need for reliable, long-term meteorological data to assess the impact of global warming on food security and human well-being. The study demonstrated the utility of satellite-based spatial databases, particularly NASA's POWER Data Viewer, in evaluating regional climate trends. The findings underscore the significance of satellite data in climate assessment and call for further studies to identify the most accurate predictive models for parameters where the linear hypothesis was rejected.

In many countries, access to land is critical for individual and group, but women's access is often disproportionately constrained. Yusuf *et al.* paper assessed the influence of socio-economic factors on land accessibility for women in Ilorin, with the goal of promoting equitable access to land. Government measures such as creating an environment that encourages job creation and empowers women, enabling them to

earn more and secure their rights to property ownership be implemented in order to increase women's access to land.

Theoretical and conceptual frameworks are essential components of the research process, although they are often misinterpreted by doctorate candidates during the development of their dissertation study. The purpose of this paper according to Oyewobi *et al.*, is to emphasise the critical role that theoretical and conceptual frameworks play in enhancing the rigour and clarity of research. The study emphasises that understanding 'concept' and 'theory' allows for the successful use of conceptual and theoretical frameworks to provide direction and coherence throughout the research process.

Okeji *et al.* argued that the exponential growth of electronic usage in global transactions has created new challenges to existing laws. The paper examined the implementation of electronic governance in Nigeria thus the issues arising therefrom towards an improved e-governance system. The paper relied on doctrinal analytical method of research by which primary sources of enabling legislations were consulted and relevant secondary materials /treaties for ease of comparison. The paper recommends a strengthened and gazette critical information infrastructure, enactment of digital signature law, forensic/digital laboratory, and establishment of National Data bank.

Foamed concrete (FC) according to Usman *et al.* in their paper, is a relatively new construction material that has recently gained attention due to its unique properties, such as density and strength-to-weight ratio. This study investigates the fire resistance and ultrasonic testing of rice husk ash modified foamed concrete. The findings of this study show that FC with rice husk ash percentage up to 10% did not have a significant difference from the control concrete, while a higher percentage replacement level shows reduced strength. FC is recommended for application in

structural lightweight insulating material. RHA is a good pozzolana and can reduce overburden on cement by reducing the quantity of cement used for FC production.

The global emphasis on ensuring sustainability across all industries will inevitably have an impact on the real estate sector. This study by Sakariyau *et al.* examined the state of sustainable property management practices in Nigeria, with a focus on the strategies and challenges encountered by property managers in Jos, Plateau State. Major barriers to sustainable property management (SPM) were found by the binary logistic regression to be sustainable building design, financial constraint and lack of awareness. Promoting sustainable management in the real estate industry requires addressing these issues with focused interventions, like financing and training.

Tertiary institutions with their extensive building portfolios, according to Salisu *et al.* in their article, face unique challenges in managing maintenance operations effectively. BIM technology serves as a central repository of building information, consolidating data on design, construction, and operation, thereby revolutionizing traditional maintenance practices. The study assessed the state of Building Information Modelling (BIM)-based maintenance management practices of higher education institution buildings in Lagos State. The study concluded that many of the institutions have high awareness of BIM, its implementation in maintenance is limited, underscoring the need for policy advancements to strengthen maintenance management quality and optimize facility maintenance management system.

Ogunsuyi *et al.* in the last paper stated that the overexploitation of forest resources for construction purposes has led to the utilization of waste materials for recycled composites. Therefore, their study examined the sustainable development of Cement Bonded Board from bagasse and waste paper. The study found that the

strongest and most dimensionally stable boards were produced at the highest mixing ratio of bagasse and paper. These two waste materials can be utilized in the production of sustainable materials that can be used in eco-friendly construction.

Finally, I am happy to inform our contributors and reviewers that in the month of September 2024, ETSJ had 2425 downloads from 59 countries (1076 from United States, 263 from Nigeria, 213 from Finland, 212 from Indonesia, 100 from China and the rest countries had less than 100 each). In a related development, 2473 downloads were recorded in the month of October 2024 from 76 countries (1013 from United States, 381 from Nigeria, 195 from India, 144 from Germany, 124 from China, and others had downloads less than 100 each). Therefore, we commend the efforts of our reviewers and we are grateful to our contributors for considering and using ETSJ as a platform for disseminating their research outputs. Please, keep the manuscripts coming! May all our wishes come through in 2025 and beyond.

Past and current editions of the Journal can be accessed and downloaded at these web addresses:

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Let us do it again, peace!

