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**ASSESSING EFFICACY OF KENYA'S SPATIAL PLANNING
TOOLS TOWARDS SUSTAINABLE MANAGEMENT OF
THE LAND-SEA INTERFACE****PHILIP OLALE, COLLINS ODOTE & ROBERT KIBUGI**Center for Advanced Studies in Environmental Law and Policy (CASELAP)
University of Nairobi**Abstract**

Kenya's coastal and marine ecosystems constitute a rich and diverse national asset that supports the livelihoods of 2.7 million coastal communities and contributes to the national economic development. Part of this ecosystem specifically the land-sea interface continues to experience unprecedented contestation between various needs including economic interests, social and environmental concerns. Consequently, the arising physical developments and activities within the land-sea interface has resulted in degradation of environmentally sensitive areas, ocean pollution, loss of beach access points, beach encroachment and shoreline erosion. Kenya uses different spatial planning tools to regulate the impact of the resulting land and sea/ocean use contestations. Some of these tools include: land use plans, zoning ordinances, sectorial management plans, development control permits and environmental impact assessments and audits. These tools are based on multiple statutory frameworks which have not been effective in overcoming conflicting or incompatible goals, controlling pollution and eventually realizing sustainable management and blue economy within the land-sea interface. This paper takes the position that this challenge is compounded by a sectoral approach to spatial planning, enforcement and management of the coastal marine ecosystem, which is characterized by a raft of institutions with varying and sometimes conflicting mandates.

Keywords: Land-sea Interface | Land Use | Spatial Planning | Sea Use | Marine Pollution | Land-Based Sources of Marine Pollution | Blue Economy

1. INTRODUCTION

Kenya's land-sea interface, commonly referred to as the coastal zone, constitutes a rich and diverse national asset that stretches approximately 600 km along the seafloor.¹ The natural resources within the land-sea interface continue to support the livelihoods and cultures of about 8.6% of the national population.² However, the sustainable use and management of Kenya's land-sea interface has been jeopardized by pressure from unplanned human settlements and development activities.³ There is also increase in pollution from poor solid waste management and effluent discharge in the ocean. This is exacerbated by the inefficiency of Kenya's spatial planning tools within the land-sea interface which is characterized by among others: fragmented and multiple statutory frameworks, multiple institutional mandates and a sector approach to spatial planning.

Spatial planning refers to the integrated and rational intervention in the distribution of both the land and sea regions for various functions and activities considering the socioeconomic development and environmental needs.⁴ Within the land-sea interface, spatial planning is important as it provides a framework for effectively structuring land and sea uses, designating uses based on site suitability, sustainably using natural resources and controlling development.⁵ Spatial planning also contribute to controlling pollution by rationalizing decisions on siting of polluting activities based on balance of social, economic and environmental considerations. Some of the key spatial planning tools include land use plans, zoning ordinances, and environmental impact assessment plans.

The power for spatial planning is derived from article 66(1) of the Constitution of Kenya 2010 as read with article 69(1)(d, f, g) and article 69(2). It is important to note that the Constitution obligates both the State and its Citizens with responsibilities for different aspects of spatial planning for sustainable environment and natural resource management. For instance, article 66. (1) bestows on the State powers to regulate land use and property in the interest of defence, public safety, public order, public morality, public health, or land use planning. Further, article 69(1)(d, f, g) obligates the state to encourage public participation in the management, protection and conservation of the environment;⁶ establish systems of environmental impact assessment, environmental audit and monitoring of the environment;⁷ and eliminate processes and activities that are likely to endanger the environment⁸. On the other hand, individual persons are obligate under article 69(2) with a duty to cooperate in the protection and conservation of the environment, sustainable development and use of natural resources. These provisions are germane in sustainable management of the coastal land-sea interface through spatial planning.

In addition to these constitutional provisions, Kenya has other statutes to regulate land and sea use activities on the land-sea interface through spatial planning. One of these statutes is the framework law on spatial planning, the Physical Planning Act cap 286, which provides for preparation of physical development plans⁹,

¹ Government of Kenya, *State of the Coast Report: Towards Integrated Management of Coastal and Marine Resources in Kenya*, 2009, National Environment Management Authority (NEMA), Nairobi. 88 pp.

