

RESILIENCE AND LIVABLE CITIES IN A WARMING WORLD



A Festschrift in Honour of
TPL. DR. JOSHUA ADEWUMI ADEBISI FNITP, RTP

EDITED BY



ABIMBOLA SIMIAT OGUNSESAN
AYOBAMI ADEMOLA AKANMU, PhD
UMAR OBAFEMI SALISU, PhD



TPL. DR. JOSHUA ADEWUMI ADEBISI, FNITP, RTP
*Chief Lecturer in Urban and Regional Planning at
The Polytechnic, Ibadan, Adjunct Lecturer at The University of Ibadan
Outstanding Administrator, Preacher of Faith, and a Renowned Consultant*

RESILIENCE AND LIVABLE CITIES IN A WARMING WORLD



A FESTSCHRIFT IN HONOUR OF
DR. (TPL.) JOSHUA ADEWUMI ADEBISI FNITP, RTP

EDITED BY
ABIMBOLA SIMIAT OGUNSESAN
AYOBAMI ADEMOLA AKANMU PhD
UMAR OBAFEMI SALISU PhD

Nigerian Institute of Town Planners, Oyo State Chapter

**RESILIENCE AND LIVABLE CITIES IN A WARMING WORLD - A FESTSCHRIFT IN
HONOUR OF TPL. DR. JOSHUA ADEWUMI ADEBISI**

Editors:

A.S. Ogunsesan, A.A. Akanmu, PhD & U. O. Salisu, PhD

© Joshua Adewumi Adebisi 2026

wumibisi2012@gmail.com

+2348052939962

All right reserved.

No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, chemical, photocopy, recording, manual or otherwise, without the prior permission of the publisher.

ISBN: 978-978- 63753-0-4

Published By:

The Nigerian Institute of Town Planners,
Oyo State Chapter,
Quarter 704, Iyaganku GRA, Ibadan.

Supported By:



Center for Sustainable Urban Planning,
Logistics, Infrastructure and Future Transport
3B, Upper Ijesha Road, Taiwo Estate, Iponri, Lagos.

Printed By:

DCrowns Multiventures,
P. O. Box 27796, Ibadan.
oludarebiyi@gmail.com | +234-8053896026

TABLE OF CONTENTS

Foreword.....	vii
The Profile of Tpl. Dr. Joshua Adewumi Adebisi	viii
Scholarly Perspectives to Celebrate Tpl. Dr. Joshua A. Adebisi in Grace and Honour.....	x
Table of Contents	xvii
Preface.....	xx
Contributors Profile.....	xxii

SECTION ONE: CLIMATE CHANGE AND URBAN PLANNING

1. Climate-Resilient Housing and Informal Settlements in Lagos State: Pathways Toward Adaptive Urban Governance and Sustainable Development
- ALABI Oluwale Titilayo 2

SECTION TWO: ENVIRONMENTAL JUSTICE, SAFETY AND SUSTAINABILITY

2. Environmental Safety Risks of Traffic-Related Carbon Monoxide Emissions in Uyo Metropolis, Akwa Ibom State, Nigeria - AKPAN Patrick Etim 15
3. Integrating Sustainable Strategies in The Design of Convention Centers in Lagos, Nigeria
- OLADELE Victor Olayinka & ADEDEJI Afolabi Idowu 34

SECTION THREE: GREEN INFRASTRUCTURE AND ECOSYSTEM-BASED APPROACHES

4. Appraisal of The Effectiveness of Green Infrastructure and Ecosystem-Based Approaches in Enhancing Urban Resilience in Sub-Saharan African Cities
- AKINADE Adekunle Joshua 50

SECTION FOUR: URBAN AGRICULTURE AND FOOD SECURITY

5. Fear of Crime and Food Security Dynamics in Oke-Ogun Rural-Urban Border Communities of Oyo State: Implications for Livelihoods and Spatial Resilience
- OGUNDIRAN Olayinka Robert 67
6. Assessing the Spatial Patterns of Urban Agriculture in Ibadan, Nigeria: Integrating Satellite Imagery into Land Use Planning Strategies for Enhanced Food Security
- OLADIRAN Ibironke Olaide 82
7. Urban Agriculture and Social Justice: Comparative Analysis of Inclusive Planning Policies in Lagos And Ibadan, Nigeria - OYEJIDE Olarinola I., ADEBOWALE-SALAWU Temiloluwa E. & OYEJIDE Oyedeji T. 98

