



East African Journal of Engineering

eaje.eanso.org

Volume 6, Issue 1, 2023

Print ISSN: 2707-5389 | Online ISSN: 2707-5397

Title DOI: <https://doi.org/10.37284/2707-5397>



EAST AFRICAN
NATURE &
SCIENCE
ORGANIZATION

Original Article

Exploring and Documenting Urban Renewal Projects in Kisumu City, Kenya with Emphasis on Preservation of Urban Landscape Identity

Dr. Edwin Oluoch K'oyoo, PhD^{1*}

¹ University of Pretoria, Private Bag x 20, Hatfield, 0028, South Africa.

* Author for Correspondence ORCID ID: <https://orcid.org/0000-0001-7049-1034>; Email: edwinkoyoo@gmail.com

Article DOI : <https://doi.org/10.37284/eaje.6.1.1609>

Publication Date: ABSTRACT

07 December 2023

Keywords:

Urban Renewal,
Physical
Deterioration,
Global South,
Post-Colonial,
Kisumu City,
Kenya

Urban renewal is undertaken to respond to physical deterioration within cities to improve the quality of urban life. Urban renewal in Africa is undertaken in once colonial societies with their existing spatial built forms undergoing changes in post-colonial times. This paper aimed to explore and document the various projects undertaken in Kisumu City's urban renewal in Kenya with emphasis on preservation of urban landscape identity. The main aim of the various projects was to improve the urban infrastructure, public facilities and spatial planning and carry out slum upgrading in addition to modernisation of public policies to improve public service delivery through effective city management. Consequently, several urban renewal projects were implemented in Kisumu City from 2019 to 2022. The research was done as a case study analysis of Kisumu City, Kenya, which has been undergoing the upgrading of various urban forms and spaces. Data capturing was based on mixed methods, including archival records, mapping, photographic documentation, and semi-structured interviews. This paper sets out the categories of ongoing and completed projects and describes them in terms of project locations, type of project, what components it entailed. Data collection was through desk review on urban renewal and review of City of Kisumu documents, interviews and field investigations. The interviews were carried out with purposively selected officials from Kisumu County including the City Planning Department, Environment Department, Kisumu Urban Project. The findings revealed the projects included non-motorised transport (NMT) within the CBD that comprises the improvement of pedestrian walkways, parking spaces, construction of new markets, bus parks, rehabilitation of public parks, beautification of roundabouts, road islands and proposed new high-rise affordable housing.

APA CITATION

K'oyoo, E. O. (2023). Exploring and Documenting Urban Renewal Projects in Kisumu City, Kenya with Emphasis on Preservation of Urban Landscape Identity *East African Journal of Engineering*, 6(1), 188-215. <https://doi.org/10.37284/eaje.6.1.1609>

CHICAGO CITATION

K'oyoo, Edwin Oluoch. 2023. "Exploring and Documenting Urban Renewal Projects in Kisumu City, Kenya with Emphasis on Preservation of Urban Landscape Identity". *East African Journal of Engineering* 6 (1), 188-215. <https://doi.org/10.37284/eaje.6.1.1609>.

HARVARD CITATION

K'oyoo, E. O. (2023) "Exploring and Documenting Urban Renewal Projects in Kisumu City, Kenya with Emphasis on Preservation of Urban Landscape Identity", *East African Journal of Engineering*, 6(1), pp. 188-215. doi: 10.37284/eaje.6.1.1609.

IEEE CITATION

E. O. K'oyoo "Exploring and Documenting Urban Renewal Projects in Kisumu City, Kenya with Emphasis on Preservation of Urban Landscape Identity" *EAJE*, vol. 6, no. 1, pp 188-215, Dec. 2023.

MLA CITATION

K'oyoo, Edwin Oluoch. "Exploring and Documenting Urban Renewal Projects in Kisumu City, Kenya with Emphasis on Preservation of Urban Landscape Identity." *East African Journal of Engineering*, Vol. 6, no. 1, Dec. 2023, pp. 188-215, doi:10.37284/eaje.6.1.1609.

INTRODUCTION

Cities, especially developing ones, are constantly facing various challenges, such as urban decay, deterioration of the environment, lack of infrastructure, social problems, and economic decline (Zheng et al., 2017; Ploegmakers, 2015). Urban decay has been associated mostly with North America and parts of Europe. In Europe, it is especially within the United Kingdom and France. However, cities in Global South contexts also experience urban decay (Leon et al., 2020; Amado & Rodrigues 2019; Njoku & Okoro 2014; Dimuna & Omatson, 2010). Urban renewal is important in addressing urban decay as an urban problem. Couch (1990) asserts that urban renewal is increasingly important within urban areas.

According to several recent studies (Shao et al. 2020; Saglik & Kelkit 2017; Xuesong & Hui 2008) today's globalization, industrialization and technological developments have caused radical changes in cities and, to a certain degree, have homogenized cities. These changes, which are often introduced through urban renewal, are functional. They also have implications in form and aesthetics that affect the local urban identity. Elements that constitute urban identity in an environmental context include public spaces such as streets, and urban open spaces, monuments, buildings, urban facilities and the relation of urban functions. Saglik and Kelkit (2017) concur with (Kaymaz 2013; Okesli and Gurcinar 2012) that the identity of a city is a very comprehensive unity that affects the image of the city which evolves constantly. Baris et al. (2009) and Antrop (2005) posit that due to processes within urban areas and due globalization that rapid changes have occurred that result in challenges in our social,

economic, cultural lives and environments. The concept of identity has been brought on the agenda of urban studies professionals due to these challenges. The major concern being sustainability of place identity due to the occurring changes. Beauregard et al. (1981) posited that it's a challenge to discover and preserve the image and identity that is inherent when reshaping existing environment. This according to this author should be carried out in a sensitive manner to avoid any loss of identity.

The aim of the paper is to investigate and document the urban the various projects in terms of types, locations, components/activities involved and status in terms of progress at the time of the study. The researcher had special interest in aspects of preservation and conservation within the various renewal projects that had an impact on the image and character of the city and thus could affect the urban landscape identity. Urban landscape identity according to the author of this paper is the resident's opinion and perception of the special features that help them to differentiate between places. This is by creating images that they can recognize. It encompasses the forms/physical aspects, functions/activities (social-cultural aspects) and meaning aspects. All three aspects combine to create memories to the residents. To comprehend the urban renewal case study of Kisumu City, it is important to know that at the time of the study, Kisumu City had several ongoing and completed projects in different sectors that resulted in great infrastructure improvements. According to the Kisumu Urban Project (COK KUP, 2019), the City of Kisumu designed and implemented the Kisumu Urban Project (KUP) from 2009 onwards with funding

from the French Development Agency (AFD) to improve the residents' living conditions through various development projects. The projects include non-motorised transport within the CBD that includes improving pedestrian walkways, parking spaces, construction of new markets, bus parks, rehabilitation of public parks, beautification of roundabouts, road islands and proposed new high-rise affordable housing.

The remainder of this paper is organized as follows: It reviews the literature regarding the various aspects of urban renewal, the presents the methodology section that elaborates on the various methods of data collection. The findings section reveals the various urban renewal projects that have been implemented followed by the discussion section. Lastly the study presents the conclusions and recommendations.

LITERATURE REVIEW

Theoretical Review

The reality of rapid urbanization in many cities (United Nations, 2018) has come along with different aspects of urban physical decay. Physical deterioration and decay necessitate urban transformation through renewal to improve the quality of urban life (Bosselmann 2008). Xuesong & Hui (2008) posit that local urban landscape identity has been affected by globalization that has resulted in homogenization of cities thereby affecting their form and aesthetics. Several studies confirm that urban form elements like streets, squares, buildings, public spaces, urban furniture and monuments all play a vital role in the expression of the notion of urban landscape identity and memory. Urban renewal that usually involves changes to urban form elements should pay attention to their roles in shaping urban landscape identity and memory (Enache & Craciun 2013; Oktay & Bala 2015; Ziyae 2018; Yaldiz et al. 2014).

Importance of Urban Renewal

UNESCO (2004), as supported by Lai et al. (2017), states several reasons why urban renewal is important to undertake. This is in terms of

upgrading deteriorated city buildings, preserving earmarked buildings considered historic and improving the city infrastructure in general. This is done to avoid and eliminate the negative social issues that most cities usually face in growth and development. Zheng et al. (2014) and Adams and Hastings (2001) are also of a similar opinion that urban renewal improves the physical, social, and economic aspects of urban areas through activities that redevelop, rehabilitate, and conserve the heritage. It entails creating more widespread urban benefits such as improving environmental conditions, traffic circulation and community facilities (Adams & Hastings 2001). It is an effective approach that promotes land value in the cities and improves the overall quality of urban spaces. Lee and Chan (2008) state that urban renewal rectifies the urban decay challenges, helping to meet various socio-economic objectives of the city.

