

EDITORIAL

Heritage Conservation, Urban Mobility and Sustainable Development in Africa

Welcome to the Twenty-First Volume, 2nd Issue of the Africa Habitat Review–Journal of the Faculty of Built Environment and Design. This issue presents critically analysed papers on matters relating to heritage conservation, community-led development, urban mobility, infrastructure provision, environmental management, and sustainable planning across Africa. Collectively, the contributions highlight context-sensitive research and practice, offering valuable insights into the relationships between culture, communities, infrastructure, governance, and the built environment in rapidly transforming African landscapes.

The article on *Valorizing Cultural Landscapes for Rural Development: A Case of Abindu and Kit Mikayi, Kisumu County, Kenya* explores the potential of cultural landscapes as catalysts for rural development. The study investigates the landscape attributes and values associated with the Abindu and Kit Mikayi sites through a qualitative approach involving interviews, expert opinion, observation, mapping, and photography. Findings reveal that rare rock formations, caves, and indigenous medicinal flora constitute significant landscape resources, while spiritual and religious values remain the most important motivations for visitation. The study further identifies inadequate infrastructure and land encroachment as major threats to the sustainability of these sites. The article contributes to rural planning and heritage management discourse by demonstrating the importance of integrating cultural landscape values into development planning and recommends improved infrastructure provision and supportive policy frameworks.

The article on *Rethinking Community-Led Development: A Comparative Dialogue from Mukuru Informal Settlements* investigates how different stakeholders understand community-led development and how dialogue influences these perceptions. Using a mixed-methods approach involving surveys and interviews among students, community residents, development practitioners, and government officials, the study evaluates opportunities and barriers associated with community-led initiatives. Findings reveal widespread support for community-led development but identify funding misuse, gatekeeping, land tenure insecurity, and weak trust in government programmes as significant constraints. The study further demonstrates that structured dialogue can challenge preconceived assumptions and foster greater alignment between development interventions and community realities. The article contributes to participatory development discourse by highlighting the value of dialogue-based engagement in strengthening locally driven development processes.

The article on *Continuity with Change: Developing an Empirical Conservation Strategy for Historic Shimoni Town Using Confirmatory Factor Analysis* examines the conservation challenges facing one of Kenya's historic Swahili settlements. Through condition surveys and Confirmatory Factor Analysis, the study evaluates the state of cultural heritage resources and community perceptions regarding conservation. Findings reveal widespread deterioration resulting from neglect, vandalism, inadequate maintenance, and uncontrolled alterations to historic structures. The analysis identifies nine key heritage values and establishes a strong relationship between community perceptions and conservation outcomes. The study emphasizes the vulnerability of Shimoni's heritage despite strong local attachment and recommends participatory conservation planning, adaptive reuse, stronger planning controls, and heritage documentation. The article contributes to scientific approaches for conserving historic coastal settlements and promoting sustainable heritage management.

The article on *A Perception-Based Walkability Index for an Informal-Economy CBD Corridor: Kenneth Matiba Road, Nairobi* develops and validates a context-specific tool for assessing walkability within informal-economy urban environments. Drawing on survey data from pedestrians, drivers, matatu operators, and vendors, the study constructs a Walkability Performance Index tailored to the

realities of African Central Business Districts. Findings indicate poor overall corridor performance, with infrastructure adequacy emerging as the weakest component. Significant differences were observed in perceptions of driver yielding behaviour, particularly between matatu and private vehicle operators. Respondents identified designated vending areas as a priority intervention for improving pedestrian experiences. The article contributes an innovative and reliable diagnostic tool capable of informing pedestrian-oriented planning and policy interventions across Sub-Saharan African cities.

The article on *Options for Land Acquisition to Accommodate Missing Urban Infrastructure in Kenya: Lessons from Case Reviews* addresses the challenge of providing public infrastructure within already developed settlements where land ownership constraints complicate planning interventions. Through comparative analysis of international experiences and policy frameworks, the study evaluates strategies for acquiring land and facilitating infrastructure provision. Findings demonstrate that no single model offers a universal solution to infrastructure deficiencies in built-up areas. However, the reviewed cases highlight the importance of state intervention, participatory planning, incremental redevelopment, and effective development control mechanisms. The article contributes to urban planning discourse by providing practical lessons for addressing infrastructure deficits in rapidly urbanizing Kenyan towns and cities.

The article on *Route Choice Behaviour on the Nairobi Expressway, Kenya: A Mixed-Methods Analysis of Urban Toll Road Use* investigates factors influencing motorists' decisions when choosing between tolled and non-tolled urban road networks. Guided by transport behaviour theory, the study combines questionnaire surveys and key informant interviews to examine the influence of toll cost, convenience, traffic flow, time savings, and road condition. Findings reveal that traffic flow and road condition significantly affect route choice, while toll charges, entry and exit convenience, and time savings are less influential. The study demonstrates that motorists prioritize reliability and infrastructure quality over direct monetary costs when making travel decisions. The article contributes important evidence for transport planning and policy formulation concerning urban toll road operations in African cities.

The article on *Evaluating Intelligent Traffic Management and Intersection Performance at Ring Road Kileleshwa/Riverside Drive, Nairobi* assesses the effectiveness of Intelligent Traffic Management Systems in improving intersection operations within a congested urban environment. Using microsimulation modelling, the study compares multiple traffic control scenarios, including unsignalized, fixed-time, optimized, and vehicle-actuated systems. Findings reveal persistent congestion across all scenarios despite variations in operational performance. While vehicle-actuated control increased throughput, it also generated higher delays due to timing inefficiencies, whereas optimized fixed-time control produced the most balanced outcomes. The study concludes that signal optimization alone cannot overcome physical capacity limitations and must be supported by geometric improvements. The article contributes a replicable framework for evaluating intelligent traffic interventions within African urban transport systems.

The article on *Water Urbanism and Land Use Change: A Conservation Strategy for Nanyuki Riverine Ecosystem, Laikipia County* investigates the impacts of land use transformation on river health within a rapidly changing urban environment. Using a mixed-methods approach that integrates spatial analysis, biodiversity assessment, water quality evaluation, and stakeholder perspectives, the study examines ecological conditions along the Nanyuki River corridor. Findings reveal that urbanization, riparian encroachment, wastewater discharge, and expanding impervious surfaces have contributed significantly to declining biodiversity, reduced water quality, and ecosystem degradation. The study further demonstrates that land use intensity remains a key driver of environmental decline. The article contributes a comprehensive water urbanism framework that integrates planning, conservation, wastewater management, and community participation to support sustainable river restoration and long-term ecological resilience.

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