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Sustainable approach to ecotourism for cultural heritage conservation in Kano, Nigeria

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Abstract: Ecotourism is extremely important for sustainable development and preservation of cultural heritage, particularly in ancient cities such as Kano, Nigeria. This research explores the multifaceted relationship between ecotourism, architectural heritage, and sustainability in the context of Kano's historic resources, namely the old city, its ancient defensive walls, and associated cultural monuments. The research takes a qualitative methodology of direct site observation, interviews with stakeholders like heritage professionals, tourists, and locals, and community engagement sessions to unfold the perception, value, and level of involvement of various groups in the conservation of these heritage sites. Furthermore, it illustrates a keen communal regard for the architectural and cultural significance of Kano's heritage but recognises crucial lacunae in preservation planning, infrastructural support, and participatory inclusiveness of communities. These limitations pose very real challenges to the success of a model of sustainable ecotourism in the region. Informing context-specific, adaptive solutions from successful ecotourism experience in other parts of the world, the study proposes strategies that seek to integrate heritage conservation in Kano. It also emphasises the potentials of ecotourism in local economic transformation, cultural identity enhancement, and environmental stewardship. Finally, the paper concludes with a set of practical and policy-specific recommendations specific to architects, urban planners, cultural heritage managers, and government agencies in order to have a more integrated and sustainable pattern of tourism development that is attuned to the socio-cultural and environmental dynamics of Kano.

Keywords: ecotourism, heritage, cultural sites, Kano, cultural conservation, historic city, City Wall, cultural preservation

INTRODUCTION

Tourism has increasingly been recognised as a pivotal factor in advancing sustainable development in the modern era, as previously analyzed by the World Travel & Tourism Council (WTTC, 2025). Unfortunately, this growth has occurred so rapidly, the world slightly taken aback is not adequately prepared to manage its effect on the very resources it depends upon. As a result, widespread damage to natural assets, impacting tourism itself, and many tourist destinations support fragile ecologies that cannot bear heavy disturbances, and once a critical threshold is crossed swift degradation often ensues (Usher et al., 1974), i.e. the disappearance of wildlife because of human presence; destruction of sceneries through road construction; and pollution from tourists in Malaysia (Nair, 2015). Hence, the ecotourism has emerged. Ecotourism is a sustainable travel approach that contributes to biodiversity preservation, socio-cultural growth, and economic advancement within a country. Since 1970, ecotourism has expanded rapidly, becoming the fastest-growing segment of the tourism industry (Hughes, 1998).

Although the importance of ecotourism has widely been accepted internationally as one which appreciates and conserves the environmental cultural heritage, supports local economy, improves awareness, its potential is yet to be tapped in Kano. Notably, the city has been facing significant challenges in the effort to preserve historical and cultural monuments since the rapid economic growth and increasing demand for prime urban land (Yusuf et al., 2023). Kano was once a great Hausa city-state, an emirate, a colonial province, and currently a federating unit of Nigeria Kano. It is renowned for its deep historical significance, vibrant cultural heritage, and enduring architectural legacy (Akeem, 2024). This paper examines the history of the heritage sites and its cultural importance, additionally, the research investigates how ecotourism can serve as a tool for supporting the local economy while conserving heritage sites and encouraging community participation. It also attempts to review international ecotourism model adapting it to criteria and policies that work best for the case of Kano.

GLOBAL PERSPECTIVE ON ECOTOURISM

Ceballos-Lascuráin (1996), specifically, characterised it as responsible travel to natural areas of outstanding value for the conservation and appreciation of the environment, flora, and fauna. Yet the term has often been misused, with (Hussain, 2022) emphasising that real ecotourism must actively promote environmental conservation and local community well-being. He also noted the dual roles of both hosts and visitors in having minimal environmental impact and in respecting local cultures. As a form of alternative tourism, ecotourism is rooted in early environmentalism (Fennell, 2002) and is rooted in tangible and intangible heritage—like historical artifacts, traditions, language, and customs passed from one generation to the next (Offen, 2016; Harrison, 2024).

Ecotourism has gained global recognition as a sustainable development approach that balances economic growth with environmental and cultural heritage preservation. While countries implement it differently, shared goals include conservation, community participation, and education. In Egypt, efforts focus on conserving protected and archaeological sites like Ras Mohammed National Park, supported by the Egyptian Environmental Affairs Agency (Abu-Zekry and El-Kholei, 1998). Li and Hunter (2015) proposes a taxonomy-led model of sustainable cultural tourism that demands linking heritage typologies, community involvement, and place identity to facilitate locally focused development models. Demiröz et al. (2025) argues that sustainable cultural tourism relies on contextual taxonomies in which heritage typologies are coupled with adaptive schemes of tourism favouring socio-spatial justice, community empowerment, and place identity. Despite initiatives, issues like overtourism and weak eco-certification remain (Khad, 2024). Australia introduced the National Ecotourism Strategy in 1994 to guide sustainable tourism with indigenous involvement. Although initial government support weakened post-1996, ecotourism remains key for conservation and regional development (Charters, 1996; Soaga, 2022).

Malaysia, having over 500 ecotourists sites prioritised tourism in the 1990s, especially in biodiversity-rich areas. Yet, poor site management and greenwashing persist due to weak oversight and the absence of a central ecotourism database (Nair, 2015; De Lacy, et al., 2002). The country with the highest hotel inventory recorded in Asia was Thailand, rich in cultural heritage, however, it faces threats from mass tourism and environmental degradation. Emphasis has been placed on sustainable infrastructure and awareness to mitigate ecosystem pressure (Dowling, 1995). Slovenia is globally recognised for sustainable tourism through programs like the “Green Scheme of Slovenian Tourism,” which promotes low-impact travel and certifies eco-destinations such as Ljubljana and Triglav National Park (Ljubljana Tourism, 2025). Norway promotes ecotourism through its “Nature-Based Tourism Strategy,” prioritising low-impact travel and Indigenous Sami culture while regulating visitor flow in areas like Lofoten and Svalbard to reduce environmental strain (Innovation Norway, 2017).

Overall, these international examples highlight both the promise and the challenges of ecotourism. While some countries have successfully embedded sustainability into tourism policy, others continue to struggle with weak implementation and environmental degradation. Nevertheless, ecotourism remains a powerful tool for equitable and lasting development when practiced responsibly.