Based on the previous studies, urban renewal in Africa should be concerned with more than providing basic infrastructure within the dilapidated, degraded city centres. This view is supported by several authors arguing that considering landscape identity is vital. Boussaa (2018) posits that urban identity and renewal projects exhibit a strong relationship. Gur and Heidari (2019) point out the effects of physical changes due to urban transformation that are influenced by urban identity, while Enache and Craciun (2013), Oktay and Bala (2015) and Yaldiz et al. (2014) consider the importance of changes on urban form elements in shaping urban identity and memory. These authors study urban identity and associated memory as vital components a renewal project should consider offering. The renewal project should aim to preserve and strengthen beyond the city's upgraded or improved physical infrastructure and amenities. This will be discussed in more detail in the subsequent sections.

Urban Renewal and Its Challenges

Xue et al. (2015) state that 'urban renewal' as a concept evolved from 'urban redevelopment' in the Housing Act of 1949 in the USA. It was used

to describe how downtown areas of cities were demolished and reconstructed. 'Urban renewal' from the 1954 Housing Act became more active and comprehensive than urban redevelopment. It aimed at solving problems related to housing within the community through housing policy reforms (Xue et al. 2015). Ploegmakers (2015) point out that physical improvement is one of the methods governments employ to have deprived, decayed and run-down areas regenerated. It encompasses infrastructure developments and upgrades of public spaces within the cities.

Several justifications encourage the undertaking of an urban renewal project. According to Lai et al. (2017), first in line are the areas considered to pose insecurity and health problems and, as such, have the public endangered and compromised. Buildings in such areas are usually degraded, and the area is depopulated due to the prevailing urban decay. Second is the reuse of obsolete physical infrastructure and urban lands that are considered not useful through vacancy. Urban renewal in such lands aims to bring them up to date through new uses after revitalisation. Lastly, it is in terms of infrastructure within cities that are considered out of date after years of service due to deterioration. Pedestrian streets, road networks, public furniture and other urban form elements need to be revitalised occasionally. This is done to improve the urban settings for resident satisfaction (Lai et al. 2017).

According to the UN Global Goals for Sustainable Development (2015), sustainable goal number eleven targets to ensure adequate, safe and affordable housing, basic services and upgrading of slums for all; provide access to transport systems for all that is safe, affordable, accessible, and sustainable; enhance urbanisation that includes all and is sustainable. Other targets include paying attention to air quality and waste management by municipalities and access to safe green and public services that aim to include all the residents (UN SDG 11). This goal most likely informs the need for various countries and jurisdictions to undertake urban renewal projects to solve problems from physical urban decay.

Zheng et al. (2017) and Leon et al. (2020) opine that some urban renewal initiatives sometimes never realise their set objectives. The authors argue that some promote social exclusion, leading to identity loss within the community. Such renewal projects have always received criticism in society for only concentrating on profit, that is, the economic aspect of the project. According to these authors, these negative effects signal the need for better and adequate decision-making during the execution of the renewal projects. Wirth et al. (2016) concur that urban realms keep changing. They argue that urban change refers to how the physical, economic, social, and political dimensions of the environment within a city vary over a given time frame (Wirth et al. 2016).

Empirical Review

Urban Renewal in Post-colonial Africa

Africa urbanised later than other continents. This resulted in urban renewal only taking hold in post-colonial times. Urban decay in many African cities has been noted to occur towards the last quarter of the twentieth and twenty-first centuries. This was occasioned by, first, fast urbanisation, migration from rural to urban areas, which exerts pressure on the available facilities. Second is urban development regulations that are not adequately enforced during management. The last reason is the lack of repairs and housing maintenance, resulting in slums (Dimuna & Omatsone 2010; Njoku & Okoro 2014). According to the UN Commission on Human Settlement (2003), most developing countries have cities that underwent fast urbanisation speeds, resulting in slum developments. These cities include Lagos in Nigeria and Cairo in Egypt. This was due to an increased population lacking the required housing and social services. Recent studies on urban renewal within the Global South and specifically Africa illustrate the problems of urban centres as unplanned growth resulting in disorganised, dilapidated, and blighted areas that need urban renewal.

According to Massey (2020), South Africa's urban renewal commenced in 1994 at the start of their

democracy. Urban renewal projects within its cities have been pursued to respond to urban decay and negligence. This was also due to inadequate planning that was unjust. This is done through the renewal of specific areas of towns and the upgrading of informal settlements by the authorities in response to enhancing the living environment (Massey, 2020). According to the South African Cities Network (2003), infrastructure development dominates social development strategies within urban renewal projects. Issues usually arise in heritage and restoration in social development interventions in some projects. Emphasis on heritage and cultural facilities is usually due to tourism projects within the affected areas. How viable and sustainable these projects are is usually a source of public debate.

Amado and Rodrigues (2019) studied urban regeneration based on heritage within Luanda in Angola. The project focused on rehabilitating buildings and public spaces within the city. Njoku & Okoro (2014) and Dimuna and Omatsone (2010) analysed urban renewal in Nigeria to include improvements in the urban environment and infrastructure by providing more open spaces and other facilities. Other targets included improving the urban layouts, including streets, road networks and other infrastructure, and replacing or renovating obsolete buildings. Amado and Rodrigues (2019) opine that the regeneration of urban areas is a key objective that seeks to offer solutions to achieve revitalisation. The physical conditions of the built environment and open spaces within cities are improved for better satisfaction. Urban regeneration has to face the challenge of preservation of identity and the memory associated with the places (Amado & Rodrigues 2019).

According to Simon (1998), post-colonialism is best exhibited in work that focuses on "forms of post-colonial expressions and identity" that can be seen in the adoption of post-colonial national symbols such as names of places, monuments, parliament buildings and even cities like Brasilia, Chandigarh, Dodoma and Abuja.

Another focus is on reflecting on new or renewed individual and social identities due to emerging artistic styles and cultural forms. Leon et al. (2020) postulate a need to understand how changes in historic African urban areas, especially in the Sub-Saharan context, occur. The role played by heritage in the cities as they grow fast. This is in addition to how plans to renew the inner cities are done. Case studies of African post-colonial cities are needed to understand how these changes in historical areas within cities have occurred and how these fit into the global discussion. Transformations of the urban landscape in Dar es Salaam, Tanzania, according to Leon et al. (2020), prioritised economic interests over cultural values. The authors revealed that colonial art-deco and modern typologies were being replaced as part of the architectural character that had characterised the area. The neglect of cultural heritage from the new constructions affected the integrity of the area and had other negative impacts on development (Leon et al. 2020).

Urban Heritage Conservation and Renewal Projects

According to Birnbaum (1992), there is need for protection of identified features for preservation within the urban landscape. These are features which could be affected by the changes due to proposed urban developments such as urban renewal. The protection ensures that the ongoing works do not impact negatively on the identified urban form elements thus avoiding negative effect on the landscape identity. Protection could be through the stabilization of various landscape features like arbors, trellis, pergola, repainting of rusted garden benches, repairing a serpentine wall within a public square and applying a metallic protection to guard old, valued well established trees, shrubs within a historic urban landscape. Birnbaum (1992) states that any repairs involved on a landscape feature preserved or proposed for preservation should be minimal and mainly carried out through consolidation. Consolidation involves using the old original parts of the urban element to be affected through repair as much as possible without the introduction of new materials

to change any parts under repair. According to Buissink (1985) there are six ways of conservation and renewal of urban heritage that include

activities to maintain, improve, restore, rehabilitate (upgrade), reconstruct and redevelop according to *Table 1* below.

Table 1: Urban heritage conservation and renewal

Designation of project	Activities involved	Intended purpose	Physical environment	Included in the concept
Maintenance	Involves painting, repairing and replacing of decayed parts	Up-keep, Safeguarding the function value	No effect	No
Improvement	Involves new elements being added to balconies, attics, central heating, showers; Ensures the elements existing are up-to-date	Modernizes and adjusts the buildings to be in line with present values set	No effect	No
Restoration	Abolishes any shortcomings; Replaces the old and adds new elements	Modernizes, adjusts the buildings to meet new, modern standards	No effect	Yes
Rehabilitation (upgrading)	Similar to "restoration"	Similar to "restoration"	No effect	Yes
Reconstruction	Improvement and adjustment to the internal parts of a structure while retaining the structures appearance externally	Makes the building suitable for new uses	Minor adjustments following from changes in use	Yes
Total renewal (redevelopment)	Part or total demolishing of the buildings in a small area followed by new constructions	Makes areas that have undergone decay and run-down to be suitable again	Reconstructed according to plan	Yes

Source: (Modified from Buissink (1985)).

