**UNIVERSITY OF NAIROBI**
**CENTRE FOR ADVANCED STUDIES IN ENVIRONMENTAL LAW AND POLICY (CASELAP)**

# UTILITY OF SPATIAL PLANNING AS A TOOL FOR REGULATING TOURISM ACTIVITIES IN KENYA'S LAND-SEA INTERFACE FOR SUSTAINABLE BLUE ECONOMY

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## DECLARATION

This thesis is my original work and has not been presented nor is it currently under consideration for the award of a degree in any other University.

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This thesis has been submitted with our approval as the University Supervisors.

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# DEDICATION

This thesis is dedicated to the entire Odiyo's family and specifically in memory of my late father, Mr. Martin Olale for his love of education and wise counsel.

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# ABSTRACT

Coastal tourism is one of the main driving sectors of the blue economy followed by oil and gas, minerals, blue carbon and fisheries. In Kenya, it constitutes a vital developmental aspect characterized by leisure and recreationally oriented activities that occur on the land-sea interface and in the offshore coastal waters. However, poorly planned and regulated tourism activities within land and sea interface have led to degradation of environmentally sensitive marine areas, encroachment of public beaches, erosion of the shoreline, blockage of public access points to the beaches and discharge of effluent into the sea. These impacts transcend the land and ocean continuum necessitating the need for regulation. To regulate these impacts, Kenya has put in place various policy and statutory frameworks including the Constitution of Kenya 2010. One of the tools captured in these frameworks is spatial planning. Despite its promise, spatial planning has not been effective in overcoming conflicting or incompatible touristic activities, controlling pollution from these activities and eventually realizing a sustainable blue economy.

This study sought to assess how physical and land use planning frameworks and processes can be better utilized in the regulation of tourism activities within the land-sea interface in Kenya so as to ensure sustainable blue economy. Using a mixed research design, data was collected on tourism activities polluting the land-sea interface in Malindi, legal framework regulating these tourism activities through spatial and land use planning procedures, challenges to integrated implementation of planning and innovative strategies for integrated spatial planning. A semi-structured questionnaire was used to collect quantitative data from 46 managers/owners of tourism accommodation facilities, while qualitative data was collected from 5 key informants, observations and 3 focus group discussions with fishermen, beach management unit, and boat operators.

The findings demonstrate that the current planning framework is inadequate due to the focus on regulating physical facilities such as hotels and holiday homes located on terrestrial land which, the law refers to as ‘material change in use”. It ignores other activities such as swimming, leisure walks, sport fishing, souvenir collection, and snorkeling. This is in spite of the environmental degradation that results from all these activities and the impacts that transcend the land-sea continuum. The study recommends the application of integrated spatial planning that addresses itself to the interdependence of land and ocean where tourism activities occur. Such spatial planning should be undertaken using the Integrated Coastal Zone Management (ICZM) approach that incorporates the systems theory. This would require a reconceptualization of the current physical planning approach that considers tourism as disparate and unconnected physical activities to one that looks at tourism as a sector. The integrated spatial planning proposed for the land-sea interface in Malindi should involve geographical, functional and policy integration to promote sustainability. This would be realized by the preparation of integrated marine spatial plans for terrestrial and marine spaces impacted by tourism in Malindi. These plans should be anchored through an amendment to the current planning regulatory framework.

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# ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| BMA | Beach Management Act |
| BMU | Beach Management Units |
| CTZ | Coastal Transition Zone |
| EAs | Environmental Audits |
| EDL | Effluent Discharge License |
| EEZ | Exclusive Economic Zone |
| EIA | Environmental Impact Assessment |
| EIS | Environmental Impact Study |
| EMCA | Environmental Management and Coordination Act |
| EMP | Environmental Management Plan |
| ESIA | Environmental and Social Impact Assessment |
| FGD | Focus Group Discussion |
| ICZM | Integrated Coastal Zone Management |
| IEE | Initial Environmental Examination |
| INLUG | Integrated National Land Use Guidelines |
| KFS | Kenya Forest Service |
| KMFRI | Kenya Marine and Fisheries Research Institute |
| KWS | Kenya Wildlife Services |
| LAPSSET | Lamu Port-South Sudan Ethiopia-Transport Corridor Project |
| MAB | Man and the Biosphere Programme |
| NBSAP | National Biodiversity Strategy & Action Plan |
| NEC | National Environment Council |
| NEMA | National Environment Management Authority |
| NLC | National Land Commission |
| NMK | National Museums of Kenya |

| | |
|---|---|
| NSP | National Spatial Plan |
| MPAs | Marine Protected Areas |
| MSP | Marine Spatial Planning |
| SCCC | South Carolina Coastal Council |
| SDGs | Sustainable Development Goals |
| SEA | Strategic Environmental Assessment |
| TSP | Terrestrial Spatial Planning |
| UNCLOS | United Nations Convention on the Law of the Sea |
| UNDP | United Nations Development Programme |
| UNECA | United Nations Economic Commission for Africa |
| UNWTO | United Nations World Tourism Organization |
| WIO | Western Indian Ocean |

# LIST OF STATUTES

**National Laws**

Constitution of Kenya, 2010

County Governments Act, No. 17 2012

Climate Change Act, No. 11 of 2016

Environmental Management and Coordination Act (EMCA), No. 8 of 1999

Environmental Management and Co-ordination (Amendment) Act, No. 5 of 2015

Fisheries Management and Development Act, No. 35 of 2016

Forest Conservation and Management Act, No. 34 of 2016

Kenya Maritime Authority Act, Cap 370

Kenya Maritime Act, No.5 of 2006

Land Registration Act, Cap 300

Land Act, No. 6 of 2012

Maritime Zones Act, Cap 371 of 1989

Merchant Shipping Act, 2009

National Museums and Heritage Act, No. 6 of 2006

National Land Commission Act, No. 5 of 2012

Physical and Land Use Planning Act, No 13 of 2019

Survey Act, Cap 299

Science, Technology and Innovation Act, No. 28 of 2013

Tourism Act, No. 28 of 2011

Urban Area and Cities Act, No. 13 of 2011

Water Act, No. 43 of 2016

Wildlife Conservation and Management Act, No. 47 of 2013

**National Policies**

Sessional Paper No. 1 of 2017 on National Land Use Policy

Sessional Paper No. 3 of 2009 on National Land Policy

National Environment Policy, 2013

Sessional Paper No.13 of 2014 on Integrated Coastal Zone Management

**International Conventions**

African Convention on the Conservation of Nature and Natural Resources, 1968

Convention for the Protection, Management and Development of the Coastal Environment of the Eastern African Region (The Nairobi Convention), 1985

Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus, Denmark 1998)

Convention of Biological Diversity, 1992

Paris Agreement on Climate Change, 2015

Revised African Convention on the Conservation of Nature and Natural Resources, 2003

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# CHAPTER ONE
# INTRODUCTION

## 1.1: BACKGROUND TO THE STUDY

Tourism has evolved across the globe to become one of the most dynamic, diverse and expansive blue economy sectors of the 21st century.[1] As tourism demand rises, there is an increase in user conflicts, and greater stress is placed upon the land-sea environment on which it depends necessitating the need for better governance.[2] Also referred to as the Coastal Transition Zone (CTZ), the land-sea interface where tourism thrives, encompasses the geomorphologic area where the land interacts with the sea and comprises of both terrestrial and marine area with coexisting biota and abiotic components.[3] Tourism within this land-sea interface is characterized by leisure and recreationally oriented activities that occur on the interface and in the offshore coastal waters.[4] The dominance of tourism within the land-sea interface arises from natural, unblemished scenery, mountains, beaches, traditional, historical picturesque towns and villages as well as prehistoric monuments.[5] However, the rising level of tourism growth within the land-sea interface degrades the fundamental

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1 United Nations World Tourism Organization, Affiliate Members Regional Reports, Volume four – Tourism in Africa: A Tool for Development (Madrid, UNWTO 2015a).

2 G Omboga, Integrated Coastal Zone Management in Kenya: A Case Study of the Nyali-Bamburi-Shanzu Area. A Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of Master of Arts in Planning (University of Nairobi 2000) xiii + 203.

3 W Schäfer, *Ecology and Paleoecology of Marine Environments* (Irmgard Oertel and G Y Craig (trs), first published in 1962, German edn, University of Chicago Press 1972); Drew M Talley and others, Research Challenges at the Land-sea Interface (2003) 58(4) Estuarine Coastal and Shelf Science 699; Government of Kenya, State of the Coast Report: Towards Integrated Management of Coastal and Marine Resources in Kenya (National Environment Management Authority 2009) 1-88.

4 S Polyzos S and D Tsiotas, The Evolution and Spatial Dynamics of Coastal Cities in Greece in Serafeim Polyzos, Urban Development (IntechOpen 2012) 1-24.

5 B O Vehbi, A Model for Assessing the Level of Tourism Impacts and Sustainability of Coastal Cities in Murat Kasimoglu and Handan Aydin, Micro and Macro Perspectives. (IntechOpen 2012) 1-18; Government of Kenya, State of the Coast Report: Towards Integrated Management of Coastal and Marine Resources in Kenya (National Environment Management Authority 2009) 1-88; Food and Agriculture Organization of the United Nations, Survey Findings: Overview of Kenya's Coastal Area (FAO, 2018) <www.fao.org/docrep/field/003/AC574E/AC574E03.htm>

ecological resources on which tourism is dependent upon leading to an unsustainable blue economy.

Increased development of touristic activities within fragile land-sea interface has led to the destruction of coral reefs, lagoons, and fragile sandy beaches.[6] In addition, the high concentration of tourists has resulted in overcrowding, trampling and over exploitation of marine resources, such as marine turtles and coral reefs.[7] More often than not, these tourism activities use the ocean for wastewater disposal thus a potential for pollution due to poor waste management.[8] The massive demand of coastal space has also resulted in an increase of the number of actors such as local population, businessmen, tourists, local authorities as well as the national government agencies.[9] This massive demand leads to space contestation which in turn leads to degradation especially when there is no deliberate regulatory mechanism to structure the various land and sea uses.[10] Under the auspices of the Sustainable Development Goals (SDGs), States are called upon to sustainably use and manage terrestrial and marine resources.[11]

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[6] Government of Kenya, State of the Coast Report: Towards Integrated Management of Coastal and Marine Resources in Kenya (National Environment Management Authority 2009) 1-88; Government of Kenya, Pollution Prevention and Control Guidelines for the Coastal and Marine Environment of Kenya (National Environment Management Authority 2012) 1-75.

[7] cf Government of Kenya, State of the Coast Report (n 6) 1-88: cf Government of Kenya, Pollution Prevention and Control Guidelines for the Coastal and Marine Environment of Kenya (n 6) 1-75.

[8] Government of Kenya, Pollution Prevention and Control Guidelines for the Coastal and Marine Environment of Kenya (National Environment Management Authority 2012) 13-61; D Munga and others, Land-Based Activities, Pollution Sources and Levels in Water and Sediment in the Coastal and Marine Area of Kenya (Technical Report, Kenya Marine and Fisheries Research Institute 2006) <http://hdl.handle.net/1834/6888>

[9] J Kiousopoulos, 'Anthropogenic Intensity' and 'Coastality': Two new Spatial Indicators for Exploring & Monitoring the Coastal Areas, in the framework of Environmental Management, in Santosh Sarkar, *Environmental Management*, (IntechOpen 2010) 1-26; Government of Kenya, State of the Coast Report: Towards Integrated Management of Coastal and Marine Resources in Kenya (National Environment Management Authority 2009) 1-88.

[10] B O Vehbi, A Model for Assessing the Level of Tourism Impacts and Sustainability of Coastal Cities in Murat Kasimoglu and Handan Aydin, Micro and Macro Perspectives. (IntechOpen 2012) 1-18; Government of Kenya, State of the Coast Report (n 35) 1-88.

[11] See SDG Goal 14 and 15 especially targets 14.1 and 15.1.

Regulation of tourism activities within the land-sea interface is germane to the realization of a sustainable blue economy for the countries and populations that depend on it. The blue economy connotes a sustainable ocean-based economic model that is largely dependent on coastal and marine ecosystems and resources.[12] The concept of blue economy within the land-sea interface includes "all activities that explore and develop ocean resources, use ocean space, protect the ocean environment, use ocean products as a main input and provide goods and services to support ocean activities".[13] In specific terms, the blue economy includes activities such as tourism, mineral exploration, aquaculture, fisheries, mariculture, port development and maritime security.[14] In Africa, the ocean resource base in the 38 African coastal states transcends a geographical jurisdiction totaling about 13 million square kilometers including territorial seas and Exclusive Economic Zones [EEZ].[15] A sustainable blue economy includes maritime economic activities that contribute to the overall sustainability of lakes, rivers, oceans, seas and coasts.[16]

Tourism includes a set of permissible activities which visitors get involved in by reason of their movements. This includes the attractions and the means that originated them, the facilities created to satisfy their needs and the economic, social, cultural, psychological, political, geographic and environmental phenomena as well as relationships resulting from all of the above.[17] Tourism is, therefore, "an interrelated system of demand [international tourist markets, domestic tourist markets and residents' use of tourist attractions, facilities and services] and supply factors

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[12] United Nations Development Programme, Leveraging the Blue Economy for Inclusive and Sustainable Growth (Policy Brief, Issue No: 6/2018, UNDP 2018) <http://www.ke.undp.org/content/dam/kenya/docs/UNDP%20Reports/Policy%20Brief%20%202018%20%206%20%20Blue%20Economy%20for%20Inclusive%20and%20Sustainable%20Growth.pdf>

[13] ibid

[14] United Nations Economic Commission for Africa, Africa's Blue Economy: A Policy Handbook (UNECA, 2016a) <https://www.uneca.org/sites/default/files/PublicationFiles/blue-eco-policy-handbook_eng_1nov.pdf>

[15] ibid

[16] United Nations Economic Commission for Africa, The Blue Economy (UNECA, 2016b) <https://www.uneca.org/sites/default/files/PublicationFiles/blue_economy_english-nov2016.pdf >

[17] L Cunha, The Definition and Scope of Tourism: A Necessary Inquiry (2014) n. 5 (2012): Cogitur: Journal of Tourism Studies 91.

[attractions and activities, accommodation, other tourist facilities and services, transportation and other infrastructure]".[18] Coastal tourism takes place within a unique resource combination at the interface of land and sea which has amenities such as water, beaches, scenic beauty, rich terrestrial and marine biodiversity, diversified cultural and historic heritage.[19] This form of tourism involves both consumptive activities such as fishing, shell collection, coral reef collection and non-consumptive activities such as swimming, diving, boating, surfing, wind-surfing, jet skiing, bird watching, and snorkelling.[20]

In Africa, coastal tourism is the main driving sector of the blue economy followed by oil and gas, minerals, blue carbon, and fishery.[21] The global tourism sector influences approximately 10.3 per cent of the global GDP, accounting for some 300 million jobs.[22] Similarly, Africa's tourism sector contributes around 7.1 per cent of the continent's GDP, employing some 24.6 million people.[23] The continent is now regarded as the world's second fastest growing and promising tourism region, after Asia-Pacific.[24] According to the Africa Blue Economy Strategy, coastal tourism is estimated to grow from about US$80 billion value in 2018 to about US$140 billion in 2030 and US$180 billion by 2063.[25] The Western Indian Ocean (WIO) region's economic value in terms of coastal and marine tourism represents about 69 per cent (US$14.3 billion annually) of ocean output, making it the largest economic

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[18] United Nations World Tourism Organization, National and Regional Tourism Planning: Methodologies and Case Studies (Madrid, UNWTO 1994).

[19] United Nations Environmental Programme, Sustainable Coastal Tourism: An Integrated Planning and Management Approach (Supported by French Ministry of Ecology, Energy, Sustainable Development and Physical Planning, UNEP 2009) 1-87.

[20] ibid, 10.

[21] African Union — Inter-African Bureau for Animal Resources, Africa Blue Economy Strategy (Nairobi, Kenya, AU-IBAR 2019) xiv + 34 <https://www.infoafrica.it/wp-content/uploads/2020/07/sd_20200313_africa_blue_economy_strategy_en.pdf>

[22] World Travel & Tourism Council, The World Travel & Tourism Council (WTTC) represents the Travel & Tourism Sector Globally (WTTC 2020a) <https://wttc.org/>

[23] World Travel & Tourism Council, Urgent Appeal to International Community to Support African Travel and Tourism Sector (WTTC, 2020b) <https://wttc.org/News-Article/Urgent-Appeal-to-International-Community-to-Support-African-Travel-and-Tourism-Sector>

[24] O Töre, Travel and Tourism Drive Africa's Economy, Contributes 8.5% of the GDP (2019) <https://ftnnews.com/tours/37855-travel-and-tourism-drive-africa-s-economy-contributes-8-5-of-the-gdp>

[25] cf African Union — Inter-African Bureau for Animal Resources (n 21) 4.

contribution within the WIO's economy.[26] This includes coastal tourism within the 10 countries of the WIO region namely; Somalia, Kenya, Tanzania, Mozambique, South Africa, Comoros, Seychelles, Madagascar, Mauritius and France's Reunion Island.[27]

This important role of tourism sector was reiterated in the first global conference on the sustainable Blue Economy held in Kenya in November 2018.[28] Kenya, in its economic blue print named Vision 2030, identified tourism as one of the sectors that will spur growth and development as it contributes about 10% to GDP and 9% of total formal wage employment.[29] Tourism is Kenya's third largest foreign exchange earner after tea and horticulture. According to the Kenya National Bureau of Statistics, tourism earnings grew by 3.9 per cent from KSh 157.4 billion in 2018 to KSh 163.6 billion in 2019.[30] This contribution to the country's GDP emanated from its five tourism destinations including: Coastal, Central highlands and Rift Valley Region, Western, Northern and Southern.[31] Among the five tourism destinations, Coastal tourism is the most vibrant and preferred by visitors as demonstrated by the highest proportion of hotel bed-nights occupancy at 38.2 per cent.[32]

Through the doctrine of police power, spatial planning provides the state with a proactive, promotional and interventional strategic framework for regulating tourism uses so as to prevent harmful development and mitigate the impact of potentially polluting activities.[33] Planning is a logical and systematic evaluation of land and

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[26] D Obura, Reviving the Western Indian Ocean Economy: Actions for a Sustainable Future (Gland, Switzerland, WWF International- World Wide Fund for Nature 2017) 7.

[27] ibid 7.

[28] Republic of Kenya and United Nations Development Programme, High Level Panel for A Sustainable Blue Economy: Western Indian Ocean (WIO) Regional Meeting Report (Meeting Report, 2-3 December, Mombasa, RoK and UNDP 2019) 1-28.

[29] Japan International Cooperation Agency, Data Collection Survey on Blue Economy in the Republic of Kenya (JICA 2018) <https://openjicareport.jica.go.jp/pdf/12320339.pdf>

[30] Kenya National Bureau of Statistics, Economic Survey 2020 (KNBS 2020) <http://www.knbs.or.ke>

[31] Government of Kenya, National Spatial Plan (NSP) 2015-2045 (Nairobi, Ministry of Lands and Physical Planning., Department of Physical Planning 2015).

[32] Kenya National Bureau of Statistics, Economic Survey 2020 (KNBS 2020) <http://www.knbs.or.ke>

[33] R A Acheampong, The Concept of Spatial Planning and the Planning System in *Spatial Planning in Ghana: Origins, Contemporary Reforms and Practices, and New*

water, an alternate form of land use and other physical, social and economic settings to inspire users of land to choose preferences, which boost productivity at the same time meeting the societal needs sustainably.[34] Planning endeavors to realize an optimal spatial coordination of various human activities for the improvement of the quality of life.[35] It entails reconciling land uses, providing the appropriate site for suitable use, controlling development, providing fundamental facilities and public goods, preserving, protecting and conserving the resources and heritage among others.[36]

The activity of planning continues to be known by other related terminologies including 'land use planning', 'physical planning', 'town and country planning', 'urban and regional planning', 'city planning', 'town planning', or just 'planning'.[37] The terminology used is influenced by the nature and scope of planning and the priorities, focus and core functions embraced by a particular society. The terminologies used also indicate the spatial scale such as town, city, regional or national level at which the activity of planning is undertaken. All these terms are referred to in one or more laws that authorize government agencies to apply a set of tools to control developments and use on land and the territorial sea. These tools include statutory plans, zoning guidelines, and the control of development using permits, building codes, environmental impact assessments and environmental audits.[38] To provide harmony in the terminologies used, the concept of spatial

*Perspectives* (Urban Book Series, Springer Nature 2018) <https://doi.org/10.1007/978-3-030-02011-8_2>

[34] A E Olajuyigbe and O O Rotowa, Optimizing Physical Planning in the Developing Countries – A Case Study of Ondo State, Nigeria, (2011) 4(4) Journal of Sustainable Development 1 <www.ccsenet.org/journal/index.php/jsd/article/download/8161/8249>

[35] ibid 1-8.

[36] ibid.

[37] A E Olajuyigbe and O O Rotowa, Optimizing Physical Planning in the Developing Countries – A Case Study of Ondo State, Nigeria, (2011) 4(4) Journal of Sustainable Development 1 <www.ccsenet.org/journal/index.php/jsd/article/download/8161/8249>; R A Acheampong, The Concept of Spatial Planning and the Planning System in *Spatial Planning in Ghana: Origins, Contemporary Reforms and Practices, and New Perspectives* (Urban Book Series, Springer Nature 2018) <https://doi.org/10.1007/978-3-030-02011-8_2>; R Alterman, Planning Laws, Development Controls, and Social Equity Lessons for Developing Countries in Hassane Cisse and others (eds), *The World Bank Legal Review, Volume 5: Fostering Development through Opportunity, Inclusion and Equity* (The World Bank 2014);

[38] cf Alterman (n 37) 329-350.

planning has emerged and refers to the established machinery used by governments to influence the distribution of activities in space and to manage spatial development.[39] On this premise, this thesis uses the term "spatial planning" to include the activities, processes, practices and associated instruments that are applied in the land and sea use regulation.

Kenya has put in place a constitutional architecture that seeks to enhance sustainable environmental management through spatial planning. For instance, while adopting the 2010 Constitution, Kenya focused on extending police power to land use planning. Today, the Constitution gives the state the power to "regulate the use of any land, or any interest in or right over any land, in the interest of defence, public safety, public order, public morality, public health, or land use planning".[40] With respect to the land-sea interface, the Constitution expanded the definition of land to include all water bodies and marine waters in the territorial sea and the exclusive economic zone.[41] However, the applicable spatial planning laws have not been effective in overcoming conflicting or incompatible touristic activities, controlling pollution from these activities and eventually realizing sustainable blue economy. This emanates from the current planning within marine and terrestrial land which continues to be pursued independently and in a non-integrative form leading to continued proliferation of pollution from anthropogenic activities including tourism.[42]

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[39] R A Acheampong, The Concept of Spatial Planning and the Planning System in *Spatial Planning in Ghana: Origins, Contemporary Reforms and Practices, and New Perspectives* (Urban Book Series, Springer Nature 2018) <https://doi.org/10.1007/978-3-030-02011-8_2>

[40] Constitution of Kenya 2010, art 66.

[41] Constitution of Kenya 2010, art 260.

[42] C O Okidi, Legal Aspects of Management of Coastal and Marine Environment in Kenya in C O Okidi, P Kameri-Mbote and M Akech (eds) *Environmental Governance in Kenya: Implementing the Framework Law* (East African Educational Publishers 2008); R Kibugi, Kenya: a leader in comprehensiveness battling ineffectiveness in L N Slobodian and L Badoz (eds), *Tangled roots and changing tides: mangrove governance for conservation and sustainable use*. (Berlin, Germany and Gland, Switzerland, WFF Germany and ICUN 2019) xii + 280 <www.mangrovealliance.org/wp-content/uploads/2019/11/Tangled-Roots-and-Changing-Tides.pdf >

## 1.2: STATEMENT OF THE RESEARCH PROBLEM

Due to the interdependence of land and offshore systems, effective pollution control requires the integration of terrestrial and marine planning systems.[43] The land and water in the coastal areas are now recognized as part of the same ecosystem, which depend on each other.[44] Thus, the success and sustainability of socio-economic activities within the land-sea interface is dependent on maintaining a healthy coastal and marine environment.[45] The land-sea interface is considered to be a public good that must be sustainably managed for the benefit of all.[46] It has important aesthetic, social, economic and environmental values.[47] Consequently, efficacy in the management of such resources require a framework that recognizes and reconciles the needs and claims, often competing and contradictory in character, from a variety of users and interests.[48]

This is in recognition that developmental activities such as tourism which are critical to a sustainable blue economy are situated within the land-sea interface. However, these activities have remained inadequately planned and regulated hence proliferation of pollution.[49] This has led to unplanned and haphazard growth of tourism activities

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[43] Coast Development Authority, Towards Integrated Management and Sustainable Development of Kenya's Coast (CDA 1996) 1-88; cf Okidi (n 45); Republic of Kenya, Integrated Coastal Zone Management (ICZM) Policy (Ministry of Environment, Water and Natural Resources, RoK 2013); Republic of Kenya, Land Use Policy (Ministry of Lands and Physical Planning, RoK (2017).

