

Year	1972	1989	1999	2009	2019
Built-up Area (Ha)	1972	1989	1999	2009	2019
Kisumu City	7338.71	13162.2	25740	9236.4	11086.6
Eldoret Town	3532.73	1159	1814	3928.8	8002.9

Figure 3: Urbanization trends in Kisumu

Year	1989	1999	2009	2019
Kisumu City	0.7	0.6	0.3	0.18
Eldoret Town	2.89	1.93	1.11	0.68

Figure 2: Declining green spaces per capita availability in Kisumu and Eldoret Towns

Declining Urban Green Spaces: A case of Kisumu and Eldoret Towns of Kenya

March 2021

- The Urban Areas and Cities Act (2011) is the only avenue available as the legal requirement to plan for urban areas and cities.
- However, this path is bedeviled by many challenges including system bureaucracy that slows down honoring of this requirement, lack of funds and governance issues.
- There is no policy to control the rate of urban growth.
- Consequently, the only green spaces available are those provided for in the earlier urban development plans and since no other plans have been approved since then, there has not been any new public urban green spaces.
- Besides urban physical growth, it was also established that although there have been several attempts to plan the towns, such final plans never got to be approved due to a number of reasons including rejection of such plans occasioned by changes in county governance.
- In addition there was information that the funding for urban planning departments have been declining over time as well which, among others, weakened development control systems. Arguably, this situation is not helped by the largely outdated green spaces standards as contained in the Physical Planning Handbook (2007). Further, EMCA (1999, amended in 2015) on the other hand, has not come out strongly on the necessity and standards for urban green spaces.

Acknowledgments

We acknowledge the financial support from the University of Eldoret through the University Annual Research Grants (ARG) without which the undertaking of this research work would not have been possible.

Bibliography

- Architectural Association of Kenya. (2011). Study on development control framework in Kenya. Nairobi.
- Adjei Mensah, C. (2015). *Sustaining urban green spaces in Africa: a case study of Kumasi Metropolis, Ghana*.
- Dewan, A. M., & Yamaguchi, Y. (2009). Using remote sensing and GIS to detect and monitor land use and land cover change in Dhaka Metropolitan of Bangladesh during 1960–2005. *Environmental Monitoring and Assessment*, 150(1–4), 237.
- Haq, S. M. A. (2011). Urban green spaces: an integrative approach to sustainable environment. *Journal of Environmental Protection*, 2(05), 601.
- <https://sustainabledevelopment.un.org/partnership/?p=30681>
- Space, B. S. G. (2011). Understanding the contribution parks and green spaces can make to improving people's lives. Retrieved March, 12, 2012

Contacts:
Dr. Andrew Kiplagat
School of Environmental Studies
Department of Environmental Monitoring, Planning and Management
Email: andrew.kiplagat@uoeld.ac.ke

Published by:
Directorate of Research and Innovation
University of Eldoret
P.O Box 1125-30100
Eldoret
Website: www.uoeld.ac.ke
Email: ridirector@uoeld.ac.ke

Introduction

With the rising urban population and subsequent growth in the size of urban areas, the importance of green spaces in urban areas now and in the future can hardly be overemphasized. Green spaces, including gardens, parks, street trees and other 'natural' vegetation covering urban areas (Wilkerson et. Al. 2018), provide critical ecosystem benefits to urban residents including water flow regulation, runoff mitigation, urban temperature regulation, noise reduction, air purification moderation of environmental extremes, waste treatment, climate regulation, pollination and seed dispersal, recreation and cognitive development, and animal habitat.

However, many African cities risk missing these benefits due to the alarming rate at which urban green spaces are declining (Mensah 2014). In a bid to contribute in ameliorating this situation a research study which actually underpins this policy brief, was undertaken in 2018 in Kisumu and Eldoret towns to determine factors affecting availability of urban green spaces.

What is the issue?

The Sustainable Development Goal (SDG) Number 11 seeks to make cities inclusive and sustainable and particular goal 11.7 that seeks to promote universal access to safe, inclusive and accessible, green and public spaces especially for women, children, older persons and persons with disabilities.