According to Rui (2008), there is need for data for inventorying the urban heritage, data for visual management within the urban area and for evaluating the renewal of historical core (Rui 2008). Landscape assessment should cover visual impact assessment and all the aspects of the natural and artificial/built environment and the entire urban spatial organization and how it affects the socio-economic environment. It should not be limited to the topography, vegetation, infrastructure and circulation but should entail all the aspects of the man-made urban form elements in terms of the uniqueness of features and the materials involved. This recommendation is supported by Seidl et al. (2021) who recommends the adoption of landscape features that are vital for landscape identity formation at local, regional and national level for inclusion within spatial planning

and management plans and by Birnbaum (1992) for recording of all features that contribute to landscape character.

Plant identification of all the vegetation likely to be affected by massive development such as urban renewal project should be intensive in terms of documenting the salient characteristics in terms of the genus, species, common/local names, the size and approximate age. Mapping should guide the documentation with the use of coordinates in a software such as ArcGIS as this is vital for further accurate inventorying for present and future use. This is supported by Rui (2008) on adoption of GIS in urban heritage conservation under urban renewal. Documentation should be undertaken within the concerned urban spaces at different scales and the spatial and visual connections and

relationships with other urban form elements should be determined and noted. This should be done to aid in data management, data analysis and visualization. It is useful in investigating cultural relics, historical environment, evaluation of historical or cultural values and monitor management for influence factors and planning formulation for urban heritage formulation (Rui 2008).

Studies reviewed on urban renewal in post-colonial Africa by Amado and Rodrigues (2019); Njoku and Okoro (2014) and Dimuna and Omatsone (2010) are all concerned with creating viable communities due to upgrading of decayed neighbourhoods and urban spaces with concern on social and physical aspects without giving attention to the need to preserve and strengthen urban landscape identity. Amado and Rodrigues (2019) point out that the need to preserve identity and memory associated with places is one of the challenges experienced in carrying out urban renewal.

METHODOLOGY

Study Area

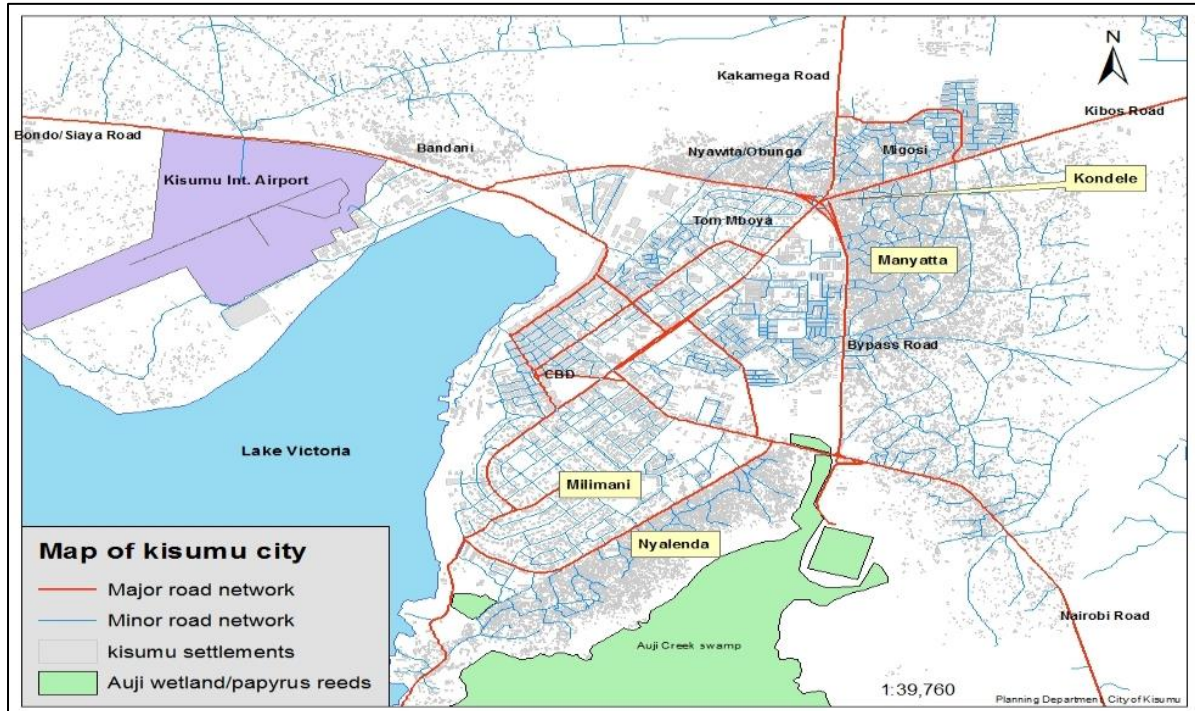
The study was conducted in Kisumu City, the third-largest urban area in Kenya (see *Figures 1* and *2* below). According to the Kisumu Integrated Sustainable Urban Development Plan (Kisumu ISUD-plan, 2013), Kisumu City is the main administrative centre and headquarters of Kisumu County and is 265 km northwest of Nairobi. It lies on the Eastern shores of Lake Victoria, the continent's largest freshwater lake and is 1,146 metres above sea level and located 0° 6' South of the Equator and 34°45' East. In 2022, the city covers an area of 417 km² (157 km² of water and 260 km² of land) with a population estimated at over 500,000 people. According to KNBS 2019:20, on Kenya's population and housing census 2019, the study area (Kisumu town area and outskirts of the Kisumu town area) falls within Kisumu Central Sub County that has a total population of 174,145 people consisting of 84,155 males (48.3%), 89,985 females (51.7%) and 52,331 households. The Kisumu town area has a total population of 56,498 people and 17,258 households within a land area of 25.4 km². Sub-locations within the Kisumu town area include Kaloleni, Bandari, Southern, Northern and Kanyakwar.

Figure 1: Map of Kenya showing the location of Kisumu County



Source: Internet Google Maps.

Figure 2: Map of Kisumu City showing CBD and the neighbourhoods



Source: City of Kisumu, GIS Department (2020).

Data Collection

During June and July 2021, fieldwork was undertaken to collect the research data. The data collection methods involved documents and interviews from county offices, including the City Planning Department, Environment Department, and Kisumu Urban Project office and field investigation through documentation, mapping and photography after visiting the various renewal project sites. The data collection methods have been discussed below.

Interviews

The Interview schedule for this study entailed semi-structured questions asked by the interviewer to the selected key informants to elicit their views and opinions. The interviewer probed for further clarifications where necessary, and constant note-taking while recording using a mobile phone handset was also done. Direct quotes from the key informants were included to illustrate certain points of importance. The interviewed head of departments included the city director of planning, director of environment, senior official at Kisumu Urban Project (KUP) and Chief Officer of Lands, Housing and Physical

Planning of County Government of Kisumu (CGK). These four key informants (CGK 1 to CGK 4) were concerned with the implementation of the various urban renewal projects and were purposively selected due to the vital information they had regarding the projects from the initiation to the implementation level at the time of the study.

Field Investigation

The field investigation in this study entailed extensive photography of various projects of urban renewal that were already completed and ongoing within Kisumu City. The photographs constituted the qualitative material of the data collection methods. Aerial Google maps were used to locate the various renewal projects within the streets and other spaces within the CBD. They were accompanied by descriptions of the works involved in the ongoing and completed projects. Eren (2014) used field investigation through observation, documentation, and analysis to analyse the aspects of the natural environment, built environment and the perceptual and social environment of two case studies of urban renewal projects. The study involved a comparison by

using a checklist of the state of each of the above aspects and their sub-aspects that form the landscape identity before and after the renewal projects were undertaken. An adopted and modified checklist from this case study was used in the field investigation of physical aspects by the researcher in this study.

Findings from field investigation in this study were analysed qualitatively through content analysis and included in the various relevant sections of the study to support the other data collection techniques.

FINDINGS

This section sets out the categories of ongoing and completed projects and describes them in terms of project locations, type of project, what activities or components it entailed and lastly, provides various photos of the state of the various works involved. The case analysis was compiled by reviewing CoK documents, key informant interviews, and field investigations.