ECOTOURISM THROUGH CULTURAL HERITAGE CONSERVATION

Heritage, both tangible and intangible, constitutes the cultural identity of a society and is passed down from generation to generation. The Oxford English Dictionary defines heritage as inherited property or places, but De Lacy et al. (2002) extends this to natural and man-made sites, commenting on their international significance and importance to preserve them. Scholars such as Carman (2002) and McClelland et al. (2013) are of the view that heritage is not discovered but socially constructed and controlled, founded upon emotional, legal, and intellectual relationships with communities. Pearson and Sullivan (1995), and Harrison (2024) also emphasise participatory consultation, citing that heritage conservation can be sustainable only through inclusive community involvement.

Globally, several countries present diverse models of integrating architectural heritage in ecotourism. Egypt's categorisation of heritage as "monumental" or of local significance is hindered by irregular policy application, minimal public engagement, and weak enforcement (Osman, 2018). Sites like Al-Sakakīnī Palace illustrate the consequences of abandonment, with environmental hazards and inadequate maintenance further compounding the problem (UNESCO, 2014). Such incongruence between institutional frameworks and actual practice undermines the prospects of heritage architecture in ecotourism. China, in its rapid modernisation, leans toward reconstruction rather than authentic preservation (Zhu, 2017). denounces the state's tourism-driven restorations, which have the effect of marginalising local stakeholders and compromising architectural authenticity.

The Philippines, however, is a paradigm of participatory conservation with the Ifugao Community Heritage Galleries. Acabado and Martin (2020) underscores how traditional knowledge and vernacular practices are harnessed to present heritage as living and dynamic, cultural expression-based ecotourism. In Öskvank Monastery, the emphasis is on a holistic management approach that includes inter-agency collaboration among local authorities, NGOs, and academic institutions, while also promoting visitor education through interpretative tools such as signage, guided tours, and cultural narratives (Özgeriş et al., 2023). England's pragmatic planning system tries to balance heritage conservation and development (Ashworth, 1999; Orbasli, 2000).

However, weak legal protection for non-designated heritage buildings leaves numerous culturally meaningful assets vulnerable to threat (Boland, 1998; Ludwig, 2016). Still, England's broadened notion of heritage—from monument to community identity—offers valuable lessons in integrating architecture into ecotourism. Costa Rica demonstrates a strategic convergence of vernacular architecture and ecotourism. As Hall and Brignoli (2003) put it, the country's nature-based tourism is sustained by low-impact infrastructure that has respect for nature and indigenous knowledge. Similarly, Morocco's Medina of Fez has successfully integrated heritage preservation and cultural tourism, with beneficial effects on local economies.

These demonstrate that heritage preservation, merged with ecotourism, promotes cultural identity, environmental sustainability, and socio-economic development. For Kano, adopting such integrated approaches can assist in preserving endangered heritage while initiating environmentally sustainable tourism in alignment with global expectations.

SUSTAINABILITY PRACTICES IN ECOTOURISM

Sustainability remains the core of ecotourism, attempting to balance environmental conservation and tourism development (De Lacy, et al., 2002). While there is widespread agreement on its importance (Gray, 2010), sustainability remains poorly defined across sectors (Dixon and Fallon, 1989). Initial definitions, such as the Brundtland Report's (WCED, 1987) placing emphasis on intergenerational equity, and (Scoones, 2007) framing the sustainability as resilience, highlight its systemic and dynamic nature. Johnston et al. (2007) also positions sustainability as managing resources within ecological limits. Ecotourism in action shows these ideals by ensuring that tourism development is not at the expense of the environment. Sustainable property development specialises in green design, conserving energy and water, and reducing waste (GSTC, 2025), with green investment incentives (Asuamah Yeboah, 2024). Incorporating local people into the workforce to ensure economic benefits do not leak out (FTC, 2025) is no less important. As noted by the BBC (2025), successful ecotourism destinations integrate built structures into natural environments through the adoption of local materials, visitor control systems, and recycling systems—at a higher cost, however.

Nigeria's Cross-River State National Park (CRSNP), a United Nations-recognised biodiversity hotspot (nigeriaparks, 2014), is an example of underinvestment and poor infrastructure development (Ofem et al., 2012). This serves to underscore that sustainable ecotourism requires more than natural resources; it requires solid support mechanisms and benefit-sharing structures. Ecotourism is successful through the strategic partnership among government agencies, the private sector, and host communities, with each contributing to regulation, development, and benefit allocation (Tagi, 2001). In the Nigerian context, limitations such as poor infrastructure, governance issues, and insecurity work against the maximum exploitation of ecotourism. Eliminating them can unlock opportunities for economic diversification beyond oil dependence (Fig. 1) (Enunwah, 2023; Idowu, 2021). Sustainable tourism theory encourages local participation, environmental and cultural conservation, and equitable economic benefits (Wearing, 2001), and this enhances ecotourism's role in long-term national development.

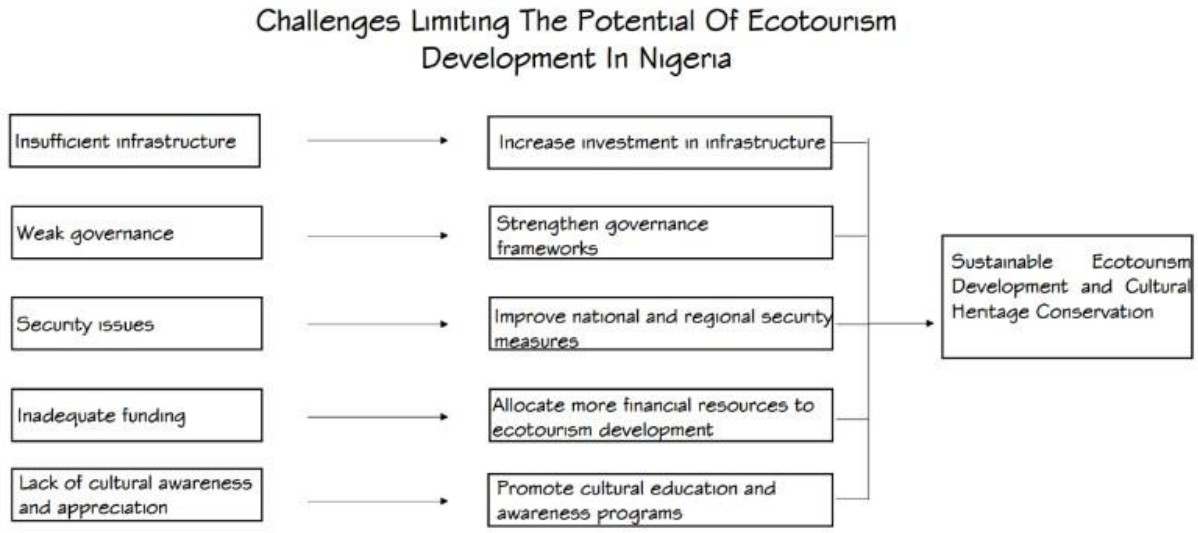

Fig. 1. Challenges and solutions hindering ecotourism development in Nigeria. (Source: Authors, 2025)

KEY FEATURES AND INDICATORS OF ECOTOURISM

Ecotourism operates through a distinct set of features and indicators that differentiate it from conventional tourism. The use of criteria and indicators is a widely accepted method for monitoring sustainable development, endorsed by the United Nations Commission on Sustainable Development (UNCSD) (Aziz et al., 2015). This section presents key features and indicators systematically recorded from three (3) articles (Tab. 1), highlighting their interconnections and relevance to architectural and environmental contexts by Hughes (1998); Glass and Timber (2023); Bhattacharya and Kumari (2004); and Aziz et al. (2015), using the Hotelling's T-square.