SECTION FIVE: DIGITAL INNOVATION AND SMART URBAN ADAPTATION

8. Smart Solutions for Resilient Transportation Infrastructure and City Livability: Examples from The State of Connecticut, United States of America - OLALEYE Eyitayo, OLUWOYE Jacob & OGUNKAN David 114
9. AI-Driven Portfolio Management for Ibadan Wash Infrastructure: A Strategic Framework for Sustainable Planning in Ibadan Metropolis - ODUNFA Victoria O., ELEGBEDE Olufola. T., TAIWO Olushola S. & OGUNDIRAN A. A. 137
10. Synergizing Global System of Mobile Communications and Artificial Intelligence for Inclusive Regional Development in Nigeria - ADEBISI Joshua Adewumi 157

SECTION SIX: INCLUSIVE AND PARTICIPATORY URBAN GOVERNANCE

11. Promoting Community Inclusiveness in Public Recreational Facilities Through Design-Based Strategies in Nigerian Cities - OGUNDARE Abiodun Olusogo, ADEDEJI Afolabi Idowu & OLADELE Victor Olayinka 162

SECTION SEVEN: HEALTH, WATER, SANITATION AND URBAN WASTE

12. Socio-Economic Determinants and Utilization Patterns of Primary Health Care (PHC) Facilities in Ibadan Metropolis, Nigeria - ADEJARE Jacob Ayorinde 173
13. Water Quality Evaluation and Sanitary Surveying in Southwest Nigeria
- LASISI Kamil Oluranti 190
14. Econometric Analysis of Health Care Accessibility and Health Care Outcome in Semi-Urban Area: Evidence from Alakia Primary Health Care Centre, Ibadan, Oyo State
- KOLAPO Oluyemi Mary & OMEOKWE Favour Chibueze 206
15. Assessment of Private Sector Participation in Solid Waste Management in Ojokoro Community, Lagos Stat - IYANDA Oladimeji 223

SECTION EIGHT: PUBLIC SPACE, HOUSING AND LAND USE PLANNING

16. Urban Redevelopment and The Reconfiguration of Public Space in Ibadan, Nigeria
AKANMU Ayobami Ademola, SALISU Umar Obafemi, FASINA Simeon Oluwagbenga,
& SANNI Sekinat Motunrayo 243
17. Incremental Housing and Physical Planning Standards' Compliance in Ibadan Sub-Urban Areas, Oyo State, Nigeria - LASISI Kamil Oluranti 258
18. An Overview of Adoption of Government Regulations on Building Projects in The Oke-Ogun Area of Oyo State, Nigeria - AJAO Ayodele Christianah, AREMU John Adekunle & TIJANI Kabiru Okegere 277

SECTION NINE: RISK REDUCTION AND DISASTER-RESILIENT CITIES

19. Integrated Flood Risk Management and Urban Livability in Nigeria's Coastal Cities: Insights from Ibeju-Lekki Corrido - OGUNSESAN Abimbola Simiat & BOLUKALE Oluwatoyin 287
20. Mitigating Urban Flood Risks: Lessons from Ibadan For A Disaster-Resilient City
- AYORINDE Adedayo & BOLUKALE Oluwatoyin 306

21. Integrating Climate Resilient Design Principles into Sustainable Residential Development in Ibadan, Nigeria - ABAIRE Oluwatobiloba, ORKPE Arwashima Kristen & OLADELE Victor Olayinka	326
--	------------

SECTION TEN: URBAN MOBILITY AND LOW CARBON TRANSPORT

22. Decarbonizing Urban Mobility in Nigeria: Opportunities and Constraints for Transitioning to Electric Public Transport Systems - ADEBOWALE-SALAWU Temiloluwa E. and OYEJIDE Olarinola I.	340
23. Road Transport System in Nigeria: Key Issues and Challenges - ADEYINKA Ebenezer Olasupo & ALABI Folami Munta & ANIMASHAUN Idris Olalekan	349
24. Urban Road Traffic Resilience and Sustainable Development in Ibadan, Nigeria - OGUNSESAN Durodola Kamoru & OGUNSESAN Abimbola Simiat	360
25. Residents' Appraisal of Urban Mobility and Low Carbon Transport Solutions in Ibadan, Oyo State - TEJUOSHO Itunu Elizabeth, OLORUNFEMI Samuel Oluwaseyi & ADENIRAN Adetayo O.	376
26. Road Infrastructure Vulnerability and Urban Mobility Safety Risks in Southwestern Nigerian Cities - SALISU Umar Obafemi, NALAILA Stephano & Akanmu Ayobami Ademola	391