According to county official CGK 2, the main aim of undertaking the various aspects of the renewal project was to ensure a friendly environment for the residents of the city in terms of new better markets, affordable housing, better urban open spaces, safer and cleaner streets and orderly streets through NMT. According to CGK 1, the aim of CGK is to protect, preserve and conserve the open spaces through projects undertaken within the roundabouts, parks, open spaces, greening of streets and NMT.

Ongoing And Completed Projects

Kisumu Sustainable Mobility Plan

According to the Kisumu Sustainable Mobility Plan KSMP (2020) report prepared through ITDP, the city residents in Kisumu highly rely on non-motorised transport (NMT) and public means of transport. However, most streets in Kisumu are designed for motorised traffic without attention to NMT users. Kisumu City has recently experienced an increase in the number of people who own and use private vehicles. There has been an increased need to address the absence of NMT

facilities and the public transport that needs to be very reliable. These means of transport offer quick and affordable transport but with a safety risk to NMT use. These problems call for interventions to improve the safety of all modes of transport and improve the mobility experiences of street and road pedestrians, residents who cycle and commuters who use public means of transport (KSMP, 2020).

Kisumu County Government partnered with the Institute for Transportation and Development Policy (ITDP) and the United Nations Human Settlements Programme (UN-Habitat) and with Ford Foundation and the International Climate Initiative's support to prepare the Kisumu Sustainable Mobility Plan (KSMP). This plan will be implemented over ten years to provide a road map for improving the mobility needs of the city residents and businesses within Kisumu City. City residents and various stakeholders developed the plan through a participatory process. The plan is tied to various existing policies, plans and regulations. This includes Kisumu's Integrated Strategic Urban Development Plan (ISUD) that guides the development of Kisumu City (KSMP 2020).

According to KSMP (2020), the NMT project was necessitated by the poor quality of the many footpaths due to deterioration over time. This was due to inadequate and poor maintenance. Some lacked continuity, while the newly constructed had failed to provide safe facilities for pedestrians. A street lighting survey conducted by ITDP before the implementation of the NMT project established the presence of poor lighting within the city, in which many streets were characterised by poor or no lights. Street lighting is important along roads and streets in improving visibility and ensuring safety for road users (KSMP 2020). The mobility plan outlined goals that included encouraging the public to walk, cycle and use public means of transport. The measures presented to achieve these included the following:

- Implement improvements for road safety within non-motorised transport infrastructure.

- Provide pedestrian sidewalks that are continuous within the streets.
- Construct cycle tracks to ensure cycling by the public.
- Implement Lake Victoria Greenway to revitalise the lakefront for public use.
- Introduce a bike share system with the city.
- Public transport to implement Bus Rapid Transport (BRT) corridor along the Jomo Kenyatta Highway that crosses into the CBD and install passenger shelters within bus stages.
- Improve safety by adequate street lighting.
- Improve stormwater drainage to manage surface runoff problems within the city.
- nearby footpaths to ensure the safety and convenience of pedestrians during crossing.
- Cycle lanes are protected with bollards to ensure separation and safety from motor vehicle traffic.
- Bollards at pedestrian crossings to prevent vehicles from using the ramps to enter the footpaths.
- Conservation of all existing trees and permeable paving blocks around trees to protect tree roots and expand the usable area of the footpath.
- Adequate street lights to enhance safety and security.
- Adequate bus shelters for the comfort of public transport passengers at designated points.
- Public toilets at convenient points within the CBD.

Kisumu Triangle NMT Project

According to the KSMP report (2020), Kisumu City has implemented pedestrian and cycling facilities of high quality on the main streets in the CBD. The streets include Oginga Odinga Street, Ang'awa Avenue and Jomo Kenyatta Avenue. This is known as the Kisumu Triangle Project and is financed by the World Bank through the Kisumu Urban Support Program (KUSP). The improved streets are designed to give priority to people through the following elements:

- Wide footpaths that are at least 2 metres of clear space well raised at 150 mm above the carriageway on either side of the road.
- Safe, universally accessible pedestrian crossings. This should have signalisation or traffic calming at preferred crossing locations. Pedestrian crosswalks should be designed as tabletop crossings at the same height as

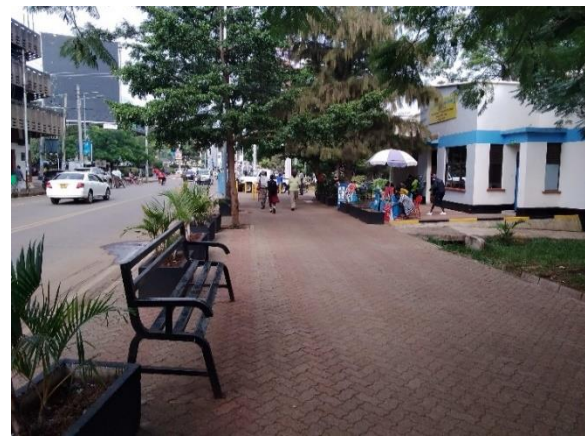
According to CoK KUSP (2020), the sustainable mobility projects under NMT were being implemented in phases. The first phase of the Kisumu Triangle has already been implemented to completion and has been described in detail in the next section. The projects under phase 2 that are ongoing on Omolo Agar Street include the provision of non-motorised lanes, cycle lanes, car parking areas along the street, street furniture, drainage, solar street lighting and service ducts. Other roads that were earmarked for implementation of phase 2 NMT works were Kampala Street, Nyerere Road, Ondiek Highway, Gumbi Road, Awuor Otiende Street and Achieng Oneko Street.

Plate 1: Newly constructed public toilet along Ang'awa Avenue with concrete planters in front and cabro paved pedestrian walkway along the boundary wall fence of rehabilitated Jaramogi Oginga Sports Ground



Source: Author, July 2021

Plate 2: Installed concrete planters along Jomo Kenyatta Highway within cabro paved pedestrian walkway with a green strip along the wall fence for Jaramogi Oginga Sports Ground. Street seats are provided for relaxation.



Source: Author, July 2021

According to County official CGK 1, the image and character of Kisumu City is determined by the buildings along Oginga Odinga Street, the old provincial headquarters building, Jubilee Market building, University of Nairobi CBD building especially the British Old Library building and parks like the Uhuru Park and lastly the Clock Tower. Lake Victoria and its front in terms of the beaches is an important natural feature in contributing to the image and identity of Kisumu as a lakeside city (CGK 1).

To give way for the full implementation of all aspects of the NMT within the Kisumu Triangle, several roadside kiosks and street vendors had to be evicted, and an alternative trading place was provided for them. Chichwa Market stalls were

done within Jaramogi Oginga Odinga Sports Ground space towards the perimeter fence on the southern end before the affected traders were evicted. The traders relocated to the spaces provided to give way for green areas, cabro paving, public toilets and various forms of street furniture, as documented above.

According to county officials CGK 1, CGK 2 and CGK 3, adequate measures to relocate the evicted roadside traders was put in place to pave way for the implementation of the NMT for example within the Kisumu Triangle where the renewal works began. Being a donor funded project having an appropriate Relocation Action Plan was mandatory and that led to building of Chichwa 1

and Chichwa 2 markets to house the evicted roadside traders.

Both CGK 1 and CGK 2 concurred that Kisumu City was then cleaner, safer and with ease of

mobility within the streets after implementation of NMT and decongestion of the streets within its various spaces within the CBD and in other areas where the renewal works were undertaken.

Plate 3: Chichwa Market stalls that were done to accommodate evicted traders to pave the way for NMT implementation within the Kisumu Triangle



Source: Author, July 2021

According to county official CGK 1, preservation of green infrastructure in terms of old trees, shrubs within the streets where NMT was being implemented was greatly respected and no trees were cut down. The trees were retained in their locations even in areas where paving was undertaken and street furniture was included within the Kisumu Triangle and within the Central Square spaces. The main aim was to ensure environmental stewardship was and protect, preserve and conserve any greenery within the areas under renewal projects (CGK 1).

According to interview responses from county official CGK 2 and CGK 3, the town area earmarked for proposed preservation is the Old Town area that falls mostly between Obote Road, Oginga Odinga Street, Nyerere Road and Otieno Oyoo Street that has some of the oldest and first town areas within it. The Old railways station area currently under management by Kenya Ports Authority should also be preserved due to its historical importance to Kisumu City.

