

A REVIEW OF PUBLIC TRANSPORT POLICY FRAMEWORKS SUPPORT FOR ECOTOURISM DEVELOPMENT IN KISUMU COUNTY, KENYA.

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Abstract

Ecotourism is responsible travelling to natural areas, conserving the environment, and improving community well-being. It relies on quality public transport systems and infrastructure for connectivity and mobility. Kenya's Vision 2030 socio-economic development blueprint has influenced transport infrastructure improvements in the previous two decades. Like many other counties, Kisumu County has developed plans to harness its potential through commerce, tourism, and infrastructure. Kenya has adopted legal, policy, and administrative frameworks governing this development, some of which mirror sector legislation at county, national, and international levels. A study conducted between January 2020 and June 2021 examined the integration of public transportation infrastructure planning into ecotourism development in Kisumu County. The research aimed to investigate how existing policy frameworks on public transport supported ecotourism development, highlighting the lack of sufficient scientific data linking public transport infrastructure development support for ecotourism as an impediment to sustainable development outcomes in Kenya. A qualitative research design was employed, with data obtained through purposive key informant interviews drawn from the private sector, civil society, development agencies, and both tiers of government with responses analysed thematically. A desk review of relevant documents was conducted. It identified legal instruments which were subjected to a SWOT analysis. The study highlighted the importance of policy, legal, and institutional arrangements in development. It found that existing public transport frameworks cover public health, safety, natural resource management, public engagement, rights, environmental quality, and physical planning which are necessary for ecotourism development. It noted that these provisions are scattered across various sectors, posing challenges to effective administration. The study concludes that while there are no direct provisions for ecotourism development in the country, significant public transport instruments also support its development. To achieve sustained development across sectors, an aggregated approach is needed for effective collaboration and coordination among relevant entities.

Keywords: Ecotourism, Transport, Sustainability, Policy

Introduction

Globally, ecotourism and related public transport development are governed by various legal, policy, and administrative frameworks. Some governments have established policies that promote investments in sustainable public transport systems aligned with tourism development and environmental conservation. According to the World Bank (2021a),

shifting from individual to public transport could contribute significantly to achieving global climate goals and the SDGs, a view supported by Atamanov et al. (2018) and Thacker et al. (2019). Several global and regional frameworks advocate for sustainability. For instance, the European Union (EU), through its Transition Pathway for Tourism Report (EU, 2022a), adopted the European Agenda for Tourism 2030,

which encourages a cohesive policy environment that supports tourism through cross-sectoral collaboration in domains like transportation, regional development, and environmental conservation (EU, 2022b).

Countries such as France and Denmark have implemented policies that encourage e-mobility, eco-friendly transport, and ecotourism. To boost sustainability and economic performance, cities like Seoul in South Korea and Changzhou in China have significantly reduced transport fares (Ecotourism World, 2023). By 2017, a total of 96 cities worldwide had adopted free public transport systems (International Association of Public Transport-UITP, 2020). However, ecotourism development continues to face legal challenges, especially in countries like Indonesia, where malpractices, lack of sustainability, and weak enforcement of laws prevail (Purnama et al., 2023). India's National Strategy for Ecotourism and Sustainable Tourism underscores the need for sustainable practices, including in the transport sector, to ensure environmental protection and community benefit (Mishra & Kumar, 2024). In Africa, countries such as Ethiopia, Morocco, South Africa, and Kenya are adopting various green transport strategies. These strategies involve integrated spatial planning, transport, urban development, and environmental management to prioritize sustainable public transport, diversify services, and improve infrastructure (AfDB, 2022; Ministry of Transport, Kenya, 2022).

According to the World Bank (2021a) and Rodrigue (2024), authorities must institutionalize policy and invest in sustainable public transport, as it is foundational to many global economies. The development and implementation of related projects are influenced by national, county, and international legislation, including multilateral environmental agreements that Kenya has adopted. Kenya has numerous legal frameworks that govern environmental protection and management, most of which are sector-specific. These address areas such as public health, safety, natural resources management, protection of fragile ecosystems,

endangered species, pollution control, public participation, water rights, and land use. Furthermore, there are legal, policy, and institutional arrangements that regulate the development of public transport systems, particularly in ecologically sensitive areas.