Tab. 1. Measurable indicators that define successful ecotourism projects according to Glass and Timber (2023); Bhattacharya and Kumari (2004), and Aziz et al. (2015).

Key Feature	Explanation	Connection to Other Features
Environmental Conservation	Protection and enhancement of biodiversity and natural ecosystems.	Linked to sustainable architecture and site management.
Community Involvement	Local populations actively participate in management, benefit economically, and preserve traditions.	Enhances cultural preservation and socio-economic development.
Cultural Heritage Preservation	Protection of local traditions, historical sites, and indigenous knowledge.	Strongly associated with architectural integrity and authenticity.
Education and Interpretation	Providing visitors with learning experiences about nature and culture.	Reinforces responsible visitor behavior and cultural sensitivity.

Low-Impact Infrastructure	Environmentally friendly buildings and facilities minimising ecological footprints.	Connects with sustainable construction practices and energy efficiency.
Economic Sustainability	Tourism provides long-term economic benefits without environmental or cultural harm.	Supports community involvement and limits destructive commercialisation.
Visitor Management and Regulation	Limiting visitor numbers, regulating activities, and controlling access to fragile areas.	Protects conservation goals and cultural sites from degradation.
Sustainable Certification and Standards	Adoption of recognised eco-certifications for operations, construction, and management.	Strengthens credibility and accountability across all aspects.
Healthy Ecosystem	Wildlife presence, sacred sites, endemic and endangered species, rainfall, soil erosion, flora/fauna diversity.	

SELECTION OF RESEARCH ANALYTICAL PARAMETERS

In order to inform this study, seven key parameters were borrowed from globally recognised models (e.g., Bhattacharya and Kumari, 2004; Aziz et al., 2015; and Hughes, 1998). They provide a structured and contextually befitting methodology for evaluating ecotourism sustainability in Kano, factoring in environmental, cultural, and socio-economic considerations. They are listed as follows:

I. Accessibility—Evaluates the quality of infrastructure, transportation, and natives' access to tourism earnings without compromising ecological balance.
II. Community Participation—Tracks the involvement of local communities, especially marginalised groups, in tourist planning, decision-making, and equitable benefit-sharing.
III. Policy and Planning—Looks at the presence and influence of strategic documents, institutional linkages, and regulatory support towards sustainable tourism.
IV. Sustainability—Assesses the environmental, social, and economic equilibrium, such that tourism development is in accordance with the region's carrying capacity and long-term sustainability.
V. Protection of Heritage—Focuses on the conservation of cultural monuments, traditions, biodiversity, and natural landscapes for the present and future.
VI. Economic Impact—Examines how tourism affects employment generation, small-scale business benefit, and poverty reduction at the local level.
VII. Waste Management—Examines systems for solid waste management, promoting recycling and pollution reduction in an effort to preserve environmental health.

CASE STUDIES

Badaling Great Wall

60 km north of Beijing, China, is one of the most famous and accessible sections of the Great Wall, first built as far back as 770–476 B. C. and renovated over 2,000 years ago, most notably during the Ming Dynasty by General Qi Jiguang (Fig. 2) (Mark, 2015).

Fig. 2. The Badaling Great Wall of China. (Source: China Tour Guide, 2024).

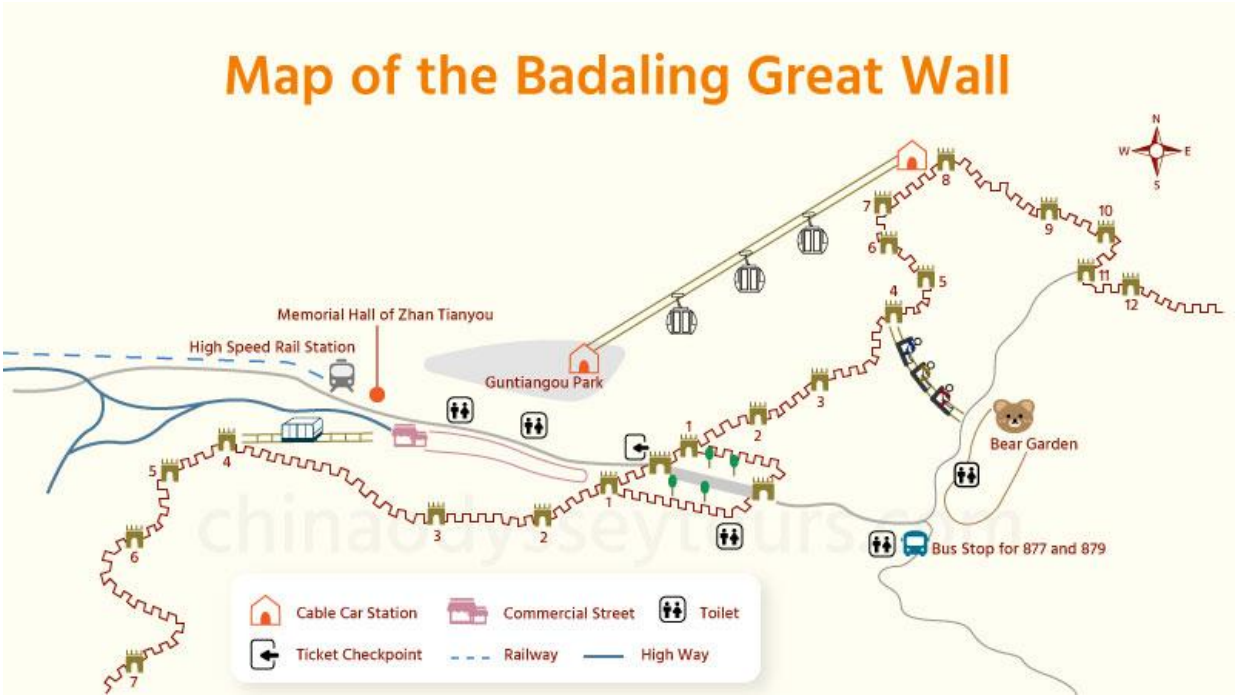

Fig. 3. The Badaling Great Wall Map. (Source: Vera, 2024)

7.6 km in length across mountain ridges, it features wide walkways, 43 watchtowers, and was once strategically important to fend off northern invaders like the Mongols. With great stones, bricks, and rammed earth as its construction material, the portion is highly well-preserved and tourist-friendly with museums, eateries, public toilets, and transport links in the form of high-speed trains and public buses see (Fig. 3).