² Government of Kenya, *Pollution Prevention and Control Guidelines for the Coastal and Marine Environment of Kenya*, 2012, National Environment Management Authority (NEMA), Nairobi. 75 pp.: Okuku, E. O., Ohowa, B., Mwangi, S. N., Munga, D., Kiteresi, L. I., Wanjeri, V. O., Okumu, S. and Kilonzo, J., 'Sewage pollution in the Coastal waters of Mombasa City, Kenya: A norm Rather than an Exception' 2011, *Int. J. Environ. Res.*, 5(4):865-874,

³ Government of Kenya, *State of the Coast Report: Towards Integrated Management of Coastal and Marine Resources in Kenya*, 2009, National Environment Management Authority (NEMA), Nairobi. 88 pp.

⁴ Coordinating Body on the Seas of East Asia, *Spatial Planning in the Coastal Zone of the East Asian Seas Region: Integrating Emerging Issues and Modern Management Approaches Interim Edition*, November 2011, United Nations Environment Programme (UNEP), SIDA and Coordinating Body on the Seas of East Asia (COBSEA), accessed from <http://www.cobsea.org/documents/COBSEA%20Spatial%20Planning%20Regional%20Resource%20Document.pdf>

⁵ Ilegbunle, T. O. "The Relationship between Planning Law and Environmental Law" unpublished M.Phil Seminar paper faculty of Law University of Lagos 2000

⁶ Article 69(1)(d)

⁷ Article 69(1)(f)

⁸ Article 69(1)(g)

⁹ Part IV

development control¹⁰, and environmental impact assessments on proposed development projects with potential injurious impacts on the environment¹¹. There is also the Environmental Management and Coordination Act (amendment) 2015 which provides procedures for environmental impact assessments (EIAs) and environmental audits among others. Another key statute is the County Governments Act 2012 which obligates all counties to prepare integrated development plans which form the basis for budgeting and spending of public funds.¹² Specifically, the envisaged county planning framework is expected to integrate economic, physical, social, environmental and spatial planning.¹³

Despite these laws, Kenya's land-sea interface is currently experiencing degradation of environmentally sensitive areas such as mangroves and marine protected areas, loss of beach access points, beach encroachment and shoreline erosion mainly from land-based sources of marine pollution.¹⁴ Proliferation of pollution from land-based activities originating from sewage outlets, industrial effluents, runoff from urban storm water and agricultural activities, water-borne and air-borne pollution, and litter is also on the rise.¹⁵ These challenges have continued to jeopardize the county's blue economy.

Therefore, this paper seeks to analyze the various spatial planning tools provided in statute, demonstrate the specific gaps in the legal framework encumbering their implementation and to recommend reforms for their efficacious use in sustainable coastal land-sea interface management in Kenya.

2. SPATIAL PLANNING TOOLS

In Kenya, the State uses various spatial planning tools to regulate land use and property. Some of these include land use planning, which incorporates preparation and enforcement of physical development plans, development control permits, zoning ordinances, subdivision regulations and building codes. There is also marine spatial planning which focuses on regulating uses within Kenya's territorial waters. Other frameworks that regulate land use include imposing restrictive agreements on private land titles, Environmental Impact Assessments and Environmental Audits.¹⁶ These are discussed below:

a) Physical Development Plans

Physical development plans provide for clear spatial objectives, including land use and settlement patterns as well as linkages at national, regional, county, sub-county and ward level planning, and form the basis for development control activities. These plans are derived from a physical planning process which "refers to the active process of organizing the structures and function to ensure orderly and effective sitting or location of land uses, and it encompasses deliberate determination of spatial plans with an aim of achieving the most optimum level of land utilization in a sustainable manner"¹⁷.

The Physical Planning Act provides for preparation of various physical development plans based on defined geographical scope often referred to as the planning area.¹⁸ The geographical scope for the delineation of the planning area is defined by the Act either as regional or local.¹⁹ Therefore, there are two plan typologies provided in the Physical Planning Act; regional physical development plans and local physical development

¹⁰ Part V

¹¹ Section 36

¹² Section 104.(1) and 107.(2)

¹³ Section 104. (2)

¹⁴ Republic of Kenya, Integrated Coastal Zone Management (ICZM) Policy, Ministry of Environment, Water and Natural Resources (2013)

¹⁵ Government of Kenya, Pollution Prevention and Control Guidelines for the Coastal and Marine Environment of Kenya, 2012, National Environment Management Authority (NEMA), Nairobi. 75 pp.