In Kisumu County and across Kenya, socio-economic and physical development has improved connectivity. To facilitate the movement of people, goods, and services, national and county governments have expanded and maintained infrastructure. However, this development often proceeds with little consideration for the biophysical environment, which is critical for ecotourism and sustains numerous livelihoods (Nyamweya et al., 2023; Muchiri & Njoroge, 2021). Kenya's Vision 2030 and Kisumu's successive County Integrated Development Plans (CIDPs) identify public transport and tourism as key sectors for long-term socio-economic development. Although policy documents recognize that sustainable tourism supported by effective public transport can spur development, there is limited data linking public transport policy frameworks to ecotourism growth. This data gap has resulted in weak decision-making and ineffective development plan implementation. Therefore, it is vital to assess the current legal, policy, and institutional frameworks to uncover their strengths, gaps, and opportunities for integrating public transport in ecotourism development in Kisumu.

Some recent studies recommend stronger policies to balance infrastructure development with environmental preservation, especially in biodiversity-rich zones (Wanjiru & Tole, 2023; Otieno et al., 2021). While Kenya has introduced frameworks for sustainable infrastructure, the specific link between public transport policies and ecotourism remains under-researched (Were, 2021; Wambugu & Wainaina, 2019). This highlights the need for further research and policy analysis to bridge this gap. This paper presents the findings of a study conducted from January 2020 to January 2025. The study aimed to assess how public transportation infrastructure planning is integrated into ecotourism

development along transport corridors in Kisumu County. It investigates how legislative, policy, and institutional frameworks related to public transport contribute to ecotourism development in the county. Through an in-depth analysis, the study identifies the strengths and weaknesses of existing frameworks, highlights the opportunities they offer, and provides recommendations to overcome threats that may hinder their successful implementation.

Methodology

The study used participant observation and desk reviews as its main methods of investigation, employing a qualitative research design. Reviewed publications, legal papers, policy documents, and reports were the sources of the data. Using ecotourism, public transport, sustainability and policy as key words, the study sought peer review journal articles, government and development agencies reports. Databases visited include Web of Science, Protected Planet Reports, Scopus, WorldCAT, ScienceDirect, SAGE, Taylor and Francis Online, Springerlink, Directory of Open Access Journals, African Journals Online and National Council for Law Reporting (Kenya). Seventeen (17) key informants for the study were selected from among members of the private sector, relevant government and agency officials, and specific civil society groups. Participant responses were analysed thematically. A SWOT evaluation and policy review techniques were applied to select policy and legal instruments relevant to public transport development, operations and management. This was to establish facts, identify significant provisions supporting the study, query short falls and implementation gaps to inform analysis. The results are discussed in this paper.

Results and Discussions

Legal Frameworks

The study established that there are several pieces of policy, legislation and institutional arrangements in the Country with instruments that seek to govern the public transport sector. These instruments provide for the development and use of related

infrastructure. They seek to govern as well as steer development in transport and related or dependent sectors such as tourism, manufacturing, health, agriculture, and natural resource extraction among others.

The Constitution of Kenya 2010, which is the supreme law of the land, establishes a pivotal point for the promotion of national values and governance principles, including sustainable development throughout the country. It provides for formulation and implementation of other policy and institutional measures to protect and enhance peoples' rights as well as ensure equitable sharing of the accruing benefits from development. The Constitution provides for the separation of powers and functions between the arms in addition to levels of government. It has specific provisions that detail on functions of national and devolved units as also prescribed in the County Governments Act, 2012.

National and county governments are both responsible for planning, delivery, management and governance of essential services, and physical and social infrastructure. The legislations stipulate that county and sectorial planning be aligned to the national development agenda. This is also applicable to the development of cities, urban and rural areas as provided for by the Urban Areas and Cities Act, 2011 and the Physical and Land Use Planning Act, 2019 among others. In public transport and ecotourism development in Kisumu County, authorities and developers are expected to fully adhere to provisions of applicable legislation and align development plans and activities with national objectives.

The study examined specific aspects of law governing the transportation industry to determine their possible impact on ecotourism development in the research region. These pieces of legislation included the: Public Roads and Roads of Access Act, 2010; Way Leaves Act, 2010; Traffic Act, 2015; Civil Aviation Act, 2013; Merchant Shipping Act, 2012; Maritime Zones Act, 2012; and The Penal Code, 2009. It established that some provisions of the legislation sought to enhance public transport uses

and the subtending communities' safety, connectivity, access and well-being. Also provided for was the protection of citizens' rights as well as individual and public property. Achievement of sustainable development is also key to the laws as they seek to institutionalize measures for the administration of social and environmental justice within the sector.