The popularity of the destination—drawing 70% of visitors to the Great Wall—is complemented by nearby popular spots like the Ming Tombs and scenery, the most visited and best-preserved section of the Wall. Beijing's Badaling Great Wall offers a valuable case study for the Kano city wall due to its effective heritage conservation, sustainable tourism, and civic engagement. Both walls possess historical and architectural significance, but unlike Kano's dilapidated wall, Badaling is well conserved by stringent preservation policies and civic involvement. Its effective practices—like environmental education campaigns, waste management, and sustainable tourism—offer adaptable solutions to protect and restore Kano's cultural heritage and foster local socio-economic growth

Petra Archaeological Park

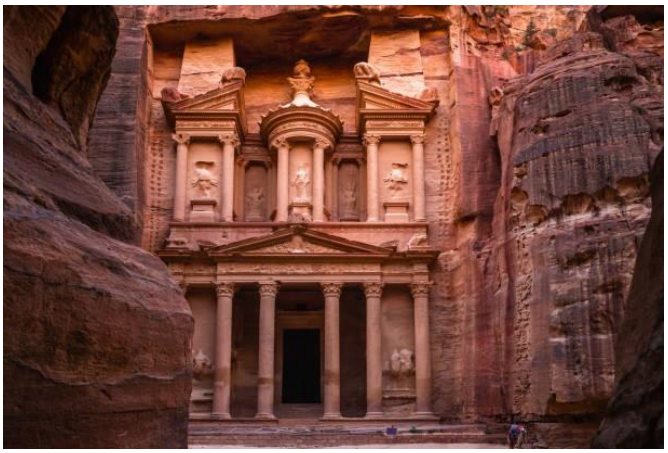

Fig. 4. Al-Khazneh of Petra (The Treasury). (*Photo:* Chan, 2019)

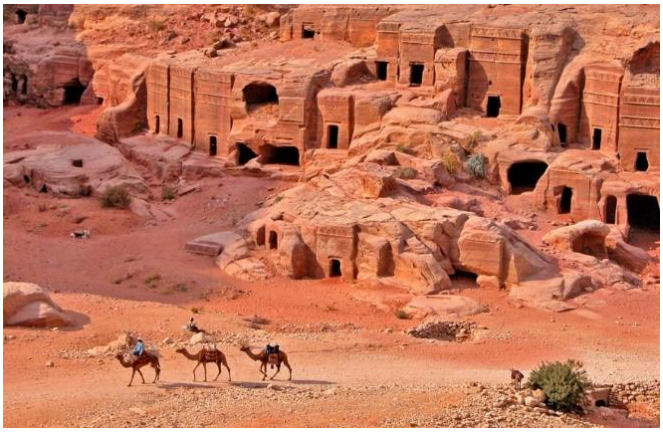

Fig. 5. Tombs at Petra. (Source: Macaulay, 2015)

The Petra at Wadi Musa, Jordan, is a UNESCO World Heritage Site and voted among the New Seven Wonders of the World (Fig. 4). The Nabataeans 2,000 years ago carved out rose-red sandstone cliffs to fashion the iconic Petra famous today for its blend of Nabataean, Hellenistic, and Roman architecture topped by such monuments as Al-Khazneh (The Treasury), Ad Deir (The Monastery), and the Royal Tombs. The site also boasts significant city planning, water control, and ritual architecture. Managed by the Petra Development and Tourism Regional Authority (PDTRA), the park integrates conservation, tourism development, and local socio-economic development. Conservation includes visitation control, sustainable tourism practices, and cooperation with NGOs and local Bedouin communities.

Locals are engaged in guiding and crafts, economically benefiting while helping to preserve heritage. Tourism revenue finances conservation and infrastructure, ensuring long-term sustainability. Petra's effective balancing of preservation of heritage, community participation, and ecologically sustainable tourism practiced (Fig. 5) sets a significant precedent for the management of historic places like Kano's city wall and other cultural heritage. Petra Archaeological Park is a valuable case study for Kano since it achieves a good balance between heritage preservation and ecotourism. Petra shows how it is possible to conduct tourism without excessive environmental expenses and through the involvement of locals. It has valuable lessons for Kano, particularly in the management of cultural sites through community partnerships, sustainable development, and managed tourism activities.

Hadrian's Wall

Fig. 6. The Ruins of the Milecastle overlooking the Hadrian's Wall. (Source: TheCaptain, 2023)

Fig. 7. Hadrian's Wall path. (Source: Northumberland National Park, 2024)

Built in A. D. 122 under the rule of Emperor Hadrian, it marked the Roman Empire's northwestern frontier, stretching 73 miles across northern England. Designated a UNESCO World Heritage Site in 1987 (Fig. 6). The Wall was a state-of-the-art military defense with milecastles, observation towers, and forts like the Housesteads Roman Fort. Though parts have deteriorated, significant portions remain and attract global tourists. The Hadrian's Wall Management Plan (2024–2029) outlines overall policies for its conservation, prioritising heritage conservation, community, environment, and public access. Initiatives like the Hadrian's Wall Path National Trail (Fig. 7) and the WallCAP project promote sustainable tourism and active community involvement in

conservation. Despite historical periods of abandonment and destruction, the Wall remains a tribute to Roman engineering and British heritage, supported by professional and community-based conservation efforts today.

Wall in England was chosen because it closely resembles Kano's cultural heritage, just like the Badaling Great Wall of China. Both are old defense walls with immense cultural, architectural, and historical value. Hadrian's Wall is especially notable for its effective conservation of heritage, eco-friendly tourism, and community engagement, under policies like the Hadrian's Wall Management Plan. These strategies are instructive for the conservation of Kano's historic wall, which is currently subject to erosion and abandonment. Similarly, the Badaling Great Wall and Petra Archaeological Park offer good examples of conservation and community-based tourism. Together, these cases stress the importance of engaging local communities, promoting environmental management, and using tourism to support heritage conservation—principles that can be applied to the sustainable redevelopment of Kano's historic resources.