[44] R Beckman and B Coleman, Integrated Coastal Management: The Role of Law and Lawyers, (1999) 14 Int'l J. Marine & Coastal L. 491; H D Smith and others, The Integration of Land and Marine Spatial Planning (2010) 15 Journal of Coastal Conservation 291

[45] Government of Kenya, Pollution Prevention and Control Guidelines for the Coastal and Marine Environment of Kenya (National Environment Management Authority 2012) 1-75.

[46] J Granit and others, Water Governance and Management Challenges in the Continuum from Land to the Coastal Sea – Spatial Planning as a Management Tool (SIWI Paper 22, 2014) 1-17 <https://siwi.org/wp-content/uploads/2015/09/Paper-22-Spatial-Planning-Land-to-Coast-web.pdf>

[47] D K Muigua, Wamukoya Didi and Francis Kariuki, *Natural Resources and Environmental Justice in Kenya* (Glenwood Publishers Limited 2015).

[48] ibid 1ff.

[49] Government of Kenya, State of the Coast Report: Towards Integrated Management of Coastal and Marine Resources in Kenya (National Environment Management Authority 2009) 1-88; C O Okidi, Legal Aspects of Management of Coastal and Marine Environment in Kenya in C O Okidi, P Kameri-Mbote and M Akech (eds) *Environmental*

characterized by a non-integrative approach to spatial planning, enforcement of land and sea use controls, unsustainable exploitation, poor land use practices and encroachment.[50] Therefore, if the land-sea interface is to be sustainably managed, tourism activities ought to be regulated through effective application of a spatial planning regulatory framework that recognises the interdependence between land and offshore systems.[51] The spatial planning regulatory framework should also take cognizance of the interdependence of tourism activities that thrive in the land-sea interface. Arising from the above, the central issue that this study grappled with is the extent to which Kenya's spatial planning framework and its applications incorporates this dual integrative approach so as to ensure sustainable exploitation of the blue economy.

## 1.3: RESEARCH OBJECTIVES

This study was guided by the following specific objectives:

i. To analyze the extent to which the legal framework regulating tourism activities incorporate spatial planning
ii. To analyze the impacts tourism activities have on the land-sea interface in Malindi
iii. To examine the challenges limiting implementation of spatial planning frameworks in sustainable regulation of tourism activities in the land-sea interface

*Governance in Kenya: Implementing the Framework Law* (East African Educational Publishers 2008).

[50] Republic of Kenya, Integrated Coastal Zone Management (ICZM) Policy (Ministry of Environment, Water and Natural Resources, RoK 2013); Government of Kenya, State of the Coast Report: Towards Integrated Management of Coastal and Marine Resources in Kenya (National Environment Management Authority 2009) 1-88.

[51] Coast Development Authority, Towards Integrated Management and Sustainable Development of Kenya's Coast (CDA 1996) 1-88; C O Okidi, Legal Aspects of Management of Coastal and Marine Environment in Kenya in C O Okidi, P Kameri-Mbote and Migai Akech (eds) *Environmental Governance in Kenya: Implementing the Framework Law* (East African Educational Publishers 2008); H D Smith and others, The Integration of Land and Marine Spatial Planning (2010) 15 Journal of Coastal Conservation 291; cf Republic of Kenya, Integrated Coastal Zone Management (ICZM) Policy (n 43); Republic of Kenya, Land Use Policy (Ministry of Lands and Physical Planning, RoK (2017).

iv. To determine innovative spatial planning strategies that can be leveraged to enhance regulation of tourism activities in the land-sea interface for a sustainable blue economy

## 1.4: RESEARCH QUESTIONS

The study was guided by the following specific research questions:

i. To what extent does the legal framework regulating tourism activities incorporate spatial planning?
ii. What are the impacts of tourism activities on the land-sea interface in Malindi?
iii. What are the challenges limiting implementation of spatial planning frameworks in sustainable regulation of tourism activities in the land-sea interface?
iv. What innovative spatial planning strategies can be leveraged to enhance regulation of tourism activities in the land-sea interface for a sustainable blue economy?

## 1.5: JUSTIFICATION OF THE STUDY

The justification for this study emanates from the important role that tourism plays in the country's blue economy. Tourism is the main use within the land-sea interface and an important sector in the blue economy as it is a source of economic growth, improved livelihoods, jobs and recreation.[52] This important role of tourism necessitates effective regulation of the sector to ensure that the land-sea interface where tourism activities thrive is not degraded.

Various commentators have also noted that effective regulation of uses within the land-sea interface, including those of touristic nature, requires the integration of terrestrial and marine planning systems, mainly due to the interdependence between

[52] Republic of Kenya and United Nations Development Programme, High Level Panel for A Sustainable Blue Economy: Western Indian Ocean (WIO) Regional Meeting Report (Meeting Report, 2-3 December, Mombasa, RoK and UNDP 2019) 1-28; Jo-Ansie van Wyk, Tourism and cultural exchanges in the Indian Ocean region (2018) 14 (2) Journal of the Indian Ocean Region 255-269 <https://doi.org/10.1080/19480881.2018.1473090>

land and offshore systems.[53] Spatial planning is critical for regulating tourism activities, especially when such plans are prepared based on an integrated approach that take cognizance of environmental sustainability, optimal land use patterns and community interests.[54] The research findings are important in providing a rationale for reforming planning law to set up an integrated spatial planning framework and adoption of marine spatial planning to regulate tourism activities within the land-sea interface. This is in respect to growing nuances towards a sustainable blue economy as stipulated in the National Land Use Policy 2017, the United Nations Convention on the Law of the Sea (UNCLOS) and the Sustainable Development Goals.

This study is particularly important to global and Kenya's commitments made during the Sustainable Blue Economy Conference held between the 26th – 28th November 2018 in Nairobi, Kenya. During this first global conference on the sustainable blue economy, interdisciplinary law and policy research was identified as one of the key initiatives in generating state-of-the-art evidence- based knowledge and information to inform policy and decision making in the blue economy. Improving the regulation of tourism activities at the land-sea interface is a critical component of ensuring that Kenya benefits from the blue economy in a sustainable way.

## 1.6: ANALYTICAL FRAMEWORK

### 1.6.1: Theoretical Framework

Systems theory provide a theoretical lens for analyzing the utility of physical and land use planning framework as used in regulating tourism activities within the land-sea interface in Kenya. Systems theory was developed around the notion of a system

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[53] Coast Development Authority, Towards Integrated Management and Sustainable Development of Kenya's Coast (CDA 1996) 1-88; C O Okidi, Legal Aspects of Management of Coastal and Marine Environment in Kenya in C O Okidi, P Kameri-Mbote and M Akech (eds) *Environmental Governance in Kenya: Implementing the Framework Law* (East African Educational Publishers 2008); H D Smith and others, The Integration of Land and Marine Spatial Planning (2010) 15 Journal of Coastal Conservation 291; Republic of Kenya, Integrated Coastal Zone Management (ICZM) Policy ( Ministry of Environment, Water and Natural Resources, RoK 2013); Republic of Kenya, Land Use Policy (Ministry of Lands and Physical Planning, RoK (2017).

[54] Government of Kenya, Sector Plan for Tourism 2013 – 2017 (Ministry of East African Affairs, Commerce and Tourism, 2013).

as articulated by Aristotle who argued that knowledge is derived from the understanding of the whole and not that of the single parts.[55] Aristotle noted that "many things have plurality of parts and are not merely a complete aggregate but instead some kind of a whole beyond its parts" necessitating an understanding of the entire whole which makes the system. It is from this view point that the systems theory developed and has been applied as an interdisciplinary theory providing a framework for investigating phenomena from a holistic approach.[56] A systems theory provides a theoretical perspective that shifts attention from parts to the whole by focusing on the interactions and relationships among the parts and how they are rationally connected.[57]

Systems theory provides useful thinking and visualizing framework on the internal and external factors as an integrated whole.[58] One approach to its application is by developing models based on inclusive phenomena common to many different disciplines. The other approach is by structuring of hierarchy of levels of complexity for the basic units of behavior.[59] In this light, the applications of systems theory orients in ecology, cybernetics, engineering, computing, family psychotherapy, law and business management.[60] In such instances, systems theory aims to develop objectives, recognize the nature of complex problems and therefore operate within the perceived environment ultimately tying all disciplines together in a meaningful relationship.[61] On the other hand, allowing the possibility of an ultimate but distant

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[55] Aristotle (384-322 BC), Metaphysics (n.d) in Serrat O, Five Notes on Systems Theory (2019) <https://issuu.com/celcius233/docs/five_notes_on_systems_theory> accessed on 9 August 2019; C Mele, J Pels and F Polese, A Brief Review of Systems Theories and their Managerial Applications (2010) 2(1-2) Service Science 126 <https://doi.org/10.1287/serv.2.1_2.126> accessed on 9 August 2019.

[56] cf Mele, Pels and Polese (n 55) 126-135.

[57] ibid 126-135

[58] R Johnson, F Kast and J Rosenzweig (1964) 10(2), Systems Theory and Management. Management Science 367 <http://www.jstor.org/stable/2627306> accessed on 9 August 2019.

[59] R Johnson, F Kast and J Rosenzweig (1964) 10(2), Systems Theory and Management. Management Science 367 <http://www.jstor.org/stable/2627306> accessed on 9 August 2019

[60] O Serrat, Five Notes on Systems Theory (2019) <https://issuu.com/celcius233/docs/five_notes_on_systems_theory> accessed on 22 August 2019.

[61] cf Johnson, Kast and Rosenzweig (n 58) 367-384.

goal of a framework that could link all disciplines together in a meaningful relationship whilst using communication channels that are open in a functioning system.[62] In the context of this study, systems theory is applied to the manner in which spatial planning is designed and implemented.

Systems view of spatial planning arose in the late 1960s in United Kingdom through the prominent works of Brian McLouglin and George Chadwick.[63] They argued that planning, as a general human activity, general method of decision making and as the centre of man-nature relationships, concerned itself with controlling different activities on space comprising different integrated systems.[64] According to Chadwick, the systems view of planning works as a process of interrelated actions undertaken by human beings to modify the ecosystems to satisfy human needs.[65] As a discipline and human activity that is strongly based by human attributes and value, spatial planning is highly dynamic in nature since environmental systems in which planning seeks to understand and control are ever-changing in nature.

Systems theory provides the conceptual missing link for integration of land and marine based spatial planning as it concerns itself with aspects of interdependence, relationships and structures of the land-sea interface. Land and sea use within the land sea interface ought to be spatially planned based on an integrated framework that recognizes the land sea interface as a holistic system. Effective regulation of tourism activities through application of spatial planning is one that visualizes tourism within

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62 A Heil, Systems Theory. (SPC 330, 2017).

63 I A Pissourious, Whither the Planning Theory-Practice Gap? A Case Study on the Relationship between Urban Indicators and Planning Theories (Theoretical and Empirical Researches in Urban Management, Vol. 8, No. 2, Research Center in Public Administration and Public Services 2013) 80-92; G Chadwick, A Systems View of Planning. Towards a Theory of the Urban and Regional Planning Process (2nd ed, Oxford: Pergamon Press Ltd 1978); J B Mcloughlin, Urban and Regional Planning: A Systems Approach (London, Faber 1969).

64 I A Pissourious, Whither the Planning Theory-Practice Gap? A Case Study on the Relationship between Urban Indicators and Planning Theories (Theoretical and Empirical Researches in Urban Management, Vol. 8, No. 2, Research Center in Public Administration and Public Services 2013) 80-92; G Chadwick, A Systems View of Planning. Towards a Theory of the Urban and Regional Planning Process (2nd ed, Oxford: Pergamon Press Ltd 1978); J B Mcloughlin, Urban and Regional Planning: A Systems Approach (London, Faber 1969).

65 cf Chadwick (n 64); cf Mcloughlin n (64).

the land-sea interface as an interdependent system and not individual parts and activities.

Planning law has both procedural and substantive components which are germane to its application in the integrated regulation of tourism uses. Procedural components include institutions, stakeholder participation processes and procedures for access to information, while the substantive components include the legal tools of controlling development such as statutory plans, zoning bylaws, building codes and development permits. [66] Based on the conceptual framework in figure 1.1 the systems theory provides an appropriate framework for demonstrating that land-based spatial planning framework as a pollution control tool in the land-sea interface continues to view the land and sea use activities as separate systems hence not effectively applied in tackling growing land-sea use problems, environmental degradation and in promoting sustainable development of the blue economy hence the need to integrate sea use spatial planning.

### 1.6.2: Conceptual Framework

The conceptual framework presented in figure 1.1 shows the context within which the regulation of tourism activities within the land-sea interface through spatial planning is manifested. The conceptual framework enables the visualization of the imaginary boundary between the land and sea interface, the challenges experienced in the regulation of tourism activities that thrive on both spaces and the justification for a systems theoretical approach. There is a high concentration of tourism activities which include both physical developments such as accommodation facilities and other non-physical activities such as swimming, snorkeling, recreational fishing and curio souvenir collection within the fragile land-sea interface.

These continue to proliferate unsustainably due to a non-integrative spatial planning approach to regulating these tourism activities within the land-sea interface as

[66] R Alterman, Planning Laws, Development Controls, and Social Equity Lessons for Developing Countries in Hassane Cisse and others (eds), The World Bank Legal Review, Volume 5: Fostering Development through Opportunity, Inclusion and Equity (The World Bank 2014).

exhibited by unplanned developments, poor enforcement of land and sea use controls, unsustainable exploitation, poor land use practices and encroachment of the land-sea interface baseline.[67] The end result is an unsustainable blue economy characterized by uncontrolled growth of tourism and hospitality facilities in endangered marine and coastal ecosystems"[68] pollution through litter and poor waste management;[69] and loss of beach access.

To remedy this situation, there should be a move towards an integrated approach to spatial planning for regulating tourism activities within the land-sea interface especially in actualizing commitments for a sustainable blue economy. Integrated spatial planning will be germane in addressing the impacts of tourism use of land and sea space while also working to maintain the integrity of terrestrial, aquatic, and marine ecosystems within the land-sea interface. The integrated spatial planning approach should be based on the principles of integrated coastal zone management (ICZM) and involve geographical, functional and legal framework integration.

Geographical integration would involve planning of land and ocean space as a holistic system through marine spatial planning. Functional integration would then be realized when all other sectoral management bodies are involved in the preparation of the integrated plan. Legal integration will be realized when the framework law on planning is amended to recognize the need to regulate tourism as a comprehensive sector and not only accommodation facilities, institutional architecture is reformed to clarify mandates, conflicting provisions harmonized, adequate public participation mechanisms legislated and complimentary procedures and tools for implementing

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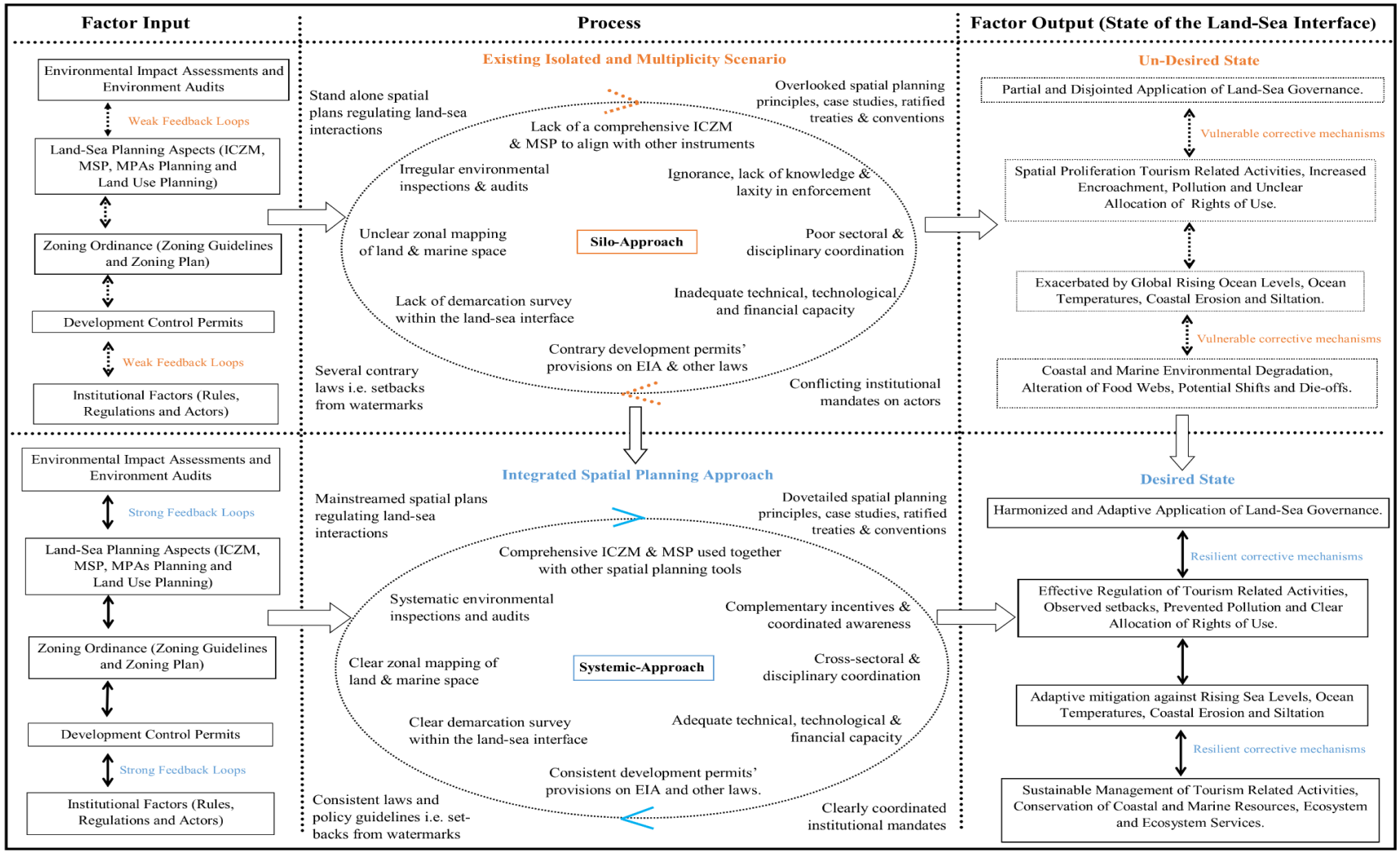
[67] Republic of Kenya, Integrated Coastal Zone Management (ICZM) Policy (Ministry of Environment, Water and Natural Resources, RoK 2013).

[68] J S Akama, The Efficacy of Tourism as a Tool for Economic Development in Kenya (1990) <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.603.7432&rep=rep1&type=pdf?>

[69] Government of Kenya, Pollution Prevention and Control Guidelines for the Coastal and Marine Environment of Kenya (National Environment Management Authority 2012) 13-61; D Munga and others, Land-Based Activities, Pollution Sources and Levels in Water and Sediment in the Coastal and Marine Area of Kenya (Technical Report, Kenya Marine and Fisheries Research Institute 2006) <http://hdl.handle.net/1834/6888>

spatial planning harmonized. This would eventually lead to a sustainably planned and managed land sea interface thus realizing commitments on a sustainable blue economy.

*Figure 1.1: Conceptual Framework*




Source: Author, 2020

## 1.7: STRUCTURE OF THE THESIS

The thesis is structured into seven chapters. Chapter one problematizes the study and discusses the theoretical and conceptual framework underpinning it. Chapter two discuses key literature reviewed. This is thematic based and includes: use challenges within land-sea interface, impact of tourism activities within the land-sea interface, tools for regulating use within the land-sea interface, the role of property rights in sustainable development and spatial planning and sustainable land and sea use management. Chapter three outlines the research methodology and design used to collect and analyze the data. Chapters four presents an analysis of the spatial planning legal framework for regulating tourism activities. Chapter five discusses the tourism activities found within Malindi land-sea interface and their pollution impacts. Chapter six analyses the bottlenecks faced in the application of the planning law in regulating tourism activities within the land-sea interface. The chapter also presents an assessment of innovative approaches that can be leveraged to realize an integrated approach to spatial planning as an efficacious tool for regulating tourism activities for a sustainable blue economy. Chapter seven presents a summary of the research findings, conclusion and key recommendations of the study.

# CHAPTER TWO
# LITERATURE REVIEW

## 2.1: OVERVIEW

To contextualize this thesis, core literature relevant to the study was reviewed along thematic areas including: the concept of the land-sea interface and implications for the blue economy; drivers and impacts of tourism activities within land-sea interface; spatial planning as a tool for regulating tourism activities; role of spatial planning in realizing a sustainable blue economy; essentials for an efficacious application of spatial planning as a regulatory tool; property rights and application of spatial planning and challenges facing integration of land and sea use planning.

## 2.2: CONCEPTUALIZATION OF THE LAND-SEA INTERFACE AND IMPLICATIONS FOR THE BLUE ECONOMY

Literature that conceptualizes the character of the land-sea interface was important for this study as they clarify the challenges that face regulation of uses. Significant literature that conceptualizes the land-sea interface are publications by Schaefer[1], Levin et al[2], Sánchez-Arcilla et al[3]. Schaefer has defined the land-sea interface as "that region where terrestrial activities importantly impinge on the marine environment, marine resources and marine activities, and where marine activities importantly impinge on the environment, resources, and activities of the land".[4] Along these lines, Schaefer's definition not only underscores the linkage of terrestrial

[1] M B Schaefer, Conservation of Biological Resources of the Coastal Zone in J F P Brahtz, Coastal Zone Management, Multiple Use with Conservation (John Wiley 1972).

[2] L A Levin and others, The Function of Marine Critical Transition Zones and the Importance of Sediment Biodiversity (2001) 4 Ecosystems 430–451 <https://link.springer.com/article/10.1007/s10021-001-0021-4> accessed 27 September 2019.

[3] A Sánchez-Arcilla and others, The Land–Sea Coastal Border: A Quantitative Definition by Considering The Wind And Wave Conditions In A Wave-Dominated, Micro-Tidal Environment (2019) 15 Ocean Science <https://doi.org/10.5194/os-15-113-2019> accessed 27 September 2019.

[4] M B Schaefer, Conservation of Biological Resources of the Coastal Zone in J F P Brahtz, Coastal Zone Management, Multiple Use with Conservation (John Wiley 1972).

and marine habitats but also generates awareness of the interrelation of human use on both environments.[5]

Coinciding with this definition, albeit rather abridged, is that by Levin et al. who define land-sea interface as a coastal transition region of vibrant interactions, and enhanced productivity and biodiversity.[6] Lavalle, et al., further denote that the land-sea interface encompasses a long strip of land and sea of varying width in line with the nature of the environment.[7] However, they note that many authors have found it difficult to establish a universal geographical delimitation of land-sea interface, because it more often than not, depends on the aims of the various studies.[8] This argument is supported by Sánchez-Arcilla et al. who note that attempts at delineating the land-sea interface is subjective and dependent on implications of technical, economic and legal disposition of a particular state.[9]

The United Nations Convention on the Law of the Sea (UNCLOS) doesn't precisely define the land-sea interface. Nonetheless, it gives an international legally binding representation of the land-sea interface via the nature of baselines a coastal state possesses.[10] UNCLOS defines a baseline as the line from which seaward limits of a state's land territory and rest of maritime zones of jurisdiction are measured.[11] Practically, coast baselines constitute inter-tidal zones rather than exact lines that are

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5 ibid.

6 L A Levin and others, The Function of Marine Critical Transition Zones and the Importance of Sediment Biodiversity (2001) 4 Ecosystems 430–451 <https://link.springer.com/article/10.1007/s10021-001-0021-4> accessed 27 September 2019.

7 Lavalle and others, Coastal Zones: Policy alternatives impacts on European Coastal Zones 2000-2050 (EUR - Scientific and Technical Research Reports, Luxembourg, Publications Office of the European Union 2011).

8 ibid.

