

Lost in Concrete: Reimagining Kenya's Urban Green Space Legislation

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By

Abuga Ruth Kerubo

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Prepared under the supervision of


Ms Sussie Mutahi

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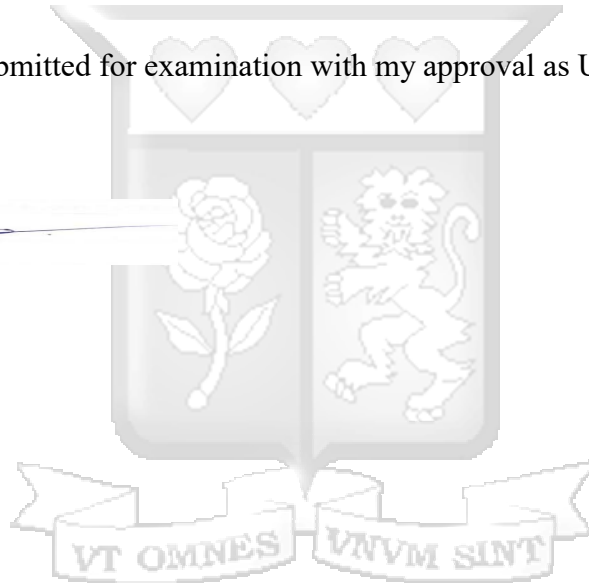
DECLARATION

I, **ABUGA RUTH KERUBO**, do hereby declare that this research is my original work and that to the best of my knowledge and belief, it has not previously, in its entirety or in part, been submitted to any other university for a degree or diploma. Other works cited or referred to are accordingly acknowledged.

Signed:.....
Date: 06/1/2025

This dissertation has been submitted for examination with my approval as University Supervisor.

Signed:.....
SUSSIE MUTAHI
Date:07th January 2025



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LIST OF LEGAL INSTRUMENTS

International Instruments

African Charter on Human and Peoples Rights, 1981.

African Union Agenda 2063, 2015.

Agenda 21, 1992.

Convention on Biological Diversity, 1992.

East Africa Community Protocol on Environment and Natural Resources Management, 2006.

New Urban Agenda, United Nations-Habitat, 2016.

Paris Agreement, 2015.

United Nations Sustainable Development Goals, 2015.

Kenyan Legislation

Climate Change Act, 2016 (CAP 387A)

Constitution of Kenya, 2010.

County Governments Act, 2012 (CAP 265)

Environmental Management and Coordination Act, 2000 (CAP 387)

Forest Conservation and Management Act, 2016 (CAP 385)

Land Act, 2012 (CAP 280)

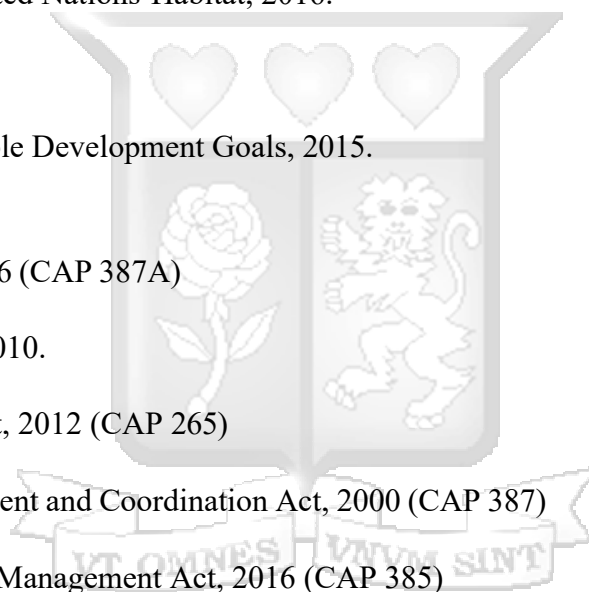
Nairobi City County Regularisation of Development Act, Act No 3 of 2015.

National Museums and Heritage Act, 2006 (CAP 216)

Physical and Land Use Planning Act, 2019 (CAP 303)

Urban Areas and Cities Act, 2011 (CAP 275)

Wildlife Conservation and Management Act, 2014 (CAP 376)



Singapore Legislation

Environmental Protection and Management Act, 1999 (CAP 94A)

Land Acquisition Act, 1966 (CAP 152)

Singapore Parks and Trees Act, 2005 (CAP 216)



LIST OF CASES

Peter K Waweru v Republic (2006) eKLR.



LIST OF ABBREVIATIONS

ASEAN:	Association of SouthEast Asian Nations
BCA:	Building and Construction Authority
COVID:	Coronavirus Disease
EMCA:	Environmental Management and Coordination Act
GDP:	Gross Domestic Product
HDB:	Housing and Development Board
MND:	Ministry of National Development
NGO:	Non-Governmental Organisation
NParks:	National Parks Board
PM:	Prime Minister
PTA:	Parks and Trees Act
PTD:	Parks and Trees Division
SDG:	Sustainable Development Goals
SLA:	Singapore Land Authority
UK:	United Kingdom
UN:	United Nations
URA:	Urban Redevelopment Authority
US:	United States
WHO:	World Health Organisation



ABSTRACT

In Nairobi, a peculiar observation can be made of residents who, seeking relaxation, sit on the grass alongside major roads such as Langata or Ngong, highlighting the lack of accessible open and green spaces. Despite the multiple environmental, social and economic benefits these spaces provide, they face significant challenges and are often lost to development. The World Health Organisation highlights the importance of green space per city dweller. Currently, green spaces in Nairobi cover an area of 2363 hectares, falling short of the WHO standard of 9m² per person. Land grabbing, rapid urbanisation, lack of cooperation between NGOs and government, conversion, over-lapping mandates between county and national governments, weak enforcement of existing environmental laws and the lack of a comprehensive law on urban green spaces have led to the degeneration and loss of these spaces.

The constitution in Article 42 enshrines the right to a clean and healthy environment. This includes the right to have the environment protected for the benefit of present and future generations through legislative and other measures. However, the governance of green spaces, remains wanting as Kenya does not have a comprehensive law on urban recreational green spaces. The lack of a clear legal framework for the use and governance of green spaces is therefore an infringement of the rights of citizens. Not only are there immediate consequences on the realisation of the right to clean and healthy environment, there is also a threat to the sustainability of these spaces for future generations. This study is a doctrinal legal study grounded in the right to the city theory.

This research draws insight from Singapore's urban greening experience. Through its analysis of Singapore's legal, policy and institutional framework, it identifies actionable recommendations for Kenya. By examining the role of law in the preservation and development of green spaces in urban centres, this study recommends legislative reforms to ensure equitable access to these areas. This study contributes to the discourse on urban environmental governance, making proposals in order to secure environmental rights for current and future generations.

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CHAPTER 1: INTRODUCTION

1.1 Background of the study

Walking or driving on major roads in Nairobi City such as Langata Road or Ngong Road, particularly on weekends, exposes a peculiar phenomenon. One will notice people seated on open grass that is by the roadside, some with refreshments, others doing their hair. At first glance, one might not think much of this occurrence. However, upon further examination, one will realize that these are Nairobians seeking open green spaces where they can relax. This observation indicates a significant issue: the insufficiency of accessible urban green spaces in Nairobi.

Since the turn of the 20th century urban areas have grown at an unparalleled rate.¹ Over half the world's population resides in cities, and by 2050, two out of three individuals are predicted to do so.² With more than 30% of its population living in urban areas, Kenya is currently seeing one of the highest rates of urbanisation in the region.³ Issues like the availability of green spaces in these metropolitan regions are being faced as a result of this quick change. This is owing to the fact that green spaces in Nairobi have been reducing under the guise of development. This development, however, is not sustainable due to the ecological harm brought about by the depletion of green spaces.

Urban green spaces are spaces in urban area that are covered by vegetation of any kind. These include; smaller space features such as street trees and roadside vegetation; spaces not open for public access such as green roofs and facades on green space on private grounds; and larger green spaces that provide numerous social and recreational functions such as parks, playgrounds and greenways.⁴ These also include forests, gardens and greenery along riparian and transport corridors.⁵ For purposes of this research, focus will be on the larger green spaces that are available for public use.

¹ Shah P and Irandu E, 'Recreational green spaces as the future for sustainable cities: case of Karura Forest in Nairobi, Kenya' 5 *Journal of Sustainability, Environment and Peace* 1, 2022, 87.

² Muhoza J and Zhou W, 'Urban green spaces in Africa: a bibliometric analysis' 11 *Environments* 4, 2024, 1.

³ Ngetich J, Kiplagat A, Khazenzi J, Odhiambo K and Lagat M, 'Citizen perception of green spaces prioritization in urban Kenya: the case of Kisumu city and Eldoret municipality' 5 *Africa Environmental Review Journal* 2, 2022, 68.

⁴ Hunter R, Cleary A and Braubach M, 'Environmental, health and equity effects of urban green space interventions' in Marselle M 'Biodiversity and health in the face of climate change' Open Access, Springer Open, 2019, 383.

⁵ Kiplagat A, Koech J, Ngetich J, Lagat M, Khazenzi J and Odhiambo K, 'Urban green spaces characteristics, visitation patterns and influence of visitors' socioeconomic attributes on visitation in Kisumu city and Eldoret municipality Kenya' 7 *Trees, Forests and People* 100175, 2022, 1.

Green spaces have economic benefits such as; lowering infrastructure costs, reducing congestion costs, reducing carbon emissions and reducing environmental pressure.⁶ Socially, the benefits include poverty reduction, recreational benefits, improved quality of life and improved equity.⁷ Environmentally, the benefits include; improving urban air quality, conserving biodiversity, beautifying cities and ameliorating local climate.⁸

Despite these benefits, Nairobi only has a total of 2363 hectares of freely accessible open spaces against the recommended 4754 hectares.⁹ Moreover, Nairobi falls short of the WHO recommendation which is 9m² per city dweller.¹⁰ These areas are under threat of conversion, degradation and deforestation.¹¹ Factors such as rapid urbanisation, poor planning, weak management and illegal allocation contribute to the debilitation of such spaces.¹² Further, the recent trend of concretising these spaces, such as Uhuru Gardens and Uhuru Park, has led to shrinkage of areas available as purely green spaces. Additionally, when these areas are greyed, new challenges are posed; people are charged to use them in a bid to “maintain” the new structures, they are often closed for long periods of time in order to carry out these projects and they fall under police or military control making people uneasy to use them.

The constitution of Kenya in article 42 provides that every person has the right to a clean and healthy environment which includes the right to have the environment protected for the benefit of present and future generations through legislative and other measures particularly those contemplated under article 69 and to have obligations relating to the environment fulfilled under article 70.¹³ Further, the preamble to the constitution reinstates this by maintaining that the environment is the people’s heritage and as such shall be sustained for the benefit of future

⁶ Owino F, Hayombe P and Agong S, ‘Spatial planning interventions and their implication on conservation of urban green spaces’ 3 *Asian Journal of Applied Science and Engineering* 8, 2014, 63.

⁷ Owino F *et al*, ‘Spatial planning interventions,’ 63.

⁸ Mensah C, ‘Urban green spaces in Africa: nature and challenges’ 4 *International Journal of Ecosystem* 1, 2014, 1.

⁹ Wanjiru B, Waweru G, Munyua A and Nzioka J, ‘Divergent perceptions in open spaces provision in Nairobi: towards new beginning in collaborative approaches’ 3 *International Academic Journal of Information Sciences and Project Management* 3, 2019, 67.

¹⁰ World Health Organisation, ‘Health indicators of sustainable cities in the context of the Rio+20 UN conference on sustainable development, Geneva, 2012.

¹¹ <https://law.uonbi.ac.ke/latest-news/safeguarding-nairobis-urban-green-spaces-validation-workshop> on 5 December 2023.

¹² <https://law.uonbi.ac.ke/latest-news/safeguarding-nairobis-urban-green-spaces-validation-workshop> on 5 December 2023.

¹³ Article 42, *Constitution of Kenya* (2010).

generations.¹⁴ Since Kenya has adopted a human rights based approach to development,¹⁵ the right to a clean and healthy environment should be safeguarded amidst continued development and urbanisation. One way that this can be achieved is through the preservation of urban green spaces.

The benefits accruing from urban green spaces have been recognised internationally. Two metrics, safety and sustainability, stand out in the bid to define what a well governed city looks like in the 21st century.¹⁶ The primacy of urban green spaces is underscored through their inclusion in the 2030 Agenda for Sustainable Development adopted by United Nations members in 2015. Specifically, the seventh target under this goal seeks to provide universal access to safe, inclusive and accessible green and public spaces, in particular for women and children, older persons and persons with disabilities.¹⁷

Other international organisations such as the WHO through their Healthy Cities initiative, have also called for healthy urban planning and design and investment in green policies in a bid to promote health and well-being of persons.¹⁸ Further, the New Urban Agenda calls for an increment in safe, inclusive, accessible and quality green spaces.¹⁹

The wording of target 11.7 of the SDGs is especially important in the Kenyan context where a nexus has been established between access to environmental amenities and measures of socioeconomic status.²⁰ Residents living in lower income areas of the city find difficulty in accessing green spaces. This is due to the fact that these neighbourhoods often have little available green space.²¹ As a result, disadvantaged and minority groups often bear larger environmental burdens such as pollution while having little or no access to green spaces and as such, to their benefits. Due to the concentration of people, infrastructure, housing and economic activities, Nairobi is vulnerable to climate change.²² Therefore, urban living conditions will inevitably be harsher and thus the current problems associated with unequal access to green spaces will be

¹⁴ Preamble, *Constitution of Kenya* (2010).