¹⁶ Peter Veit. (2011), 'Kenya: Government Control of Private Land Use', Focus on Land in Africa (FOLA)

¹⁷ Physical Planning Bill 2017 section 2

¹⁸ Part IV

¹⁹ *ibid*

plans.²⁰ However, the Physical Planning Bill 2017 proposes to further redefine these geographical scope to include national, regional, county and local levels.²¹ These plans are further considered as long term plans or short term plans depending on the needs of the planning area, the objectives of the plan and the timeframe for implementation. Long term plans cover a period of up to 20 to 35 years.²² Short term plans have a planning period of 10 years and below.²³

Physical planning at the national scope is an invention in the Physical Planning Bill 2017 and include the preparation of broad planning policies and strategies that give directions and areas of emphasis at the national level.²⁴ Upon approval, such plans are binding, guide and inform all planning and development decisions on any land in Kenya.²⁵ All decisions with regard to planning, management, and development must be aligned with the national plans and strategies of the nation as contained in the National Physical Development Plan.²⁶ Thus, Plans prepared at this level provide a framework for harmonization and subsequent formulation of lower level plans.²⁷ In 2015, Kenya promulgated its first National Physical Development Plan christened as the “National Spatial Plan (NSP) 2015-2045”. The geographical scope of the plan covers the entire territory of Kenya measuring approximately 582,646 km² including 21km² of the Exclusive Economic Zone (EEZ).²⁸ This plan is thus important in ensuring the integration of land and ocean based physical development activities. The NSP has recognised the coastal region as an important national asset where the State shall ensure strict regulation of marine resources and prepare a coastal management plan.

Generally, regional level planning covers part of a country usually delineated based on a significant resource or zone such as a coastal ecosystem, lake basin ecosystem a river basin among others. Previously, such plans were developed for areas under the jurisdiction of a county council. Under the current devolved system of government, it is proposed that a region shall be a creation out of necessity by two or more counties. Such a ‘necessity’ may arise from the need to prepare plans for natural resources whose impacts and use traverse the boundary of an individual county.²⁹ For example, the land-sea interface traverses the boundary of four counties (Kilifi, Tana River, Lamu and Taita Taveta). Therefore, in line with the provisions of NSP on coastal management planning, these counties ought to formulate a regional physical development plan to regulate all land and sea uses within the land-sea interface.

Just like the national level planning, county level planning has not been provided for in the Physical Planning Act. This level of planning has been provided for in the County Government Act 2012. The Act mandates each county government to prepare a county spatial plan to guide, harmonize and facilitate development within each county.³⁰ These plans therefore provide an opportunity for all the four coastal counties to each formulate a county spatial plan that: indicates desired patterns of land use; provide strategic guidance in respect of the location and nature of development; set out basic guidelines for a land use management system; set out a capital investment framework for the county’s development programs; contain a strategic assessment of the environmental impact of the spatial development framework; and indicate the areas designated for conservation and recreation for which the land-sea interface would be considered.³¹

²⁰ *ibid*

²¹ Part III

²² Third Schedule of the Physical Planning Act

²³ *ibid*

²⁴ section 17 and 18 of the Physical Planning Bill 2017

²⁵ Section 18.(2) of Physical Planning Bill 2017

²⁶ *ibid*

²⁷ *ibid*

²⁸ National Spatial Plan (NSP) 2015-2045

²⁹ Section 25.(1) of Physical Planning Bill 2017

³⁰ Section 107 and 110 of County Government Act 2012

³¹ *ibid* at section 110. (2)

Local level planning covers a small part of the county and target the preparation of detailed land use strategies to guide development. The common local planning units or levels conceived in the current legislation include a city, a municipality, a town, an urban or market centre.³² Local physical development plans may be for long-term or short-term physical development. However, short-term plans are more popular and include the following categories: *action area plans*, for comprehensive planning of areas selected for intensive development, which is to commence within a specified period; *subject plans*, for detailed treatment of a particular planning aspect, for example, residential, transportation, water supply, sewerage, etc., in part or all of a long-term plan; *advisory or zoning plans*, indicating permitted subdivision, use and density of development; and *part developments plans*, indicating precise sites for immediate implementation of specific projects including land alienation purposes.³³ Thus, there ought to be prepared zoning plans demarcating the land-sea interface and providing regulations on permitted uses and density of development.