Evident was an attempt to advance opportunities for socio-economic development and environmental sustainability in many parts of the country including transit corridors and tourism destinations. However, it is important to note that legislation governing the transport sector can only be effective if administered together with other sectoral laws. This is also highlighted in Kenya's Road Safety Policy Guidelines for Government Ministries, Departments and Agencies (NTSA, 2020), the Integrated National Transport Policy (ITNP) (GoK, 2012a) and OECD (2017) Policy Statement on Tourism Policies for Sustainable and Inclusive Growth.

Institutional Arrangements

Kenya has developed robust frameworks that provide for the institutionalization and enforcement of transport-related policies and laws. These include a Ministry in charge of transport-related activities, departments, authorities as well as relevant justice dispensation institutions. The entities govern the road, rail, air and water transport and related activities. The study examined the: Kenya Roads Act, 2007; Kenya Roads Board Act, 1999; National Transport and Safety Authority Act, 2012; Civil Aviation Act, 2013; Kenya Maritime Authority Act, 2012; Kenya Ports Authority Act, 2014; Kenya Railways Corporation Act, 2012; Kenya Airport Authority Act, 1991; National Construction Authority Act, 2011; and Coast Guard Service Act, 2018.

It was established that several agencies and institutions were in place to regulate, coordinate and facilitate the development of the transport and aligned sectors. The legislation provides for coordination and collaborative efforts in and across agencies as they discharge their functions. However,

effective coordination is yet to be achieved with overlapping or conflicting institutional functions as set out by specific provisions, and budgetary and capacity constraints. In a study conducted in West Africa by Deen-Swarrray et al. (2014), it was noted that effective policies on the development and coordination of transport were essential to achieving the ideals of regional integration, as they acted as an effective driver for intra-regional commerce among member nations.

Given the study, these weigh down on the effective implementation of relevant legal and policy aspirations. This was evident in Kenya's INTP which suggested that similar challenges affected effective policy formulation, implementation, regulation and co-ordination of public transport planning, development, operations and services (GoK, 2012a). Kanyama (2016) in a study to establish challenges of institutional coordination in planning for public transportation in East Africa observed that in Dar-es-Salaam and Nairobi, poor coordination in public transport planning and implementation resulted from lack of realistic physical or transport plans, poor governance, inadequate institutional and public involvement, lack of regulatory framework in planning for public transportation, inadequate fiscal decentralization to local authorities, and enforcement laxity or reluctance by authorities.

GoK (2022), in its Vision 2030 Flagship Programmes and Projects Progress Report recognizes the transport sector as crucial to delivering most of the country's Vision 2030 goals. It also acknowledges the challenges in coordinating intergovernmental and inter-agency collaborative efforts in the development and delivery of public goods and services, which it seeks to address through new or the review of existing policy, regulatory and institutional frameworks or arrangements.

This study documented the existence of several other policy and legal frameworks related to environment and natural resource management. These include legislation on tourism, water, wildlife, forestry, climate change, public health, land, and occupational and workplace safety. The said

policies, laws and related institutional frameworks provided an anchor for sustainable ecotourism development in Kenya. They provide key considerations for public transport infrastructure and services planning, development, operations and maintenance. Specific provisions in the text sought to establish frameworks for sustainable management and utilization of environmental resources for the benefit of the public. The legislation also sought to protect the environment as well as human health and well-being while also limiting the negative implications of anthropogenic activities on the same. This was evident and is also highlighted in the Integrated National Transport Policy of 2012 and the National Tourism Policy of 2020 (GoK, 2012a; GoK, 2020)

Yang (2019) stated that a survey conducted in 197 jurisdictions found that Environmental Impact Assessment (EIA) is a universally adopted global principle and norm for environmental governance. He argues that in development projects that are likely to have significant negative implications, EIAs in projects have become a norm as a result of globalization and other trends therefore joining the body of public international law.