¹⁵ Ministry of Devolution and Planning, *Implementation of the agenda 2030 for sustainable development in Kenya*, 2017, 6.

¹⁶ Plessis A, 'Local governments (cities) in the pursuit of sustainability: governance perspectives and environmental law', 2.

¹⁷ Goal 11.7, United Nations Sustainable Development Goals, 2015.

¹⁸ World Health Organization, *Healthy Cities Initiative*, 1986.

¹⁹ *New Urban Agenda*, United Nations-Habitat, 2016.

²⁰ Muhoza J and Zhou W, 'Urban green spaces in Africa,' 2.

²¹ Shah P and Irandu E, 'Recreational green spaces as the future for sustainable cities,' 93.

²² Shah P and Irandu E, 'Recreational green spaces as the future for sustainable cities,' 93.

exacerbated. Already, the hottest spots in the city tend to be areas with lower resources and where low income earners reside.²³ The COVID 19 pandemic exposed the reality that is vulnerability of disadvantaged communities and this is also likely to be the case in the face of climate change.²⁴ There is therefore need to act in order to build resilience to this climate related shocks.

Urban green space planning faces many challenges such as insufficient funding, limited land availability, conflicting land use priorities, lack of public engagement and maintenance issues. Two of the major challenges are weak laws and poor governance. Effective and efficient governance offers the best opportunity for realising national environment aspirations.²⁵ With this assertion, this study demonstrates that governance and law are key to remedying the challenges that urban green spaces face and ensuring equitable access to these spaces, thus securing the right to a clean and healthy environment for all Kenyans.

Encompassed in target 11.7 of the SDGs, is the need to change the manner in which we build and manage our urban green spaces.²⁶ Therefore, as Nairobi continues to develop, there is need to take critical action to put in place effective strategies and legislation to guarantee the sustainability, preservation and accessibility of these green spaces for current and future generations. The need for the government to fulfil its mandate to protect the environment through legislative framework on green spaces has been highlighted by scholars such as Professor Odote, a senior lecturer at the University of Nairobi, Faculty of Law.²⁷

Sustainable development ought to be examined from a legal standpoint that is informed by other disciplines such as urban studies and international relations.²⁸ While previous studies have been on ecological concerns and the relationship between public health and access to green spaces,²⁹ this study focusses on the place of laws and governance mechanisms in ensuring equitable and sustainable use and access of green spaces. Nairobi city was chosen for this study as African cities often face unique and critical challenges related to urbanisation and sustainability that make them

²³ Murphy A, 'The racist legacy of urban green spaces' <https://www.americanscientist.org/article/the-racist-legacy-of-urban-green-spaces>

²⁴ Transparency International Kenya, *Environmental policy gaps*, 2021,1.

²⁵ Transparency International Kenya, *Environmental policy gaps*, 2021,1.

²⁶ Shah P and Irandu E, 'Recreational green spaces as the future for sustainable cities,' 87.

²⁷ <https://law.uonbi.ac.ke/latest-news/safeguarding-nairobis-urban-green-spaces-validation-workshop> on 5 December 2023.

²⁸ Plessis A, 'Local governments (cities)in the pursuit of sustainability,' 3.

²⁹ Muhoza J and Zhou W, 'Urban green spaces in Africa,' 6.

suitable for research.³⁰ It is imperative to examine the current state of urban green spaces in Nairobi in order to generate information that can be used to assist policy makers and urban environmental planners to identify weaknesses in the current regime and areas for possible improvement. Further, the insight drawn from this research will inform comprehensive policies and strategies that can be used to support the governance of urban green spaces in a bid to ensure the realisation of the right to clean and healthy environment for all.

1.2 Statement of the problem

In spite of their numerous benefits including social, environmental and economic advantages, Nairobi faces a significant shortage of accessible urban green spaces with these areas being depleted under the guise of development. Examining Nairobi's green space provision against international standards, such as the WHO's recommended 9m² per city resident, it is found that the green space is inadequate, with only 2363 hectares available. This translates to approximately 4m² per Nairobiian. Further, the recent trend of greying green spaces such as Uhuru Park and Uhuru Gardens has led to the reduction of purely green spaces, worsening the situation.

The attack on green spaces is therefore an infringement of the right to clean and healthy environment of Nairobi's residents. Apart from the immediate environmental harm, this degradation negatively impacts the benefits that green spaces provide. Moreover, this disproportionately affects disadvantaged communities who already have limited access to these spaces. Consequently, the Kenyan government is failing to protect the environmental rights of its citizens residing in urban areas. This study demonstrates the role of legally backed green space policies in the protection of this right and the mitigation of adverse outcomes for both current and future generations.

1.3 Research objectives

1. To analyse the current state of legal, policy and institutional framework governing green spaces in Kenya.

³⁰ Muhoza J and Zhou W, 'Urban green spaces in Africa,' 7.

2. To examine Singapore as a jurisdiction from which Kenya can potentially borrow lessons regarding urban recreational green spaces.
3. To draw lessons from the Singapore and make recommendations for Kenyan legislation.

1.4 Research questions

1. What is the current state of legal, policy and institutional framework for green spaces in Kenya?
2. What is the structure of Singapore's laws governing urban recreational green spaces?
3. What lessons can be drawn from the Singapore Parks and Trees Act and in what ways can Kenyan legislation be changed?

1.5 Hypothesis

The lack of separate legislation on urban green spaces impedes equitable and open access to these areas, thus infringing the right to clean and healthy environment of urban residents.

1.6 Significance of the study

Green space research is important as it holds significant promise in addressing the complex environmental and social challenges facing urban areas in Kenya. It offers an opportunity for not only coming up with strategies to deal with environmental challenges but also bears cultural, behavioural and community importance.

Through its analysis of Kenyan laws, it shows that these are inadequate in the protection of green spaces, hence a need for reform. In its assessment of urban governance strategies, it demonstrates the role of governance in effective management of these areas. In its analysis of Singapore's legislative provisions, it shows that having separate legislation for urban green spaces is an effective way of safeguarding these areas.

This study is important as it demonstrates the need for strong legislation on urban green spaces in order to safeguard the right to clean and healthy environment for the youth, mitigate environmental harm and ensure the sustainability of these areas for current and future generations.

1.7 Theoretical framework

This study is grounded in the right to the city theory.

The right to the city theory is a concept that emphasizes the need for inclusivity, accessibility and democracy in urban spaces. It argues for the collective right of all urban residents, particularly marginalised groups, to shape, access and take part in a city's development and urban life. This theory was first postulated by a French sociologist and philosopher, Henri Lefebvre, in his book, *Le Droit a la Ville* (The Right to the City) in which he argued that urban spaces should not solely be controlled by market forces but should also be shaped and governed by the citizens who inhabit it.³¹

The right to the city theory has inspired many studies from different academic fields and it is an important concept for scholars who have an interest in urban studies. Harvey, another proponent of the theory, conceptualizes the idea as follows: the right to the city is more than a right of individual access to the resources the city has, it is a right to change ourselves by modelling the city after our wishes.³² It is more of a collective right since shaping the city depends on the exercise of collective power over the processes of urbanisation.³³

Since it is a collective right, one must examine the matter from an awareness of the urban structural inequalities and social struggles that exist. These social struggles involve claiming of specific rights under the right to the city such as the right to housing, the right to mobility, the right to public participation, and more importantly, the right to urban nature.³⁴

The right to the city theory is relevant in the framework of contemporary urban issues such as the rights of disadvantaged groups and citizens' demands for participation in decision making processes.³⁵

This theory will be relevant to the study as it touches on key areas such as public participation, social justice, appropriation and collective rights. In terms of public participation, the theory argues for the inclusion of all urban residents in the governance of their cities. This is relevant to the study in terms of how urban green spaces can be governed in order to ensure the rights of urban inhabitants are safeguarded. On social justice, the theory recognises that social inequalities exist

³¹ Purcell M, 'Excavating Lefebvre: the right to the city and its urban politics of the inhabitant' 58 *GeoJournal* 2, 2002, 101.

³² Harvey D, 'The right to the city' *New Left Review* 53, 2008, 23.

³³ Harvey D, 'The right to the city,' 23.

³⁴ Seixas E, 'Urban (digital) play and the right to the city: a critical perspective' 2021, 2.

³⁵ Seixas E, 'Urban (digital) play and the right to the city,' 2.

with urban areas and that these have to be considered when planning urban areas. This is relevant to the study as these social inequalities will have to be taken into consideration in the recommendations that will be made. Through recognising it as a collective right, the theory shows the importance of each citizen to urban green space governance. From the point of view of appropriation, the theory posits that all city dwellers should have a chance to decide how they want to use urban spaces, such as green spaces and that this should not be a reserve of a few. These are relevant to the study in terms of what legislative changes ought to be made.

This theory strongly advocates for a change in how urban areas are governed, in order to ensure the needs and rights of all urban citizens are protected. The theory puts forward issues such as public participation and social justice which are included in the study.

1.8 Literature review

Mensah highlights the low priority given to green spaces in the development agenda of cities in Africa.³⁶ Other areas such as poverty reduction, provision of social amenities such as schools, hospitals and housing are top priorities. This has therefore influenced governments not to allocate much focus and funding to the creation and maintenance of green spaces.³⁷ This observation is important to the study as it shows current rank of green space management and demonstrates the need for prioritisation of the green space agenda.

Okech and Nyadera posit that the issue facing green spaces is lack of innovation. They classify this lack of innovation in the following ways; lack of innovation to adopt elaborate, short, medium and long term strategies for establishing and maintaining green spaces, lack of innovation in enacting necessary legislation to protect green spaces from individuals with private interests, lack of innovation in engaging members of the public on the importance of utilising green spaces, lack of innovation in creating creative facilities that can encourage people to use parks and lack of innovation as to resources.³⁸ This is beneficial to the study as it demonstrates ways in which changes can be made with regards to green spaces.

³⁶ Mensah C, 'Urban green spaces in Africa: nature and challenges,' 8.

³⁷ Mensah C, 'Urban green spaces in Africa: nature and challenges,' 8.

³⁸ Okech E and Nyadera I 'Urban green spaces in the wake of Covid-19 pandemic: reflections from Nairobi, Kenya' *GeoJournal* 2022, 4940—<https://link.springer.com/article/10.1007/s10708-021-10540-0> on 9 November 2021.

Kiplagat and his co-authors postulates that absence of policies on urban green spaces in many African countries, including Kenya, worsens the situation. They point out the need for the generation of information of the same in order to assist policy makers and urban environmental planners to pursue the delivery of adequate, equitable and sustainable urban green spaces for the benefit of urban residents.³⁹ This is an important assertion as it grounds the need for this study.

Barczewski claims that there has been no new environmental legislation under the new constitution.⁴⁰ This claim is not true as new legislation regarding the environment has been enacted such as the; Climate Change Act 2016, Energy Act 2019, Mining Act 2016, Water Act 2016, Wildlife Conservation Act 2013 and the Forest Conservation and Management Act 2016.

Kariuki Muigua and Kariuki Francis highlight the issue of conflicting laws on the environment.⁴¹ This is relevant to this study as it shows the need for a comprehensive law on urban green spaces. The paper advocates for the need for various actors to take up environmental concerns as the environment has no one to speak for it. This therefore underscores the need for this research as the researcher will be acting as a guardian of the environment.

Kariuki Muigua and Kariuki Francis acknowledge that the state has a responsibility to its citizens under Article 69 and 70 of the constitution.⁴² This is important to the current study as it demonstrates the need for the state to take legislative measures such as enacting a comprehensive law on urban green spaces in order to safeguard the right to a clean and healthy environment.

Muigua claims that in applying the law, customary law should be included in environmental governance.⁴³ Since Nairobi is a metropolitan area with people of different ethnicities living there, the application of customary law in the governance of green spaces in the city may prove difficult. Thus, this will not be applicable to the current study.

Authors from Transparency International Kenya identify the importance of analysing environment and climate change governance in order to identify lapses and propose solutions. They posit that

³⁹ Kiplagat A *et al*, 'Urban green spaces characteristics,' 2.

⁴⁰ Barczewski B, 'How well do environmental regulations work in Kenya?: a case study of the Thika Highway improvement project' 2013, 15.

⁴¹ Kariuki M and Kariuki F, 'Sustainable development and equity in the Kenyan context' <https://kenyalaw.org/kl/index.php?id=1906>.

⁴² Kariuki M and Kariuki F, 'Sustainable development and equity in the Kenyan context' <https://kenyalaw.org/kl/index.php?id=1906>.

⁴³ Muigua K, 'Revisiting the role of law in environmental governance in Kenya' 2019, 13.

effective and efficient governance offers the best means for realising national environmental goals in line with regional and international agendas. They also states that the key to supporting good governance is continuous research.⁴⁴ This study examines how governance can be used as a tool for safeguarding green spaces. Muigua opined that it is through good governance that sustainable development can be achieved in a fair and effective manner.⁴⁵ This underscores the need for a study on the place of governance in the management and use of green spaces.

Ngetich and his co-authors state that rather than devoting resources to improving the quality of urban spatial plans and regulation of development, urban planners should concentrate on governance. They justify this position by saying that attention must be placed on governance since without proper governance, spatial plans are likely to not be useful.⁴⁶ This is a good suggestion, however, resources will still be needed to secure and develop green spaces hence one cannot examine the issue without looking at the need for resources.