ABOUT THE EDITORS



Aimbola Simiat OGUNSESAN is a Senior Lecturer in the Department of Urban and Regional Planning, The Polytechnic, Ibadan, Nigeria. She obtained her foundational training in Urban and Regional Planning from The Polytechnic, Ibadan. She later earned a Master of Science degree in Housing Development and Management from the University of Ibadan. Driven by a strong interest in academic scholarship and global urban challenges, she further pursued a second Master of Science degree in Urban Management and Development at Erasmus University, Rotterdam, The Netherlands, and currently a doctoral candidate at Lead City University, Ibadan. Ogunesan is a Registered Town Planner with the Town Planners Registration Council of Nigeria (TOPREC) and Corporate member of the Nigerian Institute of Town Planners (NITP). She has an extensive publication, and her research interests span urban governance, environmental management, housing studies, climate change adaptation, and sustainable urban development.



Dr. Ayobami Ademola AKANMU is a Chief Lecturer, researcher, and consultant specializing in transport, logistics, and spatial planning. He earned a PhD. in Transport Management Technology from the Federal University of Technology, Akure; serves as a pioneer Head of the Department of Transport Planning and Management and Director of Student's Industrial Works Experience Scheme (SIWES) at The Oke-Ogun Polytechnic, Saki. He is affiliated with several professional bodies, including the Association for European Transport, the Association for the Advancement of Automotive Medicine (AAAM), the Nigerian Institute of Town Planners (NITP); and is also a Chartered Fellow of the Chartered Institute of Logistics and Transport (CILT), Fellow of the Chartered Institute of Transport Administration of Nigeria (CIOTA), Chartered Transportant of Nigeria (CTN) with the Council for the Registrations of Transportants in Nigeria, and a Registered Town Planner with the Town Planners Registration Council of Nigeria.



Dr. Umar Obafemi SALISU is a Senior Lecturer in the Department of Transport Management, Olabisi Onabanjo University, Ago-Iwoye. He holds B.Sc. and M.Sc. degrees in Transport Studies from the same institution and a PhD. in Transport and Logistics from Lagos State University. He is a Chartered Fellow of the Chartered Institute of Logistics and Transport (CILT), Fellow of the Chartered Institute of Transport Administration of Nigeria (CIOTA), a member of Association of the Advancement of Automotive Medicine, and a Research Fellow of Earth System Governance (ESG) network. His research specializes in transport governance, transport safety, sustainable urban mobility, logistics and tourism transport. He has widely published and secured national and international research grants.



ISBN: 978-978-63753-0-4

PROMOTING COMMUNITY INCLUSIVENESS IN PUBLIC RECREATIONAL FACILITIES THROUGH DESIGN-BASED STRATEGIES IN NIGERIAN CITIES

OGUNDARE Abiodun Olusogo*, ADEDEJI Afolabi Idowu
& OLADELE Victor Olayinka

Department of Architecture,
Lead City University, Ibadan, Oyo-State

*Corresponding author: olusogoabiodun@gmail.com

Abstract

This research examines the concepts and implementation of inclusiveness in the design of recreation centers and entertainment venues. It explores how these centers can be constructed to meet the diverse needs of their patrons, emphasizing that inclusive architecture is crucial for providing individuals of all abilities and backgrounds with equitable access to a facility creating meaningful experiences in a place like an entertainment center. The study begins by reviewing the concept of inclusion from historical, social, and design perspectives to understand how it has evolved over time and specifically applies to leisure and recreational areas. Key design elements such as safety, adaptability, accessibility, and sensory design will be analyzed to determine how they contribute to the creation of inclusive spaces. The research aims to identify effective inclusive strategies and areas needing improvement. It underscores the importance of inclusive environments in enhancing social interaction, personal freedom, and community integration. The study highlights the increasing integration of inclusive design features in modern recreational facilities across Nigeria, such as ramps, adaptable spatial configurations, safety systems, and enhanced circulation pathways. Despite these improvements, challenges remain, including inadequate green spaces, car-centric architectural designs, and insufficient pedestrian access, which hinder true inclusivity. To foster greater community engagement and social integration, the study advocates for the adoption of universal design principles, pedestrian-centric urban planning, more versatile spatial arrangements, and the enforcement of stricter regulatory measures.

Keywords: Inclusive Design, User Centered Design, Safety, Accessibility, Entertainment Center and Social Interaction.