NIGERIA: HISTORICAL TAPESTRY OF KANO

Nigeria is located in West Africa, bounded by Niger in the north, Chad on the northeast, Cameroon in the east, and Benin in the west (Fig 8.). To the south, it has an Atlantic coastline that is basically a mangrove forest with swampy regions. Nigeria's climate is varied according to regions. The northern areas are hot and arid with dry seasons lasting several months, while the southern areas have a humid, tropical climate with heavy rainfall. For the most part, the temperature remains warm throughout the year, with changes in elevation and proximity to water bodies being moderating factors (Ajayi, et al., 2024a, b; CIA, 2024).

Fig. 8. Geographic Map of Nigeria. (Source: Furian, 2025)

The civil war lasting from 1967 to 1970, followed by the economic shift caused by the 1973 oil boom, shifted the country's attention to rapid urbanisation and industrialisation at the expense of rural neglect. This period was also characterised by sharp corruption and an overvalued naira, making Nigeria a costly and less desirable destination compared to other African countries. Furthermore, regular military coups in the 1970s through the 1990s further gave Nigeria a terrible image in the international arena, discouraging foreign tourists from visiting the country (Falade, 1999). The NTDA (Nigerian Tourism Development Authority) was established in 1992 by the Nigerian Tourism Development Corporation Act. It was part of the broader effort to harness the potential of the tourism sector toward contributing to the economic growth of Nigeria. It was established as a regulatory body to guide, promote, and develop tourism in Nigeria for the preservation of Nigeria's cultural heritage, increasing international tourism, and enhancing the related infrastructure towards the growth of tourism. This was a starting point in efforts towards making Nigeria a major player in the global tourism market.

Artefacts and socio-facts from Nigeria's diverse environments encapsulate the living memories of its rich cultural heritage. These can be housed in museums and potential historical sites across the country, serving as significant centres for tourism that not only attract visitors but also generate substantial revenue and employment opportunities (Ukpere, 2018). Nevertheless, a number of challenges have beset the NTDA in its quest to promote Nigeria's tourism sector. Insecurity, especially in some parts of the country, has discouraged both local and international tourists. The lack of proper infrastructure, such as roads, accommodation, and facilities at tourist sites, is still a big problem. Negative global perception about Nigeria, resulting from media reports on insecurity and corruption, has also been a big setback to the development of tourism. These notwithstanding, NTDA has been trying to break most of those barriers to pave the way for sustainable tourism development, attracting adequate investment to ensure the sector realises its full potential (NTDA, 2024).

Kano is one of the oldest cities in West Africa, with an active and colourful history extending back more than 1,000 years. Founded around A. D. 999 by Bagauda, the first ruler of the Bagauda dynasty. It contains archaeological remains and ancient monuments that narrate the pre-Islamic history of the city. Its growth was right tied to its strategic location, abundant natural resources, and early activities such as iron smelting and agriculture around Dala Hill (Fig. 9). During the reign of Muhammad Rumfa (1463–1499), Kano was at its apogee as a political, economic, and cultural power, with Rumfa establishing the 19 km ancient city wall.

Dating from the 11th to the 18th centuries, the ancient Kano city wall (Fig. 10) and its 15 gates are relics of traditional Hausa architecture and historic defense systems (Iliyasu, 2014). Iconic symbols of Kano heritage that once were, however, have been abandoned or altered, stripping them of their authentic cultural context. The Gidan Rumfa, or Emir's Palace (Fig. 11). Islam became deeply rooted, shaping the city's culture, architecture, and governance. Other sites include: The Local Tannery and Goldsmith, Madabo Mosque, The Gidan Makama Museum, and The Dye Pits (Fig. 12) (Akinade, 2005). Kano developed as an important centre along the trans-Saharan trade routes, known for its leather goods, indigo-dyed textiles, and agricultural produce (Iliyasu, 2014).

Gidan Dan Hausa also ranks among the heritage sites, a historical structure with Sudano-Sahelian architecture, it served administrative and residential purposes as well as being home to Northern Nigeria's first Western school. It is renowned for its tall mud walls, delicate carvings, and cultural symbolism. Finally, there are festivals like the Durbar Festival, a glorious horse-riding procession held in the event of Eid celebrations. This festival dates back to the 14th century and features nobles, horse riders, and performers celebrating Islamic and royal traditions, attracting visitors from across the world (Reuters, 2021). Similarly, the Gani Festival existing prior to Durbar, honours Kano's cultural unity with traditional music, dance, and parades. Traditionally, it was used to celebrate harvests and resolve disputes, and even today remains a living tradition of Kano's heritage (Reuters, 2021). The traditional Hyena Men artists, sometimes involving children, handle hyenas and snakes during ceremonies and festivities. Although declining, these performances demonstrate long-standing cultural practices and healing through the use of animal pieces based on traditions within communities.

Fig. 9. Dala Hill. (Source: Hotels.ng, 2017)

Fig. 10. The Kano City Wall. (Source: AScandalinBohemia, 2021)

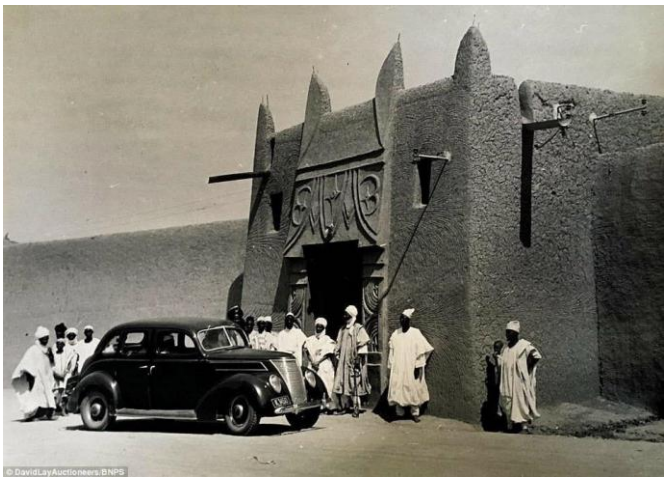

Fig. 11. The Gidan Rumfi/Emir's Palace. (Source: ngConsulate, 2024)

Kano had a flourishing industry but is retarded by inadequate infrastructure, limited finance opportunities, and constraints from entering global markets (Hanga, 2025). While modernisation implores Kano to save its rich cultural heritage and architectural identity, ethnic diversity occasionally leads to social tensions. The Kano State Government and related agencies (KNUPD: Kano State Urban Planning and Development Authority) have begun emergency preservation efforts, though challenges such as inadequate funding and weak tourism promotion remain. Limited educational resources, especially at rural levels, further hinder development. This makes the balancing of progress with the conservation of cultural heritage quite difficult to achieve (Sule, 2018).