9 A Sánchez-Arcilla and others, The land–sea coastal border: a quantitative definition by considering the wind and wave conditions in a wave-dominated, micro-tidal environment (2019) 15 Ocean Science 113 <https://doi.org/10.5194/os-15-113-2019 > accessed 27 September 2019.

10 R Guo, Global Biothreat and Cross-Border Resource Management: Some Findings (2018) 09 (01) Journal of Bioterrorism & Biodefense <https://www.sciencedirect.com/book/9780444640024/cross-border-resource-management> accessed 30 September 2019.

11 United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982.

significant to the delimitation of maritime boundaries.[12] Land-sea interface is therefore seen as the boundary of the territory at the coast that is used to claim maritime zones i.e. territorial sea baselines, contiguous baselines, exclusive economic zone and continental shelf.[13] This is the conceptualization of the land-sea interface upheld by the Constitution of Kenya which defines the interface to include; the territorial sea, the exclusive economic zone, the sea bed, the continental shelf and all land between the high and low water marks.[14] The challenges in geographically delimiting the land-sea interface points to challenges in regulating use and property rights within this space.

The land-sea interface is recognized as a major zone within the coastal and marine ecosystem which is highly productive yet continues to face degradation and pollution mainly from anthropogenic activities.[15] This zone is endowed with a diversity of resources, which include mangrove forests, coral reefs, sea grass beds, and a number of island archipelagos.[16] The land-sea interface has natural systems that offer essential goods including gas, minerals, oils, fish and services such as space for recreation, and natural safeguarding of the beaches from storms and tidal waves.[17] The interface significantly serves as a coastal habitat[18] in the integration of terrestrial and marine ecological processes that are essential for biodiversity across the two

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[12] C H Schofield, Trouble Over the Startling Line: State Practice Concerning Baselines in the South China Sea in Shicun Wu, Mark J Valencia and Nong Hong, UN Convention on the Law of the Sea and the South China Sea (Routledge 2016).

[13] C Schofield, 'Uncertainties Over the Starting Line? Challenges in the Definition of Territorial Sea Baselines', Presentation, (University of Wollongong: Faculty of Law, 2013).

[14] Constitution of Kenya, art 62 (j) (k) and (l).

[15] United Nations Environment Programme, Marine and Coastal Ecosystems and Human Wellbeing: A Synthesis Report based on the findings of the Millennium Ecosystem Assessment, (UNEP 2006) 1-76.

[16] Food and Agriculture Organization of the United Nations, Survey Findings: Overview of Kenya's Coastal Area (FAO, 2018) <www.fao.org/docrep/field/003/AC574E/AC574E03.htm>

[17] Flanders Marine Institute, Land-Ocean Interaction in the Coastal Zone: LOICZ (Ostend, Belgium, Vlaams Instituut voor de Zee 2018) < http://www.coastalwiki.org/wiki/Land-ocean_interaction_in_the_coastal_zone#What_is_the_coastal_zone.3F>; R Ramesha and others, Land–Ocean Interactions in the Coastal Zone: past, present & future (2015) 12 Anthropocene 85.

[18] D M Talley and others, Research Challenges at the Land-sea Interface (2003) 58(4) Estuarine Coastal and Shelf Science 699.

realms.[19] These ecological processes, referred to as land-sea processes, are facilitated substantially by movement of water and organisms within the terrestrial, freshwater and marine ecosystems.[20] These land-sea processes comprises of inputs of nutrients and energy flow across the two realms that positively impinge on productivity and interactions within coastal habitats.[21] Resources such as mangrove forests found within the land-sea interface trap sediments from inland areas decreasing the chances of siltation of seagrass and coral reefs and also regulating freshwater output through evapotranspiration.[22] This type of linkage is addressed as connections of the land-sea processes.[23] Thus, the world's coastal and marine ecosystems provide a diverse range of key services from supplying food and oxygen, fostering the biodiversity and regulating global climate change to offering sources of recreation, employment and livelihoods.[24]

The United Nations Development Programme (UNDP) notes that efficacious regulation of human activities within the land-sea interface is central to the delivery of a sustainable blue economy.[25] Sustainable blue economy has emerged as a concept that seeks to promote better stewardship of oceans and seas encompassing all their associated coastal and its marine resources and their related activities inclusive, but not limited to tourism, fisheries, mining, energy, aquaculture and maritime transport.[26] According to the United Nations Economic Commission for Africa

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[19] J G Álvarez-Romero and others, Integrated Land-Sea Conservation Planning: The Missing Links (2011) 42 Annual Review of Ecology, Evolution, and Systematics 381 <https://doi.org/10.1146/annurev-ecolsys-102209-144702> accessed 30 September 2019.

[20] M Beger and others, Conservation planning for connectivity across marine, freshwater, and terrestrial realms (2010) 143(3) Biological Conservation 565 <https://doi.org/10.1016/j.biocon.2009.11.006> accessed 30 September 2019.

[21] ibid 565-575

[22] D K Muigua, Wamukoya Didi and Francis Kariuki, *Natural Resources and Environmental Justice in Kenya* (Glenwood Publishers Limited 2015).

[23] cf Álvarez-Romero and others (n 19) 381-409.

[24] United Nations Development Programme, Blue Economy: Community Solutions (UNDP 2018).

[25] cf United Nations Development Programme (n 24) 1-64: United Nations Economic Commission for Africa, Africa's Blue Economy: Opportunities and Challenges to bolster Sustainable Development and Socioeconomic Transformation (Issue Paper, UNECA 2019).

[26] United Nations Development Programme, Blue Economy: Community Solutions (UNDP 2018); John O Kakonge, 'Kenya and the Blue Economy: The Way Ahead' (2019) 8(10) International Journal of Innovative Research & Development 369

(UNECA), the concept advocates a multisectoral and integrated approach towards the sustainable management of these activities in realizing socio-economic transformation.[27] In particular, it endeavors to encourage economic development, social inclusion and improvement of livelihoods, while also guaranteeing environmental sustainability of the oceans and seas.[28] This is in order to continue delivering ecosystem services to the living such as flora and fauna and non-living such as minerals and hydrocarbons.[29]

The land-sea interface supports various blue economy sectors including transportation, aquaculture, desalination, fisheries, marine cables and pipelines, minerals and mining, ports and shipping, offshore energy, tourism and coastal recreation.[30] Nearly all the maritime uses and activities require support installations on land i.e. ports for shipping, marinas for yachting and grid connections for offshore wind farms.[31] On the other hand, most of the land uses and activities i.e. land-based tourism and recreational activities, and transport tend to expand towards the sea.[32] Various user groups therefore compete for land and sea resources habitually resulting in conflict and eventually causing deterioration of the coastal zone.[33] As a result,

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<https://doi.org/10.24940/ijird/2019/v8/i10/oct19024>; African Ministerial Conference on the Environment, Advancing the Sustainable Blue (Ocean-Based) Economy in Africa (Item 5 (d) of the provision agenda, AMCEN/17/6, AMCEN 2019)

27 United Nations Economic Commission for Africa, Africa's Blue Economy: Opportunities and Challenges to bolster Sustainable Development and Socioeconomic Transformation (Issue Paper, UNECA 2019).

28 World Bank and United Nations, Blue Economy: Increasing Long-term Benefits of the Sustainable Use of Marine Resources for Small Island Developing States and Coastal Least Developed Countries, (World Bank and United Nations, 2017) <http://documents.worldbank.org/curated/en/523151496389684076/pdf/115545-1-6-2017-14-48-41-BlueEconomyJun.pdf>

29 cf United Nations Economic Commission for Africa (n 27).

30 D M Talley and others, Research Challenges at the Land-sea Interface (2003) 58(4) Estuarine Coastal and Shelf Science 699; European Commission, Land Sea Interactions In Maritime Spatial Planning (European Union, DG Environment: EC 2015).

31 European Union, Recommendation on How to Perform Analysis of Land-Sea Interactions, Combining MSP and ICZM in the Considered Project Area (Supporting Maritime Spatial Planning in the Eastern Mediterranean (SUPREME Project) and European Maritime and Fisheries Fund (EMFF) of the European Union 2015) <https://www.pap-thecoastcentre.org/razno/C_137_LSI_initial%20description.pdf > accessed 2 October 2019.

32 ibid.

33 European Union, Recommendation on How to Perform Analysis of Land-Sea Interactions, Combining MSP and ICZM in the Considered Project Area (Supporting

Beriatos et al. remarkably argues that these land-sea interactions should be scoped, identified, mapped and planned from a point of view of environmental, socio-economic and technical implications.[34]

Publications by UNDP indicate a rising contestation between the potentiality of oceans, seas and coastal and marine resources in serving the needs of socio-economic development and marine ecosystem conservation and environment rehabilitation for sustainable development.[35] Neumann et al. report that the driving force behind such phenomena is human activities, jointly termed as anthropogenic pressures that have caused critical tensions to the land-sea interface and its ability to continue providing improved ecosystem functions and services for future generations.[36] Other studies have summarized the main threats to the land-sea interface in supporting a sustainable blue economy to include: increasing pollution, overfishing, unsustainable coastal development, single-sector management and climate change.[37]

The land-sea interface is also faced with subsequent changes in sediment and water supply as a result of upstream watersheds and coastal human activities such as tourism.[38] In addition, threats such as changes in climate, invasive species and overexploitation of fishing resources are further realized due to anthropogenic

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Maritime Spatial Planning in the Eastern Mediterranean (SUPREME Project) and European Maritime and Fisheries Fund (EMFF) of the European Union 2015) <https://www.pap-thecoastcentre.org/razno/C_137_LSI_initial%20description.pdf > accessed 2 October 2019.

[34] E Beriatos and others, Paving the Road to Marine Spatial Planning in the Mediterranean (UNEP-MAP PAP/RAC 2015).

[35] United Nations Development Programme, Blue Economy: Community Solutions (UNDP 2018).

[36] B Neumann, K Ott and R Kenchington, Strong Sustainability in Coastal Areas: A Conceptual Interpretation of SDG 14 (2017) 12 Sustainability Science 1019–1035 <https://doi.org/10.1007/s11625-017-0472-y> accessed 2 October 2019; cf United Nations Development Programme (n 31)

[37] A Newton, T J B Carruthers and J Icely, The Coastal Syndromes and Hotspots on The Coast' (2012) 96 6(1) Estuarine, Coastal and Shelf Science 39; United Nations Development Programme, Blue Economy: Community Solutions (UNDP 2018); United Nations Development Programme, Leveraging the Blue Economy for Inclusive and Sustainable Growth (Policy Brief on Sustainable Blue Economy Conference, Issue No: 6/2018, UNDP April 2018); Mercator Ocean International, What is the Blue Book: Copernicus for a Sustainable Ocean? (November, MOI 2019)

[38] A Newton, T J B Carruthers and J Icely, The Coastal Syndromes and Hotspots on The Coast (2012) 96 6(1) Estuarine, Coastal and Shelf Science 39.

changes of the land and the sea.[39] Such pressures contribute to continued loss of biodiversity that remains a major global concern on terrestrial and marine realms.[40] Despite the associated anthropogenic threats, the land sea-interface of the world are usually subject to natural hazards i.e. river flooding, erosion, hurricanes and tsunamis that inflicts critical socio-economic impacts at the coastal zone jeopardizing their blue economy potential.[41] Álvarez-Romero et al. note that the anthropogenic and natural threats may either oscillate within a single-realm i.e. terrestrial environment, marine environment or within cross-systems i.e. affecting both the terrestrial and marine environment necessitating need for an integrative spatial planning approach.[42] It is thus imperative that an assessment of both single-realm and cross-system threats is needed in the spatial planning that considers the land-sea interface as a system of connections for effective management.[43]

In Kenya, sources of pollution within the land sea interface can be either land-based or sea-based as documented by Nguta[44] and Oteko[45] . Nguta[46] broadly discusses

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[39] United Nations Environment Programme, Marine and Coastal Ecosystems and Human Wellbeing: A Synthesis Report based on the findings of the Millennium Ecosystem Assessment (Nairobi, UNEP 2006) 76; Barbara Neumann, Konrad Ott and Richard Kenchington, Strong Sustainability in Coastal Areas: A Conceptual Interpretation of SDG 14 (2017) 12 Sustainability Science 1019–1035 <https://doi.org/10.1007/s11625-017-0472-y > accessed 2 October 2019

[40] J G Álvarez-Romero and others, Integrated Land-Sea Conservation Planning: The Missing Links (2011) 42 Annual Review of Ecology, Evolution, and Systematics 381 <https://doi.org/10.1146/annurev-ecolsys-102209-144702> accessed 30 September 2019

[41] A Newton and J Weichselgartner, Hotspots Of Coastal Vulnerability: A DPSIR Analysis To Find Societal Pathways And Responses (2014) 140 Estuarine, Coastal and Shelf Science 123–133: P P Wong and others, Coastal Systems and Low-Lying Areas in C B Field and others (eds), Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects (Contribution of Working Group II to the fifth assessment report of the Intergovernmental Panel on Climate Change Cambridge, Cambridge University Press 2014)

[42] J G Álvarez-Romero and others, Integrated Land-Sea Conservation Planning: The Missing Links (2011) 42 Annual Review of Ecology, Evolution, and Systematics 381 < https://doi.org/10.1146/annurev-ecolsys-102209-144702> accessed 30 September 2019

[43] D M Stoms and others, Integrated Coastal Reserve Planning: Making the Land-Sea Connection (2005) 3(8) Frontiers in Ecology and the Environment 429.

[44] M Nguta, Marine pollution and research in the coastal lagoons of Kenya (*Oceandocs.org*, 2018) <www.oceandocs.org/bitstream/handle/1834/7152/ktf0148.pdf?sequence=1> accessed 13 March 2018.

[45] D Oteko, Analysis of Some Major Trace Metals in the Sediments of Gazi, Makupa and Tudor Creeks on the Kenyan Coast (M.Sc. Thesis. Free University of Brussels, 1987).

[46] cf Nguta (n 44).

marine pollution and research in the coastal lagoons of Kenya and argues that marine pollution along the Kenyan coast originates principally from land-based sources and activities within the coastal zone. Oteko[47] focusses on industrial pollutants within the coastal zone of Mombasa where he states that most of the industries in the coastal zone are concentrated to the western mainland of Mombasa. According to Oteko, liquid and solid wastes, both domestic and industrial, are discharged within the sea and its environs. Oteko states that localized point sources need to be monitored because "solid wastes comprising metal containers, hazardous wastes, used lubricating oils, expired medicines, toxic chemicals and animal cadavers are dumped in an uncontrolled landfill at the coastal creek in Mombasa".[48] This leads to leakage from the landfill, including runoff during the rainy season, which enters the adjoining creek and ocean. Further, Oteko reports that "these discharges are high in biochemical oxygen demand and contain large amounts of toxic metals and chemicals which have adverse effects on the living resources in the creek".[49] There is currently a dearth of literature in Kenya that documents the impacts of marine-based sources of pollution such as illegal dumping, fishing, transportation or tourism.

## 2.3: DRIVERS AND IMPACTS OF TOURISM ACTIVITIES WITHIN LAND-SEA INTERFACE

Coastal tourism and recreation are the core activity that support socio-economic development and subsequently other activities within coastal and marine environment.[50] However, coastal tourism and recreation is a highly fragmented activity in its spatial sense.[51] This study assessed literature that illustrate the impacts of tourism activities on a sustainable blue economy within the land-sea interface as

47 cf Oteko (n 45).
48 cf Oteko (n 45).
49 cf Oteko (n 45).
50 H A Oyieke, Coastal Zone Management Issues In Kenya's Urban Centres (12th Biennial Coastal Zone Conference. Cleveland, OH, 2001).
51 United Nations Environmental Programme, Sustainable Coastal Tourism: An Integrated Planning and Management Approach (Supported by French Ministry of Ecology, Energy, Sustainable Development and Physical Planning, UNEP 2009) 1-87.

presented by UNEP[52], Neumann et al[53], Kiousopoulos[54], Polyzos and Tsiotas[55], Vehbi[56], Machiwa[57], Omboga[58] and Oyieke[59]. UNEP notes that tourism activities are situated and thrive on the environmentally fragile interface of land and sea.[60] Assessment and regulation of tourism activities is therefore critical as it occurs at the interface of land and sea.[61] This is reiterated by Polyzos and Tsiotas, who note that tourism constitute a vital developmental aspect to coastal areas characterized by leisure and recreationally oriented activities that occur on the land-sea interface and in the offshore coastal waters.[62] Vehbi, affirms this dominance of tourism in the coastal zones and the need for regulation which arises from natural, unblemished scenery, mountains, beaches, traditional, historical picturesque towns and villages as

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52 United Nations Environmental Programme, Sustainable Coastal Tourism: An Integrated Planning and Management Approach (Supported by French Ministry of Ecology, Energy, Sustainable Development and Physical Planning, UNEP 2009) 1-87.

53 B Neumann, K Ott and R Kenchington, Strong Sustainability in Coastal Areas: A Conceptual Interpretation of SDG 14 (2017) 12 Sustainability Science 1019–1035 <https://doi.org/10.1007/s11625-017-0472-y> accessed 2 October 2019

54 J Kiousopoulos, 'Anthropogenic Intensity' and 'Coastality': Two new Spatial Indicators for Exploring & Monitoring the Coastal Areas, in the framework of Environmental Management, in Santosh Sarkar, *Environmental Management*, (IntechOpen 2010) 1-26.

55 S Polyzos and D Tsiotas, The Evolution and Spatial Dynamics of Coastal Cities in Greece in Serafeim Polyzos, Urban Development (IntechOpen 2012) 1-24.

56 B O Vehbi, A Model for Assessing the Level of Tourism Impacts and Sustainability of Coastal Cities in Murat Kasimoglu and Handan Aydin, Micro and Macro Perspectives. (IntechOpen 2012) 1-18.

57 J Machiwa, Coastal Marine Pollution in Dar es Salaam (Tanzania) relative to Recommended Environmental Quality Targets for the Western Indian Ocean (2010) 9 (1) Western Indian Ocean Journal of Marine Science 17-30.

58 G Omboga, Integrated Coastal Zone Management in Kenya: A Case Study of the Nyali-Bamburi-Shanzu Area. A Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of Master of Arts in Planning (University of Nairobi 2000) xiii + 203.

59 H A Oyieke, Coastal Zone Management Issues In Kenya's Urban Centres (12th Biennial Coastal Zone Conference. Cleveland, OH, 2001).

60 United Nations Environmental Programme, Sustainable Coastal Tourism: An Integrated Planning and Management Approach (Supported by French Ministry of Ecology, Energy, Sustainable Development and Physical Planning, UNEP 2009) 1-87.

61 ibid 15.

62 S Polyzos S and D Tsiotas, The Evolution and Spatial Dynamics of Coastal Cities in Greece in Serafeim Polyzos, Urban Development (IntechOpen 2012) 1-24.

well as prehistoric monuments.[63] Both UNEP[64] and Neumann et al[65], note that it is due to this primacy in the use of the land-sea interface by tourism coupled by the fact that the activity operates within a narrow geographical area, that there is unprecedented degradation necessitating need for regulation.

Kiousopoulos and Vehbi point out that the rising level of tourism growth degrades the fundamental ecological resources on which tourism is dependent upon, and is characterized by competing needs. Kiousopoulos argues that interest in the land-sea interface is compounded by the massive demand of coastal space, resulting to an increase in the number of actors such as local population, businessmen, visitors and tourists and local authorities as well as the central government.[66] With respect to physical (natural and built) impacts, Vehbi argues that tourism development can affect the natural environment in a way that is harmful to ecologically sensitive areas.

The end result is a degenerated habitat characterized by deteriorated green fields, polluted ocean and high levels of noise and air pollution.[67] The alteration of local identity by tourism-related amenities that include restaurants, holiday homes and cafes result to socio-cultural impacts of the development of tourism along the coastal areas. According to Vehbi, poor design and construction of hotels and other tourist facilities can change the indigenous identity in addition to causing visual pollution, due to incompatibility with the indigenous architectural style and scale. Other factors that contribute to alteration of identity along the coastal zone include the inclusion of tourism facilities into the natural ecosystems; using unsuitable construction materials

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63 B O Vehbi, A Model for Assessing the Level of Tourism Impacts and Sustainability of Coastal Cities in Murat Kasimoglu and Handan Aydin, Micro and Macro Perspectives. (IntechOpen 2012) 1-18.

64 cf United Nations Environmental Programme (n 60).

65 B Neumann, K Ott and R Kenchington, Strong Sustainability in Coastal Areas: A Conceptual Interpretation of SDG 14 (2017) 12 Sustainability Science 1019–1035 <https://doi.org/10.1007/s11625-017-0472-y> accessed 2 October 2019

66 J Kiousopoulos, 'Anthropogenic Intensity' and 'Coastality': Two new Spatial Indicators for Exploring & Monitoring the Coastal Areas, in the framework of Environmental Management, in Santosh Sarkar, Environmental Management, (IntechOpen 2010) 1-26.

67 B O Vehbi, A Model for Assessing the Level of Tourism Impacts and Sustainability of Coastal Cities in Murat Kasimoglu and Handan Aydin, Micro and Macro Perspectives. (IntechOpen 2012) 1-18

and resources on exterior surfaces; poor layout plans of the tourist amenities and; impediment of the beautiful scenery by tourism developments.[68]

These propositions are also echoed by Oyieke, who observes that Kenya's coastal zone has an array of land use activities including those that are tourism related which generate a number of challenges that include habitat degradation and unsustainable utilization of the natural resources.[69] As tourist demand rises, Omboga argues that there is an increase in coastal user conflicts, and greater stress is placed upon the environment on which it depends.[70] As a result of accumulated effects on tourism, the coastal zones experiences biodiversity reduction, resource depletion and human health problems.[71] Munga *et al* posit that "tourism development is directly responsible for over-exploitation of marine resources, while poor waste management in tourist establishments and tourist satellite centres are responsible for degradation of water quality and the loss of aesthetic value of some beaches".[72]

These literatures demonstrate the existence of pollution and conflicts within the land-sea interface in Kenya from a broad perspective. There is no specific literature that has examined the impacts of tourist activities in Malindi as a specific geographical scope of the entire interface. The only literature available is by Kitsao who focusses on the impacts of tourism on housing in Malindi.[73] The impacts identified in the study do not speak to any environmental issues with the focus being on supply and demand

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[68] B O Vehbi, A Model for Assessing the Level of Tourism Impacts and Sustainability of Coastal Cities in Murat Kasimoglu and Handan Aydin, Micro and Macro Perspectives. (IntechOpen 2012) 1-18.

[69] H A Oyieke, Coastal Zone Management Issues In Kenya's Urban Centres (12th Biennial Coastal Zone Conference. Cleveland, OH, 2001).

[70] G Omboga, Integrated Coastal Zone Management in Kenya: A Case Study of the Nyali-Bamburi-Shanzu Area. A Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of Master of Arts in Planning (University of Nairobi 2000) xiii + 203.

[71] ibid 37.

[72] D Munga and others, Land-Based Activities, Pollution Sources and Levels in Water and Sediment in the Coastal and Marine Area of Kenya (Technical Report, Kenya Marine and Fisheries Research Institute 2006) pp 17 <http://hdl.handle.net/1834/6888>

[73] C E Kitsao, The Impact of Tourism on Housing: A Case Study of Malindi Town. Research Project Submitted in Partial Fulfillment for the Requirements for the Degree of Master of Urban Management. (Nairobi, University of Nairobi 2010) xiv + 62.

aspects of housing such as housing stock, cost, affordability, design and access to infrastructure.[74]

## 2.4: SPATIAL PLANNING AS A TOOL FOR REGULATING TOURISM ACTIVITIES

Literature underscores the need to solve the contestation arising from the benefits of tourism activities on the economy and its substantial impacts on the social and physical environment through regulation.[75] This necessitated a review of literature by Veit[76], Smith *et al*[77], Granit *et al*[78], Havran[79], Sifuna[80] and others that speak generally to the tools for regulating land and sea activities. Veit notes that states have the power to restrict or extinguish property rights over both land and natural resources.[81] Such power by a state to restrict, extinguish and/or limit private property rights is derived from two authorities: eminent domain, the power to obtain private property through compulsory means, and police powers, the power to regulate personal rights including property rights.[82]

The police power of a state is an important tool to ensure sustainable management of such resources and an equitable sharing of the accruing benefits. According to Havran, police power refers to the powers of the state to regulate and control the use of property to secure general safety, public welfare, order, and good morals of the

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74 ibid 1-76.