1.0 Introduction

The concept of community inclusiveness emerges as a pivotal approach for engaging the populace in meaningful processes (Yatmo, 2024). The term 'inclusiveness' embodies principles that advocate for the involvement of all individuals and entities, regardless of their status, origin, characteristics, needs, or perspectives, thereby ensuring comprehensive representation (Anthony, 2023). This practice transcends the inclusion of those with disabilities, encompassing broader tenets of equity. Inclusive participation is essential for fostering constructive dialogues that integrate diverse viewpoints within a community, prioritizing local engagement in decision-making processes that impact their well-being (Chen & Stoddart, 2024). There is a growing emphasis on inclusive community participation as traditional methodologies are increasingly perceived as antiquated, exclusionary, and insufficient in promoting equity

or achieving authentic outcomes (Anthony, 2023). Often, community members who should be part of the participation process are marginalized, despite the imperative for integration within local contexts (Ohmer, 2022). Consequently, there is a pressing need to revise local development strategies to better align with community needs and preferences, thereby facilitating varied and dynamic participation models (Chen, 2024).

Inclusive community participation is critical to obviating deceptive practices wherein only select stakeholders wield power in policymaking (Anthony, 2023). By championing inclusive engagement, communities can derive valuable insights and resources that significantly enhance their quality of life and foster more resilient and vibrant locales (Dempsey, 2010). The transition towards more inclusive frameworks necessitates an understanding of community as a fluid concept. It is imperative to perceive a community not merely as a homogeneous entity defined by specific geographical locations or a shared identity, such as Indigenous or rural populations, but as a complex collective comprising diverse ideas with flexible and often nebulous boundaries (Chen & Stoddart, 2024; Dempsey, 2010). A community can also be conceptualized as an imagined collective, tied to culturally shared values that exceed physical geography. Furthermore, communities are shaped by social-relational structures that dynamically seek global cooperation, emphasizing access and interaction among individuals, groups, or organizations as stakeholders. Advances in data and communication technology have empowered these actors to articulate their concerns and priorities, thus necessitating innovative and novel approaches to community engagement (Head, 2007). By recognizing community as a diverse assembly of individuals and groups engaged in the developmental process, a spectrum of perspectives, experiences, and valuable insights is incorporated (Loi Nguyen, 2023).

According to Hsieh et al. (2022) and Utrilla-Cobos et al. (2014), fostering an environment of shared inclusiveness is essential to ensure that individuals feel valued and integrated, thus facilitating full participation irrespective of their backgrounds, identities, or abilities. Busciantella-Ricci (2023) and Zhu et al. (2022) further emphasize that civic recreational spaces such as community centers, public parks, and activity venues are critical for enhancing social engagement, promoting physical activity, and facilitating cultural exchange, embodying what Schneider (2022) terms the "power of group presence." However, within the context of Nigeria, many of these facilities face persistent challenges in achieving true inclusivity. Research indicates that structural barriers, inadequate facilities, and a lack of accommodations for disabled individuals systematically marginalize significant segments of the population (Kille-Speckter & Nickpour, 2022; Afolabi et al., 2022). The rapid urbanization of Nigerian cities, particularly Lagos, has led to a proliferation of entertainment venues that prioritize commercial success over social cohesion, often neglecting the diverse needs of older patrons, individuals with disabilities, and economically disadvantaged groups. This study aims to explore how design-centric strategies can address these environmental challenges and foster social inclusivity in public recreational areas across Nigeria.

2.0 Literature Review

Creating inclusive public leisure spaces requires more than merely implementing access ramps; it demands a comprehensive societal resilience strategy that ensures all

community members, particularly those with cognitive disabilities, can fully engage in civic life (Fitriana, 2023). Societal resilience is founded upon principles of equity, coherence, and inclusivity. If recreational environments exclude certain demographics due to physical barriers, convoluted regulations, or entrenched societal attitudes, entire segments of the population lose the opportunity for engagement, connection, and the cultivation of a cohesive urban identity (Kohon, 2018).

Research indicates that individuals with intellectual disabilities are often marginalized not due to their inherent abilities, but rather because local environments, policies, and social frameworks are not designed to facilitate their participation (Abdulazeez, Bashir & Mutiu, 2015). A rights-based and geographically concentrated approach underscores the idea that inclusion is a collective responsibility, rather than an obligation placed solely on individuals (WEF, 2022). When public venues such as parks, sports facilities, and community centers are intentionally designed to accommodate diverse users, they transform into platforms that mitigate social isolation and strengthen community bonds (Broadhead, 2019).