Fig. 12. The Dye Pits. (Source: Abubakar, 2013)

Phases in historical development of Kano City Wall

The first phase of the history of the Kano City Wall reveals the overall socio-political history of Kano, from being among the Hausa Bakwai towns to its modern role in Nigeria. The beginning of the wall's development dates back to approximately A. D. 1095 under King Sarki Gijimasu and was a defensive laterite and mud structure with seven gates (Fig. 13). It represented Kano's rise into urbanisation and commerce. By the mid-14th century under King Yaji I, Kano had become a Hausa kingdom and had embraced Islam, which defined its political and cultural identity. The growing role of the city in trans-Saharan trade led to further expansion and reinforcement of the wall under successive rulers.

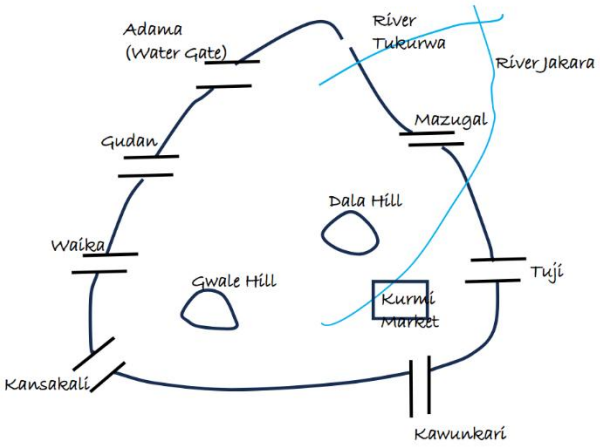

Fig. 13. Kano City Map in the 9th–10th century. (Source: Authors, 2025)

The second phase faced major expansion of the Kano City Wall was conducted between the period 15th and 19th centuries, and this was done most splendidly during Muhammad Rumfa's reign and after Sokoto Jihad (Fig. 14). Under Rumfa (1463–1499), Kano had developed to be a profitable hub of government, architecture of buildings, and Islamic education. It continued to grow further as a hub where more intricate gates, bastions, and moats existed at the juncture of art with defense. After Sokoto Jihad (1804–1808), Kano became an Islamic emirate of the Sokoto Caliphate. Under Emir Suleiman's reign, the function of the wall evolved beyond being purely a defensive building to include policing, taxation, and religious spying as part of solidifying Muslim rule.

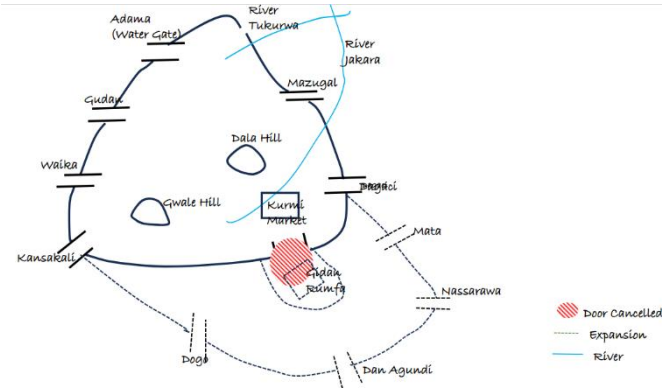

Fig. 14. Kano City Map in the 13th century. (Source: Authors, 2025)

The third phase of the evolution of the Kano City Wall occurred during Muhammadu Na Zaki (1582–1616), which produced the central area known as cikin gari today (Fig. 15). The fall of the wall began, however, with British colonialism in 1903 when Kano became part of the Northern Protectorate. While the Emirate system was preserved, the defensive purpose of the wall was rendered useless. Colonial-era plans for infrastructure led to partial demolitions and illegal entrances, weakening traditional roles like that of the gatekeepers. Post-independence saw rapid urbanisation, neglect, and decay, further deteriorating the wall, with only a few parts and gates remaining (Fig. 16), many of which were in poor condition. Despite this reduction, the wall is a significant cultural symbol. Scholars argue that Kano heritage sites are economically, socially, and historically rich. The city has always attracted international visitors due to its educational, cultural, and business interests. People like Hugh Clapperton and Lord Lugard visited in the 19th century, and the World Travel Guide states that Kano offers a "medieval atmosphere" and is one of Nigeria's finest places to visit.

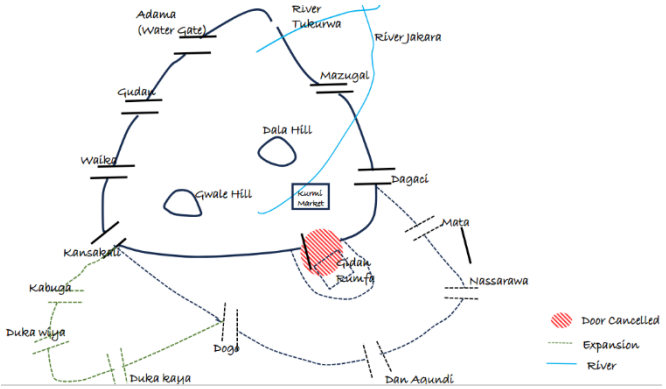

Fig. 15. Kano City Map in the 15th Century. (Source: Authors, 2025)

Fig. 16. Remnants of the Kano City gates in the Museum. (Source: Authors, 2025)

Contextual characteristics of Kano

Kano is a suitable city for ecotourism that possesses a unique combination of physical landscapes, cultural heritage, and architectural heritage. Its historic walls, vibrant markets, and ancient sites enhance the long-standing character of the city and the potential for creating sustainable tourism. Kano developed around Dala and Goron Dutse Hills and later was defended with a 19 km city wall and fifteen gates. Even though once at the centre of the city's defense and identity, these structures have significantly depreciated after urbanisation and modernisation, with some gates altered or deteriorating.

A traditional commercial and industrial centre of trans-Saharan trade in the past, Kano is Nigeria's second-largest industrial and commercial centre with over 300 industries. It emerged through strategic location and initial occupations like iron smelting and agriculture. Legacy of Muhammad Rumfa's reign continues to dictate its commercial dynamism. It is the major hub of commerce and trade since the trans-Saharan era, the city has been shaped by a blend of Islamic, Hausa, and Fulani influences. Its rich heritage can be seen in monuments such as the Kano City Wall, and its gate, amongst others like the Gidan Makama Museum, Emir's Palace, and Kurmi Market.