75 United Nations Environmental Programme, Sustainable Coastal Tourism: An Integrated Planning and Management Approach (Supported by French Ministry of Ecology, Energy, Sustainable Development and Physical Planning, UNEP 2009) 1-87.

76 P Veit, Kenya: Government Control of Private Land Use (Focus on Land in Africa, FOLA 2011)

77 H D Smith and others, The Integration of Land and Marine Spatial Planning (2010) 15 Journal of Coastal Conservation 291

78 J Granit and others, Water Governance and Management Challenges in the Continuum from Land to the Coastal Sea – Spatial Planning as a Management Tool (SIWI Paper 22, 2014) 1-17 <https://siwi.org/wp-content/uploads/2015/09/Paper-22-Spatial-Planning-Land-to-Coast-web.pdf>

79 T D Havran, 'Eminent Domain and the Police Power' (1930) 5 Notre Dame L Rev 380

80 N Sifuna, 'Public Regulation of the Use of Private Land: Opportunities and Challenges in Kenya' (2009) 5(1) Law, Environment and Development Journal 38, 40-56 <http://lead-journal.org/content/09038.pdf>

81 cf Veit (n 76).

82 cf Veit (n 76).

community.[83] Kameri-Mbote notes that police power is invoked by the state to regulate land use towards securing a sustainable environmental management in public interest.[84] Veit and Sifuna contend that regulations based on the police power is implemented through spatial planning, zoning, development control regulations and permitting, housing, health and building codes to restrain the type, intensity, and location of activities, land use, and development and reinvestment processes.[85]

At the core of this study is the execution of police power by the state to protect public interest within the land-sea interface and to ensure sustainable development. Literature has underscored that spatial planning law provides a framework for implementing police power towards sustainable and integrated management of human activities at land and sea.[86] In this endeavor, literature by Alterman, Gorzym-Wilkowski, Granit et al, Okeke, Brackhahn and Kärkkäinen, Retzlaff and Sisser, were germane. Alterman argues that spatial planning law is a tool for reengineering social equity due to the fact that it determines procedures, institutions, and rules for controlling human activities on space.[87] This leads to the concept of distributional

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[83] T D Havran, 'Eminent Domain and the Police Power' (1930) 5 Notre Dame L Rev 380.

[84] P Kameri-Mbote, Land Tenure and Sustainable Environmental Management in Kenya in Charles O. Okidi, Patricia Kameri-Mbote and Migai Akech, *Environmental Governance in Kenya: Implementing the Framework Law* (East Africa Educational Publishers LTD 2008)

[85] P Veit, Kenya: Government Control of Private Land Use (Focus on Land in Africa, FOLA 2011); Nixon Sifuna, Public Regulation of the Use of Private Land: Opportunities and Challenges in Kenya (2009) 5(1) Law, Environment and Development Journal 38, 40-56 <http://lead-journal.org/content/09038.pdf>

[86] C N Ehler and Fanny Douvere, Visions for a Sea Change. Report of the First International Workshop on Marine Spatial Planning (Intergovernmental Oceanographic Commission and Man and the Biosphere Programme, IOC Manual and Guides, 46: ICAM Dossier, 3, UNESCO 2007) <http://jodc.go.jp/jodcweb/info/ioc_doc/Manual/153465e.pdf> accessed 19 July 2020; A Deidun, S Borg and A Micallef, Making the Case for Marine Spatial Planning in the Maltese Islands' (2011) 42 (1-2) Ocean Dev Int Law 136-154; Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014, Establishing a framework for maritime spatial planning (OJL 257/135 2014) <http://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=uriserv:OJ.L_.2014.257.01.0135.01.ENG%20>; R Alterman, Planning Laws, Development Controls, and Social Equity Lessons for Developing Countries in Hassane Cisse and others (eds), The World Bank Legal Review, Volume 5: Fostering Development through Opportunity, Inclusion and Equity (The World Bank 2014).

[87] R Alterman, Planning Laws, Development Controls, and Social Equity Lessons for Developing Countries in Hassane Cisse and others (eds), The World Bank Legal Review, Volume 5: Fostering Development through Opportunity, Inclusion and Equity (The World Bank 2014).

equity where planning regulations distribute either lucrative or undesirable development rights for different land uses.[88] According to Alterman, "planning regulations determine which areas will benefit from positive externalities and which will bear the brunt of negative ones".[89]

Acheampong argues that spatial planning is a system comprising institutions and legal frameworks applied by governments to achieve sustainable development outcomes.[90] Acheampong identifies two categories of spatial planning tools to include spatial plans and development management instruments.[91] Spatial plans include all types of plans prepared for specific geographical scales such as national plans, regional plans, and local plans while development management instruments include containment instruments (development moratoria, zoning ordinances, rate-of-growth controls, urban growth boundaries), fiscal instruments (fees, taxes), incentive-based instruments such as transfer of development rights, and development control instruments such as planning and building permits, Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA).[92] The application of these instruments is not mutually exclusive as argued by Acheampong who notes that:

> *"…these categories of instruments are mutually linked in that while policy frameworks and plans articulate spatial planning visions, goals, objectives and strategies, development management instruments function to translate the content of policies and plans into their spatial manifestations by shaping the type, timing, location and intensity of development."*[93]

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88 ibid.
89 ibid.
90 R A Acheampong, The Concept of Spatial Planning and the Planning System in *Spatial Planning in Ghana: Origins, Contemporary Reforms and Practices, and New Perspectives* (Urban Book Series, Springer Nature 2018) <https://doi.org/10.1007/978-3-030-02011-8_2>
91 ibid.
92 cf Acheampong (n 90).
93 R A Acheampong, The Concept of Spatial Planning and the Planning System in *Spatial Planning in Ghana: Origins, Contemporary Reforms and Practices, and New*

As a regulatory tool, spatial planning provides the basis for defining and enforcing property rights, eliminating negative externalities and realizing environmental protection objectives. Publications by Gorzym-Wilkowski, Granit et al, and Okeke have emphasized the critical role of spatial planning in the protection and improvement of the natural environment, improvement of public health, and enhancement of safety and amenity.[94] Granit et al, contend that spatial planning enables good environmental governance in circumstances where it incorporates economic, social and environmental factors.[95] Okeke describes spatial planning as a creative method of defining space use for sustainable land use management.[96] In this case, spatial planning is important in enhancing the local and natural environment by averting both new and contemporary development from being placed at undesirable risk from, or being harmfully impacted by unacceptable levels of soil, air, water or noise pollution.[97]

One key literature that links spatial planning input to regulation of tourism related activities within the land sea interface is by Brackhahn and Kärkkäinen.[98] They postulate that spatial planning support the development of tourism sector in the blue economy by enabling the protection of the land-sea continuum and conservation of

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*Perspectives* (Urban Book Series, Springer Nature 2018) <https://doi.org/10.1007/978-3-030-02011-8_2>

94 J Granit and others, Water Governance and Management Challenges in the Continuum from Land to the Coastal Sea – Spatial Planning as a Management Tool (SIWI Paper 22, 2014) 1-17 <https://siwi.org/wp-content/uploads/2015/09/Paper-22-Spatial-Planning-Land-to-Coast-web.pdf>; Donald Okeke, Spatial Planning as Basis for Guiding Sustainable Land Use Management (WIT Transactions on State of the Art in Science and Engineering, Vol 86, 2015) 153-183; Waldemar A Gorzym-Wilkowski, Spatial Planning as a Tool for Sustainable Development. Polish Realities (2017) 15 (2) Barometr Regionalny 1-11.

95 B Brackhahn and R Kärkkäinen, Spatial planning as an instrument for promoting sustainable development in the Nordic countries – action programme for 2001–2004 (Denmark, Ministry of the Environment, 2001); cf Granit and others (n 90) 1-17.

96 D Okeke, Spatial Planning as Basis for Guiding Sustainable Land Use Management (WIT Transactions on State of the Art in Science and Engineering, Vol 86, 2015) 153-183

97 Westminster City Council, Westminster City Plan. Planning and Pollution Control (2014)<http://transact.westminster.gov.uk/docstores/publications_store/Planning%20and%20Pollution%20Control.pdf>

98 B Brackhahn and R Kärkkäinen, Spatial planning as an instrument for promoting sustainable development in the Nordic countries – action programme for 2001–2004 (Denmark, Ministry of the Environment, 2001).

cultural areas.[99] To achieve this, spatial planning provides strategies to inhibit the natural heritage from being further destroyed and protecting susceptible environmentally sensitive areas such as mountains and sandy beaches that are particularly threatened by the growing tourism sector.[100] It may also set mechanisms for the improvement of tourists' facilities and the development of a form of tourism that esteems the typical features of the location, protecting the urban, natural and cultural environments and builds local employment.[101] Spatial planning can designate the location of treasured and at risk areas, and place buffer zones from which certain activities can influence these areas.[102] However, Smith *et al* argue that the application of police power through spatial planning on land is more developed and understood as opposed to the spatial planning framework for the marine environment which have just gained momentum.[103]

Within Kenya's context, there is a dearth of literature that links the use of spatial planning as a tool for regulating tourism activities within the land-sea interface. There is literature that has a broad focus on assessing challenges of controlling development within urban areas as presented by Ngetich et al and Kimani and Musungu. Ngetich et al. explore the efficacy of urban development control instruments and practices as they are applied in Eldoret Municipality, Kenya.[104] They specifically focus on the aspect of development control as a process of achieving goals and objectives depicted in spatial plans. The authors argue that "the law has failed to provide an orderly and sustainable urban development, as many urban areas continue to experience a myriad of problems including; squatter settlements and informal sector developments,

[99] ibid.
[100] ibid.
[101] ibid.
[102] ibid.
[103] H D Smith and others, The Integration of Land and Marine Spatial Planning (2010) 15 Journal of Coastal Conservation 291
[104] J K Ngetich, Grephas P Opata and L S Mulongo, A Study on the Effectiveness of Urban Development Control Instruments and Practices in Eldoret Municipality, Kenya, (2014) 5(2) Journal of Emerging Trends in Engineering and Applied Sciences (JETEAS) 83 <https://jeteas.scholarlinkresearch.com>

congestions and overcrowding, pollution, inadequate provision of social amenities and disasters such as collapsing buildings".[105]

Similar sentiments are held by Kimani and Musungu who argue for reforming and restructuring of the planning and building laws in Kenya.[106] They argue that a lot of catastrophes in the built environment are characterized by collapse of buildings built devoid of appropriate planning and building permission, some without proper inspection during the process of construction, some with planning and building permission but not build as per the approvals.[107]

Key literature that has a focus on utility of planning law within the coastal marine ecosystem is presented by Kibugi[108]. Kibugi's article, which focusses on the management of mangrove forests in Kenya, argues that the existing physical planning framework is terrestrial based and regulates land uses outside the marine protected areas, which are regulated using management plans.[109] According to Kibugi, there are no mechanisms in the physical planning law that seeks to coordinate with management planning approach used in mangrove areas necessitating need for spatial planning that integrates marine and terrestrial planning systems.[110] Whereas the article by Kibugi provides vital justification for the integration of spatial planning regimes for marine and terrestrial land, the focus is on the management of mangrove areas and not tourism.

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[105] ibid 83-91.

[106] M Kimani and T Musungu, Reforming and Restructuring the Planning and Building Laws and Regulations in Kenya for Sustainable Development', *46th ISOCARP Congress 2010* [2010] < www.isocarp.net/data/case_studies/1813.pdf

[107] ibid.

[108] R Kibugi, Kenya: a leader in comprehensiveness battling ineffectiveness in L N Slobodian and L Badoz (eds), *Tangled roots and changing tides: mangrove governance for conservation and sustainable use*. (Berlin, Germany and Gland, Switzerland, WFF Germany and ICUN 2019) xii + 280 <www.mangrovealliance.org/wp-content/uploads/2019/11/Tangled-Roots-and-Changing-Tides.pdf >

[109] ibid.

[110] cf Kibugi (n 108) xii + 280.

## 2.5: PROPERTY RIGHTS AND SUSTAINABLE LAND-SEA INTERFACE USE

Sustainable use and regulation of activities within the land-sea interface is inherently linked to the property interests held by person's or entity's. Property theory offers a wide range of explanations of property as things, hierarchy of norms, constraints on regulatory powers, a bundle of rights, a number of conceptions, regimes or property relations.[111] These nuances have implications on how users of the land-sea interface conceptualize their interests. The emerging rationalities comprising a continuum of individualistic rationality on one hand and egalitarian on the other, has significant implications on sustainable use of terrestrial and marine resources at the coast.[112] According to Kameri-Mbote, sustainable environmental management and use of resources requires effective mediation of rights held by different property owners.[113]

Paul has conceptualized property right to connote "a relation not between an owner and a thing, but between the owner and other individuals in reference to things."[114] Waldron gives a distinction of the term 'property' to include "the rules that govern people's access to and control of things like land, natural resources, the means of production, manufactured goods, and also (on some accounts) texts, ideas, inventions, and other intellectual products"[115] Odote, argues that property is a socially constructed concept where property rights as derived from society and reflect the agreement of society to enable the holder of such right to act in a particular manner without any interference from other members of society as long as the manner of acting is one which is not excluded from the content of his rights.[116]

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[111] B Davy, Land Policy: Planning and the Spatial Consequences of Property, Ashgate Publishing Limited 2012.

[112] ibid.

[113] P Kameri-Mbote, Land Tenure and Sustainable Environmental Management in Kenya in Charles O Okidi, Patricia Kameri-Mbote and Migai Akech, *Environmental Governance in Kenya: Implementing the Framework Law* (East Africa Educational Publishers LTD 2008)

[114] E F Paul, *Property Rights and Eminent Domain* (Transaction Publishers, 1987)

[115] J Waldron, 'Property and Ownership' Stanford Encyclopedia of Philosophy, (2004), available at http://plato.stanford.edu/index.html , retrieved 27th February 2015

[116] C Odote, Regulating Property Rights to ensure Sustainable Management of Wetlands in Kenya, (PhD Thesis University of Nairobi, 2010)

According to Pedersen, "these social relations make up and are shaped by a pattern of rights, duties, privileges and powers which control the behavior of individuals or groups in relation to one another and to the custody, possession, use, enjoyment and disposal of various classes of objects".[117] Honoré' endorsed a conception of property as a "bundle of rights" comprising "sticks" or "incidents" such as *rights* to possess, use, manage, receive income from, consume or destroy, be secure in ownership of and transfer one's property, as well as to have these rights persist over time; along with *duties,* not to use one's property harmfully; to be liable to dissolution of ownership in cases of debt or insolvency, and to respect any residual entitlements others may have in one's property.[118] Consequently, Gay et al, argues that the purchase of a bundle of rights in property necessarily includes the acquisition of a bundle of limitations.[119]

Property rights are capable of providing an incentive for management of land-based resources but adds that they could as well encourage the degradation of the resources.[120] Thus, Heuston, argues that an owner must put his land to reasonable use, taking into account the fact that neighboring land owners also have the right of use and abuse of their land.[121] Abrams links this aspect of reasonable use to the role spatial planning law does by guiding the *use* of land to promote the advantageous development of the community; curbing the *misuse* of land so that it will not injuriously affect the interests of the community; preventing the *abuse* of land;

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[117] J M Pedersen, Properties of Property: A Jurisprudential Analysis (Winter 2010) 14(Special Issue) The Commoner 137-210.

[118] A M Honoré, Ownership in *Oxford Essays in Jurisprudence: A Collaborative Work*, A G Guest (ed) (Oxford University Press 1961) 107–147.

[119] K Gay, Susan Francis Gray and Nicola Padfield, *Land Law*, (Lexis Nexis UK, 2003)

[120] P Kameri-Mbote, C. Odote, C. Musembi and M. Kamande, *Ours by right: law*, *politics and realities of community property in Kenya* [Strathmore University Press 2013] < http://www.ielrc.org/content/b1302.pdf>: Patricia Kameri-Mbote, Land Tenure, Land Use, and Sustainability in Kenya: Toward Innovative use of Property Rights in Wildlife Management in Nathalie J Chalifour, Patricia Kameri-Mbote, Lin Heng Lye and John R Nolon (eds), *Land Use Law for Sustainable Development* (Cambridge university Press 2007)

[121] R F V Heuston, *Salmond on the Law of Torts* (13th ed, Sweet and Maxwell 2001)

regulating the *nonuse* or *disuse* of land and guiding the *reuse* of land for more appropriate purposes.[122]

The land-sea interface is considered as a public good whose management is vested on public agencies to sustainably regulate human uses within it through public law tools such as spatial planning for the benefit of all.[123] This is despite the existence of various quantum of rights including "public rights, for example, to fishing and navigation; other private rights in the marine environment; and the (perceived) rights of communities and existing marine users"[124] These rights can be broadly categorised into three regimes including state property regimes, private property regimes, and common property regimes.[125] State property regime is a construct of international law specifically, the 1982 United Nations Convention on the Law of the Sea (UNCLOS) which established the concept of the Exclusive Economic Zone (EEZ).[126] The Exclusive Economic Zone is a part of sea that does not exceed 200 nautical miles from the baseline from which the extent of the territorial sea is measured.[127] The Convention, through articles 56 and 57, bestows on coastal states "the sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living" in the EEZ.[128] Private property regimes (or individual property rights) derive from a right of usufruct usually issued by the state and where the individual may not have a property in the resource, but

[122] C Abrams and others, Urban Land Problems and Policies, Housing and Town and Country Planning Bulletin 7 (United Nations 1953) as quoted by Jr F Stuart Chapin, *Urban Land Use Planning* (2nd ed, University of Illinois Press 1965)

[123] J Granit and others, Water Governance and Management Challenges in the Continuum from Land to the Coastal Sea – Spatial Planning as a Management Tool (SIWI Paper 22, 2014) 1-17 <https://siwi.org/wp-content/uploads/2015/09/Paper-22-Spatial-Planning-Land-to-Coast-web.pdf>

[124] S Kerr and others, Rights and ownership in sea country: implications of marine renewable energy for indigenous and local communities [2015] 52 Marine Policy 108–115 <www.elsevier.com/locate/marpol>

[125] C Stewart, *Legislating for property rights in fisheries* [Rome, Food and Agriculture Organization of the United Nation 2004]

[126] ibid.

[127] ibid.

[128] United Nations Convention on the Law of the Sea, art 56 and 57; Christine Stewart, *Legislating for property rights in fisheries* [Rome, Food and Agriculture Organization of the United Nation 2004]

may have exclusive rights to harvest.[129] In the frameworks of a common property regime, a local community rather than an individual has exclusive right(s) to harvest in a specific geographical area.[130] In such a circumstance, the community formulates the individual right(s) to withdrawal and access.[131]

Retzlaff and Sisser' trace the impact of property rights and their significant consequences to land-use planning, regulation of subdivision, and planning in sensitive ecosystems based on *Lucas v. South Carolina Coastal Council* case.[132] In this case, the litigant (Lucas) argued that the economic value of his lots had been lost due to the enactment of the Beach Management Act (BMA), which would no longer permit him to erect a permanent building on his property. Therefore, Lucas argued that the actions of South Carolina Coastal Council (SCCC) through the BMA occasioned a taking, and that he was eligible for compensation, as provided for in the US Constitution's Fifth Amendment. On the other hand, SCCC claimed that the Act was not a taking because Lucas was only barred from erecting habitable or recreational edifices on the plots, but could still utilise the plots by building temporary buildings. The SCCC argued that the lots still had considerable value. Rulings from various courts essentially upheld property rights by Lucas. The authors conclude that through this case, planners are now ardent on avoiding any deprivation of owners the entire economic use of their property in the application of police power through spatial planning. This is the gist of the conversations in the United States where sometimes regulating the use of property can result in deprivation of owner's economic use of their property in which the police power is stated to have resulted to takings.[133] They further emphasize the significance of long-range comprehensive

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[129] K M Wyman, The Property Rights Challenge in Marine Fisheries [2008] 50 (511) Arizona Law Review; cf Stewart (n 119)

[130] C Stewart, *Legislating for property rights in fisheries* [Rome, Food and Agriculture Organization of the United Nation 2004], Katrina M Wyman, The Property Rights Challenge in Marine Fisheries [2008] 50 (511) Arizona Law Review

[131] ibid.

[132] R Retzlaff and Sarah Sisser, Property rights and coastal protection: the case of Lucas v. South Carolina Coastal Council [2014] 29(3) Planning Perspectives 275–300 <http://dx.doi.org/10.1080/02665433.2013.829391>

[133] A Parslow, A Defense of the Regulatory Takings Doctrine: A Historical Analysis of this Conflict Between Property Rights and Public Good and a Prediction for its Future [2000] 44 Wm. & Mary Envtl. L. & Pol'y Rev. 799 < https://scholarship.law.wm.edu/wmelpr/vol44/iss3/6/>

planning of coastal land to avoid potential conflict arising from regulation of private property rights in light of public interest.

Within the Kenyan context, Okoth Ogendo discusses two critical issues, which are; "how conflict between state interest in and individual user of riparian land is to be resolved, and the nature and extent of access rights to beaches and aquatic life within the territorial sea of members of the public who hold no ownership rights along the water-front".[134] He emphasizes that "it is an accepted principle of law that individual rights to the physical *solum* and to all that is on, below or above it are subject to such rights and interests as the state may arrogate to itself".[135] He classifies the state interest as direct ownership of the *res* or the imposition of obligations on the manner in which individuals may exercise their ownership rights. He asserts that the nature of tourist development at the coast is such that privately-owned land along the water-front from the baseline cannot be fully utilized without access to the area beyond the high-water mark for recreational activities like swimming, angling, goggling and surfing.[136]

Therefore, Okoth Ogendo notes that "a license to develop and operate recreational facilities along the water-front ordinarily includes a permission to utilize land beyond individual ownership limits".[137] Such license, however, must be enjoyed with due deference to superior interests retained by the state. These arguments by Okoth Ogendo further give impetus to the need for effective application of police power through spatial planning as a way of clearly defining rights of access and use within the land-sea interface. He does this by arguing for the regulation of property rights for the benefit of both the private land owners and the larger public.

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[134] H W O. Okoth Ogendo, Land And Access Rights In Kenya's Water-Front At The Coast (IDS/OP28, n.d) 1-7 <https://www.oceandocs.org/bitstream/handle/1834/7377/ktf0411.pdf?sequence=1&isAllowed=y>

[135] ibid

[136] ibid

[137] ibid

## 2.6: ESSENTIALS OF AN EFFECTIVE REGULATORY FRAMEWORK FOR POLLUTION CONTROL

Baldwin and Cave sets out four characteristic features of an effective regulatory framework for pollution control to include; effectiveness, efficiency, equity and integration.[138] An effective regulatory regime makes critical substantive commitments to accomplishing the desired outcome.[139] In the context of an integrated regulatory framework for pollution control at land sea interface, this requires a substantive contribution towards environmental protection.[140] This requires that the management responsible should recognize, understand and protect the ecosystems of the ocean, in the interests of current and future generations and other life forms.[141]

Environmental protection requires implementation of sustainable development and ecosystem approaches in use of coastal resources. Sustainable development involves development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.[142] It also recognizes the interdependence of environmental, social and economic systems and promotes equality and justice through the empowerment of people and a sense of global citizenship.[143] In support of this is Principle 3 of Rio Declaration calls for the fulfilment of the right to development so as to equitably meet developmental and environmental needs of present and future generations.[144] The Ecosystem approach was adopted at the Convention on Biological Diversity and has since been included

[138] R Baldwin and M Cave Understanding Regulation: Theory, Strategy, and Practice (Oxford University Press, Oxford, 1999) 81.
[139] ibid.
[140] R Kibiwot, Towards the Formulation of Kenya's Integrated Ocean Management Policy Including Institutional Framework (2008) <http://www.un.org/depts/los/nippon/unnff_programme_home/fellows_pages/kibiwot/kibiwot_0708_kenya.pdf > accessed 16 March 2018.
[141] ibid.
[142] ibid.
[143] ibid.
[144] United Nations, United Nations Secretary General Report (The United Nations Conference on Environment and Development, UN Document A/CONF.151/26, Vol. I of 12 August 1992) Annex I

in international documents and conventions.[145] It requires that coastal and ocean resources should be managed to reflect the relationships among all ecosystem components, including humans and non-human species and the environments in which they live.[146] Kibiwot[147] states that while applying this approach, it is important to define the relevant geographic management areas based on ecosystem, rather than political boundaries.