The UN Convention on the Rights of Persons with Disabilities, highlight the pivotal role of local governments in translating policy into actionable practice. Evidence suggests that integrated urban environments emerge when public services, financial mechanisms, social contexts, and civic engagement are purposely structured to include everyone, especially those historically marginalized (Phillippa, 2021). There are three critical dimensions essential for fostering inclusion are types of activities (e.g., leisure, athletics, artistic engagement); participation contexts (separate versus inclusive settings), and level of involvement (passive presence versus active engagement). Design-oriented approaches in leisure settings directly influence these dimensions (Divya Kala, 2025). Features such as sensory-sensitive areas, clear wayfinding systems, adaptable event spaces, secure social hubs, and opportunities for informal social interactions can transform recreational facilities into catalysts for belonging (Sholanke, 2023). Insights from community-level studies reveal that inclusive leisure environments thrive in contexts where individuals feel safe, calm, and open to participation (Hiroko Costantini). Negative perceptions, a lack of appropriate programming, poor spatial arrangements, and non-functional facilities consistently emerge as primary obstacles (Kayi Ntinda, 2024). Conversely, tranquil settings, supportive civic policies, and opportunities for spontaneous social interactions encourage deeper inclusion (Jeffrey, 2024).

The Integrated Cities Framework provides actionable guidance for implementing these principles (Phillippa Carnemolla, 2021). It delineates five strategic priorities that directly inform the planning and operation of public leisure spaces consisting of developing a unified narrative of inclusion; supporting integrated local enterprises; enhancing community connectivity; incorporating inclusivity into public service systems, and fostering civic engagement.

2.1 Core pillars of inclusion

From the literature review, there exist some none negotiable pillars that informs inclusive design. They are:

- i. **Equality:** Due to its emphasis on lowering travel distances or designating larger land parcels for recreational locations, fair spatial distribution is an essential tactic for guaranteeing easy access to recreational areas. Due to their increased ability to use such facilities, high-income populations frequently benefit more from this method, even while it improves overall welfare distribution across various income levels. However, neighborhood parks and recreational facilities continue to be important parts of the built environment because they boost local physical activity, increase accessibility, and foster greater levels of community involvement. Going beyond treating everyone equally (equality) to offering the particular assistance required to attain just results (equity). This entails creating for a range of abilities and beginning positions.
- ii. **Integrated services:** A vibrant community is directly related to quality of life, which can be enhanced by providing a variety of recreational opportunities. These opportunities should be intentionally combined and preserved in all areas of community inclusiveness. The physical setting's design is crucial to this inclusiveness because it provides a foundation that promotes social cohesion, a sense of belonging, and security among the population in addition to aiding recreation. According to sustainability principles, city plans should have enough green space and adequately spaced recreational facilities in each district to provide accessibility, promote healthy behaviors, and strengthen community cohesion.
- iii. **Diverse participation:** public facilities should be set up to encourage active involvement from all age groups, including young people, elderly persons, people with disabilities, and women, and to give them the opportunity to shape their community.
- iv. **Accessibility:** True integration necessitates more than just ramps. Comprehensive physical entry, perception-friendly environments (sound, lighting), and mental accessibility through simple signage and user-friendly blueprints are all included.
- v. **Social Cohesion & Safety:** By fostering communication and a sense of community, layouts can fight prejudice and loneliness. This is related to hazard minimization and apparent and actual protection, both of which are essential for a sense of connectedness.
- vi. **Circulation:** The "arteries" of social interchange are passageways, halls, and upward/downward transportation (lifts, steps). Every visitor must be able to walk with ease, clarity, and friendliness thanks to layouts that discriminate between lively community paths and effective logistical circulation.
- vii. **Universal and Inclusive Planning as the Standard:** This approach incorporates human variety from the outset. It involves creating surroundings that, to the greatest extent feasible, can be utilized by people of all ages, sizes, and abilities without the need for adjustment.
- viii. **Responsive & Versatile Areas:** Areas must be multipurpose in order to meet the diverse and ever-changing needs of the population. One location can accommodate

- a youth tournament, a local bazaar, and an exercise class for the elderly thanks to reconfigurable sections, modular furniture, and adjustable dividers.
- ix. Wayfinding: It should be easy to receive guidance. This entails a framework of unambiguous signage, but it also makes use of environmental cues, noteworthy features, and electronic resources to make the facility comprehensible and enjoyable for everyone, reducing anxiety and promoting independence.

2.2 The 4As for inclusive entertainment center

When the components are put together, an inclusive entertainment center may be evaluated and designed using five main criteria namely:

- i. Attraction: inclusive entertainment center is a place of attraction with a wide range of activities (theaters, swimming pools, quiet reading rooms, sports facilities) that appeal to people of all ages, abilities, and tastes.
- ii. Accessibility: inclusive entertainment center must be very accessible by people of all age group. There must be complete physical, sensory, and cognitive access to the entire facility and its amenities with ease.
- iii. Accommodation: inclusive entertainment center must easily accommodate and meet all leisure needs, from quiet rooms and peaceful "sensory withdrawal" zones to family-appropriate changing places.
- iv. Amenities: inclusive entertainment center must have supporting features that increase convenience and usefulness, this includes accessible restrooms, a variety of dining options, and free internet access.
- v. Activities: inclusive entertainment center must have an inclusive scheduling approach that offers events and training that encourage interaction and participation from all community groups.