Figure 3: ArcGIS Desktop 10.3 map showing the location of the Kisumu Triangle NMT project



Source: Author (2021).

Rehabilitation Of Parks

Jaramogi Oginga Odinga Sports Centre

This park was renamed Jaramogi Oginga Odinga Ground from the initial name of Jomo Kenyatta

Sports Ground on the 22nd of October 2021 during the launch of the rehabilitation works by the president of Kenya. According to KUSP (2021), current rehabilitation works aim at improving and providing a hockey pitch, basketball court, tennis

court, soccer pitch, kids play area, shaded canopies, improvement to existing buildings, provision of gathering platforms, amphitheatre, monuments, state of the art toilets, business stalls,

floating restaurant within the existing pool area, pergola shades within seating areas with new concrete seats, lawns, cycling/jogging track.

Figure 4: Site plan for rehabilitation works for Jaramogi Oginga Odinga Sports Centre



Source: KUSP, 2021

Plate 4: a) Children's play area, b) Ongoing drainage works at Jaramogi Oginga Odinga Sports Ground



Source: Author, July 2021

Plate 5: a) new jogging track, b) Preserved monument at Jaramogi Oginga Odinga Sports Ground



Source: Author, July 2021

The World Bank finances the rehabilitation works through the Kisumu Urban Support Program (KUSP). The works include the construction of the perimeter wall fence that had already been completed for the entire park. Solar lighting within the park had also been included at strategic points.

According to county official CGK 1, preservation and conservation has been ensured during the upgrade of this park within the Kisumu Triangle. This statement has been supported by the field investigation and analysis as shown in *Plate 5b* above. The officials response was:

“The Owen Monument within the Jaramogi Oginga Odinga Sports Grounds that is

currently under major rehabilitation has been retained in its location and its original form with only painting done to give it a facelift.”

Jamhuri Park

The proposed improvements to the park, whose construction was ongoing, include cabro paved walkways, concrete seats under tree shades, a gatehouse, a toilet block, a swimming pool and changing rooms. The World Bank financed the rehabilitation works through the Kisumu Urban Support Program (KUSP). The works included the provision of solar park lighting and constructing the perimeter wall fence that had already been completed for the entire park by the time of data collection (CoK KUSP 2020).

Plate 6: Site plan for rehabilitation works at Jamhuri Park



Source: KUSP, 2021

Plate 7: a) new walking/jogging track, b) Lighting and boundary wall fence at Jamhuri Park



Source: Author, July 2021

Plate 8: a) new concrete seats, b) Ongoing works on the swimming pool and changing rooms



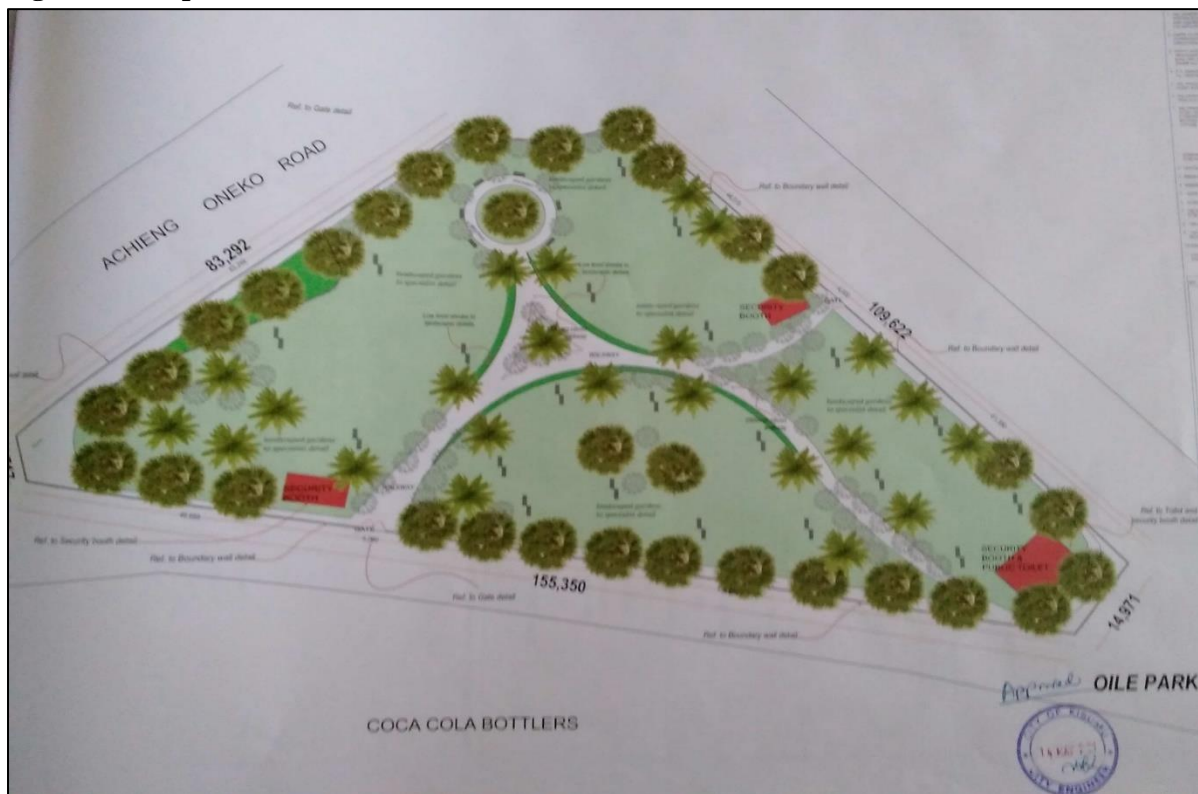
Source: Author, July 2021

Market Park/Oile Park

The proposed improvements to the park, whose construction was ongoing, include paved walkways, concrete seats under tree shades, security booths, and a public toilet block. Seats provided under pergola shade with vines were also proposed to be included in the improvements and

are yet to be done. The World Bank financed the rehabilitation works through the Kisumu Urban Support Program (KUSP). The works included the construction of the perimeter wall fence that had already been completed for the entire park by the time of data collection for this study (CoK KUSP 2020).

Figure 5: Site plan for rehabilitation works at Oile Park



Source: KUSP, 2021

According to a CoK official, the space for the park was initially used as an informal market by

vendors who had to be relocated to pave the way for the construction of the park, which was

undergoing improvements at the time of data collection for this study.

Plate 9: a) boundary wall with bollards along pedestrian walkway, b) new concrete seats within the lawns at Oile Park



Source: Author, July 2021

Plate 10: a) walkway within the park, b) New public toilet, gatehouse within Oile Park