Kano's people have distinct traditions in religion, clothing, language, festivals, and cuisine. Festivals like the Durbar and Gano Festival, crafts, poetry, and cuisine like Tuwo, Suya, and Fura reflect a vibrant cultural life, resistant to colonialism. Kano's traditional architecture has flat roofed mud-brick buildings with inward courtyards, appropriate to Islamic and environmental requirements. Iconic buildings such as Gidan Rumfa and ancient gates demonstrate Hausa culture's symbolism and creativity. Conservation of these buildings may propel ecotourism based on authenticity and coexistence with the environment.

Methodology

This research adapts a mixed-methods approach using both qualitative methods to gather insight from global models, site observations, and interviews, quantitative approach gathering data from stuctured questionnaire and statistical analysis. Purposive sampling method was used, male and female Nigerian tourists (20) and local residents of Kano aged 18–65 (63), including those with direct or indirect ties to the heritage site were focused on (Fig. 17). Interviews were conducted individually (by the Kano State History and Cultural Bureau Director), and surveys were administered only once per person, with responses accessible only to the researcher. All data were manually coded to ensure confidentiality and transparency. A combination like this of rich qualitative findings and quantifiable data creates a comprehensive analysis for understanding the relationship between ecotourism and heritage conservation. Furthermore, the rationale behind the choice of survey participant is to have indepth information on Kano's truest cultural heritage progresses according to the locals, and also, having mentioned that Nigeria as a whole faces insecurity (which, among other problems, hinders tourism itself), tourists who participated are all Nigerians from other states. Simply put, the questions with vague answers are the focus of the indepth interview which was held by the History and Cultural Bureau Director, a local, and a government official.

RESULTS AND DISCUSSION

The Kano City Wall was determined to be severely damaged due to erosion and abandonment. The wall, especially at the eastern gates, has sections of heavy wear due to natural weathering and use. These same erosive issues had been experienced at the Badaling Great Wall but more effectively on a conservation front, where policy directions are quite clearly defined in managing the tourists and integrating the local populace. See also Tab. 2 for the

responses gathered from the administered questionnaire that offer key insights into public perception of heritage conservation and the potential for ecotourism in Kano. A notable proportion of respondents from among local residents rated the current state of conservation of the Kano City Wall and gates as excellent, yet many others expressed concern, rating the current state as inadequate or poor. This reveals a general awareness of the need for preservation but highlights dissatisfaction with present efforts, similarly, majority of respondents from among tourists also rated the current state of Kano's cultural heritage as excellent. Equally significant is the high level of belief in ecotourism as a tool for heritage preservation. Many respondents strongly agreed that ecotourism could make a positive contribution to sustaining Kano's cultural landmarks, similarly, majority respondents from tourist also rated that they believe that ecotourism could be a tool for heritage conservation. While a considerable number of visitors expressed willingness to pay for access to heritage sites, a disparity remains between interest and the perceived state of the sites. This discrepancy underlines the need for improved conservation practices and infrastructure development to match visitor expectations.

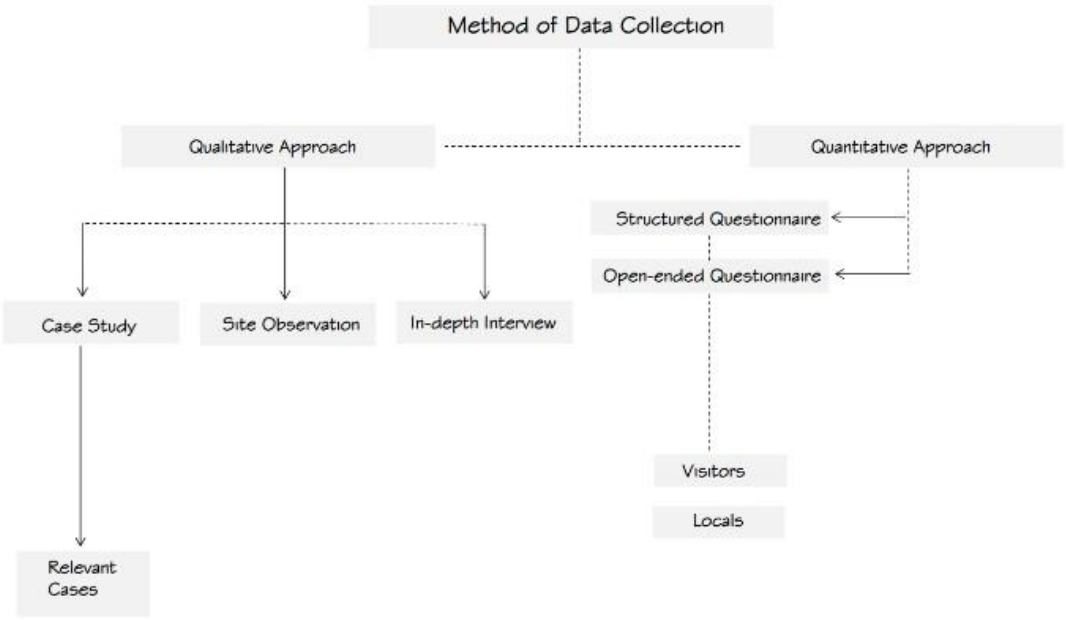

Fig. 17. The Research Methodology. (Source: Authors, 2025)

Community involvement emerged as another vital factor. Although over 60% of tourists acknowledged the participation of local communities in cultural site activities, a larger majority stressed the critical importance of community engagement in heritage management. Many respondents recommended that locals play an active role in decision-making alongside the government. They believed such collaboration would positively impact the promotion and development of ecotourism in Kano. See also, where 25 of the 63 respondents acknowledge that they are not directly or indirectly related to ecotourism activities going on in Kano. In terms of economic impact, most participants conceded that heritage sites in Kano help local businesses and jobs. As a result of fewer than half of them reporting direct involvement in local cultural events, which suggests that community events related to heritage may be under-promoted or underutilised. In relation to awareness of existing government policy regarding heritage and ecotourism, 92% locals reported awareness, while a minority were not aware, however, 38% tourists expressed that they were not aware of any policies. This calls for greater communication and public education on policy implementation reflecting a need for better communication and public education in policy implementation.