b) Zoning Ordinances

Zoning ordinances are the primary development regulatory tools used to control land use in Kenya, especially within urban areas. It is a portfolio of development guidelines that contain criteria against which planning applications are assessed. They are prepared pursuant to Section 29 part V of the Physical Planning Act which gives powers to local authorities (now county government) on control of development where they have powers to: “prohibit or control the use and development of land and buildings in the interests of proper and orderly development of its area; control or prohibit the subdivision of land or existing plots into smaller areas; consider and approve all development applications and grant all development permissions; ensure the proper execution and implementation of approved physical development plans; formulate by-laws to regulate zoning in respect of use and density of development; and reserve and maintain all the land planned for open spaces, parks, urban forests and green belts in accordance with the approved physical development plan...”³⁴

A zoning ordinance is meant to provide landowners and developers with a clear picture of what can and cannot be developed on any particular plot. It usually has two components: zoning map and zoning regulations. The zoning map identifies specific zoning districts within the planning area based on the predominant land use (residential, commercial, industrial, parks and open spaces), and the desired intensity and building height for that area. The zoning regulations tabulate the uses into three categories: permitted, conditional and prohibited uses. It also stipulates the location of a building on any plot, the overall maximum intensity, as well as the building height. Specific regulations related to overall building form, design, provision of open space and landscaping, parking, fencing and signage are also stipulated.

Essentially, each of the four counties under which the land-sea interface traverses should prepare zoning ordinances to guide all physical development activities. These ordinances will ensure that all developments within the land-sea interface are designed and constructed based on its predetermined provisions.

c) Development Control Permits

These are permits issued in respect to provisions in the physical development plans and the zoning ordinance. Development control permits entails the government regulating land use and new buildings to ensure developers do not deviate from approved building plans in the course of implementation (construction) on the plot earmarked for such.

In line with development control procedures, there are mainly three types of permit that all developments should purpose to acquire before commissioning and occupancy. These include development permit (form PPA 2), construction permit, and certificate of compliance (form PPA 5) - all of which are executed under the Physical Planning Act. A development permit is required for any land development which requires change in

³² Section 24. (1) of the Physical Planning Act

³³ Section 3 Physical Planning Act

³⁴ Section 29 Physical Planning Act

use of land. A construction permit is for building construction while a certificate of occupancy is issued when the building construction is completed and is ready for use.

These permits are important in regulating physical developments within the beach areas of the land-sea interface. For example, physical developments such as construction of hotels, holiday homes, docking bays for boats, ports among others require approval from the county government which has the overall mandate to control development on land within their jurisdiction.³⁵ Effectively, all proponents of physical developments within the land-sea interface are supposed to make formal development application to the respective county and only commence construction upon being issued with development permission.³⁶ In cases where there are developments carried out without permits, the county should issue an enforcement notice on the owner, occupier or developer of the land requiring discontinuation of such development or any other corrective measure deemed appropriate by the county.³⁷ Such enforcement notices provide a vital opportunity that should be leveraged by county governments to ensure that all physical developments along the land-sea interface that are causing pollution are decommissioned.

d) Sectorial Resource Management Plans

There are a number of laws that provide for the preparation of sector specific management plans for specific natural resources. For example, Section 55(2) and (3) of EMCA mandates NEMA to prepare a survey of the Coastal Zone and thereafter develop an integrated national coastal zone management plan every two years. The survey and plan among others contain: an inventory of all structures, roads, excavations, harbours, outfalls, dumping sites and other works located in the coastal zone; an inventory of the state of the coral reefs, mangroves and marshes found within the coastal zone; an inventory of all areas within the coastal zone of scenic value or of value for recreational and cultural purposes; and estimate of the extent, nature, cause and sources of coastal pollution and degradation.³⁸

One of the resource management plans target mangrove forests and are prepared under Forest Conservation and Management Act No. 34 of 2016.³⁹ A forest management plan “means a written document establishing direction and goals for the management, conservation and utilization of a specific forest land area; specifying all sociocultural practices and activities necessary to accomplish the merchantable production of a forest product; and all practices that will minimize adverse environmental effects and improve livelihoods”.⁴⁰ The Kenya Forest Service has the overall mandate of their preparation.⁴¹ However, there are also other forests within the coastal zone declared as protected areas by the National Museums of Kenya.⁴²