3.0 Methodology

To investigate how Nigerian public recreational venues use design-based strategies that foster a sense of community inclusiveness, this study used a qualitative, case-study research framework. The approach focused on identifying the spatial, ecological, and sociological design elements that facilitate or impede participation among many user segments, including young people, the elderly, people with disabilities, and socioeconomically diverse groups.

A selection of numerous case studies was employed. Four recreational locations were specifically selected: Immersia Virtual Reality Center (Lagos), Silverbird Galleria (Lagos), Twinwaters (Lagos), and Ventura Mall (Ibadan). These establishments represent a range of contemporary recreational formats in Nigeria, from traditional entertainment venues to online recreation areas. An evaluation of belonging techniques across varying magnitudes, user demographics, and spatial layouts was made possible by the design choice.

4.0 Findings and Discussion

The results of this study indicate a progressive evolution in planning strategies aimed at enhancing community engagement within contemporary recreational environments across Nigeria. However, the implementation and impacts of these

strategies exhibit notable disparities among the four case studies examined: Ventura Mall in Ibadan, Silverbird Galleria, Twinwaters Entertainment Center, and Immersia Virtual Reality Center, all located in Lagos. The design elements observed in these venues reflect the broader socio-spatial dynamics prevalent in the Nigerian urban landscape, rather than representing isolated architectural decisions.

Key conditions influencing these environments include the dominance of vehicular oriented planning, limited pedestrian infrastructure, and the transformative function of recreational spaces as pivotal nodes for social interaction. Others are

- i. **Universality and Accessibility as a Foundation for Inclusiveness:** Availability is the predominant factor influencing inclusiveness across the four study areas examined. Each facility demonstrates varying degrees of universal accessibility, particularly concerning internal navigation. Both Silverbird Galleria is equipped with ramps, elevators, and adequate circulation pathways that facilitate movement for wheelchair users, the elderly, and caregivers with children. Similarly, Twinwaters Entertainment Centre places a strong emphasis on inclusive mobility, featuring designated entry points, organized parking configurations, and clearly delineated movement patterns that help mitigate spatial disorientation. However, upon broader evaluation within the urban landscape of Nigerian cities, it becomes evident that while internal accessibility is optimized, entry points reveal significant deficiencies. At Ventura Mall in Ibadan, for instance, the internal navigation system promotes inclusivity, yet access from surrounding streets is challenging due to narrow sidewalks and heavy vehicular traffic. A similar scenario exists at Silverbird Galleria in Lagos, where access heavily favors private vehicle use, reflecting an overarching urban planning paradigm where commercial leisure facilities are often designed as isolated, car-centric structures rather than integrated, pedestrian-friendly environments connected to public transit and walkable networks. Immersia Virtual Reality Centre presents a somewhat unique framework for inclusiveness, particularly regarding vertical accessibility. The installation of elevators and a structured internal transport system allows individuals with diverse physical abilities to reach different levels of the facility. Nevertheless, the technology-centric nature of the venue also introduces new dimensions of exclusion, particularly for individuals who may lack familiarity with digital interfaces or who are unable to afford the services offered. This indicates that accessibility within the Nigerian context must be understood as a multifaceted issue encompassing not only physical provisions but also financial and technological considerations.
- ii. **Flexible and Adaptable Spatial Design Enhances Multi-Group Participation:** A significant finding from the four case studies is the role of spatial versatility in enhancing community belonging. Leisure venues with flexible designs are shown to attract a broader demographic and facilitate diverse forms of social interaction. For instance, Silverbird Galleria integrates cinema spaces, retail franchises, gaming zones, and communal areas, creating an environment that accommodates visitors from various age groups and socioeconomic backgrounds simultaneously. This multifaceted spatial arrangement increases the likelihood

of spontaneous social interactions, which are vital for fostering a sense of community belonging. Similarly, Ventura Mall in Ibadan exemplifies spatial adaptability, particularly through its versatile open areas that support various events such as performances, community gatherings, and casual meet-ups. Within the Nigerian context, this adaptability is crucial as recreational facilities often serve multifaceted roles beyond mere entertainment; they are vital as social hubs for families, youth groups, religious congregations, and civic engagement. Thus, the flexibility demonstrated by Ventura Mall significantly enhances its role as a community-oriented leisure venue, rather than merely as a commercial entity. Twinwaters Entertainment Centre reinforces the importance of spatial versatility by integrating dining areas, event spaces, and entertainment facilities within a cohesive design. This arrangement promotes a variety of recreational activities without excluding specific patron demographics. In contrast, Immersia Virtual Reality Centre showcases adaptability through its modular interior layouts that can be reconfigured to meet evolving technological needs. While this flexibility is driven primarily by technological advancements, it fosters inclusivity by allowing the facility to evolve in response to user demands.