Sustainability initiatives in cultural sites of Kano appear to be modest as per the responses, but many respondents have concerns and agreed there was minimal publicity or talk of sustainability among the locals. A large proportion of tourist respondents expressed concern over a lack of environment sustainability and waste management practices at tourist sites, asserting that stronger, more prominent programs are needed. Overall, the survey findings identify the contribution of ecotourism to the support of cultural heritage conservation in Kano but also reveal extensive gaps in conservation, community involvement, policy knowledge, and sustainability. These observations form the basis of recommendations and design guidelines in subsequent chapters.

Tab. 2. Responses gathered from questionnaires. (Source: Authors, 2025)

	Questions	Tourists	Locals
Accessibility	How would you rate the need for improvements to enhance access to Kano's heritage sites?	58.7% Very high	84.2 Very high
Heritage Preservation	Do you think ecotourism can play a significant role in heritage conservation of Kano?	45% Agreed yes	94% Agreed yes
Community Involvement	Do locals play any role in the government when it	57% Minimal role	--

	comes to ecotourism?		
Economic Impact	Do you feel ecotourism will contribute to the economy positively?	92.1% Yes	--
Policy Planning	Is there any policy presence?	92% Yes	57.9% Yes
Sustainability	Are there any environmental concerns?	64% Yes	52% Moderate

Badaling's management approach is a classic example of a robust balance between public access and conservation, with restricted access and environmental regulations. The local community plays an active role in conservation, and the majority are retained as site custodians and tour guides. Petra's visitor management plan and community-based tourism model (limitation on daily visitor numbers) provide Kano with lessons to learn from. Locally, the local Bedouin community has direct stake in the tourism economy, making money from services like guiding and selling locally made crafts. Hadrian's Wall emphasises community involvement, environmental protection, and education. The policies emphasise maintaining the structural soundness of the wall while promoting local communities to gain economically from tourism programs.

The inspections to the site revealed that almost all of Kano's heritage sites, particularly the city walls and ancient gates, are in disrepair—either destroyed, abandoned, or rebuilt with new designs that annihilate their cultural significance. However, some sites like the Gidan Makama Museum, Emir's Palace, Kurmi Market, and the dye pits remain functional and well-maintained, still holding Kano's history and contributing economically by providing employment. Architecturally, the sites portray Hausa traditional design and local materials, though the contemporary remodels of the gates undermine the indigenous cultural heritage. At a sustainability level, most of the sites do not have water and energy conservation measures, recycling, or waste management systems. In addition, there is a lack of signage, exhibits, and tours, which reduces the sites' educational values, affecting the visitor experience. Consequently, the overall visitor experience was rated as mediocre, reflecting scopes where the efforts of ecotourism can be improved.

CONCLUSION

The study looked into the feasibility of ecotourism as a sustainable method of saving Kano's cultural heritage, and that is its historic landmarks such as the Kano City Wall, city gates, and other traditional locations. These sites represent not only the city's architectural heritage but also its socio-cultural identity and economic significance. Some of the sites are still in use and in relatively good shape, but a majority are deteriorating as a result of neglect, insensitive urbanisation, and lack of viable tourism policies.

The research focuses on the disparity between recognised historic importance of these sites and low use of conservation practices, inadequate community engagement, and inadequate ecotourism incorporation. The research confirms that Kano still grapples with balancing sustainable tourism development and protecting its architectural and cultural heritage. Evidence supports that the success of ecotourism in Kano depends on integrating local cultural heritage, ecologically sustainable architecture, and participatory, people-centred planning methodologies. Adopted, ecotourism has the potential to be a strategic venue for the advocacy of sustainable development—preserving heritage, empowering the people, and enhancing stewardship for the environment. In summary, this study provides a priceless forum in which to mediate cultural identity and sustainable tourism. If implemented as institutional policy and backed by policy and planning, ecotourism can be a force for transformation in preserving Kano's heritage and fostering inclusive, long-term development.

RECOMMENDATIONS

This study adds significantly to the knowledge on heritage-based ecotourism and sustainable urban development in Nigeria, since Kano serves as a case study. The study identifies potential areas where heritage tourism in Kano can be strategically located for improvement through well-outlined policies and multi-stakeholder engagement. To fully utilise the economic and cultural advantages of heritage tourism, national and state tourism authorities must integrate ecotourism philosophies into heritage policies. This includes increased inclusivity and accessibility through the installation of ramps, increased signage, improved trails, and transportation connections that connect the popular and lesser-known heritage attractions. This will facilitate easier wider tourism circuits and ensure more equitable sharing of economic benefits.

Architecture conservation must be strengthened to avoid the deterioration of the core heritage property such as the city walls and gates. Conservation efforts should place utmost emphasis on traditional Hausa construction materials and techniques and eschew contemporary insertions that undermine historical authenticity. This requires the imposition of enforceable conservation standards, preferably supported by professional bodies such as the Nigerian Institute of Architects. Institutionalisation of local involvement is no less essential. Even though places like Gidan Makama Museum and Kurmi Market reflect existing local involvement, these need to adopt structured co-management systems. It is necessary to train, assist, and engage custodians in local heritage decision-making so that ecotourism activity enhances preservation as well as community well-being. It has been proposed that a Heritage Monitoring Unit be created for information gathering, allowing constant feedback from locals, and continually enhancing the management of sites.

Long-term sustainability remains the basis for the sustainability of heritage tourism. The green infrastructure, including solar-powered lighting, waste management, and water-saving facilities, is also to be adopted. The environmental awareness programs need to be included in the heritage sites so that the tourists can come and go to these sites responsibly. The quality of the tourists' experience must also be improved through investments in quality tourism infrastructure. This can be interactive centres, narration galleries, interpretation signage, and guided tours delivered by trained creative individuals and local guides. These interventions will increase the cultural value of the sites alongside generating revenues for the community.

Loopholes in policy within the tourism and heritage industries must be plugged by developing clear, inclusive, and efficient conservation guidelines alongside sustainable funding policies and regular audits. Public sensitisation campaigns can also further enhance civic awareness about the role of the conservation of heritage within national development. Finally, this research recommends the inscription of the Kano City Wall as a UNESCO World Heritage Site. To achieve this, it recommends the formulation of a comprehensive site management plan developed under this research and a stakeholder co-management plan.

In summary, the research recommends that tourism ministries integrate ecotourism principles into national heritage policy; architectural conservation be context-sensitive and traditional in its method of restoration; UNESCO nomination processes be started by using Kano as an exemplar; and government departments work with host communities to support infrastructure, education, and policy pillars for sustainable heritage tourism. Ultimately, Kano might serve as a pilot for heritage-led urban resilience and demonstrate how joined-up policy strategies might bridge the gap between development and conservation.

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