Another sector plan prepared within the land-sea interface is wildlife management plans prepared under the Wildlife Conservation and Management Act, 2013.⁴³ These apply to marine national parks and marine national reserves which are found within the land-sea interface.⁴⁴ As such, the Act provides that no development shall be approved within these areas in the absence of such a management plan.⁴⁵ The role of preparing these plans is given to the Kenya Wildlife Service in respect to section 34 and 36 of the Wildlife Conservation and Management Act, 2013. Section 87.(d) requires the Service to maintain registers of all management plans developed. The Act also considers any person who wilfully and without reasonable

³⁵ Constitution of Kenya 2010 Part 2 of the Fourth Schedule

³⁶ Physical Planning Act section 33

³⁷ *ibid* at section 38

³⁸ EMCA section 55.(4)

³⁹ section 47

⁴⁰ section 2

⁴¹ section 42

⁴² National Museums and Heritage Act No. 6 of 2006 section 25

⁴³ section 44

⁴⁴ *ibid*

⁴⁵ *ibid* at section 44.(4)

cause contravenes an approved management plan; or fraudulently alters the approved management plan to have committed an offence.⁴⁶

e) Environmental Impact Assessment and Audits

The Constitution of Kenya 2010 provides that the State shall establish systems of environmental impact assessment, environmental audit and monitoring of the environment.⁴⁷ Environmental Impact Assessment (EIA) is considered both a planning and decision-making tool. As a planning tool, EIA presents methodologies and techniques for identifying, predicting and evaluating potential environmental impacts of projects, policies, plans and programmes in the project cycle (planning, implementation and decommissioning phases).⁴⁸ Thus, the Physical Planning Act requires all development application for industrial location, dumping sites, sewerage treatment, quarries or any other development activity with potential injurious impact on the environment to submit an environmental impact assessment report.⁴⁹ As a decision making tool, EIA presents decision-makers with the information necessary to determine whether or not a project should be implemented.⁵⁰

Environmental Impact Assessments (EIA) are interdisciplinary analyses of the natural, human health, and socio-cultural effects which are expected to result from public and private sector actions such as development projects.⁵¹ Felleman further argues that the purpose of these studies is to comprehensively inform decision makers and the affected public about both the proposed action and its alternatives, so that wherever possible significant negative impacts may be avoided, minimized, or mitigated.⁵² The Environmental Management and Co-ordination Act which domesticates the EIA process in Kenya defines EIA as a systematic examination conducted to determine whether or not a programme, activity or project will have any adverse impacts on the environment.⁵³ The overall objective of EIA is to ensure that environmental concerns are integrated in all development activities in order to contribute to contribute to sustainable development.⁵⁴

The legal application of EIA process is provided for within EMCA and Legal Notice No. 101 on the Environmental (Impact Assessment and Audit) Regulations of 2003. Administration of environmental impact assessments is provided for under section 58 of the Environmental Management and Coordination Act.⁵⁵ The projects to be subjected to EIA are specified in the Second Schedule of the Environmental Management and Coordination Act with NEMA being mandated and responsible for issuing, varying or cancelling environmental impact assessment licenses, and coordinating the EIA process.

Generally, the Act provides that an activity out of character with its surrounding, any structure of a scale not in keeping with its surrounding and major changes in land use shall be subjected to EIA.⁵⁶ Other specific activities and projects to be subjected to EIA relate to urban development plans, transportation, dams, rivers and water resources, aerial spraying, mining including quarrying, agriculture, processing and manufacturing industries, electrical infrastructure, management of hydrocarbons, waste disposal, natural conservation areas, nuclear reactors and major developments in biotechnology including the introduction and testing of genetically modified organisms.⁵⁷

⁴⁶ Wildlife Conservation and Management Act, 2013 section 88

⁴⁷ Article 69

⁴⁸ NEMA (2003) Environmental (Impact Assessment and Audit) Regulations, 2003

⁴⁹ Section 36

⁵⁰ Republic of Kenya (2002) Environment Impact Assessment Guidelines and Administrative Procedures, National Environmental Management Authority

⁵¹ Felleman, J. (2013). Environmental Impact Assessment. Retrieved from <http://www.eoearth.org/view/article/152590>

⁵² *ibid*

⁵³ EMCA, 1999 section 2

⁵⁴ Republic of Kenya (2002) Environment Impact Assessment Guidelines and Administrative Procedures, National Environmental Management Authority