Benefits of Green spaces.

- Provision of health benefits that include mental and physical fitness, calcium fixation through synthesis of vitamin D which improves moods.
- Provision of intangible benefits associated with relaxation, and calmness which yields the creation of a balanced feeling, reduction of anxiety, tension, depression, fatigue and enhancement of vigor.
- Provision of arena for civic engagement and promotion of social cohesion especially when urban green spaces act as places to rest and interaction with others.
- Socio-economic equalizer :- green spaces in urban areas serves as an 'equalizer', meaning that people from different socio-economic classes all derive utility from these same spaces.

Clearly thus, green spaces are great promoters of human well being in the urban areas and urban societies can draw enormous social, economic, and ecological benefits from their existence within its boundaries.

Policy recommendations

There is an urgent need for Eldoret and Kisumu Counties Governments to create more urban green spaces gradually and consistently to reach at the recommended per capita availability of 9m². To realize this, the following policy recommendations are made: (see Pg 2)

- The Urban areas and Cities Act (2011) and the Physical Planning and Land Use Act (2019) supports the establishment of urban green spaces meaning that more must be done on implementation of these legislations Control of urban growth through development of new green themed urban plans – The County and City Administrations in the two towns should not only facilitate the development of new green-themed urban development plans that emphasize public green spaces but should also ensure that they complete all development plan approval processes. This is because the existing ones are way too old.
- Embedding in law the continuous review of existing urban development plans – this needs to be done to ensure that existing plans are frequently updated to respond to the current green spaces needs and requirements
- Empowering urban environmental planning and development control units legally, financially and with human resources so that they can be efficient and effective in controlling urban expansion and maintenance of designated urban green spaces
- Deliberate promotion of public participation in green spaces' development and management – The constitution of Kenya (2010) and many subsequent legislation require that the public be involved in the management of public affairs.
- Alternative funding possibilities including public-private partnerships can also be explored. This may include enlisting green spaces into climate financing instruments- this can be made more successful if municipalities demonstrate how such green spaces have contributed or can contribute in mitigating climate change effects.

Declining Urban Green Spaces

1. A case of Kisumu town in Kenya

Findings from this research confirmed that Kisumu town in Kenya has been experiencing an overall decline in green spaces. In 1989 Kisumu City had 2794.05 hectares of green spaces which reduced to 1371.24 in 2019 (see green space decline trends in Figure 1). This represents a 50.92% decrease from 1989 to 2019 (30 years). Evidently, it appears that there shall be no green spaces in the next 30 years if the trend continues.