- iii. **Environmental Sustainability Enhances User Comfort & Social Inclusion:** Facility design emerges as a critical factor influencing accessibility within selected recreational venues in Nigeria. Given the significant impact of atmospheric conditions on how residents engage with communal spaces, the integration of environmental amenities plays a crucial role in attracting diverse patrons. For instance, Ventura Mall incorporates open spaces and water-themed landscaping that not only enhance microclimatic conditions but also make the environment more appealing for children, seniors, and families. This design approach encourages prolonged social interaction and facilitates broader community engagement. Similarly, Silverbird Galleria and Twinwaters Entertainment Centre strive to enhance environmental amenity by implementing energy-efficient cooling systems, appropriate lighting strategies, and thoughtfully arranged spatial layouts that mitigate crowding. These features contribute to both physical comfort and mental wellbeing key components of accessible design in the context of Nigerian public recreational areas. In a climate characterized by extreme heat and heavy foot traffic, environmentally conscious design becomes paramount in improving accessibility and fostering patronage. Immersia Virtual Reality Centre presents an alternative model of environmental accessibility by leveraging digital and indoor environments. This innovative approach reduces reliance on external climatic conditions while highlighting the growing role of technology in shaping leisure activities in Nigeria. However, it is essential to recognize that an overemphasis on technology can inadvertently limit accessibility, especially if not complemented by affordable connectivity and intuitive spatial organization.
- iv. **Safety & Well-being as Social Equalizers:** In the context of the four study locations Silverbird Galleria, Twinwaters, Ventura Mall, and Immersia VR safety and security emerged as pivotal factors influencing inclusivity. The presence of security personnel, the implementation of CCTV systems, clearly delineated

access points, and well-marked emergency exits significantly enhance users' perceptions of safety. This is particularly critical in Nigeria, where safety concerns often deter individuals from utilizing public recreational spaces. The findings reveal that safety within recreational facilities functions not only as a fundamental physical requirement but also as a psychological factor that fosters community engagement. Families are more likely to frequent leisure venues that provide secure, well-monitored environments for children, while older adults exhibit a higher propensity to participate in recreational activities when interior navigation is safeguarded and organized. Consequently, the safety-oriented design strategies identified in these four case studies play a crucial role in enhancing the level of social inclusion achieved within these venues.

- v. **Community Inclusiveness Gaps Identified:** The analysis of the selected case studies reveals several critical constraints that hinder the effective integration of community engagement within Nigerian leisure venues. A predominant challenge observed at Ventura Mall, Silverbird Galleria, and Twinwaters is the persistence of vehicle-centric designs, which obstruct safe pedestrian movement, particularly for vulnerable populations, such as children, seniors, and individuals with disabilities. Additionally, the limited availability of green spaces and insufficient external gathering areas diminish opportunities for spontaneous social interactions.
- vi. Another significant barrier identified in this study is the issue of financial accessibility. Although venues like Twinwaters and Immersia VR incorporate advanced technology and flexible spatial configurations, they may not be easily accessible to lower-income demographics. This insight indicates that efforts to foster inclusivity in Nigeria must address not only spatial planning strategies but also societal and economic factors.
- vii. In conclusion, the findings suggest that while the four examined leisure centers exhibit a range of inclusive design features, achieving comprehensive accessibility within the Nigerian context remains a challenge. The results highlight the urgent need for holistic design frameworks that integrate considerations of accessibility, spatial flexibility, environmental sustainability, safety, and social equity in the planning and development of future leisure facilities.

5.0 Conclusion

This investigation underscores the critical role of universal design in augmenting the functionality and societal significance of public leisure spaces. The findings reveal that key design parameters namely accessibility, spatial flexibility, environmental sustainability, and safety are instrumental in fostering social inclusion. While an increasing number of contemporary recreation facilities in Nigeria are beginning to integrate principles of universal design, significant barriers persist, particularly concerning pedestrian access, equity in resource distribution, and urban planning practices.