⁵⁵ No. 8 of 1999 revised 2015

⁵⁶ Second Schedule of the Environmental Management and Coordination Act

⁵⁷ *ibid*

In Kenya, EIA process follows two main phases. The first phase of an environmental assessment deals with Initial Environmental Examination (IEE) and the second Environmental Impact Studies (EIS) which is usually the detailed EIA. IEE is carried out to determine whether potentially adverse environmental effects are significant or whether mitigation measures can be adopted to reduce or eliminate these adverse effects while EIA is a procedure used to examine the environmental consequences or impacts, both beneficial and adverse, of a proposed development project and to ensure that these effects are taken into account in project design.⁵⁸ In summary, the EIA processes involves the following; screening, scoping, baseline data collection, impact analysis and prediction, analysis of alternatives, mitigation and impact management, environmental management plan (EMP) and lastly decision making not forgetting effective EIA follow-up through carrying out periodic environmental audits.

Environmental Management and Coordination Act⁵⁹ section 2 defines Environmental Audits (EA) as the “compliance monitoring and evaluation tool to gauge how well existing projects/facilities perform with respect to environmental standards, including appraisal of the production systems, ‘environmental regulatory frameworks, environmental health and safety measures, and sustainable use of natural resources, and mitigation of impacts; an undertaking, targeting on-going concerns”. Environmental Audits (EAs) are important spatial planning tools used to monitor compliance to environmental safeguards as contained in the environmental impact assessment reports and in line with section 68 and 69 of EMCA. Saeed et al⁶⁰ provides that response to undertake annual audits by various firms in business has been good with over 5,000 EA reports prepared countrywide, with most establishments in the coast, complying. They state that these annual evaluations have assisted in good environmental governance, resulting in corrective measures for subsequent years.⁶¹

EIA has generally become an important decision-making instrument in environmental management where proponents of projects are required to submit EIA reports that among others identify potential negative impacts to the environment and commensurate mitigation measures. Thus, proper applications and enforcement of EIA and its provisions may be able to ameliorate environmental management at the coastal zone, and as the public gains more awareness on the EIA process and its benefits, the country stands to realize sustainable development within the land-sea interface and the coastal ecosystem at large.

3. GAPS IN THE LAW ON SPATIAL PLANNING TOOLS FOR THE LAND SEA-INTERFACE

While there are many spatial planning tools, they face many challenges in their utility which limits their efficacy. Some of these challenges are discussed below:

a) Fragmentation of Laws

Kenya’s land-sea interface and the coastal marine zone at large is regulated by multiple laws with different provisions on various facets of the coastal marine environment including physical planning, development control, land use, pollution levels, safety, health, environmental management institutional responsibilities among others.⁶² Basically, the framework law regulating spatial planning of activities on all land in Kenya is the Physical Planning Act, which provides for the preparation of various physical development plans and

⁵⁸ Ogola P. F. (2007), Environmental Impact Assessment General Procedures, presented at Short Course II on Surface Exploration for Geothermal Resources, organized by UNU-GTP and KenGen, at Lake Naivasha, Kenya, 2-17 November, 2007. Retrieved from <http://www.os.is/gogn/unu-gtp-sc/UNU-GTP-SC-05-28.pdf>

⁵⁹ No. 8 of 1999.

⁶⁰ Saeed Mwaguni & Daniel Munga, Integrated Coastal Zone Management Action Plan for Kenya. 2010.

⁶¹ *ibid*

⁶² Government of Kenya, *State of the Coast Report: Towards Integrated Management of Coastal and Marine Resources in Kenya*, [2009], National Environment Management Authority (NEMA), Nairobi. 88 pp.

development control. On the other hand, there is the Environmental Management and Co-ordination Act 1999 which is the framework law on the environmental management and conservation.

There are also sectorial laws governing key coastal activities. For example, the Wildlife Conservation and Management Act 2013 which regulates marine protected reserves and parks; National Museums and Heritage Act of 2006 which regulates protected monuments and forests of cultural value; Forest Conservation and Management Act of 2016 which regulates mangrove forests; Tourism Act which regulates development of tourism activities and the Kenya Maritime Authority Act 2006 that regulates maritime transport.