Kariuki Muigua and Kariuki Francis put forward suggestions on how to deal with pertinent environmental issues. These include; fiscal incentives, charging people to use these resources, alleviation of poverty, creating public awareness and administrative solutions.⁴⁷ These solutions, however, may be criticized in the following manner. Fiscal incentives may be helpful in encouraging people to invest in green spaces. However, this may result in these spaces being a preserve of the wealthier urban residents, thus aggravating the issue of unequal access to green spaces. Charging people to use resources may be beneficial in generating income to maintain and improve these spaces. Nonetheless, low income earners may be unable to afford these spaces, thus threatening the equitable access to these areas. This may result in this demographic being excluded from these spaces and the benefits they provide. The alleviation of poverty may be significant in allowing people to live in greener neighbourhoods, however, it is not enough in ensuring the preservation of these spaces. Creating public awareness may be beneficial in ensuring people are aware of the benefits of green spaces and in securing their participation in governance of green spaces. Still, it is not enough to simply make people aware, the state must implement more measures to safeguard these areas. Administrative solutions will be key in ensuring good

⁴⁴ Transparency International Kenya, *Environmental policy gaps*, 2021, 1.

⁴⁵ Muigua K, 'Revisiting the role of law in environmental governance in Kenya,' 10.

⁴⁶ Ngetich J *et al*, 'Citizen perception of green spaces,' 71.

⁴⁷Kariuki M and Kariuki F, 'Sustainable development and equity in the Kenyan context' <https://kenyalaw.org/kl/index.php?id=1906>.

governance of these spaces. Nonetheless, administrative challenges such as corruption, mismanagement, lack of resources and insufficient stakeholder involvement will need to be tackled, possibly through collaborative approaches.

The author stresses the need to work together in order to safeguard green spaces. He proposes dialogue, policy and action plans and the integration of biodiversity and natural ecosystems in urban planning and development.⁴⁸ The author also states that policy makers must ensure to make changes from an equity perspective. This is important to the study in terms of the recommendations that will be made especially regarding equity, as this study has already noted the inequalities that exist with regard to access to green spaces. Muigua asserts that it is only through a mobilisation of the efforts of all the relevant stakeholders that the constitutional provisions on the environment and natural resources can effectively be implemented.⁴⁹ This is used in the study to put forward the need for a collaborative approach to urban green space governance.

Woodward and his co-authors recognise the importance of urban planners and policy makers learning from each other's successes and challenges in urban planning strategies and greening efforts at a global scale for creating sustainable, healthy and resilient cities.⁵⁰ This is important to the study in terms of drawing lessons from Singapore.

1.9 Research methodology

This study is a doctrinal legal research drawing from both primary and secondary sources. Primary sources will include statute and regulations such as the Environmental Management and Coordination Act, Forest Conservation and Management Act and the Climate Change Act. Secondary sources will include books, peer-reviewed journals, human rights reports, theses, research papers, working papers and online sources relevant to the study.

⁴⁸ MacKinnon K, van Ham C, Reilly K and Hopkins J, 'Nature based solutions and protected areas to improve urban biodiversity and health' in Marselle M 'Biodiversity and health in the face of climate change' Open Access, Springer Open, 2019, 376.

⁴⁹ Muigua K, 'Revisiting the role of law in environmental governance in Kenya,' 10.

⁵⁰ Woodward A, Hinwood A, Bennett D, Grear B, Vardoulakis S, Lalchandani N, Lyne K and Williams C, 'Trees, climate change and health: an urban planning, greening and implementation perspective' *International Journal of Environmental Research and Public Health*, 2023, 4—<https://www.mdpi.com/1660-4601/20/18/6798> on 21 September 2023.

This method was chosen as the study will be desktop based. It was therefore the best method to use to conduct an analysis into the existing legal framework and demonstrate the role of law in safeguarding the right to clean and healthy environment through equitable access to green spaces.

This study also examined Singapore's legislative framework in a bid to draw lessons for Kenya. Singapore was relevant to this study as it is considered one of the countries with the most successes in matters urban sustainability. Through its Parks and Trees Act, it has a comprehensive legal framework that guides the governance of urban green spaces which has enabled the country to effectively manage green spaces amid rapid development.

1.10 Limitations of the study

This study was limited by time and geographical scope. Time constraints existed due to the short amount of time in which the study was conducted, that is, a period of nine months. This was little time to conduct extensive research and hence the findings were limited.

The focus on Nairobi may limit the applicability of the findings to other urban areas in Kenya that may be facing the same challenges.

1.11 Chapter breakdown

Chapter one introduces the study by providing a brief background, the problem statement, the research questions and objectives, hypothesis, significance of the study, theoretical framework, literature review, research methodology, limitations of the study and chapter breakdown.

Chapter two analyses the current state of legal, policy and institutional framework governing green spaces in Kenya.

Chapter three examines Singapore's Parks and Trees Act.

Chapter four assesses which lessons can be drawn from the Singapore Parks and Trees Act and make recommendations for Kenya.

Chapter five concludes the study.

CHAPTER TWO: LEGAL, POLICY AND INSTITUTIONAL FRAMEWORK

2.0 Introduction

This chapter provides an analysis of the legal, policy and institutional framework governing urban green spaces in Kenya. It will do so by examining national legislation such as EMCA and the Physical and Land Use Planning Act. Thereafter, it will delve into international obligations such as those under the Paris Agreement. Next, it will look into policy framework such as vision 2030. This analysis is important to identify gaps in the law that should be remedied. Remedying this situation is key since in the case of Peter K Waweru the court equated the right to clean environment with the right to life by saying “It is quite evident from perusing the most important international instruments on the environment that the word life and the environment are inseparable and the word life means much more than keeping body and soul together. The orders we make in this case are clearly intended to secure the right to life in the environmental context.”⁵¹

2.1 National Legislation

2.1.1 Constitution of Kenya (2010)

The preamble to the constitution states that we the people of Kenya are respectful of the environment, which is our heritage and determined to sustain it for the benefit of future generations.⁵²

Article 10 outlines the national values and principles of governance which include sustainable development.⁵³ Article 21 states that it is a fundamental duty of the state and every state organ to observe, protect, respect, promote and fulfil the rights and fundamental freedoms in the Bill of Rights.⁵⁴

Article 42 provides that every person has the right to a clean and healthy environment which includes the right; to have the environment protected for the benefit of present and future

⁵¹ Peter K Waweru v Republic (2006) eKLR.

⁵² Preamble, *Constitution of Kenya* (2010).

⁵³ Article 10, *Constitution of Kenya* (2010).

⁵⁴ Article 21, *Constitution of Kenya* (2010).

generations through legislative and other measures and to have obligations relating to the environment fulfilled.⁵⁵

Article 60 outlines the principles of land policy such as equitable access to land and sustainable and productive management of land resources.⁵⁶

Article 69 mandates the State to; ensure sustainable exploitation, utilisation, management and conservation of the environment and natural resources and ensure the equitable sharing of the accruing benefits; encourage public participation in the management, protection and conservation of the environment and; utilities the environment and natural resources for the benefit of the people.

Article 72 directs Parliament to enact legislation relating to the environment in order to give full effect to the provisions of the constitution.⁵⁷

2.1.2 Environmental Management and Co-ordination Act

This is an act of parliament to provide for the establishment of an appropriate legal and institutional framework for the management of the environment and for matters connected therewith and incidental thereto. It is considered the overall and overarching law on matters environment.

Section 2 gives the manner in which it ought to be interpreted. It defines certain terms such as the environment, environmental management and environmental planning but gives no definition of green spaces, open spaces or recreational spaces.⁵⁸

Section 3 provides that every person in Kenya is entitled to a clean and healthy environment and thus a duty to safeguard and enhance the environment.⁵⁹ The section also prescribes that this right includes the access by any person in Kenya to the various public elements or segments of the environment for recreational, educational, health, spiritual and cultural purposes.⁶⁰ Further, it states that in exercising its jurisdiction, the Environment and Land Court shall be guided by

⁵⁵ Article 42, *Constitution of Kenya* (2010).

⁵⁶ Article 69, *Constitution of Kenya* (2010).

⁵⁷ Article 72, *Constitution of Kenya* (2010).

⁵⁸ Section 2, *Environmental Management and Co-ordination Act* (Act No 8 of 1999).

⁵⁹ Section 3 (1), *Environmental Management and Co-ordination Act* (Act No 8 of 1999).

⁶⁰ Section 3 (2), *Environmental Management and Co-ordination Act* (Act No 8 of 1999).

principles of sustainable development including that of public participation in the development of policies, plans and processes for the management of the environment.⁶¹

Section 24 establishes a National Environment Trust Fund whose object is to facilitate research intended to further the requirements of environmental management, capacity building, environmental awards, environmental publications, scholarships and grants.⁶²

Section 29 establishes County Environment Committees⁶³ whose functions outlined in section 30 include responsibility for the proper management of the environment within the county for which it is appointed.⁶⁴

Section 38 outlines contents of a National Environment Action Plan which include identifying and appraising trends in the development of urban and rural settlements, their impacts on the environment and strategies for the amelioration of their negative impacts.⁶⁵

Part V provides for areas that ought to be protected and conserved such as rivers, lakes, seas, wetlands, hill tops, hill sides, mountain areas, forests among others. However, no mention is made of open, green or recreational spaces as among those that ought to be conserved.⁶⁶

Section 57 provides that notwithstanding the provisions of any relevant revenue Act, the Cabinet Secretary for Finance may propose to Government tax and other fiscal incentives or disincentives or fees to induce or promote the proper management of the environment and natural resources or the prevention or abatement of environmental degradation.⁶⁷

Section 125 establishes the National Environment Tribunal which determines appeals from any person who is aggrieved by; the grant of a license or permit; the imposition of any condition, limitation or restriction on their license; revocation, suspension or variation of licence; amount of money to be paid as a fee and; the imposition against the person of an environmental restoration order or environmental improvement order.⁶⁸

⁶¹ Section 3 (5), *Environmental Management and Co-ordination Act* (Act No 8 of 1999).

⁶² Section 24 (4), *Environmental Management and Co-ordination Act* (Act No 8 of 1999).

⁶³ Section 29, *Environmental Management and Co-ordination Act* (Act No 8 of 1999).

⁶⁴ Section 30 (a), *Environmental Management and Co-ordination Act* (Act No 8 of 1999).

⁶⁵ Section 38 (g), *Environmental Management and Co-ordination Act* (Act No 8 of 1999).

⁶⁶ Part V, *Environmental Management and Co-ordination Act* (Act No 8 of 1999).

⁶⁷ Section 57 (1), *Environmental Management and Co-ordination Act* (Act No 8 of 1999).

⁶⁸ Section 129, *Environmental Management and Co-ordination Act* (Act No 8 of 1999).

There has been enactment of several subsidiary pieces of legislation under this Act, however, none deals with urban recreational green spaces.

2.1.3 Urban Areas and Cities Act

This is an act of parliament to give effect to Article 184 of the Constitution; to provide for the, classification, governance and management of urban areas and cities; to provide for the criteria of establishing urban areas; to provide for the principles of governance and participation of residents and for connected purposes.

Section 11 provides for principles of governance and management of urban areas and cities. These include promotion of accountability to the county government and residents and institutionalised active participation by its residents in management.⁶⁹

Section 20 provides for the functions of City or Municipality Boards such as; to control land use, land sub-division, land development and zoning by public and private sectors for any purpose, including industry, commerce, markets, shopping and other employment centres, residential areas, recreational areas, parks, entertainment and passenger transport and⁷⁰; to promote a safe and healthy environment.⁷¹

Section 21 states that these boards have the power to ensure participation of the residents in decision making, its activities and programmes.⁷²

Section 36 provides for the objectives of integrated urban areas and city development planning including to contribute to the protection and promotion of the fundamental rights and freedoms contained in the constitution and the progressive realisation of socio-economic rights.⁷³ It further provides that it shall be the basis for; the preparation of environmental management plans; the preparation of valuation rolls for property taxation; provision of physical and social infrastructure; preparation of annual strategic plans; disaster preparedness and response; overall delivery of service provision and; the preparation of a geographic information system.⁷⁴

⁶⁹ Section 11 (c), (d), *Urban Areas and Cities Act* (Act No 13 of 2011).

⁷⁰ Section 20 (d), *Urban Areas and Cities Act* (Act No 13 of 2011).

⁷¹ Section 20 (q), *Urban Areas and Cities Act* (Act No 13 of 2011).

⁷² Section 21, *Urban Areas and Cities Act* (Act No 13 of 2011).

⁷³ Section 36 (c), *Urban Areas and Cities Act* (Act No 13 of 2011).

⁷⁴ Section 36 (d), *Urban Areas and Cities Act* (Act No 13 of 2011).

Section 40 outlines the contents of an urban area or city development plan such as an assessment of the existing level of development, including an identification of communities which do not have access to basic services and the board's development priorities and objectives during its term in office, including economic development objectives, community needs and its determination on the affirmative action in relation to the marginalised groups' access to services.⁷⁵

According to the first schedule, a region must be able to offer amenities such as recreational parks in order to qualify as a city, municipality or town.⁷⁶

As per the second schedule citizens of an urban area have rights such as the ability to participate in decision making processes, utilize and enjoy public facilities and access services offered by the urban area.⁷⁷

2.1.4 Physical and Land Use Planning Act 2019

Parliament passed this Act to allow for land planning, usage, regulation, and development, among other related reasons.