In the Kenyan context, EIAs and Strategic Environmental Assessments (SEAs) are also recognized as the principal environmental governance tools as provided for in the Constitution of Kenya 2010, Environmental Management and Coordination Act (EMCA), 1999 (revised 2015) and Environmental (Impact Assessment and Audit) (Amended) Regulations, 2019. They, along with other multi-sectoral legislation provided a framework for environmental management, protection, and sustainable development as well as that for approval and monitoring of development projects. This paper also acknowledges citizens and institutional obligations to preserve everyone's right to a clean and healthy environment.

Muigau (2012) pointed out that implementation of these frameworks for instance those relating to EIA were, however, a challenge especially since numerous lead agencies were dealing with specific

components of the environment. He stated that this often resulted from conflicting regulatory frameworks, which created overlaps and coordination challenges. Muigau argued that despite a strong legislative and administrative framework, recent infrastructure developments in Kenya did not adequately comply with sound environmental management requirements, claims that are also supported by Omondi, & Ochanda (2014).

Further analysis established that infrastructure development in sectors are governed by sectoral regulatory frameworks and diverse approval processes. Environmental and social impact assessments and audits are compulsory for developments specified under the Second Schedule of Environmental Management and Coordination Act (EMCA), 1999. Important to note is that several other sectorial laws have provisions that require developers to ensure compliance with EMCA, 1999 and its regulations which is overseen and enforced by the National Environmental Management Authority. The Tourism Act, of 2011 for instance, stipulates that tourism operations licenses are issued after a satisfactory environmental impact assessment is conducted and a license is issued under Part VI of the EMCA, 1999.

However, enforcement weaknesses in the legislation observed were occasioned by institutional capacity and fiscal allocations. These play a significant catalytic role in the poor administration of these frameworks during the implementation of public transport infrastructure development. Consequently, this continually have negative impacts on subtending ecosystems and communities, impeding sustainable ecotourism development in Kisumu and throughout the country.

Policy Frameworks

Kenya has several other sectoral policy frameworks that have sectional provisions that relate to transport and ecotourism development. These include National and some relevant multilateral agreements that the country is a signatory to and has obligations under. Some of the notable ones include the

National Environmental Action Plan (NEAP); Sessional Paper No. 66 on Environment and Development; National Policy on Water Resources Management and Development; and Policy Paper on Environment and Development Sessional Paper No. 6 of. 1999; Kenya Health Policy 2014–2030; Physical Planning Policy; Environment Impact Assessment Guidelines Policy, 2002; National Climate Change Response Strategy (NCCRS).

The study examined select relevant policies and plans related to transport and ecotourism development in Kenya. These included the Country's Sustainable Development Blueprint the Kenya Vision 2030, Kisumu CIDPs (from 2013 to 2022), Integrated National Transport Policy (INTP), National Tourism Policy (NTP), National Spatial Plan (NSP) 2015-2045, World Bank Environment and Social Framework (ESF) and IFC General Environmental Health and Safety Guidelines for development projects among other relevant policies documents. It established that several sectoral policies and plans were aligned with Vision 2030 to enable the government to meet its objectives. The evaluated policies all sought to improve the quality of life for all Kenyans. They endeavoured to: moderate the limitations to achieving sustainable development; create an enabling environment for investment, employment, physical infrastructure and socio-economic development; and, enhance the government's capacity to deliver its obligations to the people. Important to note is that Kenya is yet to develop a National Transport Master Plan even as it aspires to move towards being a middle-income industrial economy (GoK, 2007; GoK, 2012a; WBG, 2017; IFC, 2023; GoK, 2015; CGK, 2013, & CGK, 2018)

The policies prioritize environmental sustainability even as Kenya strives to meet its development objectives. Additionally, the policies aim to protect people's rights as guaranteed by the Constitution and other pertinent laws. These include the right to a clean and safe environment. They seek to ensure the administration of equal and equitable sharing of accrued benefits and advocate for the public as well

as stakeholder involvement in decisions that affect them. They provide for the limitation of environmental and social risk that can result concerning any developments. The policies also highlight SEA and ESIA as key tools for planning, monitoring, control and mitigation of environmental and social risks from any policy, plans, decisions or development. As a principle instrument, these provisions are also anchored in the Environmental (Impact Assessment and Audit) Regulations, 2003 under EMCA 1999, which require all public Policies, Plans and Programs to be subjected to SEA (GoK, 2003).