An efficient planning regulatory regime is one which accomplishes the proposed result with the most minimal conceivable inputs or costs.[148] Administrative efficiency is particularly important as complex administrative structures invariably lead to high costs and time delays. Other ways one can ensure the regulatory regime for pollution control at land sea interface is efficient is by the polluter pays approach. This approach reiterates the importance of internalizing the environmental costs of economic activities, including costs of prevention of potential harm, rather than imposing them on the society as a whole. Principle 16 of the Rio Declaration calls for national authorities to endeavor to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest.

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[145] Decisions adopted by the conference of the parties to the Convention on Biological Diversity at its fifth meeting (Document UNEP/CBD/COP/5/23 Annex III, Nairobi, 15-26 May, UNEP/CBD 2000)103

[146] C Odote, Implications of the Ecosystem-Based Approach to Wetlands Management on the Kenyan Coast in D Langlet and Rayfuse R (eds), *The Ecosystem Approach in Ocean Planning and Governance; Perspectives from Europe and Beyond* (Leiden, The Netherlands, Koninklijke Brill NV 2019); Sue Kidd, Land-Sea Interactions and the Ecosystem Approach in Ocean Planning and Governance in David Langlet and Rosemary Rayfuse (eds), *The Ecosystem Approach in Ocean Planning and Governance; Perspectives from Europe and Beyond,* Koninklijke Brill NV, Leiden, The Netherlands (2019):

[147] R Kibiwot, Towards the Formulation of Kenya's Integrated Ocean Management Policy Including Institutional Framework (2008) < <http://www.un.org/depts/los/nippon/unnff_programme_home/fellows_pages/kibiwot/kibiwot_0708_kenya.pdf> accessed 16 March 2018

[148] R Baldwin and M Cave Understanding Regulation: Theory, Strategy, and Practice (Oxford, Oxford University Press 1999) 81.

Gunningham et al contend that effectiveness and efficiency are the preeminent criteria for good environmental regulation as they are of primary concern to policy makers.[149] However, R Baldwin and M Cave [150] recognize that a regulatory regime should be equitable. For it to be recognized as equitable, the regime should be transparent, reliable, accountable, enforceable and ensures public participation. Transparency calls for decisions to be made in an open and transparent manner, with full public involvement and the body provides full reasons for their decisions.[151] This will ensure accountability and reliability. A regime which involves the public in decision making recognizes that environmental issues are best handled with the participation of all concerned stakeholders. Principle 10 of the Rio Declaration outlines that environmental issues are best addressed with the participation of all concerned citizens and at the relevant levels. It goes further to state that each individual shall have appropriate access to information concerning the environment, hazardous materials and activities in their communities that are held by public authorities and the opportunity to participate in decision-making processes.[152]

There are other approaches to equity which are; inter and intra generational equity approaches. Cicin-Sain and Knecht[153] state that the intergenerational equity approach recognizes that as members of the present generation, we hold the earth in trust for future generations and therefore we should not preclude the options of future generations. Similarly, the principle of intra generational equity refers to the

[149] N Gunningham and D Sinclair Leaders and laggards: next-generation environmental regulation (Sheffield, United Kingdom, Greenleaf Publishing 2002) 10

[150] R Baldwin and M Cave Understanding Regulation: Theory, Strategy, and Practice (Oxford, Oxford University Press 1999) 287; cf Gunningham and Grabosky (n 139) 26.

[151] R Kibiwot, Towards the Formulation of Kenya's Integrated Ocean Management Policy Including Institutional Framework (2008) < <http://www.un.org/depts/los/nippon/unnff_programme_home/fellows_pages/kibiwot/kibiwot_0708_kenya.pdf> accessed 16 March 2018

[152] United Nations, United Nations Secretary General Report (The United Nations Conference on Environment and Development, UN Document A/CONF.151/26, Vol. I of 12 August 1992) Annex I<www.un.org/documents/ga/conf151/aconf15126-1annex1.htm> (21 March 2018).

[153] B Cicin-Sain and R W Knecht, Integrated Coastal and Ocean Management: *Concepts and Practices* (Washington, D.C, Island Press 1998) 53.

obligation to take into account the needs of other users, especially in the distribution of benefits of development.

The final element is integration. Integration is the process of simultaneously and synergistically working toward multiple objectives and goals. Frieder[154] states that a regulatory regime will be considered as integrated when it recognizes the linkages between different parts of the environment, and adopts a range of tools to identify and manage environmental effects across these different parts, and to ensure co-ordination across institutional barriers. Klein [155] also states that an integrated framework should encompass what should be integrated and how it should t be integrated. He explains that the 'what' has been termed substantive integration while the 'how' has been termed process integration. He further distinguishes the two. He states that substantive integration involves integration across environmental assets, sectors and time[156] and process integration provides the mechanisms for achieving substantive integration.

Born and Sonzogni on the other hand, highlight that there are four characteristics of an integrated environmental management regime; comprehensive, interconnectivity, interactive and strategic. They further explain all the characteristics. They state that a scheme is comprehensive if it embraces all of the physical, chemical and biological components of the ecological system, all uses of the system and all the entities that affect its management.[157] An interconnective regime recognizes the relationships between all parts of the ecosystem and between resource users and the other entities that have an interest in a resource.[158] An interactive system recognizes that

[154] J Frieder, Approaching Sustainability: Integrated Environmental Management and NZ s Resource Management Act (Ian Axford New Zealand December 1997) Fellowships in Public Policy at 20.
[155] U Klein, Integrated Resource Management in New Zealand – A Juridical Analysis of Policy, Plan and Rule Making under the RMA (2001) 5 NZJEL 1 at 11.
[156] ibid 11.
[157] S M Born and W C Sonzogni, Integrated Environmental Management: Strengthening the Conceptualization (1995) 19(2) Environmental Management 167 at 169; RD Margerum, Integrated Environmental Management: Moving from Theory to Practice (1995) 38(3) Journal of Environmental Planning and Management 371 at 376.
[158] S M Born and W C Sonzogni, Integrated Environmental Management: Strengthening the Conceptualization (1995) 19(2) Environmental Management 167 at 170.

information must be gathered from various agencies and stakeholders and that there is a degree of conflict between participants.[159] The final element of integration is strategic dimension. It addresses the complexity and wealth of information generated by a comprehensive, interconnective and interactive approach. The strategic element involves narrowing down the range of interest and can be likened to a filtering process.[160] A balanced approach is required that takes into account all these elements to pursue the overall goals of the framework.

A more apt view of integrated spatial planning approach within the land-sea interface as a tool for regulating tourism activities has been advanced by the United Nations World Tourism Organization (UNWTO).[161] UNWTO proposes that integrated spatial planning for the coastal zone should involve geographical, functional and policy integration.[162] In this case, geographical integration would involve planning of land and ocean space as a holistic space, functional integration would be realized by harmonization of sectorial agencies while policy integration would be realized by reforming the legal architecture for management of the land-sea interface.[163]

One of the key literatures that seeks to highlight the challenges of integrating land-sea use planning is by Odote.[164] While discussing the implications of the ecosystem-based approach to wetlands management on the Kenyan coast, Odote, highlights the challenge of applying land use planning for regulating competing land uses at the

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[159] ibid 171.
[160] ibid 171.
[161] United Nations World Tourism Organization, National and Regional Tourism Planning: Methodologies and Case Studies (Madrid, UNWTO 1994); United Nations World Tourism Organization, Sustainable Tourism Governance and Management in Coastal Areas of Africa (Madrid, UNWTO 2013); https://www.eunwto.org/doi/pdf/10.18111/9789284414741 accessed August 2020
[162] ibid.
[163] United Nations World Tourism Organization, National and Regional Tourism Planning: Methodologies and Case Studies (Madrid, UNWTO 1994); United Nations World Tourism Organization, Sustainable Tourism Governance and Management in Coastal Areas of Africa (Madrid, UNWTO 2013); https://www.eunwto.org/doi/pdf/10.18111/9789284414741 accessed August 2020
[164] C Odote, Implications of the Ecosystem-Based Approach to Wetlands Management on the Kenyan Coast in D Langlet and Rayfuse R (eds), *The Ecosystem Approach in Ocean Planning and Governance; Perspectives from Europe and Beyond* (Leiden, The Netherlands, Koninklijke Brill NV 2019)

coastal zone.[165] According to Odote there is a contestation between regulating use of coastal wetlands through either the tool of development control or through compulsory acquisition.[166] The contestation arises from a lack of unanimity on whether to allow conveyancing within coastal wetlands with prohibitions or to totally prohibit any such conveyancing.[167] Odote contends that both approaches should be adopted but based on an assessment of the fragility and sensitivity of a wetland though a planning process.[168] However, he notes that the current reliance of land use planning law which is non-inclusive of sea-based planning is ineffective in supporting wise use of wetlands within the Kenyan coast due to the fact that coastal wetlands transcend the land and water space.[169]

Authors such as Okidi, Kibiwot, Obura and Odido have also noted the challenges of functional and policy integration within the coastal areas. Okidi outlines legal facets of managing coastal and marine environments in Kenya.[170] Okidi provides an analysis of various legal frameworks applicable in costal marine conservation and protection. Fundamentally, the author outlines the challenges and opportunities that are linked to these laws. Some of the challenges that the author identifies that are germane to the current area of study include; obscurity on the delimitation of the coastal zone and gaps relating to the preparation of comprehensive and long-term land use plans for control of development along the coast. Essentially, Okidi concludes by recommending a need for planning for government land between the high-water mark and private settlements. He argues that the purpose of such planning would be to provide for environmental conservation and also take precautionary measures against possible rising of the seal levels due to climate change. In addition, Okidi, argues that the agency responsible for local and regional physical and environmental planning in the marine area of Kenya should be specified. He particularly notes that due to this limitation, there is potential for use conflict within

[165] ibid
[166] ibid.
[167] ibid.
[168] ibid.
[169] ibid.
[170] C O Okidi, Legal Aspects of Management of Coastal and Marine Environment in Kenya in Charles O Okidi, P Kameri-Mbote and Migai Akech (eds) *Environmental Governance in Kenya: Implementing the Framework Law* (East African Educational Publishers 2008).

the continental shelf among legal permissible activities such as exploration and production of oil, laying of submarine cables, and mariculture.

Kibiwot argues that "Kenya's legal and policy framework that relates to the management of the coastal and marine environment has for a long time been developed in response to sectoral needs and not in tandem with the actual physical environment and socio economic dynamics."[171] Obura recognizes that the sectorial legislations usually have overlapping and many times contradicting provisions on coastal and marine zone management.[172] According to Odido, this challenge is manifested in the regulations on pollution, which are found in the myriad legal frameworks, with different enforcing agencies.[173]

## 2.7: GAPS IN LITERATURE

Literature reviewed has demonstrated that tourism activities that thrive within both the land and sea space have not been adequately regulated through spatial planning leading to an unsustainable blue economy. There is still a challenge in adopting appropriate spatial planning approach that is able to respond to the unique characteristics of tourism activities within the land-sea interface. Tourism includes both physical developments such as accommodation facilities and other auxiliary activities that a tourist engages in such as swimming, snorkeling, curio collection.

The totality of these activities contributes to degradation of the land-sea interface and ought to be regulated as a system. Existing literature has focused on impact of physical tourism facilities with little research on the impacts of other touristic activities within the land-sea interface. The review concludes that there is a dearth of literature that assesses the application of an integrated approach to spatial planning

[171] R Kibiwot, Towards the Formulation of Kenya's Integrated Ocean Management Policy Including Institutional Framework <http://www.un.org/depts/los/nippon/unnff_programme_home/fellows_pages/kibiwot/kibiwot_0708_kenya.pdf> accessed 16 March 2018.

[172] D O Obura, Kenya (2001) 42(12) Marine Pollution Bulletin 1264. <www.sciencedirect.com> accessed on 16 March 2018.

[173] M Odido, Marine Science Country Profiles report: Kenya. (Report IOCINCWIO-IV/Inf.5, Intergovernmental Oceanographic Commission and Western Indian Ocean Marine Science Association 1998) 4.

in regulating tourism as a set of interrelated activities and not just buildings and at the land-sea interface.

# CHAPTER THREE
# RESEARCH METHODOLOGY

## 3.1: OVERVIEW

This chapter presents the research methodology used in conducting the study. It discusses the study area, the research design, sampling, data collection methods, data analysis and presentation, limitations and ethical considerations.

## 3.2: STUDY AREA

This research was conducted within the land-sea interface in Malindi town within Kenya's coastal zone. Malindi is located in Kilifi County, which is one of the 47 counties comprising the territory of Kenya. The Indian Ocean is a major feature in Malindi with a coastline of about 155km running from Mida to Ungwana. Malindi lies between latitude 2°20° and 4° South and longitude 39° and 4° East.[1] The town is an important tourist destination and attracts domestic as well as international tourists. It has an outstanding history dating back to the 14th century which attracts a lot of tourism. Some of these historical attractions include the Vasco Da Gama Pillar and the Portuguese Chapel.

Malindi also has a rich repository of creeks, coral reefs, silvery white sand beaches that are lined up with palm trees, marine park and mangrove forests which have social, economic and environmental significance.[2] Nonetheless, these historical, cultural and environmental goods comprise an ecologically fragile area that continues to face degradation from both natural and anthropogenic disturbances and hence its selection as an appropriate study site – *see figure 3.1*.

[1] C E Kitsao, The Impact of Tourism on Housing: A Case Study of Malindi Town. Research Project Submitted in Partial Fulfillment for the Requirements for the Degree of Master of Urban Management (Nairobi, University of Nairobi 2010) xiv + 62.

[2] County Government of Kilifi, Draft Malindi Integrated Strategic Urban Development Plan (ISDP) in collaborated with (Government of Kenya, Ministry of Lands, Housing and Urban Development 2015)

The justification of the choice of this study area was based on the rich historical and natural resource diversity that has seen an increase in tourism within the land-sea interface. Over the years, these tourism activities have intensified within a small section of the land-sea interface putting undue pressure on the sustainability of the blue economy in this area. This study area was also chosen due to the current decline in the number of tourists visiting Malindi despite presence of diverse tourist attractions in view of analyzing the factors that could be responsible for this scenario. Literature has also demonstrated that there are limited studies that have been carried out in Malindi as opposed to other bigger towns within Kenya's coastal zone such as Mombasa.

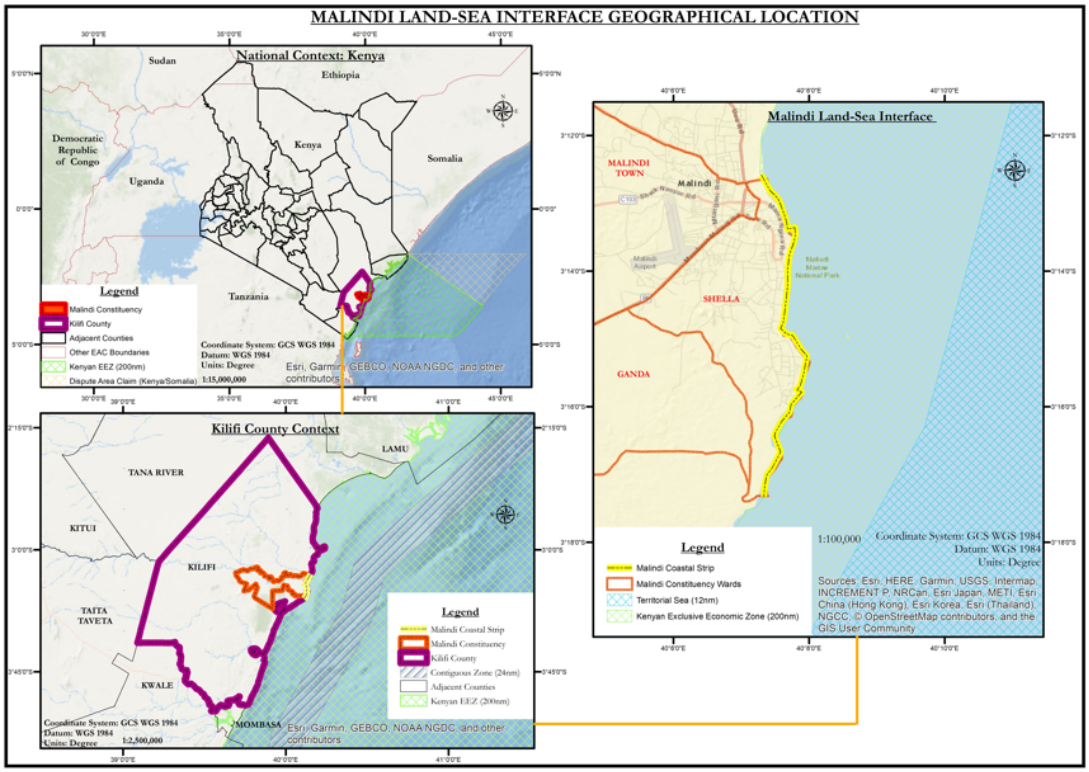


*Figure 3.1: Map of the study area showing Kenya, Kilifi County and Malindi*

## 3.3: RESEARCH APPROACH AND DESIGN

This study was conducted based on a case study methodological approach targeting the regulation of tourism related activities within part of Kenya's coastline found in

Malindi. As a form of research methodology, Yin argues that case study involves an empirical review that examines an existing phenomenon or occurrence, within its real-life context especially when there is no clarity on the limitations between the occurrence and the context, thereby necessitating the use of multiple sources of evidence.[3] The approach, according to Zainal involves a comprehensive contextual analysis and review of a limited number of events or conditions, and their relationships.[4] Thus, the case study approach enabled the use of the systems approach to gain concreate, contextual and in-depth knowledge of the application of spatial planning framework in Malindi and from which generalization of the phenomenon on the entire land-sea interface in Kenya would be made.

The case study methodological approach informed triangulation of data by giving the researcher an opportunity of collecting data using different techniques such as surveys, key informant interviews, focus group discussions and observation. To apply the different techniques in data collection, mixed research design was used to collect relevant data to satisfy the research objectives. A mixed research design enabled in-depth study of all the issues relevant to this study. It involved data collection and analysis using a mix of both quantitative and qualitative methodologies in many stages in the research process.[5] For ease of administration of the mixed research design, a sequential explanatory strategy was used along the following stages; quantitative data collection stage, quantitative data analysis stage, qualitative data collection stage, qualitative data analysis stage and finally interpretation.[6]

Under this strategy, quantitative data collection and analysis preceded the collection and analysis of qualitative data with equal focus given to the two stages.[7] Integration of data collected was done during interpretation stage, where the focus was primarily

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[3] R K Yin, *Case Study Research Design and Methods* (4th ed, ISBN978-1-4129-6099-1, SAGE Publications 2009) <http://cemusstudent.se/wpcontent/uploads/2012/02/YIN_K_ROBERT-1.pdf>

[4] Z Zainal, Case study as a research method (2007) Jurnal Kemanusiaan bil.9, J <http://psyking.net/htmlobj-3837/case_study_as_a_research_method.pdf>

[5] S R Terrell, Mixed-Methods Research Methodologies, (2012) 17(1) The Qualitative Report 254-280 <www.nova.edu/ssss/QR/QR17-1/terrell.pdf>

[6] ibid.

[7] cf Terrell (n 5) 254-280.

to elucidate quantitative results by exploring certain results in more detail or helping explain unexpected results (e.g., using follow-up interviews to better understand the results of a quantitative study).[8]

### 3.4: DATA NEEDS AND SOURCES

According to Mugenda and Mugenda, data refers to all information a researcher gathers from his or her studies.[9] This can be in form of qualitative data that include verbal description or measurement with non-standards scale where the quality of a phenomenon is described with terms like *yes* or *no* etc.[10] Qualitative data facilitates an understanding of intangible aspects such as meanings, experiences, ideas, beliefs and values.[11] Such data included information that is difficult to measure, count or express in numerical terms such as perception of respondents about their opinion on the challenges facing application of spatial planning. Qualitative data sources included data gathered through interviews, observations, literature and case law.

Quantitative data which includes information that can be expressed in numerical terms counted or compared on a scale and mainly include discrete data and continuous data was also collected.[12] Both qualitative and quantitative data was collected on tourist facilities within the coastal zone in Malindi, the spatial planning tools used to regulate these touristic activities, the process of spatial planning, and the roles of various institutions involved in the regulation process.

### 3.5: SAMPLING

Sampling for this study focused on the three categories of participants which were: manages of tourism accommodation facilities; local persons engaged in tourism

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[8] S R Terrell, Mixed-Methods Research Methodologies, (2012) 17(1) The Qualitative Report 254-280 <www.nova.edu/ssss/QR/QR17-1/terrell.pdf>

[9] Olive M. Mugenda and Abel G. Mugenda, *Research Methods, Quantitative and Qualitative Approaches*. Revised ed. (ACTS press, Nairobi, 2003)

[10] W Kosura, *Research Design, Data Collection and Analysis*. (UNON Publishers, Nairobi, 2006)

[11] G Wicker, *The Postgraduate Research Handbook*, 2nd edition Series: Palgrave Research Skills; (Palgrave Macmillan, 2009)

[12] W Kosura, *Research Design, Data Collection and Analysis*. (UNON Publishers, Nairobi, 2006)

activities; and policy makers. This study targeted a sample size of 30 accommodation facilities as a minimum statistically allowable sample size for any quantitative research.[13] This was necessitated by the lack of published data on the actual number of accommodation facilities within the study area which would have enabled the use of conventional statistical formula for calculating sample size. This formed the sample size for the survey where convenient and snowball sampling were used in selecting the respondents. The researcher identified the initial respondents through convenient sampling based on the availability and willingness of the respondent to participate. Through snowballing, additional respondents were introduced to the researcher by those who had participated in the survey.

Policy makers were composed of government officials and heads of various agencies in charge of sectorial tourism related services and activities. These formed key informants who did not qualify for determination of a sample size as the data was not to be used for quantitative statistical analysis. Purposive sampling method was used to identify the key informants because such sample units have particular features or characteristics due to the offices they occupy or their knowledge base, that enabled the researcher to explore and understand certain themes and puzzles more clearly. Data collection from local persons engaged in tourism was through focus group discussions where participants were purposefully selected to align to the activity that they engaged in within the land-sea interface.

### 3.6: DATA COLLECTION METHODS

Methods of data collection refer to those procedures that one employs in the processes of collecting empirical data. According to Kombo and Tromp, data collection refers to the collection of specific information which is meant to provide or refute some facts.[14] They further ague that during collection of data, the researcher must have

[13] W W Morte, Central Limit Theorem (2016) <https://sphweb.bumc.bu.edu/otlt/MPHModules/BS/BS704_Probability/BS704_Probability12.html> accessed March 23 2020; U Sekaran and R Bougie, Research Methods for Business: A Skill Building Approach (5th Ed, New Jersey: John Wiley and Sons, Hoboken 2010)

[14] D Kisilu and D Tromp, *Proposal and Thesis Writing; An Introduction* (Nairobi, Kenya, Paulines Publishers, 2006)

clarity on what he/she hopes to obtain and the means to obtain it.[15] Moreover, the researcher should be cognizant of compatibility issues between forms of data and certain types of research aims, which influence the methods of data analysis they can use.[16] Data for this study was collected using document analysis, questionnaire surveys, interview administration, focus group discussion and participant observation. Data collected using these methods was captured by note taking and using a recording device such as a Dictaphone for later transcription.

### 3.6.1: Document Analysis

Mugenda notes that document analysis involves a thorough understanding and scholarly critiques of specific written materials including record of human activity, events, experiences, norms and knowledge among others.[17] Generally, this was data sourced from secondary sources. Donald and Tromp define secondary sources to include published material, journals among others, where data that is neither collected directly by the researcher nor specifically for the user is sourced.[18] Through document analysis, the study sought to understand, analyse, interpret and make conclusions about contents of written materials to enable triangulation with primary data collected from the field. These were collected from online Internet sources and various government agencies.

### 3.6.2: Legal Analysis

The criteria for legal analysis encompassed reviewing the purpose of a regulatory framework, provisions relating to application of spatial planning, institutional setup, institutional functions and enforcement mechanism. Legal analysis was germane in this study as it enabled the ascertainment of the applicable legal frameworks and their relevance to effective application of spatial planning in regulation of tourism activities. The analysis sought to point out ambiguities and weaknesses of law, to

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[15] ibid.
[16] ibid.
[17] A G Mugenda, *Qualitative Research Methods*: Applied Research and Training Services (Arts Press 2013).
[18] D Kisilu and D Tromp, *Proposal and Thesis Writing; An Introduction* (Nairobi, Kenya, Paulines Publishers, 2006)

critically examine the laws in order to highlight issues of coherence and consistency of law and its underlying policy frameworks. Legal analysis also provided the basis for social auditing of the law through the case study methodological approach where the researcher conducted surveys and key informant interviews to identify the gap between the legal ideals as provided in the frameworks and the social reality on the ground. This analysis informed the suggested reforms in the legal framework.