Section 2 defines public purposes as including purposes of public parks, playgrounds and gardens.⁷⁸

According to section 5, physical and land use planning should be comprehensive, sustainable, and integrated at all levels of government, taking into account the interests of all parties involved.⁷⁹ Planning development operations should consider the economic, social, and environmental demands of both the current and future generations.⁸⁰ Additionally, it ought to promote livable communities that include human needs into every area and sustainable land use.⁸¹

⁷⁵ Section 40, *Urban Areas and Cities Act* (Act No 13 of 2011).

⁷⁶ First schedule, *Urban Areas and Cities Act* (Act No 13 of 2011).

⁷⁷ Second schedule, *Urban Areas and Cities Act* (Act No 13 of 2011).

⁷⁸ Section 2, *Physical and Land Use Planning Act* (Act No 13 of 2019).

⁷⁹ Section 5 (c), *Physical and Land Use Planning Act* (Act No 13 of 2019).

⁸⁰ Section 5 (b), *Physical and Land Use Planning Act* (Act No 13 of 2019).

⁸¹ Section (a), *Physical and Land Use Planning Act* (Act No 13 of 2019).

A National Physical and Land Use Development Plan is mandated under Section 21⁸² whose objects are provided for in section 22 which include; environmental conservation, protection and improvement and; coordinating sectoral planning and development.⁸³

Section 36 provides for a County Physical and Land Use Development Plan⁸⁴ whose objectives are outlined in section 37 and include improving environmental preservation and protection as well as identifying suitable areas for social, commercial, industrial, and residential developments.⁸⁵

In order to engage the public, Section 40 mandates the drafting of a county physical and land use development plan.⁸⁶

Section 56 grants County Governments the power to exert development control, which includes preserving and managing land designated for parks, green belts, urban woods, and open areas in accordance with the authorized land use and physical development plans.⁸⁷

The second schedule provides for matters that may be addressed in the physical and land usage of a place advancement plan, such as recreation areas.⁸⁸

2.1.5 Climate Change Act

This parliamentary act objectives are to create a legislative foundation for addressing climate change more successfully, in addition to instruments and policies to achieve low-carbon climate development and related goals.

Its guiding principles are promoting sustainable development in the face of changing climatic conditions⁸⁹ and addressing particular needs, vulnerabilities, capacities, inequalities, and responsibilities while ensuring fairness and social inclusion in the distribution of efforts, expenses, and rewards.⁹⁰

⁸² Section 21, *Physical and Land Use Planning Act* (Act No 13 of 2019).

⁸³ Section 22 (a), (g), *Physical and Land Use Planning Act* (Act No 13 of 2019).

⁸⁴ Section 36, *Physical and Land Use Planning Act* (Act No 13 of 2019).

⁸⁵ Section 37 (e), (f), *Physical and Land Use Planning Act* (Act No 13 of 2019).

⁸⁶ Section 40, *Physical and Land Use Planning Act* (Act No 13 of 2019).

⁸⁷ Section 56 (f), *Physical and Land Use Planning Act* (Act No 13 of 2019).

⁸⁸ Section 5 (h), Second Schedule, *Physical and Land Use Planning Act* (Act No 13 of 2019).

⁸⁹ Section 4 (2) (c), *Climate Change Act* (Act No 11 of 2016).

⁹⁰ Section 4 (2) (d), *Climate Change Act* (Act No 11 of 2016).

Section 24 mandates that public entities across Every level of government needs to consistently participate in public consciousness campaigns and consultations while legislation, regulations, and strategies about climate change are being created.⁹¹

Section 30 requires the Climate Change Council to annually create and disseminate a plan for public participation. The strategy must lay out the measures aimed at informing the public regarding climate change action plans and to encourage public involvement in the accomplishment of these plans.⁹² It shall also delineate actions that the public can undertake to support the objectives and purposes of the Act.⁹³

2.1.6 County Governments Act

Chapter 11 of the constitution, which describes the responsibilities, authority, and obligations of county administrations in offering services and other relevant topics, is put into effect by this act of Parliament.

Section 8 grants authority to County Assemblies for the approval of county development planning.⁹⁴

Section 34 states that the County Executive Committee should utilise its power to promote economic and social growth within the county⁹⁵ while guaranteeing ensuring equitable distribution of the resources available throughout the county.⁹⁶

Section 94 requires County governments to utilise media to advocate for essential development issues, encompassing, among other things, economics, agriculture, education, health, security, and a sustainable environment.⁹⁷

Section 103 emphasises the role of county structuring in preserving a healthy network of open and green areas for a healthy eco-system.⁹⁸

⁹¹ Section 24 (1), *Climate Change Act* (Act No 11 of 2016).

⁹² Section 30 (1), *Climate Change Act* (Act No 11 of 2016).

⁹³ Section 30 (2), *Climate Change Act* (Act No 11 of 2016).

⁹⁴ Section 8 (e), *County Governments Act* (Act No 17 of 2012).

⁹⁵ Section 34 (g), *County Governments Act* (Act No 17 of 2012).

⁹⁶ Section 34 (h), *County Governments Act* (Act No 17 of 2012).

⁹⁷ Section 94 (c), *County Governments Act* (Act No 17 of 2012).

⁹⁸ Section 103 (c), *County Governments Act* (Act No 17 of 2012).

Economic, social, physical and environmental planning must be integrated into the county planning framework.⁹⁹

Each city and municipality shall have a plan where public facilities and recreation spaces are located.¹⁰⁰

Public engagement in county planning processes is required by Section 115.¹⁰¹

2.1.7 National Museums and Heritage Act

To create, oversee, and advance national museums as well as to identify, preserve and conserve, and to transmit Kenya's natural and cultural heritage, this act of Parliament unifies the laws pertaining to national museums and heritage.

Section 2 defines an open space as any undeveloped space in an urban or peri-urban area irrespective of its status as a municipality, that is accessible to the general population, and that can be utilized for parks, gardens, leisure areas, or any other purpose.¹⁰²

Section 25 provides that following dialogue and by filing a notice in the Gazette, the Cabinet Secretary may designate an open space as a protected area in collaboration with the National Museums.¹⁰³

Section 34 provides that, with regard to a protected location, the Cabinet Secretary may: restrict or forbid access to it; transfer authority to the National Museums or; give the National Museums permission to create by-laws that govern visitor behaviour, access and whether or not there is payment.¹⁰⁴

2.1.8 Forest Conservation and Management Act

This parliamentary act implements Article 69 of the Constitution, that requires the establishment and sustainable administration of all forest resources, including their conservation and prudent use, for the nation's socio-economic advancement and related objectives.

⁹⁹ Section 104 (2), *County Governments Act* (Act No 17 of 2012).

¹⁰⁰ Section 111 (1) (c), *County Governments Act* (Act No 17 of 2012).

¹⁰¹ Section 115, *County Governments Act* (Act No 17 of 2012).

¹⁰² Section 2, *National Museums and Heritage Act* (Act No 6 of 2006).

¹⁰³ Section 25 (1) (a), *National Museums and Heritage Act* (Act No 6 of 2006).

¹⁰⁴ Section 34, *National Museums and Heritage Act* (Act No 6 of 2006).

According to the Act, any metropolitan area with fewer than 0.5 hectares of planted trees is considered a "green zone."¹⁰⁵

According to Section 5, the Cabinet Secretary must confer prior to creating a national forest strategy for using forests and forest resources in a sustainable manner, in consultation with the county government and pertinent participants.¹⁰⁶ In order to guarantee that forests and their resources are managed, conserved, and preserved, Section 6 mandates that the Cabinet Secretary develop a public forest strategy every five years.¹⁰⁷

Section 7 establishes the Kenya Forest Service¹⁰⁸ whose functions as outlines in section 8 include conserving, protecting and managing all public forests.¹⁰⁹

According to Section 37, county governments must facilitate and begin providing technical assistance in the establishment and upkeep of arboreta, green zones, and recreational parks for the benefit of the residents of their jurisdiction; require housing estate developers to plan for the creation of green zones at a rate of at least 5% of the total land area of any housing estate that is planned to be developed; and create and maintain a recreational park in each market center. Additionally, it stipulates that citizens must be consulted before any arboretum or recreational park is transformed to another use by the County Department in charge of forestry.¹¹⁰

2.1.9 Land Act

This act of Parliament intends to carry out Article 68 of the Constitution, modernize, harmonize, and logicalize land laws, create policies for managing and administering land and land-based resources in a sustainable manner, and accomplish related goals.

According to Section 11, the Commission must take the necessary steps to preserve public lands that are home to protected areas, essential habitats, or endemic or endangered plant and animal species.¹¹¹ In order to combat environmental deterioration and climate change, it also instructs the Commission to identify ecologically sensitive regions on public lands, demarcate those areas, or take any other appropriate action.¹¹²

¹⁰⁵ Section 2, *Forest Conservation and Management Act* (Act No 34 of 2016).

¹⁰⁶ Section 5, *Forest Conservation and Management Act* (Act No 34 of 2016).

¹⁰⁷ Section 6, *Forest Conservation and Management Act* (Act No 34 of 2016).

¹⁰⁸ Section 7, *Forest Conservation and Management Act* (Act No 34 of 2016).

¹⁰⁹ Section 8, *Forest Conservation and Management Act* (Act No 34 of 2016).

¹¹⁰ Section 37, *Forest Conservation and Management Act* (Act No 34 of 2016).

¹¹¹ Section 11 (1), *Land Act* (Act No 6 of 2012).

2.1.10 Wildlife Conservation and Management Act

This parliamentary act seeks to preserve, conserve, manage, and sustainably use Kenya's wildlife, among other related goals.

According to Section 3, a conservation area is any piece of land, lake, or sea that is legally shielded from unfavourable changes and has significant environmental, ecological, biological, cultural, or historical significance. Additionally, it describes a protected area as a geographically defined region that is acknowledged, devoted, and effectively maintained through legal or other methods to encourage the sustainable conservation of nature, its ecological functions, and its cultural significance that go along with it.¹¹³

2.1.11 Nairobi City County Regularisation of Development Act

Section 7 provides for developments that may not be regularized such as unauthorized development on any land reserved for parks, playgrounds, open spaces or for providing any public amenities.¹¹⁴

Section 17 provides that with the consent of the County Executive Committee, the Governor, make regulations for action to be undertaken to make provision creation of space for public amenities.¹¹⁵

2.2 International Instruments

2.2.1 Convention on Biological Diversity

This UN agreement seeks to protect biological diversity, guarantee the sustainable use of its constituent parts, and distribute the benefits of harnessing genetic resources fairly. Article 6 mandates that parties create national plans, programs, or tactics for biological variety conservation and sustainable usage, and, to the degree that it is practical and suitable, integrate these objectives into relevant sectoral or cross-sectoral plans, programs, and policies.

¹¹² Section 11 (2), *Land Act* (Act No 6 of 2010).

¹¹³ Section 3, *Wildlife Conservation and Management Act* (Act No 47 of 2013).

¹¹⁴ Section 7 (h), *The Nairobi City County Regularisation of Developments Act* (Act No 3 of 2015).

¹¹⁵ Section 17 (d), *The Nairobi City County Regularisation of Developments Act* (Act No 3 of 2015).

2.2.2 Paris Agreement

Article 5 requires parties to take action to protect and improve greenhouse gas sinks and reservoirs, such as forests, as needed.

2.2.3 Agenda 21

Objective 3.7 requires governments to provide communities an important say in the conservation and long-term administration of regional natural resources to increase their potential for production.

Objective 7.20 states that cities should: protect and/or restore older buildings, historic precincts, and other cultural artifacts; provide urban infrastructure; improve public amenities; and engage local communities in identifying public service needs. You can also improve the urban environment by promoting social organization and environmental awareness. This can be accomplished by creating a sustainable development strategy that involves participation and is based on ongoing communication between the public, private, and community actors involved in urban development, especially women and indigenous people.

In order to provide low-income urban residents with formal and informal employment opportunities as well as self-sustaining human development activities, "green works" programs should be activated. The capacity of local governing bodies to manage the diverse range of environmental and developmental issues linked to sound and rapid urban growth should also be strengthened through the use of comprehensive planning techniques that consider the particular requirements of cities and are founded on the ideas of environmentally responsible urban planning.

To resolve the potentially incompatible land needs for urban expansion, transit, industry, agriculture, green spaces, preserves, and other necessities, governments are advised by Objective 7.30 to create and encourage the adoption of better land-management methods.

2.2.4 United Nations Sustainable Development Goals

By 2030, everyone should have availability of secure, welcoming, and easily obtainable green areas and public areas, with a specific emphasis on women, children, the elderly, and people with disabilities, according to Goal 11. 7.

2.2.5 African Charter on Human and Peoples Rights

Article 24 ensures that everyone has the privilege of a generally fulfilling environment that supports their growth.

2.2.6 African Union Agenda 2063

Among the objectives listed in Chapter 4 is a wealthy Africa founded on sustainable development and growth that is inclusive. Modern, reasonably priced, and habitable housing as well as high-quality essential services are among the top priorities.

2.2.7 East Africa Community Protocol on Environment and Natural Resources

Management

In accordance with Article 8, partner states are required to guarantee that environmental considerations are into consideration when developing all development plans and that environmental conservation and management are included into national and local development plans. States must balance environmental management and socioeconomic development, in order to guarantee sustainable development, keep an eye on how development projects and activities affect the environment and natural resources. You should also take all necessary measures to make sure that development activities are founded on good environmental policies and practices.