**R. A. Jimoh**  
**Managing Editor**

# Contents

- 1 – 9                    Place-making and Open spaces: Impacts on Well-being in Learning Environments  
<https://dx.doi.org/10.4314/etsj.v15i2.1>  
Johnson M., Ekpo E.S. & Chukwuma-Uchegbu M.
- 10 – 22                Impact of Slum Growth on Climatic Elements in Kuje Urban Area, Federal Capital Territory, Nigeria  
<https://dx.doi.org/10.4314/etsj.v15i2.2>  
Ishaya S., Yusuf S. & Tochukwu I.
- 23 – 27                Effect of Age on the Structural Strength of Timbers Commonly Used in Nigeria  
<https://dx.doi.org/10.4314/etsj.v15i2.3>  
Olaniyi S.O., Ogunbode E.B., Makun C.S., Ekekezie C.U. & Abdul A.
- 28 – 36                Analysis of the Risk Factors to Cholera Outbreaks in Parts of Minna, Niger State  
<https://dx.doi.org/10.4314/etsj.v15i2.4>  
Mamman A.A., Kuti I.A., Yisa M.K. & Idris I.M.
- 37 – 44                Influence of Sulphate Attack on Compressive Strength of Millet Husk Ash as an Alternative to Silica Fume in Internally Cured High Performance Concrete  
<https://dx.doi.org/10.4314/etsj.v15i2.5>  
Onogwu C.M., Bukar A. & Magaji A.
- 45 – 56                Assessing Dimensions of Resilient Safety Culture in Construction Firms in Abuja  
<https://dx.doi.org/10.4314/etsj.v15i2.6>  
Shehu I.U., Bala K., Aliyu S.S., Muhammad S. & Kado D
- 57 – 65                Chromium and Lead Bio-Accumulation in Relation to Physico-Chemical Parameters in Water and Fish of Wasai Reservoir, Kano State  
<https://dx.doi.org/10.4314/etsj.v15i2.7>  
Shehu A.H., Kabiru M., Rabiu S.M. & Ismail F.M.
- 66 – 73                Effects of Standard Fish Processing Practices on Livelihood Status of Fish Processors in Lagos and Osun States  
<https://dx.doi.org/10.4314/etsj.v15i2.8>  
Olaitan T.R., Adefalu L.L., Jimoh W.A., Aderele S.A., Adeoti J.T. & Adeoti, V.I.
- 74 – 86                Vulnerability Assessment of Drought over Borno State, Nigeria using Geospatial Technique  
<https://dx.doi.org/10.4314/etsj.v15i2.9>  
Baba M., Attahiru I.M., Musa W.A., Zitta N. & Waziri A.M.
- 87 – 97                Assessing the Determinants of Rural Energy Transition in Cameroon  
<https://dx.doi.org/10.4314/etsj.v15i2.10>  
Nguiffo J.S. & Etoa E.B

- 98 – 108 Suitability Location of Solid Waste Collection Points for Chanchaga Local Government Area, Niger State  
<https://dx.doi.org/10.4314/etsj.v15i2.11>  
Baba M., Musa A.W., Olaniyi A.M., Bala M.K. & Tanko F.
- 109 – 118 Assessing Green Innovation Competencies for Sustainable Construction Practices in Nigeria: A Delphi Survey  
<https://dx.doi.org/10.4314/etsj.v15i2.12>  
Soji S.M., Usman N.D., Abdullahi U. & Adaji A.A.
- 119 – 129 Statistical Analysis of NASA POWER Meteorological Data for the Assessment of Climate Variability in Adamawa State  
<https://dx.doi.org/10.4314/etsj.v15i2.13>  
Abubakar I.M. & Idi B.Y.
- 130 – 137 Influence of Socio-Economic Factors on Women Access to Land in Ilorin, Nigeria  
<https://dx.doi.org/10.4314/etsj.v15i2.14>  
Yusuf A., Ojo B., Abdulfatai S.S., Hassan O.A. & Ajibade K.R.
- 138 – 149 Is Pursuing a PhD Without Theoretical and Conceptual Framework a Journey Without Roadmap?  
<https://dx.doi.org/10.4314/etsj.v15i2.15>  
Oyewobi L.O., Okanlawon T.T., Medayese S.O., Ogunbode E.B. & Jimoh R.A.
- 150 – 155 Legal Frameworks for the Implementation of Electronic Governance in Nigeria and Matters Arising  
<https://dx.doi.org/10.4314/etsj.v15i2.16>  
Okeji S.M., Adedoyin-Raji J.O. & Isa Y.I.
- 156 – 164 Fire Resistance and Ultrasonic Testing of Rice Husk Ash Modified Foamed Concrete  
<https://dx.doi.org/10.4314/etsj.v15i2.17>  
Usman N., Kunya S.U., Ishaq S.A., Agboola S.A., Bukar A. & Shabi M.O.
- 165 – 173 Assessment of Barriers and Strategies to Sustainable Property Management in Jos, Plateau State  
<https://dx.doi.org/10.4314/etsj.v15i2.18>  
Sakariyau J.K., Ayuba B., Abdulkareem S.Y., Agboola S.A., Dauda M.K. & Jegede V.O.
- 174 – 182 Assessment of BIM-Based Maintenance Management Practices in Lagos State Higher Education Institutions  
<https://dx.doi.org/10.4314/etsj.v15i2.19>  
Salisu H., Faremi O., Adenuga O., Odeniran O., Soneye O. & Shodiya A.
- 183 – 191 Sustainable Development of Cement-Bonded Boards: Evaluating Physico-Mechanical Properties of Waste Paper and Bagasse Composites  
<https://dx.doi.org/10.4314/etsj.v15i2.20>  
Ogunsuyi J.A., Ajayi B., Ogunrinde Y. & Olonisakin K.