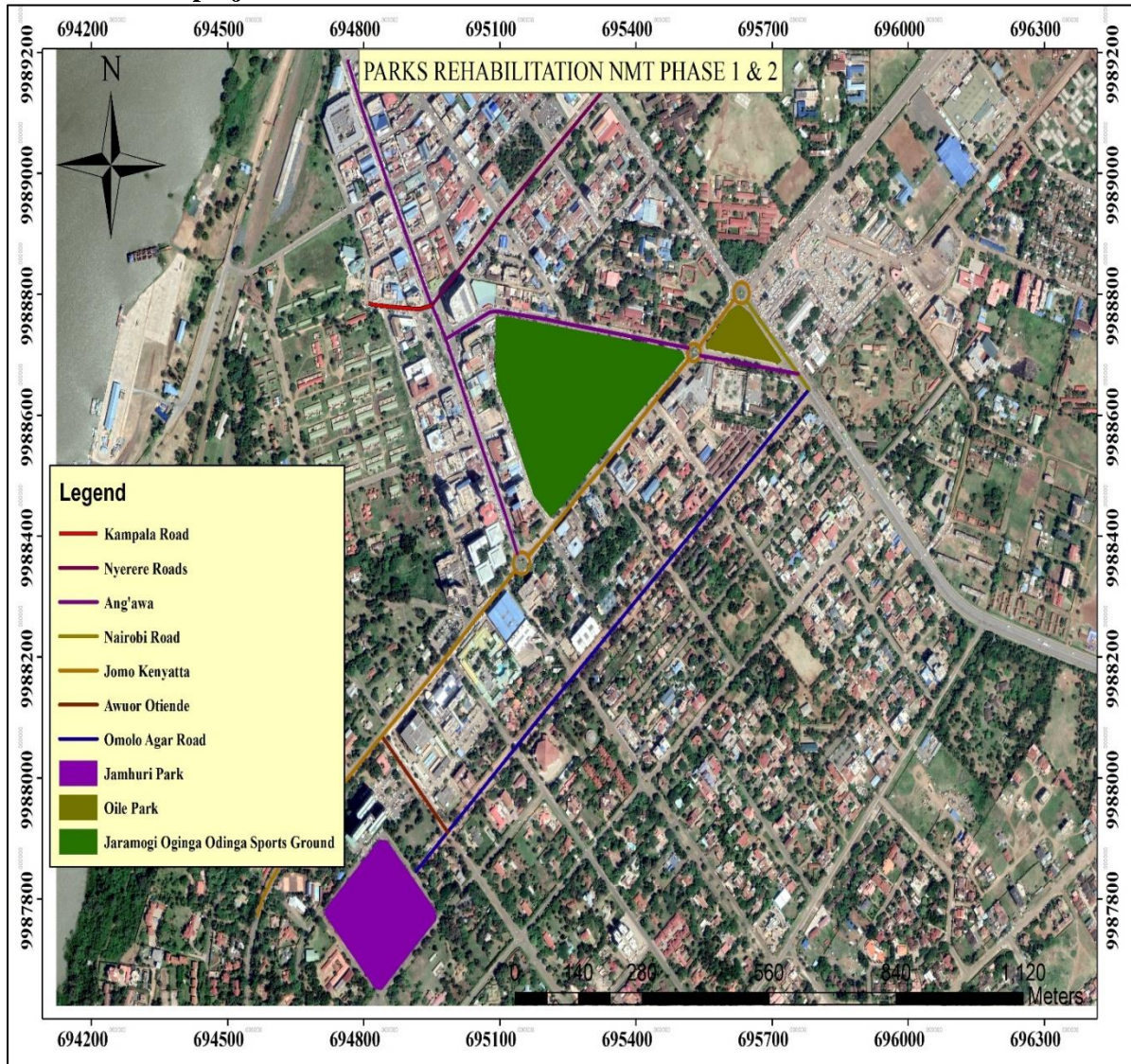


Source: Author, July 2021.

Concrete bollards on the main road had been provided to access the park from Ang'awa Avenue to protect pedestrians from vehicular accidents as they walk on the cabro paved access next to the

park. The bollards are also done to avoid parking vehicles within the pedestrian walking area. Solar street lighting had been included within the park at strategic points to enhance safety.

Figure 6: ArcGIS Desktop 10.3 map showing the location of the parks under rehabilitation, NMT road and street projects.



Source: Author (2021)

City Beautification Programme

The city of Kisumu had initiated a beautification programme within its jurisdiction. The management had envisaged a city with more urban landmarks and nodes with an initiative to increase the greening of most trunk areas and the peri-urban environs. The plan was ideal for any City to change its urban landscape and curb carbon emissions. The process led to the development transformation of major streets and highways. Oginga Odinga Street and several road

roundabouts benefitted from this beautification programme in which several stakeholders in the city had taken the initiative on various road and street sections. This initiative has brought many actors on board like the business community, other government institutions and NGOs (COK, 2021). The beautification had involved landscape design and construction involving hard and soft landscaping consisting of paved areas, retaining walls, grass planting, ground covers, shrubs, tree planting and water fountains, sculptures, and street lighting.

Plate 11: a) beautification works on Oginga Odinga Street Island, b) KCB Bank roundabout.



Source: Author, July 2021

Plate 12: a) beautification works on a roundabout along Oginga Odinga Street, b) Kisumu Boys' High School roundabout



Source: Author, July 2021

According to county official CGK 1 some of the projects undertaken such as beautification of the roundabouts greatly involved the use of public participation in making decisions. An example is Kondele Roundabout in which the public were greatly involved in the implementation and maintenance of the beautification. Public participation, however, had many challenges that could slow down the implementation of the projects due to lack of agreements on the way forward (CGK 1 interviewee). According to county official CGK 3, the members of public have been involved in various components of the renewal projects from time to time through stakeholders, active groups and stakeholder mapping has always been done to identify various

interest groups. The response regarding public participation was:

“Kisumu City has a politically charged population that would like to be involved in various components of city projects in terms of public participation. Some activist groups even go to court for injunctions to stop initiation of some proposed projects at inception or during the progress” (CGK 3 interviewee).

Construction Of Markets

Kibuye Market

According to CoK KUSP (2019), the Kibuye market is designed to accommodate several buildings to house textile and carpentry under

phase 1. Boundary wall fence construction was already completed. Construction of several market buildings was ongoing. The project was being funded by the World Bank under KUSP.

Plate 13: Ongoing construction of market buildings at Kibuye market.



Source: Author, July 2021

Considerations for Preservation, Conservation During Urban Renewal

Based on the review of existing documents obtained from City Planning Department of Kisumu City, the considerations for preservation and conservation were analyzed as illustrated through the findings in this section. Field investigation through photography to support the review was also undertaken. Kisumu City’s Integrated Strategic Urban Development Plan (ISUD Plan, 2014) intended to protect and valorize Kisumu’s natural environment, heritage and to improve the public realm. According to KUP (2019), some of the streets that form the preserved historic area of Kisumu City include

Odera Street, Accra Street, Ogada Street and Mosque Road. Structures along these streets mostly comprise single and double storey buildings associated with the Asian community. The historic core for preservation is between Obote Road, Oginga Odinga Street, Nyerere Street and Otieno Oyoo Street. The Asian community had an important influence on Kisumu’s urban form after their arrival in the town in the beginning of the 21st Century with the construction of the Mombasa-Kisumu railway line. No buildings had been affected by any improvements on infrastructure within this proposed heritage and preservation area at the time of this study.

Plate 14: a) Preservation of trees on Omolo Agar Street; b) Preserved trees within the Central Square

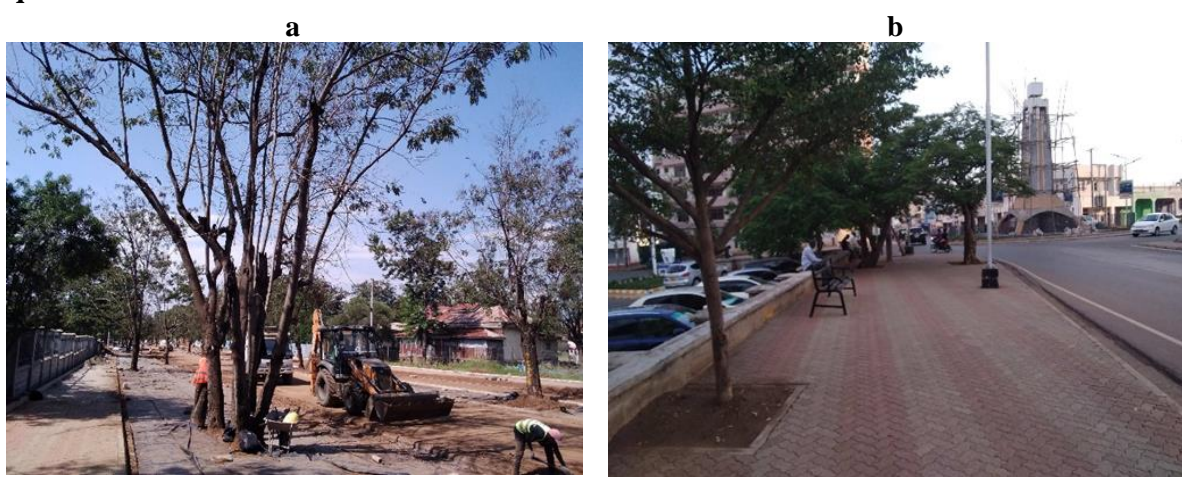


Plate 15: a) Archive photo of the Clock Tower before ongoing modifications; b) ongoing changes on the Clock Tower



(Source: CoK 2019)



(Source: Author, July, 2021)

According to interview response from county official CGK 1 the Clock Tower was to be preserved in its original form and colour and not to be changed to its present appearance. His comments on this were that:

“The Clock Tower ought to have remained the same. The present cladding with tiles followed by their removal during the ongoing works is not good. There was public concern about the changes on it despite the continuation with the works on it” (CGK 1 interviewee).

According to county official CGK 1, the Clock Tower that was undergoing changes had faced several challenges in the implementation of the changes from its original form due to public outcry that necessitated stopping the upgrade from

time to time. The official cited public concern that proved the upgrade was not in line with preservation interests for this structure that has been monumental and of great interest to residents of the City for a long period of time.