According to Article 34, partner nations must provide an environment that promotes involvement in the preservation of the environment and natural resources by the general public, local communities, business community, civil society, and non-governmental organizations.

2.3 Policy Framework

2.3.1 Kenya Vision 2030

According to Objective 5.4, Kenya aims to have a clean, safe, and sustainable environment by 2030.

2.3.2 Big Four Agenda

The plan outlines four objectives: manufacturing, housing, health, and food and nutrition security. It therefore does not provide for environment which could be considered a pressing need, especially in the face of the threat of global warming.

2.3.3 National Urban Development Policy, 2016

One of the policy's guiding concepts, according to Chapter 1.4, is liveability, which states that cities should be safe, clean, and green, with high-quality infrastructure and services.

In addition to reviewing and harmonising laws pertaining to urban governance and management, Chapter 2.2 promotes the creation of urban development plans and initiatives that prioritise the elimination of urban poverty and equitable access to services.

Chapter 5 suggests enacting laws pertaining to urban planning participation. Legislation regarding the standards for identifying and categorising urban heritage sites is also suggested. It also recognizes that there has been unequal urban expansion throughout the nation, which has been linked to a number of things, such as the absence of an urbanization policy.

In Chapter 6.2.7, it is recognized that parks, public open spaces, and recreational facilities are not required to be present in urban areas. It therefore suggests establishing standards for their provision, providing sufficient multipurpose public open spaces and cultural facilities like libraries, museums, and theatres, utilising quarries and other degraded areas for rehabilitation and use, securing the space allotted for these facilities, cultivating a culture of maintenance, pursuing creative, collaborative, and partnership approaches to their provision, and investigating ways to harness the potential of untapped natural resources for leisure.

Environmental considerations should be incorporated into infrastructure development, operation, and repair, according to Chapter 7.

2.3.4 Forest Policy, 2014

Chapter 4.4 deals with urban forests and roadside tree planting. Policy statements under this chapter provide that the Government will support the building and upkeep of arboreta, green spaces, botanical gardens, recreational parks, and urban forests for aesthetic and recreational purposes. It will also encourage the establishment and administration of amenity belts of suitable tree species along road reserves.

2.3.5 National Environment Policy, 2013

The goals of the policy are described in Chapter 3.1 and include bolstering the institutional and legal structure for effective government and efficient management and coordination of natural resources and the environment.

Chapter 3.2 outlines the guiding principles of the policy. These comprise the rights to development and a clean and healthy environment, which have to be carried out in a way that considers resource efficiency, sustainability, and the requirements of the economy, environment and society.

According to Chapter 5.8, sustainable human settlement entails establishing the prerequisites for both rural and urban residents to lead productive, integrated, and healthy lives. This should guarantee that individuals have comparatively simple access to amenities and live in safe, healthy, and respectable surroundings.

Effective environmental governance requires functional governance structures, legal and policy tools, and institutional ability for prudent implementation and enforcement, as acknowledged in Chapter 8.0.

2.4 Institutional Framework

2.4.1 National Environment Management Authority

The EMCA's Section 7 establishes it. It is the organization in charge of carrying out the EMCA.

It supervises and coordinates all issues related to the environment.¹¹⁶ It is not engaged in active planning processes of Nairobi.

2.4.2 National Land Commission

Article 67 of the Constitution establishes the body. It is the body tasked with management of public spaces that are classified as public land.

2.5 Analysis and Conclusion

It is clear from the assessment that Kenyan legislation now in effect are insufficient in providing in order to preserve, administration, and the availability of urban green areas for recreational purposes. The available laws only touch on or mention urban green areas in a passive manner and do not specifically

¹¹⁶ Mativo J, 'The role of law in urban planning in Kenya: towards norms of good urban governance' Unpublished LLM Thesis, University of Nairobi, 2015, 71.

address certain aspects such as size thresholds, clear management guidelines, enforcement mechanisms and entry requirements. This fragmented nature of laws on the subject leads to degradation of the already existing spaces.

Therefore, to facilitate the advertising campaign and maintenance of green areas in accordance with the above-mentioned international criteria, a complete law on the subject must be passed.



CHAPTER THREE: THE SINGAPOREAN EXPERIENCE

3.0 Introduction

Singapore's transition from a colonial backwater to an ambitious global metropolis in just one generation has been hailed by many as a triumph in urban development, revitalization, and design.¹¹⁷ Its success in urban greening serves as a benchmark for countries in pursuit of harmonising the goals of development and sustainability. This chapter delves into Singapore's experience beginning by offering a justification for the choice of jurisdiction. After that, it shows how the nation's greening has changed over time, starting with the Garden City concept in 1965 and ending with the City in Nature concept today. An examination of the institutional, legal, and policy structure that has been crucial to this success comes after the historical backdrop. In an effort to remain objective, the chapter will also examine challenges and criticism that the Singaporean government has faced in its task. Lastly, it will offer a conclusion.

3.1 Justification for the choice of jurisdiction

As a former British colony, Singapore adopted the Westminster system of governance, which includes the English common law system and representational democracy. Just like the US, it has a written constitution that provides its inhabitants with a variety of essential rights and freedoms.¹¹⁸ As a result, the British colonial planning and administrative influences, such as the Raffles town design from the early 1820s and the UK New Town Planning Movement from the 1940s and 1950s, served as the basis for the city's establishment.¹¹⁹ It therefore offers a compelling case study for urban greening for Kenya due to the shared historical and legal foundations as Commonwealth countries.

Among the cities in the globe, Singapore is seen as leading the way in urban greening.¹²⁰ The country took an early interest in urban greening programmes before issues regarding the

¹¹⁷ Eugene B, 'From third world to first world: Law and policy in Singapore's urban transformation and integration' 2 *Vietnamese Journal of Legal Sciences* 1, 2020, 96.

¹¹⁸ Lee J, 'We built this city: Public participation in land use decisions in Singapore' 10 *Asian Journal of Comparative Law* 2, 2015, 4.

¹¹⁹ University of Tübingen, *Urban green spaces in Singapore: Between interests of economic goals with place making, guided citizens and ecological ambitions in a 21st century global city*, 31 March 2023, 5.

¹²⁰ Ramchunder S and Ziegler A, 'Promoting sustainability education through hand on approaches: a carbon sequestration exercise in a Singapore green space' *Sustainability Science*, 2021, 1046—<https://doi.org/10.1007/s11625-020-00897-5> on 16 January 2021.

quality of urban environments came to the forefront.¹²¹ Even though Singapore's park development is relatively new, having only begun in the 1960s, it has developed as a result of attempts to address problems brought on by the associated processes of urbanization and industrialization.¹²² It is an interesting case study of a state that has seemingly been able to balance between the competing demands of economic and technological development and environmental management.

Singapore's experience is significant for countries like Kenya which are grappling with issues of urbanisation and environmental degradation. Once, the GDPs of the two nations were nearly similar, with Kenya being somewhat wealthier.¹²³ However, the two have since diverged in development trajectories. By 1990, Singapore had become a desirable international metropolis, renowned for its green and clean atmosphere, which drew in a lot of foreign investment.¹²⁴ This experience therefore demonstrates that strategic planning and green area distribution can yield both socio-economic and environmental benefits.

The Singaporean experience, as will be named for this study, will offer valuable insight on how law, policy and management can be used in creating and sustaining liveable cities. It is for these reasons that Singapore is selected for study and possible adaptation.

3.2 History of the greening of Singapore

With a population of 5.9 million, the Republic of Singapore is an island city state that spans an estimated 718 km².¹²⁵ It is situated at the tip of the Malay Peninsula, roughly 137 kilometers north of the equator.¹²⁶ The nation is under tremendous pressure to develop and meet all of its needs because of its massive population and finite land resources.¹²⁷

¹²¹ Tan P, Wang J and Sia A, 'Perspectives on five decades of the urban greening of Singapore' *Cities: The International Journal of Urban Policy and Planning*, 2013, 25—<http://dx.doi.org/10.1016/j.cities.2013.02.001> on 22 March 2013.

¹²² Yuen B, 'Creating the Garden City: The Singapore Experience' 33 *Urban Studies* 6, 1996, 955.

¹²³ <https://www.businessdailyafrica.com/bd/opinion-analysis/ideas-debate/-tale-of-two-countries-contrasting-fortunes-of-singapore-and-kenya-2083938> on 31 December 2020.

¹²⁴ Gulsrud N and Ooi C 'Manufacturing Green Consensus: Urban Green Space Governance in Singapore' in Sandberg A, Bardekjian A and Butt S (eds) *Urban Forests, Trees and Green Space: A Political Ecology Perspective*, Routledge, New York, 2015, 77.

¹²⁵ <https://tradingeconomics.com/singapore/land-area-sq-km-wb-data.html>

¹²⁶ <https://www.britannica.com/place/Singapore> on 9 December 2024.

¹²⁷ Davison G, 'Urban forest rehabilitation: a case study from Singapore' in Lee D (ed) *Keep Asia Green Volume I: Southeast Asia*, International Union of Forest Research Organisations, Vienna, 2007, 171.

¹²⁸ Chun J, 'Enhancing the garden city: towards a deeper shade of green' *Singapore Academy of Law Journal* 2006—<https://ssrn.com/abstract=918741> on 25 July 2006.

A clear vision backed by strong urban planning laws and a supporting legal structure, efficient Institution building and governance to carry out the laws, and a strong government commitment to achieving institution building and governance goal through the distribution of financial and land resources are all crucial components of Singapore's greening success.¹²⁹

3.2.1 Pre-colonial era

Before British colonization in 1819, lowland dipterocarp forest made up over 80% of Singapore's forest cover, followed by freshwater swamp forest at 5% and coastal mangrove forest at 13%. There had only been minor coastal settlements, agricultural regions, or other disturbances.¹³⁰

3.2.2 Colonial era (1819-1942)

The Singapore Botanic Gardens and the few other gardens and parks created throughout the colonial era are where the first attempts at greening can be found. When Sir Stamford Raffles designated a 19-hectare plot of land atop Fort Canning for the creation of a Botanic and Experimental Garden in the Raffles Town Plan in 1822, the gardens' planning officially began.¹³¹ But by 1829, the project had stalled and the area had been cleared for other public initiatives. This greening initiative did not expand to the cities, even as the Botanic Gardens grew. Furthermore, there was no official goal of the colonial authority to improve the urban environment by establishing green spaces or bringing in plants.¹³²

Land was distributed during the colonial era in accordance with stringent regulations that controlled a variety of elements, including street layouts and walkways for public and private purposes. In keeping with British advancements, the colonial authorities planted trees along the sides of the roadways and created a few parks in 1881. However, park development was not given the same emphasis as the country's rapid population growth and economic stagnation.¹³³

The first Master Plan of 1958 marked a turning point by acknowledging the need to create green spaces. In order to provide urban residents with leisure opportunities and to halt the center area's

¹²⁹ Tan P, Wang J and Sia A, 'Perspectives on five decades of the urban greening of Singapore' *Cities: The International Journal of Urban Policy and Planning*, 2013, 25-<http://dx.doi.org/10.1016/j.cities.2013.02.001> on 22 March 2013.

¹³⁰ Chunneng W and Lay O, 'Conserving biodiversity: the experience of Singapore' in Kungolos A (ed) *Sustainable Development and Planning II*, Wessex Institute of Technology, Volos, 2005, 1028.

¹³¹ Seng L, 'From Botanic Gardens to Gardens by the Bay: Singapore's experience in becoming a Garden City' 8 *BiblioAsia* 2, 2012, 25.

¹³² Seng L, 'From Botanic Gardens to Gardens by the Bay,' 25.

¹³³ Yuen B, 'Creating the Garden City: The Singapore Experience' 33 *Urban Studies* 6, 1996, 959.

continuing growth, a green belt was suggested. However, the government's primary focus at the time was on finding solutions to housing and job issues, thus the creation of green areas was still not a major priority.¹³⁴

3.2.3 Post-colonial Garden city (1965-1980s)

The terrain was devastated by drought when Singapore regained its independence from the British in 1959, and the city's residents were dealing with the consequences of fast urbanization, including high unemployment rates and appalling living conditions akin to slums.¹³⁵ The nation had among the biggest slum regions in South East Asia at the time, and the availability of parks and open spaces was merely considered an afterthought on leftover land, ranking low when compared to other housing and infrastructure demands.¹³⁶

Lee Kuan Yew, the former prime minister, introduced the Garden City idea in 1967 as a solution to these problems. By changing the city from one that was overrun with concrete structures and infrastructure to one that was clean and green, with tree-lined roads and lots of green areas for recreation, the objective was to raise Singaporeans' level of living.¹³⁷ The country's economic growth plan was designed to draw in foreign direct investment top-down and sought to "achieve first world standards in a third world region."¹³⁸

In its initial stages, the idea was put into practice through a vigorous tree-planting campaign to replicate in Singapore the tree-lined streets and profusion of verdant vegetation that Prime Minister Lee saw during his travels abroad. The predecessor to the current National Parks Board (NParks), the Parks and Trees Division (PTD), was in charge of this mission.¹³⁹ With origins in a tree planting campaign started by the PM in 1963,¹⁴⁰ In 1971, there was establishment of the Tree Planting Day as a yearly celebration that brought together students, community leaders, and citizens from both public

¹³⁴ Seng L, 'From Botanic Gardens to Gardens by the Bay,' 26.