To carry out the analysis, the study relied on both primary and secondary sources of law. The primary sources of law, which are authoritative records of law made by recognised law-making agencies such as parliament, included legislation, rules, regulations, orders and bye-laws. Additional primary sources included case law from past legal decisions made by courts. Secondary legal sources were mainly sourced from legal commentaries from academic scholars, published articles from law journals and unpublished but authoritative material from government agencies.

### 3.6.3: Survey

A semi-structured questionnaire was used to collect data from tourism activity managers/owners in the hospitality facilities such as beach hotels and holiday apartments. The questionnaire covered areas such as respondent characteristics, status of application of spatial planning tools, challenges and suggestions – see appendix 1. Research assistants who were trained before they were deployed to the field assisted in administering these questionnaires in the study area. The researcher who was responsible for quality carried out a pretesting exercise before commencing actual survey. During the pre-test, each research assistant administered two questionnaires which were then reviewed to enable challenges encountered to be rectified.

### 3.6.4: Key Informant Interviews

This involved direct questioning, probing, open-ended discussions and non-verbal communication with specific respondents to obtain detailed information based on the key informant interview guide (appendix 2). Structured interviews were used in the data and information gathering from key sources such as government officers,

professional, community leaders, private sector and service providers. These were conducted by the researcher using face to face interview and phone interview for those who were not available for face to face meeting. The study interviewed five key informants including: Kilifi County Physical Planning Officer; Kilifi County Fisheries officer; Kilifi County Land Surveyor; Warden in charge of Malindi Marine Park; National Environment Management Authority Kilifi County. These interviews were conducted within the months of June and July 2019.

### 3.6.5: Focus Group Discussion (FGDs)

A focus group discussion (FGD) is a qualitative method of data collection that uses an FGD guide (see appendix 3) to structure discussion of a specific topic of interest through rallying people from similar backgrounds or experiences together.[19] It generally involves group interviewing in which a small group of usually 8 to 12 people. For this study, 3 FGDs were held with the fishermen, beach management unit, and boat operators. Each of the 3 FGDs had 8 participants selected through convenience sampling. This method was used to get in-depth understanding of the attitudes, beliefs, behaviors, motivations and perceptions on the subject matter of this study through follow up questions and probing. Focus group discussions were useful because they allowed participants a free atmosphere to talk with other group members. During the FGD session, data was captured by note taking and using a Dictaphone for latter transcription.

### 3.6.6: Observation

Additional data was also collected through observation of the phenomenon under study to gain better understanding of the impact of pollution on the land-sea physical environmental and more importantly how humans interact with the land-sea ecosystem i.e. issues of waste management. The researcher compiled field notes describing what was observed based on an observation matrix which identified the key aspects for observation to include: pollution, waste management, location of

[19] A G Mugenda, *Qualitative Research Methods*, Applied Research and Training Services (Arts Press 2013)

activities among others. Photography was used to capture the key phenomenon of interest.

### 3.7: DATA ANALYSIS

Data analysis involved processing, manipulation and presentation of data into meaningful information that help in drawing conclusions and recommendations.[20] According to Rukwaro, data must be processed, interpreted and inferred to be able to provide the appropriate answers to the research questions.[21] The analysis of data under this study required a series of inter-related procedures such as establishing categories, application of these categories to raw data through coding, tabulation and subsequently, drawing statistical inferences.

Quantitative data collected from tourist activity questionnaire was processed using SPSS and Microsoft Excel. The techniques of analysis included descriptive analysis, while presentation is in form of charts, frequency distribution, and analytical tables. Before inputting the data into the SPSS software, the researcher prepared a codebook to guide data entry. Preparation of codebook was done to group the common responses and to identify values with respect to labels for each and every questionnaire. This was in regard to both open-ended and close-ended responses. Using the codebook, the researcher prepared a SPSS data frame which captured all the codes in the computer program and as per the codebook.

Data entry involved in-putting the response codes in each questionnaire in the SPSS data frame software. After entry, the researcher checked for any errors and omissions and made sure that all data had been entered as required. It involved proofreading of the data to catch and correct errors and inconsistent codes.[22] Once all entries had been validated, various frequency tables and cross tabulations were generated based on an

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[20] R Rukwaro, *Proposal Writing in Research*, Applied Research & Training Services (Nairobi Kenya, 2016)

[21] ibid.

[22] P M Ngau and Isaac Mbeche, Data Preparation: Coding, Editing and Inputting in Peter M Ngau and Asfaw Kumssa (eds), *Research Design, Data Collection and Analysis: A Training Manual* (United Nations Centre for Regional Development 2004)

analytical framework prepared by the researcher. This framework was based on the research objectives.

Qualitative data included all data collected using in-depth key informant interviews, focus group discussions and from secondary literature. The data was analyzed using content analysis method and presented using direct quotations, narratives and descriptive notes. Primary qualitative data collected was transcribed using Microsoft Word. This involved writing out all the data captured both by tape-recording and shorthand field notes. The transcribed data was then carefully studied to enable the researcher organize it into emerging themes based on the research questions and objectives.

## 3.8: ETHICAL CONSIDERATIONS

Before a researcher settles on a specific research design, he/she needs to consider a fundamental issue relating to the ethical considerations related to that particular research. Mugenda and Mugenda note that the awareness of ethical issues safeguards the integrity of the researcher and also ensure honest results.[23] In addition, Kombo and Tromp argue that because more often than not researchers use people or animals who may suffer pain and distress in the process, attention must be given to ethical issues.[24]

The key ethical principles that this research considered included voluntary participation, informed consent, risk of harm and confidentiality. The principle of *voluntary participation* required that people not be coerced into participating in research. Therefore, participation in this research by the respondents was on voluntary basis.

Closely related to the notion of voluntary participation was the requirement of *informed consent*. This meant that prospective research participants were fully

[23] O M Mugenda and Abel G. Mugenda, *Research Methods: Quantitative and Qualitative Approaches* (Nairobi, Kenya, Arts Press 1999)

[24] D Kisilu and D Tromp, *Proposal and Thesis Writing; An Introduction* (Nairobi, Kenya, Paulines Publishers 2006)

informed about the objectives of the research as presented in each questionnaire and they were requested to give their verbal consent to participate before the researcher proceeded with administration of the questionnaire.

Similarly, ethical standards also require the researcher not to put participants in a situation where they might be at *risk of harm* both physical and psychological. This has been prevented by ensuring that the identity of the respondents is not captured in the report. Hence, while presenting findings, this study, has conformed to the principle of *anonymity*, which essentially means that the participant identity has remained anonymous. To protect the identity of key informants they have been identified by the office they hold and not their individual names.

## 3.9: STUDY LIMITATIONS

The major limitation of this study is that it did not cover the entire coastal land-sea interface in Kenya traversing the boundary of five counties. This was due to limitations in financial resources which necessitated the choice of a case study area in Malindi town. The case study approach still enabled collection of adequate in-depth information on the challenges of application of spatial planning for regulating tourism activities in the land-sea interface which is informative for the rest of the areas within the coastal region and for the entire country. This was further delt with by reviewing literature and documents from the other areas that were not visited during the study. Another limitation was the inability to access some vital documents such as development approval and environmental impact assessment licences from managers of tourist accommodation facilities. To remedy this situation, the study relied on the information from key informants which was also triangulated with data from focus group discussions and secondary literature.

# CHAPTER FOUR
# REGULATORY FRAMEWORK FOR GOVERNING TOURISM ACTIVITIES THROUGH SPATIAL PLANNING IN THE LAND-SEA INTERFACE

## 4.1: OVERVIEW

This chapter presents an assessment of the extent to which the legal framework regulating tourism activities incorporate spatial planning. The assessment covers the review of the international legal framework, constitutional framework, national laws and policies, county laws and applicable statutory plans and complimentary tools used in the implementation of spatial plans. The chapter also discusses the institutional framework for regulation of tourism activities and the gaps in the regulatory framework.

## 4.2: INTERNATIONAL LAWS RELEVANT TO SPATIAL PLANNING

Spatial planning as a tool for sustainable environmental management derives its relevance from a number of international frameworks including the Stockholm Declaration of 1972, Rio Declaration, United Nations Convention on the Law of the Sea (UNCLOS), the Convention of Biological Diversity (1992), the African Convention on the Conservation of Nature and Natural Resources, and the Convention for the Protection, Management and Development of the Coastal Environment of the Eastern African Region (The Nairobi Convention) 1985. Other international frameworks reviewed include the Sustainable Development Goals and the African Union Agenda 2063.

### 4.2.1: Stockholm Declaration

The significance of planning as a tool for natural resource management was upheld in 1972 by the United Nations Conference on the Human Environment held in

Stockholm.[1] One of the key outputs of this conference was the adoption of a set of 26 principles commonly referred to as the Stockholm declaration. In reference to spatial planning, principle 2 provides that:

> *"The natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate."*[2]

The Stockholm declaration, through principle 2, effectively buttressed the important role of spatial planning in promoting prudent use of land and natural resources for sustainable development.[3]

### 4.2.2: Vancouver Declaration on Human Settlements

The Vancouver Declaration on Human Settlements adopted in 1976 is one of the first international frameworks to expressly speak on the importance of spatial planning in realizing sustainable human settlements.[4] This declaration reiterated the right of states to plan and regulate use of land to guide human settlements based on a comprehensive land use plan.[5] This was in recognition of the increasing degradation

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1 Declaration of the United Nations Conference on the Human Environment; available at<https://www.google.com/search?client=safari&rls=en&q=stolkholm+declaration&ie=UTF-8&oe=UTF-8>

2 ibid

3 United Nations, Spatial Planning: Key Instrument for Development and Effective Governance with Special Reference to Countries in Transition, (United Nations, 2008) <https://www.unece.org/fileadmin/DAM/hlm/documents/Publications/spatial_planning.e.pdf >

4 United Nations Human Settlements Programme, The Vancouver Declaration on Human Settlements (United Nations Conference on Human Settlements, Vancouver, Canada, 31 May to 11 June; UN-HABITAT: United Nations Conference on Human Settlements 1976) <https://mirror.unhabitat.org/downloads/docs/TheVancouverDeclarationOnHumanSettlements.pdf>

5 ibid

of life-supporting resources of air, water and land.[6] Consequently, the declaration provides that:

> *"It is the responsibility of Governments to prepare spatial strategy plans and adopt human settlement policies to guide the socio-economic development efforts. Such policies must be an essential component of an over-all development strategy, linking and harmonizing them with policies on industrialization, agriculture, social welfare, and environmental and cultural preservation so that each supports the other in a progressive improvement in well-being of all mankind."*[7]

### 4.2.3: Rio Declaration on Environment and Development

The Rio Declaration was adopted during the 1992 United Nations Conference on Environment and Development (UNCED) which was held 20 years after the Stockholm Conference in Rio de Janeiro Brazil from June 3 to 14, 1992.[8] The Rio Declaration has 27 principles and sought to reaffirm and build upon the Stockholm Declaration. However, the Rio Declaration marked a departure from the 1972 Stockholm Declaration in the sense that it provided for world partnership; need for sustainable development; joint but differentiated responsibility of the industrialized and developing countries; and the application of the principle of precaution for environmental protection among other principles.[9]

Although the Rio Declaration does not directly speak on the utility of spatial planning in the realization of any of the 27 principles, in 1996, the Conference of Ministers for Spatial Planning and Development reiterated the role of spatial planning in the

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6 cf United Nations Human Settlements Programme (n 4).

7 cf United Nations Human Settlements Programme (n 4).

8 V Nanda and G Pring, The Next 40 Years: The Evolution of International Environmental Policy from 1972 to the Present in *International Environmental Law & Policy for the 21st Century* (2nd revised ed, - FINAL.6-24-12.doc 2012)

9 United Nations Conference on Environment and Development, Rio Declaration on Environment and Development (Report of the United Nations Conference on Environment and Development, UN Doc. A/CONF.151/26, Vol. I, 12 August, Annex I, UNCED 1992)

realization of sustainable development as contained in the Declaration.[10] The Ministers noted that spatial planning is multi-sectoral in approach and would contribute to restructuring sectorial policies, securing legal basis of locational decisions by private developers and reconciling international, national, regional and local interests.[11] In addition, the Ministers noted that coastal states witnessed higher concentration of spatial development conflict requiring specific attention.[12]

### 4.2.4: Sustainable Development Goals

In September 2015, 193 world leaders agreed to 17 Global Goals for Sustainable Development. Otherwise known as the Global Goals, the Sustainable Development Goals (SDGs) are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. These 17 Goals with 169 targets between them build on the Millennium Development Goals, while including new areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among other priorities. The goals are interconnected – often the key to success on one will involve tackling issues more commonly associated with another. As the predecessor of the MDGs, the SDGs, in contrast, will apply uniformly to all countries, in the developing and developed worlds alike. This is unlike the MDGs, which only applied to countries in the developing world.[13] Thus, they will aim to hold the entire globe to account for their development efforts.[14]

Under the auspices of the Sustainable Development Goals, coastal States are further called upon to sustainably use and manage terrestrial and marine resources.[15] Target 14.1 provides that by 2025 parties shall "prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris

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[10] Conclusions of the Fourth Conference of Ministers for Spatial Planning and Development Stockholm, October 22, 1996 <https://vasab.org/wp-content/uploads/2018/06/Conclusions_4th_VASAB_Ministerial_Conference-1.pdf >

[11] ibid.

[12] ibid.

[13] United Nations, Transforming our world: the 2030 Agenda for Sustainable Development (UNGA Resolution A/RES/70/1, Resolution adopted by the General Assembly, United Nations 2015)

[14] ibid.

[15] cf United Nations (n 13), SDGs 14 and 15 targets.

and nutrient pollution".[16] In addition, Targets 14.2 and 14.5 addresses the issues of protection, conservation, and management of coastal ecosystems and resources thereby promoting a strong concept of sustainability. The SDGs do not expressly direct states to use spatial planning as a tool for the envisaged sustainable use and management. This is implicitly implied in targets 14.2 and 14.5 which requires the application of spatial planning to sustainably use the oceans, seas and marine resources.

The implementation of goal 14 has focused on reviewing methodologies currently used by Regional Seas Programmes and intergovernmental, international and regional bodies.[17] Some of these approaches include marine-area based, integrated planning and management approaches, such as marine spatial planning or integrated coastal zone management.[18] In recognizing the challenge of sustainable management of the coastal marine resources due to conflicting human and environmental needs, Neumann *et al* proposes spatial planning and zoning as a way to resolve such conflicts.[19] Through a "spatial-resolution", they argue that the realization of a strong sustainability must be based on integrated ecosystem spatial management that can effectively address transboundary impacts.[20] Consequently, all states with coastal zones ought to take a prima-facie-commitment to adopt spatial planning.[21]

### 4.2.5: United Nations Convention on the Law of the Sea

The United Nations Convention on the Law of the Sea (UNCLOS) in the preamble is conscious that the problems of ocean space are closely interrelated and need to be

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16 cf United Nations (n 13), SDG 14 (14.1).

17 UNESCO's Intergovernmental Oceanographic Commission, Measuring progress on SDG 14 indicators (IOC-UNESCO 2019) <http://www.unesco.org/new/en/media-services/single-view/news/measuring_progress_on_sdg_14_indicators/>

18 ibid.

19 Barbara Neumann, Konrad Ott and Richard Kenchington, Strong Sustainability in Coastal Areas: A Conceptual Interpretation of SDG 14 (2017) 12 Sustainability Science 1019–1035 <https://doi.org/10.1007/s11625-017-0472-y> accessed 2 October 2019

20 ibid 1019–1035.

21 cf Neumann, Ott and Kenchington (n 19) 1019–1035.

considered as a whole.[22] It bestows on Coastal States including Kenya jurisdiction within a 200-nautical mile exclusive economic zone (EEZ).[23] Within this EEZ such states have sovereign rights to utilize natural resources, carry out specific economic activities such as fishing and tourism, ensure environmental protection and also carry out marine research.[24]

In accordance with this Convention:

> *"States have to take all measures to ensure that activities under their jurisdiction and control are so conducted as not to cause damage by pollution to other States and their environment, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights."*[25]

The Convention focuses on all sources of pollution of the marine environment including: pollution from the release of toxic, harmful or noxious substances from land-based sources; pollution from vessels; pollution from installations and devices used in exploration or exploitation of the natural resources of the seabed and subsoil; and pollution from other installations and devices operating in the marine environment.[26] The last set of pollutants include devices such as boats used for snorkelling.

States are therefore required to carry out monitoring and environmental assessment of the risks or effects of pollution of the marine environment.[27] Based on the results of the monitoring and environmental assessment, states are required to also publish these findings and make them available to other states through competent international organizations.[28] In addition, UNCLOS focuses on the duty of states to

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[22] United Nations Convention on the Law of the Sea (UNCLOS), Montego Bay, 10 December 1982, 1833 UNTS 3.
[23] UNCLOS, art 57.
[24] UCLOS, art 58 and 77.
[25] UNCLOS, art 194(2).
[26] UNCLOS, art 194(3).
[27] UNCLOS, art 204.
[28] UNCLOS, art 205.

adopt laws, regulations and other measures to prevent, reduce and control pollution from land-based sources[29], pollution from sea-bed activities under national jurisdiction[30], pollution from activities in the area[31], pollution by dumping[32], pollution from vessels[33] and pollution from the atmosphere[34].

To this extent therefore it is relevant for sustainable land-sea interface management by ensuring that member states regulate the uses to which land adjacent to the sea is used by controlling pollution and promoting sustainability. Spatial Planning provides a useful tool for the regulating land use activities in Kenya and should be useful within the expanded constitutional definition of land, that includes marine waters in the exclusive economic zone. According to Pyć, spatial planning within is vital in applying the "mechanisms of integrated management to the practice of the Law of the Sea in order to create a long-term, reasonable administration of ocean resources in a sustainable manner."[35]

### 4.2.6: Convention of Biological Diversity

Similar to UNCLOS, Convention of Biological Diversity's principle provides that States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.[36] It also provides for general measures for conservation and sustainable use of the environment. The Convention mandates that:

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[29] UNCLOS, article 207.
[30] UNCLOS, article 208.
[31] UNCLOS, art 209.
[32] UNCLOS. art 210.
[33] UNCLOS, article 211.
[34] UNCLOS, art 212.
[35] Dorota Pyć, The Role of the Law of the Sea in Marine Spatial Planning in *Maritime Spatial Planning* (2019) 375-395 <https://link.springer.com/chapter/10.1007/978-3-319-98696-8_16>
[36] Convention of Biological Diversity (1992), art 3.

> *"each contracting party, in accordance with its particular conditions and capabilities to: develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes which shall reflect, inter alia, the measures set out in this Convention relevant to the contracting party concerned and integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies."*[37]

In line with the Convention on Biological Diversity (CBD), Kenya has prepared a National Biodiversity Strategy & Action Plan (NBSAP) covering the period between 2019-2030.[38] Some of the threats coastal and marine ecosystems identified in the Strategy & Action Plan that have a direct link to tourism include coastal development and erosion, unregulated resource extraction and poor waste management.[39] One of the guiding principles and goals to the implementation of NBSAP is sectoral integration which seeks to ensure that biodiversity concerns are mainstreamed in the legislative process, plans, programmes and individual decisions.[40]

Aligned to CBD are the Aichi Biodiversity Targets. Target 11 provides that:

> *"By 2020, at least 17 per cent of terrestrial and inland water areas and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based*

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37 Convention of Biological Diversity, art 6.

38 National Environment Management Authority, Kenya National Biodiversity Strategy & Action Plan 2019 – 2030 (NEMA 2019) < http://meas.nema.go.ke/cbdchm/download/Meas/Biodiversity/Plans-and-Strategies/KENYA-NBSAPFINAL-DRAFT.pdf>

39 ibid 38

40 cf National Environment Management Authority (n 38).

*conservation measures, and integrated into the wider landscape and seascape."*[41]

Though not expressly provided in the Convention or the targets, the realization of this target is predicted on among others effectively and equitably managing these areas through putting spatial planning measures in place to ensure ecological integrity and the protection of species, habitats and ecosystem processes which are participatory. This assertion is supported by the Secretariat of the Convention on Biological Diversity who have reiterated the role of spatial management of the marine and coastal biodiversity through marine spatial planning (MSP).[42] The Secretariat notes that MSP is "a means to protect marine and coastal biodiversity while at the same time addressing human needs across coasts, around estuaries and deltas, in near shore environments, and on open oceans".[43] Therefore, such planning measures would ensure integration of protected areas into wider land and seascapes to showcase mainstreaming of biodiversity with other development sectors.

### 4.2.7: United Nations Framework Convention on Climate Change

The United Nations Framework Convention on Climate Change (UNFCCC) was adopted in 1992 and ratified by Kenya on 30 August 1994.[44] The convention recognizes terrestrial and marine ecosystems as important sinks to greenhouse gases.[45] It expresses concerns that human activities continue to responsible for increasing greenhouse gas emissions whose net impact will have serious ramifications on global warming, affect natural ecosystems and human kind. The Convention affirms that all climate change responses should be integrated to prevent any adverse impacts on social and economic development especially within

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41 Convention of Biological Diversity, target 11.

42 Secretariat of the Convention on Biological Diversity and the Scientific and Technical Advisory Panel — GEF, Marine Spatial Planning in the Context of the Convention on Biological Diversity: A study carried out in response to CBD COP 10 decision X/29, (Montreal, Technical Series No. 68, CBD 2012) 1-44.

43 ibid.

44 United Nations Framework Convention on Climate Change (UNFCCC) <https://unfccc.int/tools_xml/country_KE.html>

45 United Nations Framework Convention on Climate Change (UNFCCC) <https://unfccc.int/resource/docs/convkp/conveng.pdf>

developing countries. Through the Convention, all parties commit to among others promote sustainable management of sinks and reservoirs of all greenhouse gases including terrestrial, coastal and marine ecosystems.[46] In relation to the sustainable management of the land-sea interface, parties commit to develop appropriate and integrated plans for coastal zone management.[47]

To support the implementation of the UNFCCC aspirations, the Paris Agreement was negotiated and entered into force on 4 November 2016. Kenya ratified this Agreement on 28 December 2016.[48] This Agreement set out the expected increase in global average temperature to be below 2°C.[49] The Paris Agreement does not expressly speak to the use of spatial planning in climate change mitigation. However, it gives reference to the development or enhancement of relevant plans through adaptation planning processes.[50]

## 4.3: REGIONAL CONVENTIONS

### 4.3.1: Revised African Convention on the Conservation of Nature and Natural Resources

Commonly referred to as the Maputo Convention, the African Convention on the Conservation of Nature and Natural Resources was adopted on 11 July 2003 at the Second Summit of the of the African Union in Maputo by the Heads of State and Government. This Convention is a revised version of the 1968 Algiers Convention that is still in force for countries such as Kenya who are yet to ratify the 2003 version However, the Maputo Convention has not reached the necessary number of ratifications to enter into force. The Maputo Convention retains the outline and structure of its predecessor, the Algiers Convention. The purpose of the revision was

[46] UNFCCC, art 4 (d)
[47] UNFCCC, art 4 (e)
[48] United Nations Framework Convention on Climate Change (UNFCCC) <https://unfccc.int/node/61092>
[49] Paris Agreement 2015, art 2 <https://unfccc.int/sites/default/files/english_paris_agreement.pdf>
[50] Paris Agreement 2015, art 7

that the Convention remains the principle vehicle through which issues of particular concern to the continent may be considered and concerted action taken.