According to City of Kisumu, Kisumu Urban Project CoK KUP (2020), the historic buildings in central business district of Kisumu has displayed a good urban character from its architecture and built environment scale. Kisumu’s early city planners were careful to design well sized streets and urban grids that allowed for the placement of each building in a coherent rhythm. The placement complementing each other and create a strong sense of place within the CBD.

Figure 7: ArcGIS Desktop 10.3 map showing Kisumu historic core area earmarked for heritage and preservation.



Source: Author, 2021

DISCUSSION

Field investigation by the researcher within the Kisumu Triangle and other areas within the CBD revealed the implementation of streetscaping through the planting of trees, shrubs and other greenery, construction of wall fences within the parks, among other infrastructure like public toilets, walkway networks, park furniture, solar lighting, security booths, play fields, swimming pool, spectators' stands and general drainage works. According to CGK and KUP officials the projects were capital intensive. For example, the implementation of both Oile and Jamhuri Park rehabilitation was at a cost of 111.7 Million Kenya Shillings while rehabilitation of Jaramogi Oginga Odinga Sports Ground was at a cost of 111.3 Million Kenya Shillings to be completed within 52 and 54 weeks respectively from the August 2020 start date (County official CGK 4).

Theories by Jan Gehl and landscape urbanism are proposed in this study to guide the investigation

of urban landscape identity within Kisumu City's urban renewal. Both of these theories are from the Global North. The choice of the two for Kisumu City's urban renewal was because most projects implemented under the renewal directly impacted the public spaces within the urban landscape. These projects included NMT implemented within the major CBD streets, streets, roads and roundabout beatifications through landscaping, rehabilitation of urban parks in addition to revamping of urban open spaces like the Central Square and changes to landmarks like the Clock Tower within the CBD. These projects greatly impacted on the urban landscape with possible influence on the urban landscape identity as perceived by the residents.

Since implementing the Non-motorised Transport (NMT), especially within the Kisumu Triangle, CoK had been organising car-free days within key streets within its CBD. This had been carried out to encourage walking by the residents within the

completed streets with well-paved sidewalks that they feel are safe, attractive and with many amenities. According to the city planner, the car-free day project was being implemented in partnership with the Institute for Transportation and Development Policy (ITDP) and the United Nations Human Settlements Programme (UN-Habitat). The focus was on implementing non-motorised transport (NMT) systems. These days, no motor vehicles and motorcycles are allowed to access the Kisumu Triangle within the CBD to promote and encourage walking. Car-free days ensure equitable and sustainable mobility. Turok et al. (2019) support the need for good management of public realms to ensure that they are safe, clean, and walkable environments that are friendly to the people.

According to Nakamura (2020), convenience, safety, comfort, and attractiveness are important needs for walking. The recent effort for car-free days within CoK-selected streets promotes walkability. According to the CoK city planner, the urban renewal along the streets of Kisumu through paved and wide sidewalks, street lighting, amenities through litter bins and bollards for protection from vehicular transport has resulted in safe, attractive, and convenient streets to walk in. The bollards ensure the safety of the pedestrians as they walk and rest within the sidewalk's seats. Onsite observation within Kisumu Triangle and other streets revealed the presence of wide designated cobble-paved pedestrian walkways that were raised high above existing roads with bollards for protection and raised pedestrian crossing points at well-marked areas. Walking is encouraged within CoK by banning public service vehicles within the CBD and the Kisumu Triangle. Reconfiguration of mobility, particularly through public transportation to reduce car dependency, is supported by Cermasi (2017) and Gehl (2010).

Urban renewal projects in Kisumu City aim to result in better urban spaces in terms of attractiveness, safety, and convenience and is largely seen as a solution to any forms of previous urban decay. According to Gehl (2010), liveliness

is important in walking environments because of the presence of people. Lively places are attractive because they provide a good environment for social interaction and add positive experiences. Jan Gehl's guidelines are that lively environments, high-quality facades and low buildings encourage walking activities. Silvennoinen et al. (2020:2) relied on Jan Gehl's guidelines above because many projects of urban planning practice, for example, the City of Calgary (2015) and the City of Melbourne (2015), ought to improve walkability using these specific guidelines. Silvennoinen et al. (2020:14) concluded that urban design features are important for encouraging walkability activity even when commercial functions are not included. According to Gehl (2010), an area's physical environment and spatial features play an important role when engaging in outdoor activities. Optional activities within these spaces are influenced to a significant degree by what a place offers and how it makes the users feel and believe. The rehabilitation of urban parks within Kisumu City has resulted in better clean, safe, attractive, and convenient spaces through various provided amenities within them in an attempt to create better spaces for the users. The NMT within Kisumu Triangle and other streets and roads has resulted in better streets for pedestrians, and it is believed that it will result in user satisfaction through walking and social interaction. This supports the UN SDG on the need for cities to have liveable, healthy, safe, and sustainable environments. According to Silvennoinen et al. (2022) and Gehl (2010), walkability has become an important theme in urban design research and practice. It is considered important because it benefits society's health and social well-being.

Cermasi (2017) explored landscape urbanism through a network of open spaces and connections to have become an armature of public open spaces in a city with a shrinking pattern. The author suggests a series of considerations on landscape urbanism theoretical discussion organised in the following macro-themes: working on a network of open spaces, the necessity of a multi-scalar approach, a toolkit of interventions, accessibility

as necessary, how to define a network of public spaces and lastly polycentric urban landscape. Cermasi (2017) posit that we ought to understand public spaces as squares and parks and as systems of interconnections. Waldheim (2006) posits that macro-scale mobility infrastructures are also part of public spaces. This includes static public spaces and a network of movements within cities. Cermasi (2017), in support of landscape urbanism, posits that a city should provide a finer grain of public spaces addressing liveability and allowing pedestrian movement and human interaction. This can be achieved by reconfiguration of urban mobility. The urban renewal in Kisumu City has resulted in connectivity between different spaces through upgraded roads and pedestrian walkways that allow for convenient urban walking. The focus on the urban landscape through upgrading the different spaces like parks, roads and streets has emphasized within the urban landscape that is expected to benefit the users through walking, interaction, and overall satisfaction.

CONCLUSION AND RECOMMENDATIONS

Rehabilitation of the three urban parks documented in this paper revealed a strong influence of the renewal project by introducing many new species of vegetation in terms of trees, shrubs, and ground covers to improve the image of the parks for better use by the residents. Survey findings, Photo Elicitation interviews and interviews with county officials and professionals revealed that the renewal project undertaken included new projects and upgrading works. Most respondents were satisfied with the overall outcome.

Recommendations for Implementation

The following recommendations have been proposed to guide dynamic urban growth and urban renewal projects with emphasis on preservation, strengthening of urban landscape identity of various landscape features and of identified heritage assets that need to be conserved within the urban landscapes.

- The CGK should put in place effective strategies and policies that to guide urban design. These should aim to effectively reinforce the urban character and image of the various public spaces and urban form elements that have a contribution to the urban landscape identity.
- There should be adoption of legislative and institutional frameworks and measures supporting the recognition and adoption of historic urban landscapes and take into account the environmental and landscape values of the heritage e.g. within the Old Town area.
- It is important to carry out analysis of the urban landscape from time to time before major urban developments are undertaken in order to get the people's perspective of the environment as people constantly interact with their various environments.
- CGK should undertake comprehensive appraisal of its natural and man-made features within its urban landscape to assess the character, influence and contribution to the city's image and landscape identity formation and come up with adequate management plans and policies for protecting the urban landscape identity.
- Visual interest and variety: The implemented Non-Motorized Transport (NMT) should strive to increase walkability within the city street and other urban spaces by providing variety of visual interest like sculptures, artworks and other street furniture that enable perceiving and recognizing of the peculiar characteristics of the different places. This is important in the creation of the image and resultant urban landscape identity.
- There is need to increase urban greenery within the public spaces like within the streets and not only through planters. The greenery should accommodate different varieties of tree and shrub species and not only one type of palm tree as done within the Kisumu Triangle.

- There is need to provide adequate street furniture like shaded street seats within the streets and other public spaces like the central square to increase usability by the residents in different weather conditions. Field investigation as documented in chapter four found that the provided street seats at different locations within the CBD mostly lacked shades.
- Public awareness/education: A preservation, conservation, rehabilitation awareness should be in place to identify the potential sources of city heritage and it should be planned and implemented through public-private people partnership between CGK, corporates and members of the general public who are residents.
- Any landmarks, focal points and iconic features that help in identification of the city and assist in way finding, orientation within the city should be highly valued and should be preserved and protected within all areas of the city's landscape.
- Partnerships: CGK should adopt a multi stakeholder partnership through public private partnership (PPP) to plan and execute the management and monitoring of the various completed components of the urban renewal to avoid and eliminate any occurrence of physical decay and run down effects that would impact negatively on its image and identity over time.