The Integrated National Transport Policy, the GoK (2012a) specifies that to address matters of environmental protection and resource conservation about transport infrastructure EIAs are instrumental in planning, development and maintenance. The National Tourism Policy of 2020 seeks to ensure that in consultation with relevant lead agencies tourism-related policies, programmes and plans are subjected to strategic environmental assessment (SEA) and development activities to undertake (EIA) before approval and implementation guidelines. These provisions and aspirations are reflective of some international best practices. For instance, in the USA, EIA Technical Review Guidelines for Tourism-Related Projects were developed to ensure review of proposed tourism-related projects to identify, avert and mitigate potential adverse impacts and enhance potential beneficial impacts throughout the life of the projects (EPA, 2011).

Between 2000 and 2019, activities related to transportation and tourism accounted for approximately 30% of global greenhouse gas (GHG) emissions, with road and air transport playing major roles (IPCC, 2022; IEA, 2020). In response, countries like Switzerland and Norway revised transport policies to better align with principles of sustainable tourism and mobility to reduce ecological impact. This approach emphasizes the adoption of low-emission, multi-modal transport systems near tourist sites, integrating them into broader European

sustainability strategies (OECD, 2018 & 2022; UNWTO, 2021).

The World Bank, among many other development partners, has established elaborate frameworks to govern the development projects they are involved in. These guidelines complement existing national frameworks and in some instances set precedence as best practice in the absence of any. The WBG (2023) published guidelines for “Environmental, Forests, and other Natural Resource Aspects of Development Policy Financing”. The document provides for robust Environmental, Social and Strategic Assessments as determinants of development financing. Notably, the observed Kenyan policy frameworks attempt to create synergies within and across sectors fostered through public-private partnerships.

Supported by UNCTAD (2013), the study exhibited evidence of universal consensus that infrastructure development was central to growth and socioeconomic development. It distinguished, that infrastructure development is identified as a key element to multi-sectoral development thus implying that sustainable infrastructure development is essential for all forms of development including the tourism and transport sectors. By ensuring environmental sustainability during the development of transport infrastructure, the government will enhance the quality of travel, connectivity, safety and protection of tourist sites. Using most of the available forms of public transport in the area, both sectors have the potential to open up Kisumu County and Kenya to regional and international investment as well as integration.

Worth noting is that the National Spatial Plan (NSP) (GoK, 2015) is an integration of various sectoral policies and plans that seek to guide development in Kenya’s spatial landscape. Transport and tourism sectors are identified by Vision 2030, INTP, NSP and NTP as key to meeting Kenya’s development agenda. However, the sectors need to be sustainably developed. As a result, they may significantly contribute to Kenya’s international commitments in respect to relevant multilateral agreements and development agendas such as the African Union

Agenda 63 and the United Nations Sustainable Development Goals.

Conclusion and Recommendation

The evaluated policies legal and policy frameworks on public transport support the development of ecotourism in Kisumu County and Kenya as a whole. It concludes that while there are no direct legal provisions for ecotourism in the country, some significant policy frameworks on water, road, air and rail public transport support its development. They cover sections on public health, safety, natural resource management, public engagement, rights, environmental quality, and physical planning. Important to note is that these provisions are scattered across various sectors, posing challenges to their effective administration and the attainment of desired sustainable outcomes.

The study recommends that both National and County governments need to prioritize, develop and implement an effective framework for the coordination of legislation, policy and institutional arrangements across public transport and ecotourism related sectors. To achieve sustainable development in and across sectors heavily dependent on public transport, relevant government actors and stakeholders need to use an aggregated approach to infrastructure development ensuring sustainable outcomes that support ecotourism activities. The government should create an environment where regulators or relevant institutions can provide structural, political, and budgetary independence, as well as sufficient competency to implement public transport infrastructure development plans sustainably.

Declaration of generative AI and AI-assisted technologies in the writing process

The study occasionally used Google AI tool in the search for databases containing relevant literature material.

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Credit authorship contribution statement

A.O.O.: Conception, writing, editing and correspondence; Z.N.O-A: Conception, editing and supervision; V.A.O.O.: Conception, editing and supervision. All authors read the final manuscript before submission for publication

Declaration of conflict of interest

The authors report that there are no competing interests to declare.

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