The critical provision in the convention that speak on matters of spatial planning with implications on the regulation of use within the land-sea interface are found in article VI, Article VII and article XIV.[51] Article VI on land and soil mandates parties to take effective measures to prevent land degradation by developing long-term integrated strategies for the conservation and sustainable management of land resources, including soil, vegetation and related hydrological processes.[52] Article VII gives provisions for sustainable use of water resources so as to maintain them at the highest possible quantitative and qualitative levels.[53]

Specifically, Article XIV has provisions which underscore the nexus between sustainable development and natural resource use.[54] Parties are mandated to ensure that conservation and management of natural resources are treated as an integral part of national and/or local development plans.[55] In the formulation of all development plans, full consideration is given to ecological, as well as to economic, cultural and social factors in order to promote sustainable development.[56]

### 4.3.2: Convention for the Protection, Management and Development of the Coastal Environment of the Eastern African Region (The Nairobi Convention)

The Convention for the Protection, Management and Development of the Coastal Environment of the Eastern African Region (The Nairobi Convention) main objective is to protect and manage the marine environment and coastal areas, the convention area, of the Eastern African region. The Parties to the Convention agree to take all

[51] African Convention on the Conservation of Nature and Natural Resources, African Union (AU), available http://faolex.fao.org/docs/pdf/mul45449.pdf
[52] ibid.
[53] ibid.
[54] ibid.
[55] ibid.
[56] ibid.

appropriate measures to prevent, reduce and combat pollution of the Convention area,[57] particularly pollution from ships,[58] dumping,[59] land- based sources,[60] exploration and exploitation of the sea bed,[61] and airborne pollution.[62] They undertake to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other marine life in specially protected areas and to cooperate in dealing with pollution emergencies in the Convention area.[63] In respect to spatial planning, the party states commit to:

> *"develop guidelines for the planning of major development projects in the Convention area, assess the environmental effects of development projects likely to cause significant adverse changes in the Convention area, and develop procedures for dissemination of information and consultation among the parties in such assessments."*[64]

The Western Indian Ocean Marine Science Association (WIOMSA) plays a key role in collaborating with the Conventions Secretariat in developing and disseminating scientific information.[65] WIOMSA was established as a regional, non-profit, membership organization in 1993 and registered in Zanzibar, Tanzania in 1994 as a non-governmental organization.[66] The organization promotes educational, scientific and technological development within marine sciences in the Western Indian Ocean (WIO) region countries to enable sustainable the use and conservation of its marine resources.[67]

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[57] Convention for the Protection, Management and Development of the Coastal Environment of the Eastern African Region (The Nairobi Convention 1985), art 4
[58] The Nairobi Convention, art 5.
[59] The Nairobi Convention, art 6.
[60] The Nairobi Convention, art 7.
[61] The Nairobi Convention, art 8.
[62] The Nairobi Convention, art 9.
[63] The Nairobi Convention, art 10 as read together with art 11.
[64] The Nairobi Convention, art 13.
[65] Western Indian Ocean Marine Science Association, About WIOMSA (WIOMSA 2017) <www.wiomsa.org/about-wiomsa/>
[66] ibid.
[67] ibid.

In 2010, in an effort to further incorporate the Trans boundary issues of climate change, marine and land-based pollution, integrated coastal management, and the importance of biological diversity, the member States adopted an amended text of the Nairobi Convention and a new Protocol that addresses the Management of Land-Based Sources and Activities. The "Amended" Nairobi Convention demonstrates the renewed commitment of member States in protecting the coastal and marine environment of the Western Indian Ocean. However, there are still many existing environmental regimes in the Western Indian Ocean which have a specific scope of issues and countries that they address.[68]

As a result, the regional framework has gaps in the implementation of policies related to coastal zone management, the protection of marine biodiversity, and the management land-based sources and activities. According to Martin, the Nairobi Convention has not been entirely effective in changing actor behavior which has resulted to a continued threat to the marine environment by increasing anthropogenic activities.[69] In spite of these challenges, Martin argues that the Nairobi Convention has contributed to identifying and addressing the environmental problems in the Western Indian Ocean region through national policy frameworks, establishing a platform for increased regional cooperation, and affecting the way national policymaking is being developed and implemented.[70]

### 4.3.3: Africa Agenda 2063

Agenda 2063 aptly referred to as 'The Africa We Want' was conceptualized and adopted under the auspices of the African Union (AU). The Heads of State and Governments of the African Union (AU) adopted this declaration during their 24th Ordinary Assembly held in Addis Ababa, Ethiopia, from 30-31 January 2015.[71]

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[68] J Rochette and R Billé, Bridging the Gap between Legal and Institutional Developments within Regional Seas Frameworks (2013) 28(3) The International Journal of Marine and Coastal Law 433-463.

[69] Alexis Martin, Lessons Learned from the Nairobi Convention (undated) < https://www.iwlearn.net/resolveuid/007182b2-70f3-4143-bb2a-48d48fec04ab>

[70] ibid

[71] See United Nations Office of the Special Advisor on Africa. Agenda 2063. Available: http://www.un.org/en/africa/osaa/peace/agenda2063.shtml. Accessed 31st March 2017

Agenda 2063 is rooted in Pan Africanism and African Renaissance and provides a robust framework for addressing past injustices and the realization of the 21st Century development objectives.[72] Agenda 2063 strives to enable Africa remain focused and committed to the ideals it envisages in the context of a rapidly changing world.[73] Agenda 2063 is a unique opportunity for citizens of the continent to play an active role in recreating the African narrative by participating in the process of setting clear goals for Africa to work towards achieving unity, peace and development in the 21st century.[74]

Agenda 2063 is modeled around seven aspirations. These include: a prosperous Africa based on inclusive growth and sustainable development; an integrated continent, politically united and based on the ideals of Pan-Africanism and the vision of Africa's Renaissance; an Africa of good governance, democracy, respect for human rights, justice and the rule of law; a peaceful and secure Africa; an Africa with a strong cultural identity, common heritage, shared values and ethics; an Africa whose development is people-driven, relying on the potential of African people, especially its women and youth, and caring for children; and Africa as a strong, united and influential global player and partner.[75]

In terms of sustainable development, it is provided in aspiration 1 that by 2063, Africa shall be a prosperous continent, with the means and resources to drive its own development, with sustainable and long-term stewardship of its resources.[76] Specific targets include: a continent where people have a high standard of living, and quality of life, sound health and well-being; well-educated and skilled citizens, underpinned by science, technology and innovation; cities and other settlements with modernized infrastructure, where people have access to affordable and decent housing together

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[72] Republic of South Africa. 2015. *African Union Agenda 2063: Voices of the African People – A Call to Action*. Department of International Relations and Cooperation

[73] See United Nations Office of the Special Advisor on Africa. Agenda 2063. Available: http://www.un.org/en/africa/osaa/peace/agenda2063.shtml. Accessed 31st March 2017

[74] Africa Union Commission. 2015. Agenda 2063: The Africa We Want. African Union Commission

[75] ibid

[76] ibid

with all the basic necessities of life such as, water, sanitation, energy, public transport and ICT; economies which are structurally transformed to create shared growth, decent jobs and economic opportunities for all; modern agriculture for increased production, productivity and value addition which contributes to farmer and national prosperity and Africa's collective food security; and a continent whose unique natural endowments, its environment and ecosystems, including its wildlife and wild lands are healthy, valued and protected, with climate resilient economies and communities.[77] Spatial planning provides an instrument for regulating development activities within the land-sea interface towards the achievement of aspiration 1 on the sustainable exploitation of the blue economy.[78]

### 4.3.4: Africa Blue Economy Strategy

Through this Strategy, the African Union (AU) recognizes the challenges that continues to jeopardize the realization of the full benefits of the blue economy within the 38 coastal and island states in Africa.[79] Some of these challenges include: the increasing menace of illegal fishing in the Exclusive Economic Zones (EEZ), sea piracy and illegal drug trafficking, pollution through dumping of toxic wastes as well as indiscriminate discarding of single use plastics, climate change and climate variability, institutional and governance challenges and presence of obsolete environmental laws and policies which do not adequately articulate the blue economy.[80]

Arising from these challenges, the Africa Blue Economy Strategy seeks to foster "an inclusive and sustainable blue economy that significantly contributes to Africa's transformation and growth".[81] One of the key blue economy sectors addressed in the Strategy is coastal and marine tourism. The Strategy provides that the development

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[77] ibid
[78] African Union Commission. 2015. Agenda 2063: The Africa We Want.
[79] African Union — Inter-African Bureau for Animal Resources, Africa Blue Economy Strategy (Nairobi, Kenya, AU-IBAR 2019) xiv + 34 <https://www.infoafrica.it/wp-content/uploads/2020/07/sd_20200313_africa_blue_economy_strategy_en.pdf>
[80] ibid.
[81] ibid.

of tourism should be made from an integrated and prospective approach that respect the Marine and freshwater Ecosystems.[82] However, the Strategy does not speak to the specific tools such as spatial planning that can be applied to realize the integrated and prospective approach for development of tourism.

### 4.3.5: Treaty for the Establishment of the East African Community

The East African Community (EAC) is the regional intergovernmental organization of the Republics of Kenya, Uganda, the United Republic of Tanzania, Republic of Rwanda and Republic of Burundi with its headquarters in Arusha, Tanzania. The Treaty for Establishment of the East African Community was signed on 30 November 1999 and entered into force on 7 July 2000 following its ratification by the original three Partner States – Kenya, Uganda and Tanzania. The Republic of Rwanda and the Republic of Burundi acceded to the EAC Treaty on 18 June 2007 and became full Members of the Community with effect from 1 July 2007. Some of the key objectives of the Community from an environmental perspective are to ensure "the attainment of sustainable growth and development of the Partner States by the promotion of a more balanced and harmonious development" and the promotion of sustainable utilization of the natural resources.[83]

Under chapter 19, the Treaty has identified environment and natural resources as one of the areas for cooperation. In respect to coastal and marine environments the Treaty provides for the establishment and adoption of common regulations for the better management and development of marine parks, reserves, wetlands and controlled areas.[84] It provides for the use of environmental impact assessment but does not speak to the utility of spatial planning as a tool for better management and development of the environment and natural resources. Under chapter 22, the Treaty provides for cooperation on tourism but only from an economic point of view and in relation to

[82] ibid.
[83] Treaty for the Establishment of the East African Community < https://www.eacj.org/?page_id=33>
[84] ibid.

wildlife management.[85] Tourism activities thriving within the coastal marine areas and the blue economy are not captured.

## 4.4: NATIONAL REGULATORY FRAMEWORK

### 4.4.1: Constitutional Provisions on Spatial Planning

The promulgation of the Constitution of Kenya 2010 marked an important chapter in Kenya's sustainable environmental management and policy development.[86] Odote advances reference of the 2010 Constitution as a "green Constitution" because it has elevated environmental management and sustainable development to constitutional status.[87] This is due to the fact that it embodies elaborate provisions with considerable implications for sustainable development. This assertion arises from the emphasis given to environmental issues under various articles in the Constitution but mainly from the Preamble. Within the Preamble, a number of principles of international environmental law have been captured. Under the Preamble, the people of Kenya affirm that; "respectful of the environment, which is our heritage, and determined to sustain it for the benefit of future generations… adopt, enact and give this Constitution to ourselves and to our future generations". This provision refers to the principle of inter-generational and intra-generational equity which are fundamental to natural resource management and mandate all Kenyans to comply.

Building on the provisions under the Preamble, Article 2 (5) states "The general rules of international law shall form part of the law of Kenya." In addition, sub-article 6 states that "any treaty or convention ratified by Kenya shall form part of the law of Kenya under this Constitution". These provisions effectively bolster the position of

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[85] ibid.

[86] B Sang, Tending Towards Greater Eco-Protection in Kenya: Public Interest Environmental Litigation and Its Prospects Within the New Constitutional Order 2013 Journal of African Law 57(1) 29-56 <doi:10.1017/S0021855312000150>; C Odote, The role of the Environment and Land Court in governing natural resources in Kenya, in P Kameri-Mbote and others (eds.) *Law | Environment | Africa* (Vol. 38, Recht und Verfassung in Afrika - Law and Constitution in Africa, 2019)

[87] C Odote, The role of the Environment and Land Court in governing natural resources in Kenya, in Patricia Kameri-Mbote and others (eds.) *Law | Environment | Africa* (Vol. 38, Recht und Verfassung in Afrika - Law and Constitution in Africa, 2019)

international environmental law and principles discussed under section 4.2 and ratified by Kenya into its domestic policy and legal framework further improving the chances of compliance and enforcement of sustainable natural resource use and in this case coastal land-sea interface. In line with the sustainable natural resource use nuanced in various international legal frameworks that Kenya is party to, the Constitution under article 10 2(d) has entrenched sustainable development as one of the national values and principles of governance.

The 2010 Constitution has also provided for the protection of property rights under article 40. According to Kameri-Mbote, property rights are germane in providing incentives for proper land management.[88] Land, which is now considered by the Constitution as an important part of property, has an expanded definition to include all water bodies and marine waters in the territorial sea and exclusive economic zone.[89] The Constitution provides that the land-sea interface resource is held by the national government in trust for the people and administered on their behalf by the National Land Commission.[90] Further, the Constitution obligates the state to ensure sustainable exploitation, utilisation, management and conservation of such a natural resource, and ensure equitable sharing of accruing benefits.[91] This will be in compliance with article 42 of the Constitution which provides that every person has a right to a clean and healthy environment. Thus, the state is obligated to manage the land-sea interface resources through increasing the mangrove forest cover to at least 10%, protecting indigenous resources and biological diversity, public participation and environmental impact assessment, environmental audit and monitoring of the environment.[92]

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[88] P Kameri-Mbote, Wildlife conservation and community property rights in Kenya in P Kameri-Mbote and others (eds.) *Law | Environment | Africa* (Vol. 38, Recht und Verfassung in Afrika - Law and Constitution in Africa 2019)

[89] Constitution of Kenya 2010, art 260.

[90] Constitution of Kenya 2010, art 62(3).

[91] Constitution of Kenya 2010, art 69(1)(a).

[92] Constitution of Kenya 2010, art 69(1).

The Constitution provided police powers to the State to control use of land.[93] In effect, this constitutional provision allows for effective planning, land use management and development control of all types of land in Kenya including public, private or community land. The police power of a state is an important tool to ensure sustainable management of such resources and an equitable sharing of the accruing benefits. According to Havran, police power refers to the powers of the state to regulate and control the use of property to secure general safety, public welfare, order, and good morals of the community.[94] Sifuna notes that in Kenya, police power is implemented through a number of tools including land use planning, zoning, prohibition of certain activities through development control, and licensing of proposed land use activities.[95]

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 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, the Constitution requires the state to establish systems of environmental impact assessment, environmental audit and monitoring of the environment;[96] and eliminate processes and activities that are likely to endanger the environment[97]. On the other hand, individual persons are obligated under article 69(2) with a duty to cooperate in the protection and conservation of the environment, sustainable development and use of natural resources.

The Constitution also requires effective public participation in environmental management processes as provided under article 10, 69 and 70 of the Constitution.

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93 Constitution of Kenya 2010, article 66(1).
94 T D Havran, Eminent Domain and the Police Power (1930) 5 Notre Dame L Rev 380.
95 N Sifuna, Public Regulation of the Use of Private Land: Opportunities and Challenges in Kenya (2009) 5(1) Law, Environment and Development Journal 38, 40-56 <http://lead-journal.org/content/09038.pdf>
96 Constitution of Kenya 2010, art 69(1)(f).
97 Constitution of Kenya 2010, art 69(1)(g).

The Constitution entrenches participation of the people as one of the principles of governance[98] and obligates the state to encourage public participation in the management, protection and conservation of the environment.[99] To further entrench public participation in environmental governance, article 70 provides avenue for redress for any person who alleges that the right to a clean and healthy environment has been, is being or is likely to be denied, violated, infringed or threatened. Allen *et al* writes that "people's participation forms an underlying operational principle of contemporary sustainable-development policies, programs and projects".[100] Participation contributes to sustainability by building the capacity of entities involved to better engage in environmental stewardship.[101]

This issue was a subject of litigation in *Mohamed Ali Baadi and Others v. Attorney General*.[102] This was a case relating to the Lamu Port-South Sudan Ethiopia-Transport Corridor project (LAPSSET), which comprises a mega transport and infrastructure development including a railway, oil pipelines, oil refineries, tourism development, and a 32-berth port at Manda Bay in Lamu. The petitioners argued that, while planning and designing the project, the government violated their rights to a healthy environment, earn a livelihood, obtain information and effective public participation among others.[103] On the matter of adequacy of public participation and access to information, the court reiterated the right of public participation in environmental decision-making.[104] The High Court noted that:[105]

> *"In the instant case, a key concept which this Court cannot ignore is environmental democracy, a term that reflects increasing recognition that*

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98 Constitution of Kenya 2010 art 10 2(a)
99 Constitution of Kenya 2010, art 69(1)(d).
100 Will Allen, Margaret Kilvington and Chrys Horn, Using Participatory and Learning-Based Approaches for Environmental Management to Help Achieve Constructive Behaviour Change (New Zealand Ministry for the Environment, 2002)
101 ibid.
102 Mohamed Ali Baadi and Others v. Attorney General [2018] eKLR 22 (HC, Malindi): see also Mui Coal Basin Local Community & 15 others v Permanent Secretary Ministry of Energy & 17 others [2015] eKLR
103 ibid.
104 Mohamed Ali Baadi and Others v. Attorney General [2018] eKLR 22 (HC, Malindi)
105 ibid.

*environmental issues must be addressed by all, or at-least a majority of those affected by their outcome, not just by the minority comprising the governments and leading private-sector actors."*

It is vital to point out that the court found the governments evidence of public participation through various public meetings held as inadequate. This is because there was no evidence of public's dialogue or interactions at these meetings. In addition, the court argued that the scale of the project obligated the government to disseminate information to the public without necessarily waiting for the members of the public to request the same. These propositions by the court signify a challenge with the application of legal requirement on public participation. According to Kimani, public participation is viewed by many state officers as a mere administrative formality.[106] The lack of adequate public participation offends the constitution and limits the capacity of the public to effectively carry out their duty in protection and management of the environment. According to Amechi, environmental degradation in Sub-Saharan Africa can be largely attributed to lack of access to information and public participation.[107]

### 4.4.2: Physical and Land Use Planning Act

Prior to 2019, spatial planning in Kenya has been regulated by the Physical Planning Act[108] The Physical Planning Act provided the framework for administration, types, content, process and approval of various types of spatial development plans. It provided the overall framework to guide the preparation of spatial plans dealing with temporal allocation of uses of land. These plans were the basis for determining use through zoning of land uses and development permitting. This has involved

[106] Nicholas N Kimani, Participatory Aspirations of Environmental Governance in East Africa, (2010) 6/2 Law, Environment and Development Journal 202-215 <www.lead-journal.org/content/10200.pdf>

[107] E P Amechi, Poverty, Socio-Political Factors and Degradation of the Environment in Sub-Saharan Africa: The Need for a Holistic Approach to the Protection of the Environment and Realisation of the Right to Environment (2009) 5/2 Law, Environment and Development Journal 109-129, <www.lead-journal.org/content/09107.pdf>

[108] Repealed Physical Planning Act cap 286 of 1996.

enforcement of by-laws and regulations contained in the spatial plans by requiring developers to submit proposed developments for approval by the State.

One of the key limitations of the Physical Planning Act of 1996 was that it centralized the powers of plan preparation at the national level (section 29) and only delegated the powers of development permitting based on plans prepared by the national government to the lower units (section 36). This needed to be changed to conform to the devolved governments. The Act also did not have strong provisions to promote public participation especially of non-state actors in the spatial planning process as required by Article 10 of the Constitution. To deal with these shortcomings and bring its planning regime in line with the dictates of the 2010 Constitution, Kenya enacted the Physical and Land Use Planning Act 2019 on 5th August 2019, effectively repealing the Physical Planning Act of 1996 as the umbrella law governing matters relating to spatial planning, use, regulation and development control on land in Kenya.

The Act has defined spatial planning as a methodology and approach used to influence distribution of people and activities to achieve optimal utilization of physical, economic and socio-cultural resources.[109] Although spatial planning has been extensively recognized in the terrestrial realm under the Act through directives of physical and land use planning at the national and county level, there hasn't been any exclusive mention of spatial planning in the marine realm. Thus, there is quite a dearth of recognition with respect to spatial planning in the land-sea interface within the framework law. This is unlike the Planning and Building Act (Law 1987) of Sweden, which has clearly stated that the jurisdiction of the act covers "the planning of land and water areas as well as buildings".[110]

The Physical and Land Use Planning Act, 2019 provides three main spatial planning tools for regulating activities within the land sea interface. These include physical and land use development plans, environmental and social impact assessment and

[109] Physical and Land Use Planning Act 2019, s 2.
[110] Planning and Building Act (Law 1987) Sweden, ch 1 s (1).

development control permits. Spatial 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. The Act provides for different types of spatial plans, herein, termed as of physical and land use development plans. These spatial plans include the national physical and land use development plans;[111] inter-county physical and land use development plans;[112] county physical and land use development plans[113], local physical and land use development plans[114] , and special plans[115].

Spatial planning at the national scope include the preparation of broad planning policies and strategies that give directions and areas of emphasis at the national level.[116] Upon approval, such plans are binding, guide and inform all planning and development decisions on any land in Kenya.[117] 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 and land use development plan.[118] Thus, Plans prepared at this level provide a framework for harmonization and subsequent formulation of lower level plans.[119]

The inter-county physical and land use development plan is another level of planning which involves preparing a plan for an area covering two or more counties.[120] This level of planning provides a typology of spatial plans that can be used for managing the land sea interface in Kenya. This is because the land-sea interface traverses the boundary of five counties (Mombasa, Kilifi, Tana River, Lamu and Taita Taveta). Therefore, in line with the provisions of section 29 of the Physical and Land Use

[111] Physical and Land Use Planning Act 2019, s 21.
[112] Physical and Land Use Planning Act 2019, s 30.
[113] Physical and Land Use Planning Act 2019, s 36.
[114] Physical and Land Use Planning Act 2019, s 45.
[115] Physical and Land Use Planning Act 2019, s 52
[116] Physical and Land Use Planning Act 2019, s 22.
[117] ibid.
[118] Physical and Land Use Planning Act 2019, s 22.
[119] Physical and Land Use Planning Act 2019, s 22.
[120] Physical and Land Use Planning Act 2019, s 2.

Planning Act,[121] these counties are supposed to formulate an inter-county physical and land use development plan to regulate all land and sea uses within the land-sea interface. The scope of the plan is to be determined by the participating counties as provided by section 30.[122] The danger with this provision is that unless the counties consider the land-sea interface a priority, they may exclude it from the scope of the plan.

The other type of plans that can be used to regulate uses at the land sea interface is through preparation and implementation of County Physical and Land Use Development Plans.[123] The land-sea interface where tourism related activities takes place fall within five coastal counties (Tana River, Lamu, Kilifi, Mombasa and Kwale). To ensure sustainability of tourism and tourism activities, these county governments should use spatial planning as provided for by the Act. Consequently, subsections 3, 4 and 5 obligates each county government to designate county departments, cities and urban areas, sub-counties and wards as planning authorities of the county and in so doing promote public participation especially of non-state actors in the planning. Each county government is mandated to prepare a county spatial plan to guide, harmonize and facilitate development within each county.[124] These plans provide an opportunity for all the five coastal counties to each formulate a county spatial plan.

However, the law still focusses on terrestrial land uses where the plans are supposed to indicate 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

[121] Provides for the formation of an inter-county joint physical and land use planning committee to oversee formulation of the inter-county physical and land use development plan.
[122] Mandates the definition of scope and geographical area of the inter-county physical and land use development plan.
[123] Physical and Land Use Planning Act 2019, s 36.
[124] County Government Act 2012, ss 107 and 110

conservation and recreation for which the land-sea interface would be considered.[125] These provisions under the Physical and Land Use Planning Act have not been cross-referenced with similar provisions in the County Government Act 2012. The lack of cross-referencing has a potential for conflict as both the Acts provide for two different plan typologies for the same jurisdiction. For example, the Physical and Land Use Planning Act requires preparation of a County Physical and Land Use Development Plan while the County Government Act 2012 requires preparation of a county spatial plan.

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.[126] 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. Thus, there ought to be prepared zoning plans demarcating the land-sea interface and providing regulations on permitted tourism uses and density of development.

Despite the lack of outright provisions on a specific spatial plan for the land sea interface, section 52 of the Physical and Land Use Planning Act 2019 indirectly embraces the opportunity for the land-sea interface to be planned as a special planning area. The Act provides that a special planning area can be declared if: that area has unique development, natural resource, environmental potential or challenges; the development of that area might have significant effect beyond that

[125] County Government Act 2012, s 110(2).
[126] Physical and Land Use Planning Act 2019, s 45.

area's immediate locality; and if the declaration is meant to guide the implementation of strategic national projects; or guide the management of internationally shared resources.[127] In line with these provisions, the land sea interface may arguably be considered as a special planning area due to its unique role as a coastal transition area that links both terrestrial and marine environment and biodiversity.[128] This would necessitate preparation of a spatial plan that specifically addresses the unique character of the land-sea interface.