The study advocates for architects and urban planners in Nigeria to adopt universal design principles from the inception of the planning process. Recreational

facilities should prioritize pedestrian-friendly pathways, adaptable spaces, and environmentally considerate design features. Additionally, enhanced regulatory frameworks and strict compliance with accessibility standards are essential to ensure that future recreational developments are genuinely inclusive.

Moreover, inclusive leisure facilities have the potential to play a pivotal role in promoting social interaction, reducing inequalities, and enhancing community well-being in Nigeria. By prioritizing inclusivity in the design process, these amenities can evolve into vibrant communal spaces that foster both enjoyment and social advancement.

References

- Abdulazeez, E. O. (2025). Inclusive Architectural Design for Enhancing Social Interaction in Abuja's Recreational Centres. *IJAR International Journal of Geography & Environmental Management*, 11, 141-151. doi:10.56201/ijgem.vol.11.
- Anthony, B. (2023). The role of community engagement in urban innovation towards the co-creation of smart sustainable cities. *Journal of the Knowledge Economy*, 15(1). doi:<https://doi.org/10.1007/s13132-023-01176-1>
- Broadhead, J. D. (2019). Inclusive cities: Framework - COMPAS. Retrieved from <https://www.compas.ox.ac.uk/2019/inclusive-cities-framework/>
- Chen, C.-C. &. (2024). Reflections on the meaning of “community” in inclusive stakeholder engagement. In K. Buhmann (Ed.), *The Routledge handbook on meaningful stakeholder engagement* (pp. pp. 56–72). *Routledge*. .
- Dempsey, S. E. (2010). Critiquing community engagement. *Management Communication Quarterly*, 359–390.
- Divya Kala, D. J. (2025). Community Engagement for Inclusion. *The International Journal of Indian Psychology*. doi:DOI: 10.25215/1302.022
- Fitriana, R. (2023). Cultivating inclusivity: A comprehensive study of diversity, inclusion initiatives and employee satisfaction. *Journal of Administrative and Business Studies*, 9(3). doi:DOI:10.20474/jabs-9.3.2
- Head, B. W. (2007). Community engagement: Participation on whose terms? *Australian Journal of Political Science*, 42(3), 441–454. doi:<https://doi.org/10.1080/10361140701513570>
- Hiroko Costantini, M. N. (n.d.). Developing Inclusive Community Platforms: A Catalyst for DEI Community. *Open Resource Europe*. doi:<https://doi.org/10.12688/openreseurope.17653.1>
- Jeffrey P Jaramillo, S. H. (2024). Embracing Inclusion, Diversity, Equity and Access (IDEA): Cultivating understanding internally to foster external change. *Journal of Spinal Cord Medicine*, 48(2), 161–169. doi:doi: 10.1080/10790268.2024.2426312
- Kayi Ntinda, B. R. (2024). Community Social Well-Being Inclusivity with Disability. In *Handbook of Concepts in Health, Health Behavior and Environmental Health* (pp. 1-19). doi:https://doi.org/10.1007/978-981-97-0821-5_101-1

- Kohon, J. (2018). Social inclusion in the sustainable neighborhood? Idealism of urban social sustainability theory complicated by realities of community planning practice. *City, Culture and Society*,. doi:<https://doi.org/10.1016/j.ccs.2018.08.005>
- Loi Nguyen, R. E. (2023). Inclusion in the workplace: an integrative literature review. *European Journal of Training and Development*, 48(4). doi:DOI:10.1108/EJTD-10-2022-0104
- Ohmer, M. L. (2022). Community engagement: Evolution, challenges and opportunities for change. *Journal of Community Practice*, 30(4), 351–358. doi:<https://doi.org/10.1080/10705422.2022.2144061>
- Phillippa Carnemolla, S. R. (2021). Towards inclusive cities and social sustainability: A scoping review of initiatives to support the inclusion of people with intellectual disability in civic and social activities. *City, Culture and Society*. doi:<https://doi.org/10.1016/j.ccs.2021.100398>
- Sholanke, J. C. (2023). Appraisal of Universal Design Strategies for Enhancing Social Inclusion in The Development of Sporting Facilities. *IOP Conference Series: Earth and Environmental Science*, Volume 1342, 7th International Conference on Science and Sustainable Development 15/11/2023- 17/11/2023 Ota, Nigeria. doi:10.1088/1755-1315/1342/1/012024
- WEF, W. E. (2022). Benchmarking Diversity and Inclusion in Media and Entertainment: The Audience Representation Index.
- Yatmo, Y. A. (2024). Toward an Inclusive community engagement. *ASEAN Journal of Community Engagement*, 8(2), 139-141. doi:<https://doi.org/10.7454/ajce.v8i2.1366>.