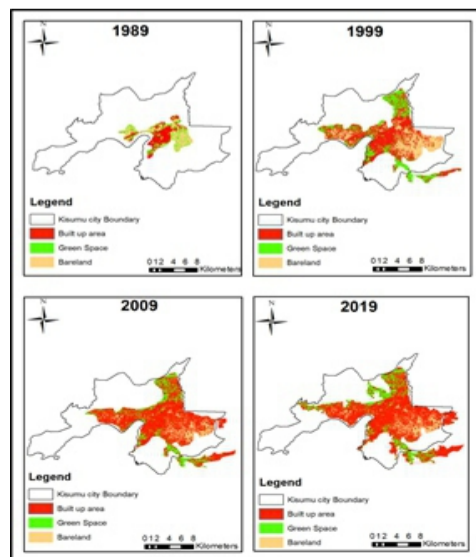
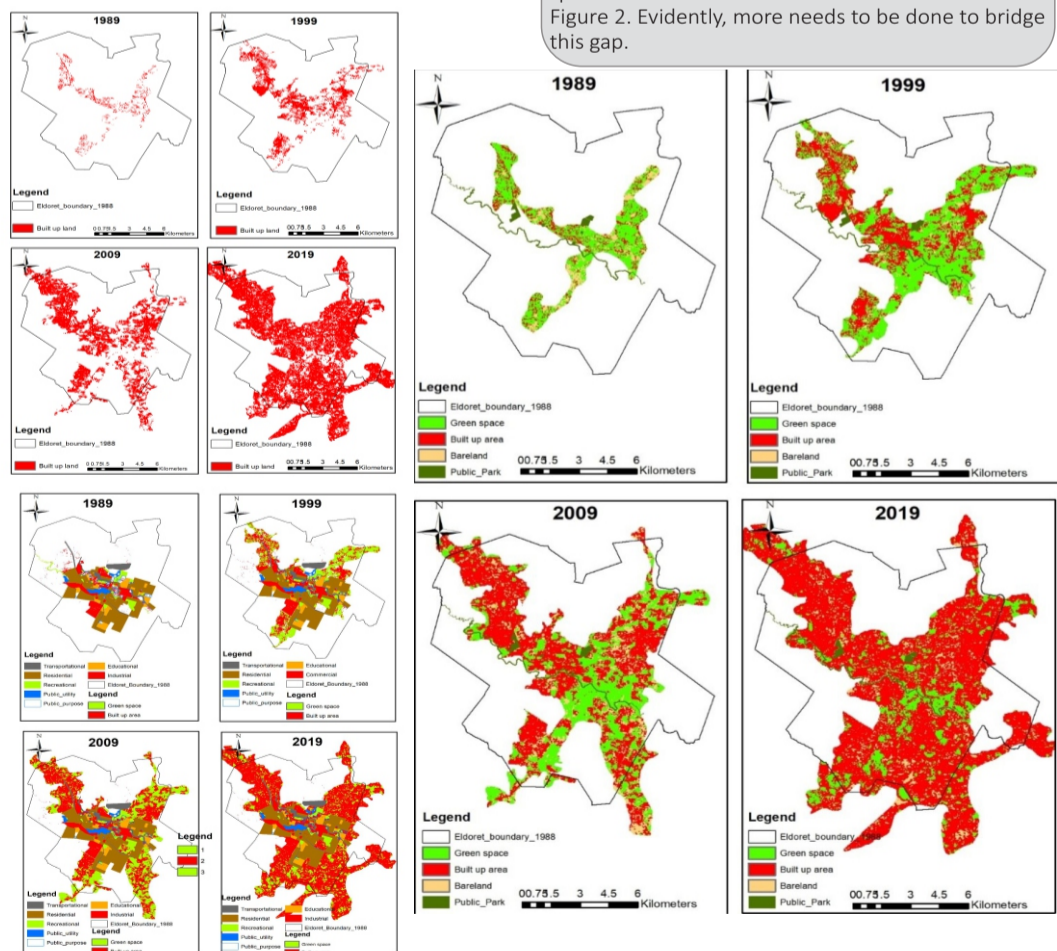


Figure 1: Trends in the decline of green spaces in Kisumu

2. A case of Eldoret town in Kenya.

The same case applies to Eldoret where despite an apparent increase between the year 1989 and 2009 (mainly due to leapfrog development that increased the urban area size), there was an overall loss of 34.48% by 2019. This is a confirmation of the worrying trend of green space decline.



b) Decline in green spaces in Eldoret Town

The Impact.

As a consequence of the decline, the per capita availability of green spaces in the two towns has also been reducing drastically. For example, while the WHO recommends a minimum of 9m² per person, Kisumu and Eldoret towns currently supplies only 0.18m² and 0.68m² of public green spaces to each of its residents as can be seen in Figure 2. Evidently, more needs to be done to bridge this gap.



Plate 1. Different uses of urban green spaces

Urbanization trends in Eldoret and Kisumu towns.

Figure 3 shows reduction in urban green spaces in Eldoret and Kisumu towns. This decline of urban green spaces and the subsequent reduction in per capita green space availability is attributed to rapid urbanization. Between 1972 and 2019, the urban physical size of Kisumu increased from 7338.68 Ha to 11086.38 Ha representing a growth of more than seven times (742.3%). Eldoret Town, on the other hand has increased in size from a paltry 3532.73 Ha in 1981 to 8611.29Ha in 2019, a growth of almost over 22 times (2199.06%) that of 1981.