¹³⁵ Gulsrud N and Ooi C, 'Manufacturing Green Consensus,' 81.

¹³⁶ Tan P, Wang J and Sia A, 'Perspectives on five decades of the urban greening of Singapore' *Cities: The International Journal of Urban Policy and Planning*, 2013, 26-<http://dx.doi.org/10.1016/j.cities.2013.02.001> on 22 March 2013.

¹³⁷ Seng L, 'From Botanic Gardens to Gardens by the Bay,' 26.

¹³⁸ Gulsrud N and Ooi C 'Manufacturing Green Consensus,' 81.

¹³⁹ Seng L, 'From Botanic Gardens to Gardens by the Bay,' 26.

¹⁴⁰ <https://www.nlb.gov.sg/main/article-detail?cmsuuiid=4e5056c0-0294-4f50-b00f-a4974996af5e#:~:text=Tree%20Planting%20Day%20is%20an,was%20officially%20started%20in%201971.>

and private housing estates.¹⁴¹ The public's participation increased the citizens' sense of concern for the environment.¹⁴²

In 1972, when just ten nations worldwide had organized environmental administration, Singapore formed a Ministry of Environment.¹⁴³ A hierarchical system of parks, including municipal parks, neighborhood parks, and precinct gardens, was used to offer parks and open spaces during the 1970s and 1980s.¹⁴⁴ These parks were larger, more visually pleasing, and furnished with a variety of amenities to accommodate the various recreational requirements of various demographic groups.¹⁴⁵ The biggest transformation in Singapore's park development occurred during this time, when designed recreational ground replaced remaining open space.¹⁴⁶

3.2.4 A city in a garden (1990s-2010s)

The Garden City concept was superseded by the "City in a Garden" concept in 1998. This was a new direction and a more intensively green vision for Singapore.¹⁴⁷ Its goal was to incorporate greenery into Singaporeans' daily lives and the built environment.¹⁴⁸ This vision included turning parks from passive green spaces into places brimming with nature programs, cultural events and performances, tours, and a thriving nightlife, as well as turning green spaces into a seamless network of gardens.¹⁴⁹

The Park Connector Network Program, started by NParks in 1991, involved creating a green matrix of pathways that connected parks and nature areas from unused areas along roads, canals, and railroad corridors.¹⁵⁰ Its objective was to create a

¹⁴¹ Seng L, 'From Botanic Gardens to Gardens by the Bay,' 26.

¹⁴² Sia A, Tan P and Kenneth B, 'The contributions of urban horticulture to cities' liveability and resilience: insights from Singapore' *Plants People Planet*, 2023, 830-<https://doi.org/10.1002/ppp3.10377> on 7 May 2023.

¹⁴³ Savage R and Kong L, 'Urban constraints, political imperatives: environmental 'design' in Singapore' 25 *Landscape and Urban Planning* 1-2, 1993, 39.

¹⁴⁴Tan P, Wang J and Sia A, 'Perspectives on five decades of the urban greening of Singapore' *Cities: The International Journal of Urban Policy and Planning*, 2013, 26-<http://dx.doi.org/10.1016/j.cities.2013.02.001> on 22 March 2013.

¹⁴⁵ Seng L, 'From Botanic Gardens to Gardens by the Bay,' 28.

¹⁴⁶Yuen B, 'Creating the Garden City,' 962.

¹⁴⁷ Chunneng W and Lay O, 'Conserving biodiversity: the experience of Singapore,' 1031.

¹⁴⁸ Sia A, Tan P and Kenneth B, 'The contributions of urban horticulture to cities' liveability and resilience: insights from Singapore' *Plants People Planet*, 2023, 830-<https://doi.org/10.1002/ppp3.10377> on 7 May 2023.

¹⁴⁹ Chun J, 'Enhancing the garden city: towards a deeper shade of green' *Singapore Academy of Law Journal* 2006—<https://ssrn.com/abstract=918741> on 25 July 2006.

¹⁵⁰ <https://pcn.nparks.gov.sg/>

seamless network of paths connecting parks, nature reserves and green spaces for walking, cycling and jogging.

In 2009 NParks launched the Skyrise Greenery Programme whose aim was to integrate greenery into Singapore's urban infrastructure through green roofs and vertical greenery systems.¹⁵¹ In the same year, NParks introduced the Skyrise Greenery Incentive Scheme, which covers up to half of the expenses related to putting in rooftop and vertical greenery projects on existing buildings.¹⁵²

3.2.5 City in Nature (2020-present)

In 2020, NParks launched the City in Nature vision as part of the next stage of urban planning, hoping to give Singaporeans a sustainable and green living environment for future generations.¹⁵³ It is part of the country's sustainability agenda as per the Singapore Green Plan 2030. As the earlier visions have primarily been focused on greening of the island, this new vision focuses on ecological conservation measures through strategies such as habitat conservation and enhancement.¹⁵⁴

The OneMillionTrees movement, a national initiative to plant one million additional trees by 2030, was announced in 2020. With regard to streetscapes, gardens, parks and park connections, nature reserves, and nature parks, its goal is to expand the quantity of trees planted across Singapore.¹⁵⁵

3.3 Legislative, policy and institutional framework

3.3.1 Legislative framework

It is impossible to overstate how important the law has been to Singapore's prosperity. A robust legislative framework has aided planners in transforming Singapore into a green city.¹⁵⁶ Three components of good governance—pollution prevention, law enforcement and environmental monitoring hence Singapore successful approach.

¹⁵¹ <https://skyrisegreenery.nparks.gov.sg/whatis/>

¹⁵² <https://skyrisegreenery.nparks.gov.sg/incentive-scheme/about/>

¹⁵³ Er K, 'Transforming Singapore into a City in Nature' Urban solutions, Issue Number 19, 71-
https://www.clc.gov.sg/docs/default-source/urban-solutions/urbsol19pdf/09_essay_transforming-singapore-into-a-city-in-nature.pdf.

¹⁵⁴ Sia A, Tan P and Kenneth B, 'The contributions of urban horticulture to cities' liveability and resilience: insights from Singapore' *Plants People Planet*, 2023, 830-<https://doi.org/10.1002/ppp3.10377> on 7 May 2023.

¹⁵⁵ <https://www.nparks.gov.sg/treessg/one-million-trees-movement/about-the-movement>

¹⁵⁶ Chun J, 'Enhancing the garden city: towards a deeper shade of green' Singapore Academy of Law Journal 2006—
<https://ssrn.com/abstract=918741> on 25 July 2006.

Strong political leadership is necessary for environmental management policies to be implemented successfully. The government of Singapore assumes the lead in establishing environmental policies by using a managerial, technocratic, and authoritarian approach.¹⁵⁷ Fundamentally, the rule of law is essential to guaranteeing that laws and rules are followed. Quality results are highly and favorably correlated with the standard of environmental laws and the rule of law. Singapore has adopted a more intricate and specialized system in which laws are made for every subject and each law is accompanied by a collection of sub-regulations, rather than having a general body of basic legislation to deal with environmental concerns.¹⁵⁸

a) Constitution of Singapore

The constitution does not explicitly recognise environmental rights.¹⁵⁹

b) Parks and Trees Act, Singapore

In 1975, the Parks and Trees Act was reintroduced to address the preservation and growth of trees and plants, the development, control, and protection of public parks and gardens, and other issues pertaining thereto, in an effort to establish a more comprehensive strategy for maintaining the tree and shrub planting program.¹⁶⁰ While preserving the tree conservation measures put in place by the Trees and Plants Act of 1971, the new law created the first set of regulations is that green space be left aside in public spaces and in construction projects such as roads and open parking lots.¹⁶¹ For example, the law required new open parking lots to have a median for planting trees between their rows of parking spaces and new major roadways to have a center divider with planting verges. In a similar vein, plazas and other expansive concrete spaces were to reserve roughly 30–40% of their available surface for the planting of trees or shrubs. The Parks and Trees Act included measures in addition to adding a green element to land use.

¹⁵⁷ Quah E and Tan J, 'Pursuing growth and managing the environment: the Singapore model' 5 *Journal of Business and Economic Analysis* 1, 2022, 10.

¹⁵⁸ Quah E and Tan J, 'Pursuing growth and managing the environment,' 19.

¹⁵⁹ Fowler R, Review of Chun J and Heng L's 'Environmental Law in Singapore' *Chinese Journal of Environmental Law*, 2020, 113- https://brill.com/view/journals/cjel/4/1/article-p111_6.xml?language=en on 3 June 2020.

¹⁶⁰ Heng L, 'A fine city in a garden: Environmental law and governance in Singapore' *Singapore Journal of Legal Studies*, 2008, 106-<https://www.jstor.org/stable/24869352> on July 2008.

¹⁶¹ Seng L, 'From Botanic Gardens to Gardens by the Bay,' 26.

mandating routine inspections and prunings of all trees, bushes, and creepers. This was to guarantee that the vegetation was kept up appropriately to avoid unkempt or hazardous development.¹⁶²

In order to address concerns about the planting, upkeep, and preservation of parks and trees in national parks, nature reserves, heritage road green buffers, tree conservation zones, and other designated areas, a new PTA was established in 2005.¹⁶³

Any State land, Board-owned land, or other land that (a) serves as a public park, marine park, recreation area, playground, garden, park connector, green verge, or public open space, and (b) is run or maintained by the Board or another management authority assigned under section 6A, is defined as a public park under Section 2.¹⁶⁴

According to Section 3, (1) the Government is bound by this Act, with the exception that nothing in it makes the Government subject to criminal prosecution. (2) To be clear, being a contractor hired to perform services for the government or operating in any other comparable position for or on behalf of the government does not exempt anybody from prosecution for any offense under this Act.¹⁶⁵ This implies that the Government must also follow the Act's terms.

The provision of open spaces as public parks is outlined in Section 28. It reads as follows: According to any development proposal or plan authorized by the appropriate authority, all properties on which any of the building operations listed in section 22 are to be completed must also contain open areas that may be utilized as public parks, if any.¹⁶⁶

According to Section 29, the government owns open areas that have been reserved for usage or that are being used as public parks.¹⁶⁷

The Commissioner may issue, approve, and periodically examine and modify the requirements for open spaces, green verges, and planting areas that will be utilized as public parks, according to Section 34.¹⁶⁸

¹⁶² Seng L, 'From Botanic Gardens to Gardens by the Bay,' 26.

¹⁶³ Heng L, 'A fine city in a garden: Environmental law and governance in Singapore' *Singapore Journal of Legal Studies*, 2008, 107-<https://www.jstor.org/stable/24869352> on July 2008.

¹⁶⁴ Section 2, *Parks and Trees Act* (Singapore) 2005.

¹⁶⁵ Section 3, *Parks and Trees Act* (Singapore) 2005.

¹⁶⁶ Section 28 (1), *Parks and Trees Act* (Singapore) 2005.

¹⁶⁷ Section 29 (1), *Parks and Trees Act* (Singapore) 2005.

¹⁶⁸ Section 34 (1), *Parks and Trees Act* (Singapore) 2005.

According to Section 36, anyone who has any work done for them or authorizes any green verge, open space, or planting area that significantly deviates from any plans that the Commissioner has approved under Section 32 will be guilty of an offense and face a fine of up to \$30,000 upon conviction. If the offense is a continuing offense, the fine will increase by after conviction, up to \$500 for each day or part of a day if the offense persists.¹⁶⁹

c) *Environmental Protection and Management Act*

An Act to ensure the administration and protection of the environment, the conservation of resources, and the consolidation of legislation pertaining to environmental pollution control, among other things. The main issues that the Act addresses are pollution prevention, control and management and has nothing to say about urban recreational green spaces.

d) *Land Acquisition Act*

This Act provides for the purchase of land for public use, along with a number of other specific objectives. It also establishes the amount of compensation that must be paid for the acquisition and its related purposes. The government has been able to pursue urban redevelopment with determination thanks to it.¹⁷⁰

3.3.2 Policy framework

a) *Singapore Green Plan 2030*

This all-encompassing plan was introduced in 2020 to direct Singapore's sustainable growth.¹⁷¹ It has five pillars, one of which is the City in Nature vision which was earlier discussed.

b) *Master Plan*

The Master Plan includes approved maps, details regarding the possible uses of land, as well as a formal declaration that summarizes and describes its primary recommendations to help with interpretation. It describes development over a period of 10 to 15 years.¹⁷² It is now the recognized way to guarantee orderly growth. It is created by URA and closely followed in order to regulate development.

¹⁶⁹ Section 36 (1), *Parks and Trees Act* (Singapore) 2005.

¹⁷⁰ Eugene B, 'From third world to first world,' 101.

¹⁷¹ <https://www.greenplan.gov.sg/key-focus-areas/city-in-nature/>

¹⁷² Lee J, 'We built this city,' 6.

It directs decisions about land use, yet it is adaptable enough to consider shifting social, economic, and geographic circumstances.¹⁷³

c) Concept Plan

URA develops Concept Plans for longer-term planning, which spans 40 to 50 years, to guarantee that there is enough land to support long-term economic and demographic growth while preserving a good standard of living. Concept Plans are advisory in nature and are not required under the Planning Act, despite being reviewed every ten years.