Thus, the raft of legal frameworks connotes a scenario where different activities at the land-sea interface are regulated using different mechanisms as illustrated under section 2 of this paper.

b) Institutional Overlaps

There are multiple institutions that are in charge of regulating and managing different aspects of the coastal marine ecosystem. This is characterized by various government agencies organized along sector lines. For example, Kenya Forest Service (KFS) is in charge of preparing management plans for mangroves public forests under forestry law. This also applies where the land is a marine park, where they are also planned through management plans under wildlife law by Kenya Wildlife Service (KWS). The same scenario obtains for regulation of use within the ocean which is under the jurisdiction of the Kenya Maritime Authority with responsibility to monitor, regulate and co-ordinate activities in the maritime industry.⁶³ These powers are limited to regulating shipping activities in the inland waterways.⁶⁴ These sectorial mandates overlap with the overall mandate of the county governments which have the overall responsibility to prepare integrated development plans and carry out development control within their jurisdiction.⁶⁵ Effectively, counties have no mandate of mangroves or marine parks, yet they give development control permits on contiguous land. They also regulate waste disposal which affects mangroves and marine parks.

c) Inconsistency in Delimitation of Land-sea Interface

There is inconsistency in the delimitation of Kenya's coastal zone which affects the preparation of comprehensive and long-term land use plans for controlling development along the coast.⁶⁶ For example, pursuant to the Physical Planning Act Cap 286, the draft Physical Planning Handbook 2007 provides that hotel and housing development shall be separated from coastal zone by a public service road with a 15m-20m at edge of 30 meters high water mark.⁶⁷ Whereas the Integrated National Land Use Guidelines by the National Environment Management Authority (NEMA) sets the buffer zone(s) and setbacks for areas abutting the beaches at 60 meters from the high water mark.⁶⁸ The later provisions by NEMA are in consonance with provisions in the Survey Regulations 1994 which also designate a stretch of land not less than 60 metres in width above the high water mark for Government purposes.⁶⁹ More often than not, this has resulted in conflicting application of development control which render sustainable management difficult. Effective regulation of activities within the land-sea requires clarity on boundary delimitation to ensure that the jurisdiction and extent of application of any law is consistent and clear.

⁶³ Kenya Maritime Authority Act, 2006

⁶⁴ See section 5 (1) (p) of the Kenya Maritime Authority Act, 2006

⁶⁵ County Government Act 2012 under Section 107

⁶⁶ Charles O. Okidi, 'Legal Aspects of Management of Coastal and Marine Environment in Kenya', (2008). In C. O. Okidi, P. Kameri-Mbote and Migai Akech, (ed) *Environmental Governance in Kenya: Implementing the Framework Law*, Centre for Advanced Studies in Environmental Law and Policy (CASELAP) (2008)

⁶⁷ Government of Kenya, *Physical Planning Handbook*, [2007], Physical Planning Department

⁶⁸ Government of Kenya, *Integrated National Land Use Guidelines*, [2011], National Environment Management Authority

⁶⁹ See regulation 110

4. CONCLUSION AND RECOMMENDATION

Kenya's current legislative framework and approach to spatial planning in the land-sea interface has experienced uncoordinated planning among plans prepared and funded at the sector, county and national government level. Under these circumstances, accountability and effective monitoring of spatial development has been a problem. Some of the recommendations for reforming the spatial planning framework in Kenya to enable it facilitate sustainable management within the land-sea interface include: proper delineation of the land-sea interface in law; provision for comprehensive planning of the entire land-sea interface; and incorporating in law a multi-stakeholder framework for development approval of all activities within the land-sea interface. These are expounded below:

- a) **Proper delineation of land-sea interface:** the provisions under the Physical Planning Act and the Survey Act on the extent of the land-sea interface should be harmonized. This will ensure clarity on the extent to which developments are allowable thus protecting the beaches from encroachment.
- b) **Comprehensive planning for the entire land-sea interface:** Kenya's land-sea interface transcends the boundaries of four counties. Even though it is necessary and proper to have each county control developments within their jurisdiction, it is imperative that they follow clear guidelines set by the national government to ensure quality control and avoidance of conflict. This should be based on a comprehensive and integrated spatial plan covering the entire land-sea interface.
- c) **Multi-stakeholder development approval committee:** Due to multiplicity of agencies in charge of sectorial aspects of development and approval, there should be a collegial approach to approving of development applications. This will ensure that all the needs of the various agencies are incorporated and rationalised. It will also enable the developer not to be overwhelmed by numerous approval procedures.

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