REFERENCES

- Amado, M., & Rodrigues, E. (2019). A heritage-based method to urban regeneration in developing countries: The case study of Luanda. *Sustainability* 2019, 11, 4105; doi: 10.3390/su11154105
- Antrop, M. 2005. Why landscapes of the past are important for the future. *Landscape and Urban Planning*. 70 (2005) 21-34. DOI: [10.1016/j.landurbplan.2003.10.002](https://doi.org/10.1016/j.landurbplan.2003.10.002)
- Baris, M.E., Uckac, L., & Uslu, A. 2009. Exploring public perception of urban identity: The case of Ankara, Turkey. *African Journal of Agricultural Research*. Vol. 4 (8), pp. 724-735, August, 2009.
- Beauregard, R.A., & Holcomb, H.B. 1981. *Revitalizing cities*. Washington DC: Association of American Geographers.
- Birnbaum, C. 1992. *Preservation Forum*. "Focus on Landscape Preservation". Washington, D.C.: National Trust for Historic Preservation, Volume 7, No.3, May/June 1992.
- Bosselmann, P. 2008. *Urban transformation: Understanding city design and form*, Island Press, Washington, Covelo, London, United States of America.
- Boussaa, D. (2018). Urban regeneration and the search for identity in historic cities. *Journal of Sustainability* 2018, 10, 48.
- Buissink, J. D., Ed. 1985. *Aspects of urban renewal: report of an enquiry by questionnaire concerning the relation between urban renewal and economic development*, The Hague: International Federation for Housing and Planning (IFHP)
- Cermasi, O. (2017). Contemporary landscape urbanism principles as innovative methodologies: the design of an armature of public spaces for the revitalisation of a shrinking city. *The Journal of Public Space*, 2(2), 111-126. DOI: 10.5204/jps.v2i2.97
- City of Kisumu, Kisumu Urban Project, Situational Analysis Report. (2019). Preparation of Local Physical Development Plans for Kisumu City, October 2019.
- City of Kisumu, Institute for Transportation and Development Policy. (2020). *Kisumu Sustainable Mobility Plan*, July 2020.
- Couch, C. (1990). *Urban renewal: Theory and practice*. Macmillan building & surveying series.
- Dimuna, K.O., & Omatsone, M.E.O. (2010). *Regeneration in the Nigerian urban built*

- environment. *Journal of Human Ecology* 29(2): 141-149 Kamla-Raj (2010).
- Enache, C., & Craciun, C. (2013). The role of landscape in the identity generation process. *Journal of Social and Behavioural Sciences* 92 (2013) 309-313
- Eren, I.O. (2014). What is the threshold in urban regeneration projects in the context of urban identity? The case of Turkey. *Spatium International Review*. No 31, July 2014, pp 14-21.
- Gehl J. (2010). *Cities for People*. Washington, DC: Island Press
- Government of the Republic of Kenya. (2019). Kenya National Bureau of Statistics, Kenya Population and Housing Census, Volume II; Distribution of population by administrative units. December 2019.
- Gur, E.A., & Heidari, N. (2019). Challenge of identity in the urban transformation process: The case of Celiktepe, Istanbul, Turkey. *ITU A/Z*. Vol 16 No 1, 127-144
- Kaymaz, I. 2013. Urban landscapes and identity. *Advances in landscape architecture*. Rijeka, Croatia: InTechOpen. <http://dx.doi.org/10.5772/55754>.
- Kisumu Integrated Sustainable Urban Development Plan (ISUD) part 1. (2013). Understanding Kisumu, July 2013
- Lai, L. W. C., Chau, K. W., Cheung, P.A. (2017). Urban renewal and redevelopment: Social justice and property rights with reference to Hong Kong's constitutional capitalism.
- Lee, G. K. L., & Chan, E. H. W. (2008). The analytic hierarchy process (AHP) approach for assessment of urban renewal proposals. *Social Indicators Research*, 89: 155-168.
- Leon, R.M., Babere, J., & Swai, O. (2020). Implications of cultural heritage in urban regeneration: The CBD of Dar-es Salaam. *Papers of Political Economy* 63/2020
- Massey, R. (2020). Urban renewal in South African cities. *Urban Geography in South Africa, Perspectives and Theory*. Springer.
- Nakamura, K. (2020). Experimental analysis of walkability evaluation using virtual reality application. *Environment and Planning B: Urban Analytics and City Science*48(8): 2481–2496
- Njoku, C., & Okoro, G.C. (2014). Urban renewal in Nigeria: Case study of Lagos state. *Journal of Environmental Science and Water Resources*. ISSN 2277 0704. Vol. 3(7), pp. 145 - 148, August 2014
- Okesli, D.S., & Gurcinar, Y. 2012. An investigation of urban image and identity. Findings from Adana.
- Oktay, D., & Bala, H.A. (2015). A holistic research to measuring urban identity findings from Girne (Kyrenia) area study. *International Journal of Architectural Research. (IJAR)* Volume 9 - Issue 2 - July 2015 - (201-215).
- Ploegmakers, H. (2015). Evaluating urban regeneration: An assessment of the effectiveness of physical regeneration initiatives on run-down industrial sites in the Netherlands. *Urban Studies Journal* 2015, VOL. 52 (12) 2151-2169.
- Rui, L. 2008. Urban Heritage Conservation by GIS under Urban Renewal, 44th ISOCARP Congress 2008
- Saglik, E., & Kelkit, A. 2017. Evaluation of urban identity and its components in landscape architecture. *International Journal of Landscape Architecture Research*. E-ISSN: 2602-4322, 1(1):36-39, 2017.
- Seidl, N.P., Hribar, M.S., Hudoklin, J., Pipan, T., & Golobic, M. 2021. Defining landscapes and their importance for national identity-A case study from Slovenia. *Sustainability* 2021, 13, 6475. <https://doi.org/10.3390/su13116475>

- Shao, Y., Lange, E., Thwaites, K., Xue, Z. & Xu, X. 2020. Understanding landscape identity in the context of rapid urban change in China. *Land* 2020 9(9), 298.
- Silvennoinen, H., Kuliga, S., Herthogs, P., Recchia, D.R., & Tuncer, B. (2022). Effect of Gehl's urban design guidelines on walkability: A virtual reality experiment in Singaporean public housing estates. *Urban Analytics and City Science* 2022, Vol. 0(0) 1-20.
- Simon, D. (1998). Rethinking (post)modernism, post-colonialism, and post traditionalism: South-North perspectives. *Environment and Planning D: Society and Space* 16, 219–245.
- South African Cities Network. (2003). A South African urban renewal overview. August, 2003.
- Turok, I., Seeliger, L., & Visagie, J. (2019). Restoring the core? Central city decline and transformation in the South. *Progress in Planning* (2019).
- United Nations. (2015). *Transforming Our World: The 2030 Agenda for Sustainable Development*. New York: UN Publishing.
- Wirth, T.V., Regamey, A.G., Moser, C., & Stauffacher, M. (2016). Exploring the influence of perceived urban change on residents' place attachment. *Journal of Environmental Psychology*. 26 (2016) 67-82.
- Xue, C., Zheng, X., Zhang, B., & Yuan, Z. (2015). Evolution of a multidimensional architectural landscape under urban regeneration. A case study of Jinan, China. *Ecological Indicators* 55 (2015) 12-22
- Xuesong, X., & Hui, H. 2008. Ecological infrastructure and urban landscape identity conservation. A case study of Weihai, Shandong. 44th ISOCARP Congress 2008: Urban growth without sprawl.
- Yaldiz, E., Aydin, D., & Siramkaya, S.B. 2014. Loss of city identities in the process of change: The city of Konya-Turkey. *Social and Behavioral Sciences* 140 (2014) 221 – 233
- Zheng, H. W., Shen, G. Q., & Wang, H. (2014). A review of recent studies on sustainable urban renewal. *Habitat International* 41 (2014) 272-279.
- Zheng, W., Shen, G.Q., Wang, H., Hong, H., & Li, Z. (2017). Decision support for sustainable urban renewal: A multi-scale model. *Land Use Policy* 69(2017) 361-371.
- Ziyae, M. 2018. Assessment of urban identity through a matrix of cultural landscape. *Cities* 74 (2018) 21-31.