3.3.3 Institutional framework

a) Ministry of National Development (MND)

MND was created in 1959 and is in charge of planning and developing the nation's land use. Its responsibilities include directing Singapore's land use planning, providing high-quality, reasonably priced public housing, growing an effective construction sector to guarantee a built environment that is safe, high-quality, and sustainable, and providing and overseeing parks, open spaces, and nature area conservation. By building top-notch infrastructure and establishing a thriving, sustainable living environment with firmly established, cohesive communities, the Ministry hopes to make Singapore "an endearing home and a distinctive global city."¹⁷⁴

The growth of the construction sector, land development, building conservation, planning and development management, and building control, parks and recreation, public housing, urban regeneration and development, and public works are some of the environmental changes it is in charge of.¹⁷⁵ Since conservation is crucial to the planning process, the Ministry can designate any area of distinctive architectural, historic, traditional, or aesthetic interest as a conservation area in the Master Plan.¹⁷⁶

b) National Parks Board (NParks)

The Ministry of National Development is home to the statutory National Parks Board (NParks). It is in charge of biodiversity conservation, wildlife health, animal health, and greenery.¹⁷⁷

¹⁷³ Davison G, 'Urban forest rehabilitation: a case study from Singapore,' 175.

¹⁷⁴ <https://www.mnd.gov.sg/who-we-are/our-vision-mission>

¹⁷⁵ Savage R and Kong L, 'Urban constraints, political imperatives,' 40.

¹⁷⁶ Lee J, 'We built this city,' 6.

¹⁷⁷ <https://www.nparks.gov.sg/about-us>

It is currently in charge of greenery and was established in 1990, among other things, to maintain the residual forest areas that had not been impacted by fast development.¹⁷⁸

In close cooperation with other governmental representatives and community people, it is in charge of overseeing and controlling urban green spaces.¹⁷⁹ Its goal is to create strategies that enhance recreational amenities while protecting nature parks' natural heritage. Additionally, it functions as the ASEAN Regional Centre for Biodiversity Conservation's National Biodiversity Reference Unit.¹⁸⁰

NParks continues to improve upon quality urban landscape and has stepped up greening efforts to maintain lushness and greenery of the urban environment.¹⁸¹ NParks currently oversees 400 parks, 3347 hectares of nature reserves, the vast Nature Ways network, and the more than 300 km Park Connector Network, which connects the island's main parks, natural areas, and residential communities.¹⁸²

c) Urban Redevelopment Authority (URA)

URA is a statute governed organization under the National Development Ministry. It is the national authority for conservation and urban planning in Singapore. Among its duties are parking lot management, building conservation, land sales, urban design, development regulation, and land use planning. Its objective is to make Singapore an amazing location to work, play, and live.¹⁸³

By employing comprehensive and long-term planning methods to develop strategic plans such as the Master Plan and the Long-Term Plan, the Authority fulfills its mandate by directing Singapore's physical development in a sustainable way. To give Singapore the strategies and policies are intended to provide a high-quality living environment. The Authority uses the Development Control, Urban Design, and Conservation principles to assess and approve plans for developments.

¹⁷⁸ Davison G, 'Urban forest rehabilitation: a case study from Singapore,' 174.

¹⁷⁹ Sabri M, Ponrahono Z, Bakar A and Aziz A, 'Comparative analysis of open green space policies in enhancing urban resilience to climate change through small urban parks in Malaysia and Singapore' *Chemical Engineering Transactions*, 2023, 213-<https://www.cetjournal.it/index.php/cet/article/view/CET23106036> on 15 December 2023.

¹⁸⁰ Accessible Resource Centre British Columbia, 'A profile of the protected area system of Singapore' 1 January 2002, 32.

¹⁸¹ Heng L, 'A fine city in a garden: Environmental law and governance in Singapore' *Singapore Journal of Legal Studies*, 2008, 114-<https://www.jstor.org/stable/24869352> on July 2008.

¹⁸² <https://www.nparks.gov.sg/about-us>

¹⁸³ <https://www.ura.gov.sg/Corporate/About-Us/>

The criteria guarantee that they are in keeping with the state's longer-term planning goals and promote orderly growth.¹⁸⁴

It is the main agency responsible for upholding the Planning Act and its related legislation. 185 The Concept Plan and the Master Plan, both produced by URA, are the two most significant and thorough framework plans that direct the physical development of Singapore.¹⁸⁶

d) Housing and Development Board (HDB)

Singapore's public housing authority is called HDB. It falls under the Ministry of National Development and is a statutory entity. In addition to making sure green areas are incorporated into residential complexes, it is in charge of designing and overseeing public housing.¹⁸⁷

e) Building and Construction Authority

The BCA, a body enacted by statute under the Ministry of National Development, develops and oversees Singapore's building and construction sector.¹⁸⁸ It emphasizes the incorporation of outdoor green spaces and highlights the dedication to sustainable building principles.¹⁸⁹

f) Ministry of Sustainability and the Environment

The Ministry in charge of creating and carrying out Singapore's environmental, food, and water policies is this one.¹⁹⁰ It is in charge of maintaining a high standard of public health and a good living environment. drainage, industrial water production, solid waste, pollution of the air and water, sewers, ecologically dangerous substances, and public hygiene are all issues it tackles.¹⁹¹

¹⁸⁴ <https://www.ura.gov.sg/Corporate/About-Us/What-We-Do>

¹⁸⁵ Eugene B, 'From third world to first world,' 102.

¹⁸⁶ Eugene B, 'From third world to first world,' 102.

¹⁸⁷ <https://www.hdb.gov.sg/cs/infoweb/homepage>

¹⁸⁸ <https://www1.bca.gov.sg/about-us/about-bca>

¹⁸⁹ Sabri M, Ponrahono Z, Bakar A and Aziz A, 'Comparative analysis of open green space policies in enhancing urban resilience to climate change through small urban parks in Malaysia and Singapore' *Chemical Engineering Transactions*, 2023, 214-<https://www.cetjournal.it/index.php/cet/article/view/CET23106036> on 15 December 2023.

¹⁹⁰ <https://www.mse.gov.sg/about-us/>

¹⁹¹ Savage R and Kong L, 'Urban constraints, political imperatives,' 40.

g) Singapore Land Authority

The Ministry of Law oversees SLA, a statutory board that maximizes land for the economic and social advancement of the nation. It manages state land, including its allocation for green spaces and public parks. It works with URA and NParks to lease or repurpose land for such use.¹⁹²

h) Town Councils

The Town Councils Act established town councils as independent legal bodies. The councils are in charge of running the common areas of HDB residential apartments and commercial buildings on a daily basis. For the benefit of the occupants, they oversee, manage, maintain, and upgrade the common areas, including gardens, elevators, corridors, and linkways.¹⁹³

3.4 Challenges and criticisms

Singapore has done a fantastic job of controlling and enhancing the urban landscape with flora. This strategy, however, has drawn criticism for having nothing to do with protecting Singapore's natural heritage's ecological integrity. Singapore is known for being hygienic and green, although the metropolitan areas are ecologically poor.¹⁹⁴ The ecological purpose of greenery has been neglected in favor of its decorative, recreational, and environmental uses.¹⁹⁵

Instead of promoting biodiversity and nature conservation, greening projects in the drive to establish a tropical city of excellence have concentrated on the commercialization developing biophysical settings for recreation and, later, tourism centered around garden theme parks.¹⁹⁶ The removal of some native landscapes to create room for "supertrees" and recreational greening has sparked concerns about environmental sustainability.¹⁹⁷

Opponents contend that government green initiatives, including expanding gardens or moving trees, are merely aesthetic endeavors rather than effective environmental preservation strategies.¹⁹⁸

¹⁹² <https://www.sla.gov.sg/>

¹⁹³ <https://www.mnd.gov.sg/our-work/regulating-town-councils/about-town-councils>

¹⁹⁴ Chun J, 'Enhancing the garden city: towards a deeper shade of green' Singapore Academy of Law Journal 2006—<https://ssrn.com/abstract=918741> on 25 July 2006.

¹⁹⁵ Chunneng W and Lay O, 'Conserving biodiversity: the experience of Singapore,' 1031.

¹⁹⁶ Gulsrud N and Ooi C 'Manufacturing Green Consensus,' 84.

¹⁹⁷ Gulsrud N and Ooi C 'Manufacturing Green Consensus,' 87.

¹⁹⁸ Han H, 'Singapore, a Garden City: Authoritarian environmentalism in a developmental state' 26 *Journal of Environment and Development* 1, 2016, 16.

To environmentalists, this development, no matter how green it seems, cannot be equated with conservation.¹⁹⁹

Kenya should, in this regard, exercise caution not to end up in a similar situation with Singapore. Recent initiatives to refurbish several urban recreational green spaces, including Uhuru Park, Central Park, and Uhuru Gardens, are examples of steps in this direction. These parks have been concretised and emphasis been put on making them more aesthetically pleasing. Care should be exercised so as not to focus on aesthetics at the expense of the ecological value of such spaces.

3.5 Analysis and conclusion

Municipal leaders are using green city branding as a potent instrument to boost competitive advantage, promote sustainable growth, and guarantee a higher quality of life. These brands imply that cities may, in fact, have it all: environmental sustainability, economic growth, and development.²⁰⁰ Due to its achievements in urban greening, Singapore has gained international recognition and is now regarded as a model for other emerging nations in Asia and Africa seeking environmentally friendly and sustainable approaches to urban growth and development.²⁰¹ The example of Singapore shows that laws and policies can influence urban planning outcomes like increasing sustainability and liveability when they are used well.²⁰² At this time when issues of environmental degradation, climate change and rapid urbanisation dominate global discourse, being seen as a forerunner in greening is an asset.²⁰³ Therefore, Kenya should learn valuable lessons from Singapore's approach and adopt similar strategies to deal with its own issues in urbanisation, sustainability and environmental conservation.

¹⁹⁹ Neo H, 'Challenging the developmental state: nature conservation in Singapore' 48 *Asia Pacific Viewpoint* 2, 2007, 190.

²⁰⁰ Gulsrud N and Ooi C 'Manufacturing Green Consensus,' 79.

²⁰¹ Gulsrud N and Ooi C 'Manufacturing Green Consensus,' 89.

²⁰² Eugene B, 'From third world to first world,' 112.

²⁰³ University of Tübingen, *Urban green spaces in Singapore*, 8.

CHAPTER FOUR: TAILORING SINGAPORE'S APPROACH TO KENYA

4.0 Introduction

This chapter offers recommendations drawn from Singapore's urban greening experience, highlighting both successes that Kenya should adopt and failures it should avoid. It proposes steps Kenya should take in contextualising Singapore's experience and offers insight on how legal and institutional framework should be modified to make room for lessons drawn from Singapore. It also briefly explores governance issues and offers a conclusion.

4.1 Successes

Singapore's success can be attributed to Singapore's dedication to stringent policies, legal and administrative framework governing green spaces actively enforced by urban planners and government institutions.²⁰⁴ Over the past fifty years, the city's development plan has been guided by this green identity.²⁰⁵

Singapore has placed a strong emphasis on locally defined needs and thresholds when creating planning laws, acknowledging that the particular socio-cultural characteristics of communities have an influence on the requirements for green space.²⁰⁶ Affected communities must decide together what kind of environment they want because striking a balance between cultural preservation and urban greening necessitates trade-offs.²⁰⁷

Singapore has therefore chosen to evaluate environmental policy using a multi-stakeholder method, which offers chances for cooperation and guarantees that the opinions of all societal members are taken into consideration.²⁰⁸ For instance, NParks has aggressively solicited community input through focus groups, road shows, interviews, and surveys, while the commercial sector has made contributions through financial partnerships and donations. This involvement of other stakeholders

²⁰⁴ Namalwa S, Omollo M and Konana C, 'An analysis of urban green space laws, policies and institutional frameworks in Dandora Estates Nairobi County' 4 *Journal of the Kenya National Commission for UNESCO* 1, 2024, 2.

²⁰⁵ Gulsrud N and Ooi C 'Manufacturing Green Consensus,' 77.

²⁰⁶ Tan P, Wang J and Sia A, 'Perspectives on five decades of the urban greening of Singapore' *Cities: The International Journal of Urban Policy and Planning*, 2013, 29-<http://dx.doi.org/10.1016/j.cities.2013.02.001> on 22 March 2013.

²⁰⁷ Tan P, Wang J and Sia A, 'Perspectives on five decades of the urban greening of Singapore' *Cities: The International Journal of Urban Policy and Planning*, 2013, 30-<http://dx.doi.org/10.1016/j.cities.2013.02.001> on 22 March 2013.

²⁰⁸ Quah E and Tan J, 'Pursuing growth and managing the environment,' 3.

is a response to contemporary public administration theory, which holds that public engagement is the foundation of successful governance, as well as a concession to community members' growing concerns about the sustainability of Singapore's green heritage.²⁰⁹ To further enhance the greening experience and raise Singaporeans' knowledge of environmental concerns, NParks has launched several community cooperation initiatives. The Community in Bloom initiative is a prime example. It was introduced in 2005 and enables Singaporeans to organize gardening clubs for the purpose of starting and caring for new gardens.²¹⁰ Other programs like the Adopt-A-Park and Park Watch programs enable volunteers to take part in a variety of park outreach activities, such leading cultural and artistic performances or giving guided tours.²¹¹ These programs' primary goal is to motivate people to take part in activities that will support park sustainability.²¹²

To make environmental institutions more efficient and accessible to the general public, Kenya should endeavor to organize and enhance their capabilities at all levels. Since each country has its own unique environmental, economic, social, legal and institutional context, these differences will have to be considered while designing the new framework for governing green spaces while borrowing from Singapore. The new laws should avoid creating overlaps with existing laws. Kenya has a lot to learn from Singapore in how they have managed to take into consideration sustainability, public participation, private sector engagement and environmental needs.

4.2 Shortcomings

Despite Singapore's great success in taming and manicuring its urban landscape, critics have argued that these efforts have more to do with ornamental greening at the expense of ecological conservation. As Kenya works to enhance its urban green spaces, caution must be exercised to avoid similar pitfalls. Singapore's model has seen some indigenous landscapes being cleared to make space for artificial installations such as 'supertrees.' Kenya should avoid this and instead incorporate ecological considerations in urban green spaces. Policies should be developed to guarantee that urban green spaces not only enhance aesthetics but also support ecological

²⁰⁹ Gulsrud N and Ooi C 'Manufacturing Green Consensus,' 87.

²¹⁰ Seng L, 'From Botanic Gardens to Gardens by the Bay,' 30.

²¹¹ Seng L, 'From Botanic Gardens to Gardens by the Bay,' 30.

²¹² Seng L, 'From Botanic Gardens to Gardens by the Bay,' 30.

resilience such as planting flowers that contribute to pollination. Therefore, biodiversity conservation should also be a consideration while setting up or maintaining urban green spaces.

4.3 Contextualisation

Kenya can improve its urban development strategy by following Singapore's successful urban green planning model. Due to certain differences between the two countries, Kenya has to contextualise Singapore's approach in order to make it effective for application here.

Kenya ought to implement tactics including centralized green space management, all-encompassing environmental regulations, varied funding sources, stakeholder involvement, and regular monitoring.²¹³

4.4 Legal and institutional lessons

Since it connects fundamental rights, environmental sustainability and obligations, sustainable development demands compliance with the environmental rule of law. The defense and advancement of socioeconomic and environmental rights, equitable access by ensuring a rights-based strategy, and equity in terms of SDGs all depend on it.²¹⁴ It has also been mentioned that cities may overcome their problems by making sure that laws and regulations that support them are enforced, as well as by properly planning and budgeting.²¹⁵ As a result, laws and policies must be created with community involvement and environmental protection in mind.²¹⁶

These provisions should not be housed under existing legislation due to the fact that these statutes were enacted for broader purposes. Incorporating these provisions into such statute risks watering down their specificity and effectiveness. Also, there would be a risk of lack of institutional clarity. Since there is no existing institution whose explicit mandate is the management of urban recreational green spaces, if these provisions were to be included in existing statute, there would be uncertainty as to who will be responsible, leading to further inefficiency. Further, if these

²¹³ Sabri M, Ponrahono Z, Bakar A and Aziz A, 'Comparative analysis of open green space policies in enhancing urban resilience to climate change through small urban parks in Malaysia and Singapore' *Chemical Engineering Transactions*, 2023, 215-<https://www.cetjournal.it/index.php/cet/article/view/CET23106036> on 15 December 2023.

²¹⁴ Muigua K, 'Revisiting the role of law in environmental governance in Kenya,' 11.

²¹⁵ Mwanzu A, Nguyu W, Nato J and Mwangi J, 'Promoting sustainable environments through urban green spaces: insights from Kenya' *Sustainability*, 2023, 11-<https://doi.org/10.3390/su151511873> on 2 August 2023.

²¹⁶ Muigua K, 'Revisiting the role of law in environmental governance in Kenya,' 10.

provisions were to be incorporated into separate pieces of legislation, there would be a risk of overlaps which would make them difficult to implement.

In learning from Singapore, Kenya should enact a comprehensive law that deals with the administration and provision of urban green areas. This new Act will be similar to Singapore's Trees and Parks Act and will be key to safeguarding these spaces. Further, an independent institution should be created to give life to the new Act's provisions. It will function in a way that is similar to NParks of Singapore.

Among other things, this new Act would allow for the identification of urban green places for enjoyment, the creation of Master Plans to guide in planning, Environmental Impact Assessments on impact on green spaces, community participation, funding, enforcement, penalties, monitoring. It will also provide for the creation of an independent authority that will implement the Act.

4.5 Environmental Governance

The procedures for making decisions involved in environmental governance is the environmental and natural resource management and control. It is the formal or informal multi-level interaction between the state, the market, and civil society, among others, in order to create and carry out policies that address societal inputs and demands related to the environment that are constrained by norms, procedures, and widely accepted behaviour.²¹⁷

All parties that have an impact on the environment are considered in good environmental governance, including the government, non-governmental organizations, the commercial sector, and civil society, all of which must work together to accomplish successful governance. Multi-sectoral changes that are collaborative in nature are necessary to effectively address the issues that urban green areas face. The community, governments, developers, and urban planners will collaborate to recognize, highlight, and put into practice the co-benefits of urban greening for the environment, society, and human health.²¹⁸ Urban managers need to focus on political systems, governance structures, and the

²¹⁷ Mumbo O, 'Environmental conservation in Kenya: challenges of enforcement by the devolved system of governance' Unpublished LLB Dissertation, Strathmore University, Nairobi, 2017, 9.

²¹⁸ Woodward A, Hinwood A, Benett D, Grear B, Vardoulakis S, Lalchandani N, Lyne K and Williams C, 'Trees, climate change and health: an urban planning, greening and implementation perspective' *International Journal of Environmental Research and Public Health*, 2023, 3—<https://www.mdpi.com/1660-4601/20/18/6798> on 21 September 2023.

procedures for making decisions. Plans for urban spatial development are unlikely to be any more helpful than they were in the past without this.²¹⁹

In addition to the actors mentioned, environmental governance must also involve community participation. Encouraging community participation and consultation provide opportunities for the effective framing and implementation of policies on green spaces.²²⁰ As a result, the new framework ought to offer a way to incorporate progressive ideas like mainstreaming gender equity and taking into consideration the roles of marginalized individuals, youth, and those with special needs.²²¹ This will assist in solving the problem that was earlier recognised of inequitable access to green spaces.

It has been observed that most county authorities make decisions on these ecological spaces with little to no input from other stakeholders. To address these concerns, Kenya can learn from Singapore which has adopted a cooperative and collaborative approach. As seen in Singapore, stakeholder engagement has a key influence on how government policies are accepted and implemented by the people. Only by effectively executing the constitutional provisions pertaining to natural resources and the environment and engaging the assistance of all relevant parties can sustainable development be accomplished.²²²

4.6 Recommendations for law and practice

In light of its findings, the study calls for urgent reforms to Kenya's institutional and legal system for managing urban green areas. A comprehensive law on urban green areas should be enacted. A separate law, an Urban Green Spaces Act will be the overarching framework on the administration and control of urban green areas for enjoyment. It will establish clear guidelines for the creation, protection and provision of such spaces. This new law should provide for public participation and community focus so as to ensure green space equity. It should also be specific and outline clear penalties for breach. This law should also align itself with international standards through mandating minimum green space requirements.

²¹⁹ Ngetich J *et al*, 'Citizen perception of green spaces,' 71.

²²⁰ Owuor M and Gitonga L, 'Revitalising green spaces for sustainable development in Kenya' 5.

²²¹ Transparency International Kenya, *Environmental policy gaps*, 2021, 35.

²²² Muigua K, 'Revisiting the role of law in environmental governance in Kenya' 2019, 10.

There should be the creation of an institutional body to implement the said legislation. This body should be autonomous and independent in order to properly carry out its mandate. This body should also be empowered with enforcement to guarantee adherence to the recently enacted legislation. It should also be empowered to deal with grievances and address issues.

This body should conduct regular assessment and monitoring of progress and evaluations of the impact of implemented laws and policies. This will enable the body to identify weak areas that require improvement and strengths so as to capitalise on them.

There should be the creation of an urban green space management fund to secure and provide funds for the creation, administration and supply of green places for urban enjoyment.

A multi-stakeholder approach to managing these areas ought to be implemented. Collaborations between the government, NGOs, private sector and local communities will secure better outcomes for these spaces. For example, public-private partnerships can offer the financial muscle necessary to undertake these projects. Further, community led initiatives can cultivate a feeling of participation and ownership that is key to protecting these spaces.

Urban managers should adopt strategic urban planning. Here, city developers will be required to integrate green spaces into their development projects. Akin to Singapore, Nairobi's Master Plan should be comprehensive enough to allocate land for recreational parks and facilities, ensuring equitable distribution of the same across different income neighbourhoods.

4.7 Conclusion

In order to build resilient, healthy, and sustainable cities, policymakers and urban planners can benefit from one another's experiences with greening initiatives and urban planning techniques on a worldwide basis.²²³ Therefore, Kenyan Policymakers and urban planners might gain insight from their Singaporean counterparts and strive to create holistic urban recreational green spaces that will serve Kenyans.

²²³ Woodward A, Hinwood A, Benett D, Grear B, Vardoulakis S, Lalchandani N, Lyne K and Williams C, 'Trees, climate change and health: an urban planning, greening and implementation perspective' *International Journal of Environmental Research and Public Health*, 2023, 4—<https://www.mdpi.com/1660-4601/20/18/6798> on 21 September 2023.

Laws do not attain legitimacy solely from their enactment. Rather, they attain legitimacy when the enforcement capability of those with the authority is effective, that is, to uphold the rules and regulations as stipulated without any obstacles.²²⁴ Therefore, in addition to new legislation in form of a single urban recreational green spaces act, there must also be a supportive authoritative body to ensure strict adherence to the law.

Significance of this study of Singapore's experience resides in its possible effects on promoting environmental sustainability and reshaping Kenya's urban landscape.



²²⁴ Owino F, Hayombe P and Agong S, 'Spatial planning interventions and their implication on conservation of urban green spaces' 3 *Asian Journal of Applied Science and Engineering* 8, 2014, 69.

CHAPTER FIVE: CONCLUSION

5.0 Overview

The purpose of this study was to examine the condition of urban green places for enjoyment in Nairobi through examining their accessibility, sustainability and the legal framework governing them. It aimed to assess how they align with international standards and recommended practice. Further, it sought out to draw lessons from Singapore's Act on Parks and Trees to offer suggestions for Kenya's legislative and institutional framework on urban green spaces.

The study found a deficiency in Nairobi's green spaces with approximately only 4m² of green areas available per person against WHO's recommendation of 9m² per person. Additionally, it identified a worrying trend of greying green spaces such as Uhuru Park hence decreasing the proportion of purely green spaces. It also linked the insufficiency of green spaces to broader societal issues such as inequality and vulnerability of climate change.

The study sought out to investigate the legal system around green spaces in Kenya. It found the framework insufficient to guard these spaces effectively. The study examined Singapore's legislative approach to urban greening which demonstrated how crucial it is to incorporate green space concepts into urban design, backed by strong legal and institutional frameworks.

5.1 Conclusions from the study

Nairobi's urban recreational green spaces are inadequate, according to the study's findings. These spaces fall short of recommended international standards. This insufficiency poses a risk to public health and contributes to environmental degradation. Further, the study demonstrated that access to green places is not equally distributed, which disproportionately affects marginalised and low-income communities. Addressing this deficiency is essential to guaranteeing sustainable urban growth and improving many Nairobi residents' quality of life.

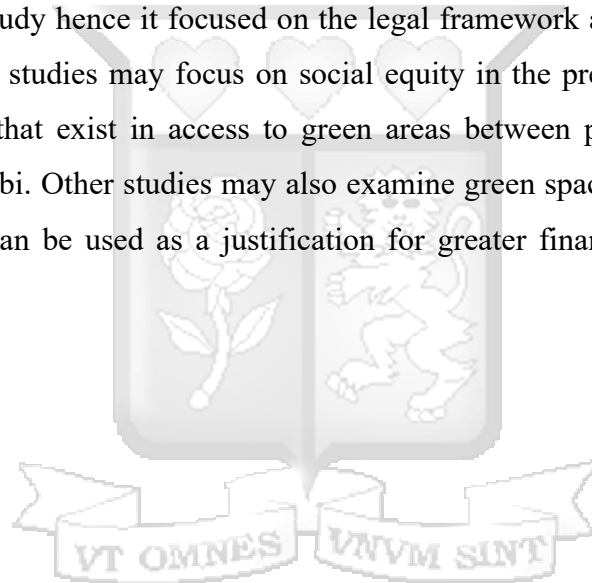
The findings demonstrate that Kenya's current institutional, framework of laws and policies is insufficient for the efficient development, management, and preservation of urban green areas. The laws examined, such as EMCA and the Urban Areas and Cities Act, lack explicit provisions and enforcement mechanisms for green spaces. This gap leaves green spaces vulnerable to encroachment and conversion thus necessitating the enactment of a comprehensive law on the same.

The Singaporean experience in urban greening demonstrates the need for proper long-term planning, strong legal framework and coordination between institutions for successful outcomes. Nonetheless, the study shows the importance of contextualising the lessons from Singapore so as to align them with Kenya's socio-economic and political realities. Further, the study cautions against replicating Singapore's shortcomings.

5.2 Recommendations for further study

This study focused on Nairobi City County hence its findings may be limited. To learn more about the state of the laws controlling recreational green areas in other metropolitan and peri-urban areas of Kenya, more research may be done.

This study was a legal study hence it focused on the legal framework and legal aspects to green space governance. Other studies may focus on social equity in the presence of green spaces to examine the disparities that exist in access to green areas between people of different socio-economic status in Nairobi. Other studies may also examine green spaces through a lens of their economic value which can be used as a justification for greater financial investment in green infrastructure.



ANNEXURE

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