Section 56 of the Act gives powers to county governments 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; reserve and maintain all the land planned for open spaces, parks, urban forests and green belts in accordance with the approved physical and land use development plan; and consider and determine development applications"[129] In line with section 56, the counties under which the land-sea interface traverses should prepare zoning guidelines to guide all physical development activities. These guidelines will ensure that tourism activities within the land-sea interface are designed and constructed based on its predetermined provisions.

Issuance of development control permits is executed under section 57 of the Act.[130] Development control refers to the process of regulating the carrying out of any works

[127] Physical and Land Use Planning Act 2019, s 52.
[128] M B Schaefer, Conservation of Biological Resources of the Coastal Zone in J F P Brahtz, Coastal Zone Management, Multiple Use With Conservation (John Wiley 1972); Lisa A Levin and others, The Function of Marine Critical Transition Zones and the Importance of Sediment Biodiversity (2001) 4 Ecosystems 430–451 <https://link.springer.com/article/10.1007/s10021-001-0021-4> accessed 27 September 2019
[129] Physical and Land Use Planning Act 2019, s 56.
[130] Physical and Land Use Planning Act 2019, s 57

on land or making of any material change in the use of any land or structures.[131] It involves ensuring that operations on land conform to adopted and approved spatial development plans as well as other policy guidelines, regulations and standards in order to achieve optimal utilization of land in the interest of the general welfare of the public.[132] Development permits are 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.

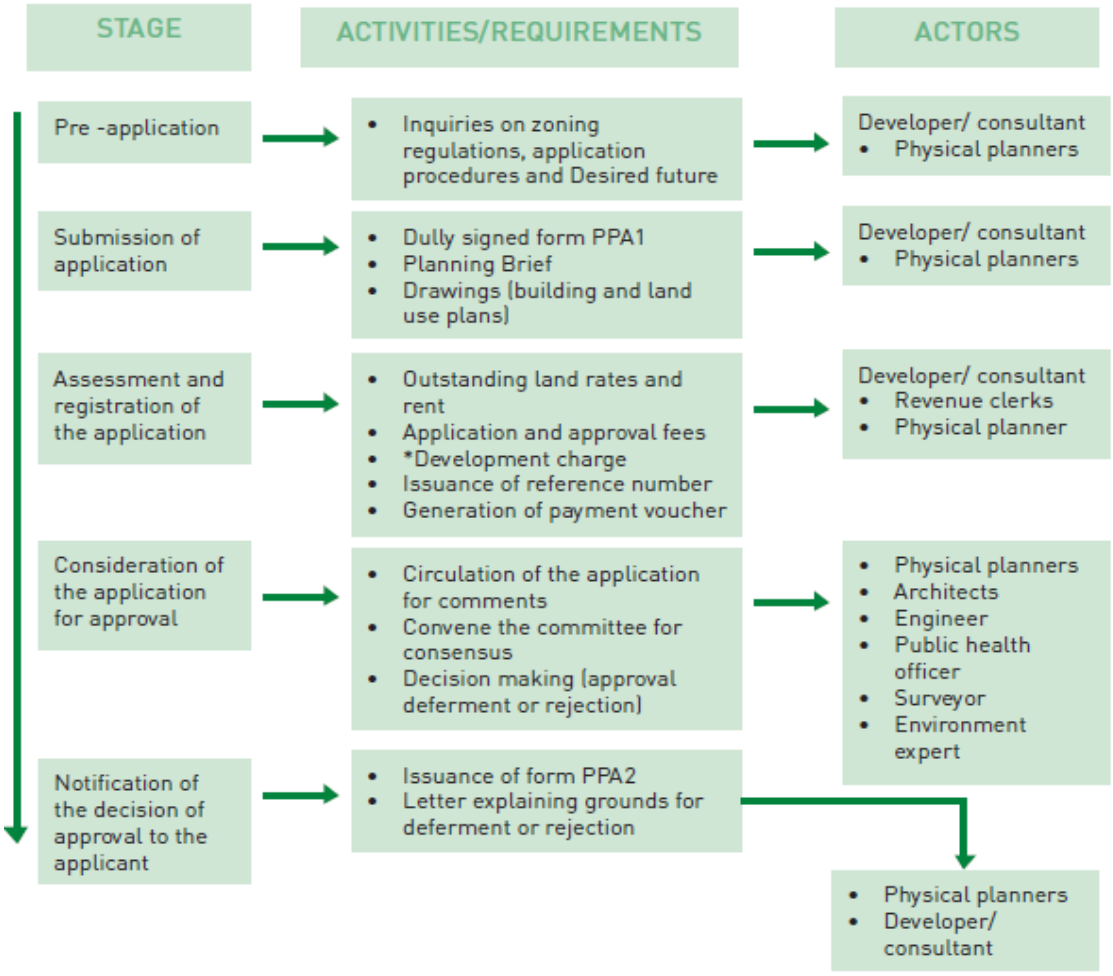
Section 2 of the Act defines development as "carrying out any works on land or making any material change in the use of any structures on the land". A development permit is therefore required for any land development which requires change in use of land or extension of use among others.[133] A change of use is any alteration in the use, purpose or level of activity within any land, space or building that involves material change which does not conform to the existing plans and policies.[134] Any fundamental change of use from a present use to a completely different one usually constitute a change of use and would normally require development permission. The challenge of this provision in the regulation of tourist activities is that it only applies to the accommodation facilities which constitute material change in use. Other auxiliary tourism activities such as snorkeling, leisure walks within the beach, visitation to Vasco da Gama Pillar Museum, collection of souvenirs from corals, recreational fishing, and swimming in the ocean which are supported by the accommodation facilities are not subject to regulation by the planning act as they do not constitute material change in land use. Extension of user refers to introduction of a new user in addition to the existing use within the same building or site while

[131] Physical and Land Use Planning Act 2019, s 2.
[132] Physical and Land Use Planning Act 2019, ss 2 and 57.
[133] Physical and Land Use Planning Act 2019, s 2 and 3rd sch.
[134] Government of Kenya, Draft Development Control Manual (Ministry of Lands, Housing and Urban Development, 2013a).

maintaining the dominance of the existing use.[135] The additional use should be compatible with the existing use and the neighborhood character.

The process of development permitting involves five stages including: pre-application; submission of application; assessment of completeness of application and filing; consideration of application and issuance of notification of decision to the applicant. These procedures are summarised in figure 4.1.

*Figure 4.1: Procedure for Development Control*




*Source: County Spatial Planning Guidelines, 2018*

[135] ibid.

The development control permits are important in regulating physical tourism activities 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.[136] Effectively, all proponents of physical developments within the land-sea interface are supposed to make formal development application using Form PPA1 (appendix 4) to the county and only commence construction upon being issued with development permission as contained in an instrument referred to as PPA 2 (appendix 5).[137] In cases where there are developments carried out without permits, the county should issue an enforcement notice using Form PPA7 (appendix 6) on the owner, occupier or developer of the land requiring discontinuation of such development or any other corrective measure deemed appropriate by the county.[138]

It is important to note that the repealed Physical Planning Act of 1996 required 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 before issuance of a development permit.[139] However, this provision was not included in the substantive sections of the new Physical and Land Use Planning Act of 2019. Nonetheless, it is contained in the third schedule of the Act which requires applications for major developments to be subjected to environmental and social impact assessment. The challenge here is that the 2019 Act does not define what 'major development' means, which could lead to the counties issuing development permissions to some developments not considered major but with injurious impact to the environment.

The need for linking environmental impact assessment and approval of developments for construction was canvassed in *Kwanza Estates Ltd v Kenya Wildlife Services.*[140]

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[136] Constitution of Kenya 2010, pt 2 of the 4th sch; Physical and Land Use Planning Act 2019, s 56.
[137] Physical and Land Use Planning Act 2019, s 57.
[138] Physical and Land Use Planning Act 2019, s 72.
[139] Physical and Land Use Planning Act 2019, s 36.
[140] Kwanza Estates Ltd v Kenya Wildlife Services [2013] eKLR 133 (HC Civ Div).

In this case, the plaintiff argued that the respondent had commenced construction of a public toilet on the beach front which was adjacent to his property without conducting Environmental Impact Assessment (EIA). The plaintiff prayed for temporary restraining orders arguing that when in full use, the public toilet would have adverse environmental consequences as a result of the discharge of effluent emanating from the toilet into the sea eventually devaluing his property. In determining the case, the Judge noted that other than the issue of EIA, none of the parties had addressed the law pertaining to land use as contained in the Physical Planning Act. This assertion by the Judge demonstrates the week link of land use planning and environmental impact assessment. The Judge ruled that the absence of an Environment Impact Assessment (EIA) denied the plaintiff and the court an opportunity to know how the effluent from the said toilet is to be disposed or treated before draining the same to the ocean. The Judge reiterated the need for an approval of the proposed development from NEMA before construction could proceed.

The Physical and Land Use Planning Act, 2019 has expressly prohibited carrying out of development without a development permission issued by the county.[141] The Act provides that any person who has commenced any type of development without obtaining development permission is liable upon conviction to a fine not exceeding five hundred thousand shillings or to incarceration for a term not exceeding two months or both.[142] However, the penalties under section 57 are different with those under section 67 for a similar offence of commencing a development where development permission has been revoked.

The penalties under section 67 are heavier than those under section 57 where such a person upon conviction may get a fine not less than one million shillings or to imprisonment for a term of not less than 5 years or to both penalties. This portends a challenge in the application of the law especially in litigating cases where developers have developed along the land-sea interface without obtaining development permission. More importantly, the lack of provisions for the preparation of a specific

[141] Physical and Land Use Planning Act 2019, s 57(1).
[142] Physical and Land Use Planning Act 2019, s 57(2).

spatial plan for the land-sea interface renders application of offences and penalties null and void due to lack of an approved plan which forms the basis for seeking development permission.

The provision of public participation in the preparation and implementation of physical and land use development plans operating at all spatial scales is underscored by the Act. Precisely, section 23 (1) (c) gives provisions for public participation in the preparation of the national physical and land use development plan, section 38 and 40 provides for public participation in the preparation of a county physical and land use development plan, and section 55 (1) (g) provides for public participation in matters of development control in spatial planning. The public participation envisioned by the act is through issuance of notice of intention to plan[143] and notice of completion of plan[144]. These notices are intended to inform the public on the planning process and to allow then contribute their views. However, the Act does not provide sufficient guidance on what constitutes adequate public participation despite requiring the planning authorities to ensure "adequate stakeholder meetings in each ward".[145]

### 4.4.3: Tourism Act

The Tourism Act No. 28 of 2011 provides for the development, management, marketing and regulation of sustainable tourism and tourism-related activities and services. Even though the Act does not provide for spatial planning of tourism activities, it provides for the formulation of the national tourism strategy. This strategy prescribes the principles, objectives, standards, indicators, procedures and incentives for the development, management and marketing of sustainable tourism and, in particular prescribe standards for tourism area development plans and reflect

[143] Physical and Land Use Planning Act 2019, s 38.
[144] Physical and Land Use Planning Act 2019, s 40.
[145] Physical and Land Use Planning Act 2019, s 38 (3).

regional co-operation and common approaches in tourism development, marketing and regulation.[146]

Broadly, the Tourism Act 2011 provides eight (8) classes of regulated tourism activities in Kenya.[147] Class "A" facilities are hotels, members clubs, motels, inns, hostels, health and spa resorts, retreat lodges, ecolodges, tree houses, floatels, service flats, service apartments, beach cottages, holiday cottages, game lodges, tented camps, safari or mobile camps, bandas, cultural homes and centres, villas, homestays, guest houses and time shares. Class "B" facilities include: restaurants; and other food and beverage services. Class "C" are tour or safari operators, tourist service vehicle hire, local air charter, travel agency, water sports, balloon operators and boat excursions. Class "D" include: game fishing outfitters, enterprises offering camps and camping equipment for hire, nature parks, nature reserves, nature trails, game ranches, amusement parks and non-citizen tour leaders or guides. Class "E" include: local traditional boat operators, professional safari photographers, curio vendors, private zoos, citizen tour leaders or guides and general vendors and beach operators. Class "F" includes entertainment facilities, Class "G" are conference and event services, while Class "H" are tourism and hospitality training institutions.

The Act further mandates the Tourism Regulatory Authority with the function of formulating guidelines and prescribing measures for sustainable tourism throughout the Country. Sustainable tourism includes the application of green/efficient technology, cleaner productions, environmental protection and community engagement in the exploitation of natural resources for touristic purposes.[148] Pursuant to this, the Tourism Regulatory Authority Regulations 2014 stipulates that compliance with the relevant tourism or area development plan will be a consideration in issuance of tourism licenses for regulated tourism activities and services. It is in this context that these guidelines have been formulated to inform and

[146] Tourism Act 2011, s 2(b) as read together with 2(j).
[147] Tourism Act 2011, 9th sch.
[148] Kenya Tourism Board, Sustainable Tourism Report 2016 (KTB 2016)<http://ktb.go.ke/wp-content/uploads/2016/11/KTB-Sustainable-Tourism-Report-2016.pdf>

guide development of tourism facilities in the different tourism regions in the country. In the fourth chapter of the guidelines, it outlines the benefits of an integrated National and Regional planning for tourism which include: providing for overall tourism development objectives and policies; protecting natural resources and attraction; providing for participation of public and private sector investment in tourism; regulating and enforcing planning requirements; and establishing guidelines and standards for preparing detailed plans of specific tourism development areas. It further gives key guidelines that the integrated tourism area planning will be based on.[149] In this manner, the utility of spatial planning in managing tourism activities is only implied but not expressly provided for in the Act.

### 4.4.4: Environmental Management and Coordination Act (EMCA)

The enactment of the Environmental Management and Coordination Act (EMCA) provided the framework law in environmental matters in Kenya[150],. EMCA provides for a framework for environmental management and conservation in Kenya. It spells out the precise steps, inter-institutional linkages and various prescribed instruments to be used to protect the violation of a clean and healthy environment by proposed, on-going or existing projects. Key instruments that support the utility of spatial planning provided in the Act include environmental and social impact assessment, environmental audits and strategic environmental assessments. The strategic environmental assessments (SEA) are particularly important for the utility of spatial planning as it is now a requirement under section 58 that all spatial plans must undergo SEA before they are approved for implementation.

EMCA sets out the environmental planning framework throughout Kenya aimed at organizing the use of land to achieve maximum practicable degrees of an economy, convenience, beauty, and sustainable use. Generally, EMCA provides for development of quality standards for water pollution, effluent, air quality, emissions

[149] Republic of Kenya, Tourism Regulatory Authority Regulations 2014 (TRA 2014) under Guidelines for Development of Tourism Area Plans 2014, 10.
[150] Environmental Management and Coordination Act 1999 as read together with the Environmental Management and Co-ordination (Amendment) Act No. 5 of 2015.

and a variety of wastes. These in addition to other environmental management tools such as EIA, environmental restoration orders, environmental conservation orders, and environmental easements together with an elaborate dispute resolution mechanism have potential of ensuring Kenyans of not only a healthy environment but also sustainable natural resource use.

With regard to the coastal and marine zone, Section 42 (2) of the Act empowers the Cabinet Secretary responsible for environment to declare a lake shore, wetland, coastal zone or river bank to be a protected area and to impose such restriction. Section 42 (3) empowers the Cabinet Secretary to issue general and specific orders, regulations or standards for the management of river banks, lake shores, wetlands or coastal zones. Section 55 of the Act recognizes an Integrated Coastal Zone Management approach as a tool for the protection and preservation of the coastal and marine environment. Section 55 (1) empowers the Minister to declare an area to be a protected Coastal Zone. Section 55(2) and (3) mandates NEMA to prepare a survey of the Coastal Zone and thereafter develop an integrated national coastal zone management plan every two years. Section 55(7)(d) provides for the control and prevention of pollution of the marine environment arising from or in connection with seabed activities and from artificial islands installations and other structures in the exclusive economic zone.

The Environmental Management and Coordination Act (EMCA), and its attendant Environmental (Impact Assessment and Audit) Regulations of 2003 introduces two important spatial planning tools, Environmental Impact Assessment (EIA) and Environmental Audit (EA). 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).[151] As a decision-

[151] Republic of Kenya, Environmental (Impact Assessment and Audit) Regulations (National Environment Management Authority 2003).

making tool, EIA presents decision-makers with the information necessary to determine whether or not a project should be implemented.[152]

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.[153] 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.[154] 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.[155] The overall objective of EIA is to ensure that environmental concerns are integrated in all development activities in order to contribute to sustainable development.[156]

Administration of environmental impact assessments is provided for under section 58 of the Environmental Management and Coordination Act.[157] Section 58 (I) provides that any person being a proponent of a project shall before financing, commencing or proceeding with, submit an EIA report to the National Environmental Management Authority (NEMA) of Kenya. 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.

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[152] Republic of Kenya, Environment Impact Assessment Guidelines and Administrative Procedures (National Environmental Management Authority 2002)
[153] J Felleman, Environmental Impact Assessment (2013) <www.eoearth.org/view/article/152590>
[154] ibid.
[155] Environmental Management and Coordination Act 1999, s 2.
[156] cf Republic of Kenya (n 152)
[157] Environmental Management and Coordination Act 1999, amendment of 2015

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.[158] 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.[159]

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.[160] 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.

To support efficacious implementation of provisions under section 58, section 68 (I) gives NEMA the mandate for carrying out environmental audits of all activities that are likely to have significant impacts on the environment. It authorizes environmental inspectors, as appointed by NEMA to enter in any premise and determine how far the

[158] Environmental Management and Coordination Act 1999, 2nd sch.
[159] ibid.
[160] P F Ogola, Environmental Impact Assessment General Procedures (Presented at Short Course II on Surface Exploration for Geothermal Resources at Lake Naivasha, Kenya, 2-17 November, organized by UNU-GTP KenGen 2007). <http://www.os.is/gogn/unu-gtp-sc/UNU-GTP-SC-05-28.pdf>

activities carried out conform to statements in the EIA study. Environmental Management and Coordination Act[161] 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 al[162] 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.[163]

The implementation of section 58 of EMCA has been litigated in various instances within the Courts in Kenya. One of the notable cases is *Mohamed Ali Baadi v. Attorney General* concerning a failure to subject the Lamu Port-South Sudan Ethiopia-Transport Corridor project (LAPSSET) spatial masterplan to adequate environmental and social impact assessment (ESIA), and a lack of strategic environmental assessment (SEA).[164] The LAPSSET project is a large-scale transportation and infrastructure development with distinct infrastructure components including a railway, oil pipelines, oil refineries, tourism development, and a 32-berth port at Manda Bay in Lamu. The plaintiffs claimed that the government was going ahead with implementation of the project without conducting SEA which would have enabled them to understand the comprehensive environmental and social impacts of the project. The respondents argued that SEAs

[161] Environmental Management and Coordination Act 1999, s 2.
[162] Saeed Mwaguni and Daniel Munga, Integrated Coastal Zone Management Action Plan for Kenya (2010)
[163] ibid.
[164] Mohamed Ali Baadi and Others v. Attorney General [2018] eKLR 22 (HC, Malindi)

were not legally required until 2015, when amendments to the EMCA took effect. However, the Court found that SEA under law at the time, even though not specified in EMCA, was still mandatory per the 2003 NEMA regulations and as such did not need backing from a specific statutory text to be effective. Now SEA is required for "plans" under section 58A of EMCA. This implies that even the county spatial plans would require SEA as part of their approval for implementation.

Enforcement of environmental quality standards is an important spatial planning tool currently implemented under Part VIII of EMCA. The Act provides for preparation, compliance and enforcement of environmental quality standards relating to air quality, water quality, hazardous waste management among others. For example, section 72.(1) prohibits the discharge of any poison, toxic, noxious or obstructing matter, radioactive waste into the aquatic environment. Also, section 87.(1) prohibits the discharge or disposal of any wastes, that are likely to cause pollution to the environment or ill health to any person. For effective compliance and especially as implied under subsection (3) which enables persons who allege that their environmental rights have been violated, course for redress in the High Court, subsection (5) mandates the High Court in exercising such a jurisdiction to be guided by "principles of sustainable development; the principle of public participation in the development of policies, plans and processes for the management of the environment; the cultural and social principle traditionally applied by any community in Kenya for the management of the environment or natural resources in so far as the same are relevant and are not repugnant to justice and morality or inconsistent with any written law among others".[165]

Pursuant to section 9(2) (c) & (d) of EMCA, the preparation of the Integrated National Land Use Guidelines (INLUG) was initiated by NEMA. The guideline outlines land issues which should be taken into account throughout the country in all land use planning. These include requirements on the quality of the living environment, economic and ecological development of community structures, the preservation of natural values and the built heritage, utilization of natural resources and

[165] Environmental Management and Coordination Act 1999, s 3(3).

communication networks. The guidelines particularly aim at implementing, in Kenya, international conventions protecting cultural environments and the biological diversity and combating the climate change and desertification. One of the thematic areas is Guidelines on Protection of Coastal zone. One of the guidelines provided for the protection of Coastal zone is that Coastal planning should emphasize compact, high-density development nodes, which should clearly define the capacity to accommodate development expansion and the carrying capacity for the associated recreational activities. This is particularly important in view of the tendency of adjacent, rapidly expanding development nodes to become ribbon development.

### 4.4.5: County Governments Act

This is an Act of Parliament to give effect to Chapter Eleven of the Constitution; to provide for county governments' powers, functions and responsibilities that include county planning to deliver services and for connected purposes. County planning and the shape and modalities such planning should adopt are provided for under Part XI of this act. For example, section 104 (1) states "A county government shall plan for the county and no public funds shall be appropriated outside a planning framework developed by the county executive committee and approved by the county assembly." In addition, sub-section 2 provides that such a county planning framework shall integrate economic, physical, social, environmental and spatial planning. Subsections 3, 4 and 5 obligates each county government to designate county departments, cities and urban areas, sub-counties and wards as planning authorities of the county and in so doing promote public participation especially of non-state actors in the planning.

Section 107 mandates county governments to prepare county integrated development plan; county sectoral plans; and county spatial plan to guide, harmonize and facilitate development within each county. The land-sea interface where tourism related activities takes place fall within five coastal counties (Tana River, Lamu, Kilifi, Mombasa and Kwale). To ensure sustainability of tourism and tourism activities, these county governments should use spatial planning as provided for by the Act. Despite the Act not expressly providing for the preparation of land-sea interface

plans, the requirement for the preparation of sectoral plans can be leveraged in the spatial planning of coastal tourism sector activities.

### 4.4.6: Urban Area and Cities Act

Urban areas and cities are conceptualized as being part and parcel of the county government performing functions delegated to them by the counties and using resources allocated to them by the counties. Part of the most intensely used sections of the land-sea interface is found within urban areas regulated by the Urban Area and Cities Act 2011. The statute provides for classification of urban areas and cities, their governance and management, and for integrated development planning. The Act states that every city and municipality established under the Act shall operate within the framework of integrated development planning which shall contribute to the protection and promotion of the fundamental rights and freedoms contained in Chapter Four of the Constitution and the progressive realization of the socio-economic rights.[166]

Part V of the Act on Integrated Development Planning under section 36. (1) states that every city and municipality shall operate within the framework of integrated development planning and that such a plan 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 and transportation; preparation of annual strategic plans for a city or municipality; disaster preparedness and response; overall delivery of service including provision of water, electricity, health, telecommunications and solid waste management; and the preparation of a geographic information system for a city or municipality; nurture and promote development of informal commercial activities in an orderly and sustainable manner; provide a framework for regulated urban agriculture; and be the basis for development control. Under Section 36 (3) county governments are mandated to

[166] Urban Area and Cities Act 2011, s 36

initiate an urban planning process for every settlement with a population of at least two thousand residents.

According to this law, a city or urban area integrated development plan shall be aligned to the development plans and strategies of the county governments.[167] The contents of the integrated city and urban area development plan shall reflect a spatial development framework which shall include the provision of basic guidelines for land use management system for the city or municipality.[168] Through this Act, key urban areas within the land-sea interface including Mombasa and Malindi should seek to prepare integrated urban area development plans to amongst others regulate tourism activities therein. Even though this Act provides for spatial planning within urban areas, it does not specifically speak to the utility of such plans on regulating tourism sector within the land-sea interface.

### 4.4.7: Survey Act

The land-sea interface is a continuum characterized by both public and private ownership rights which requires to be clearly demarcated for purposes of spatial planning and to prevent conflict in use. Demarcation provides the foundation of land-sea interface use and regulation by defining property boundaries, parcel shapes, and plot locations.[169] Effective regulation of activities within the land-sea continuum requires clarity on boundary delimitation to ensure that the jurisdiction and extent of application of any law is consistent and clear. Boundary demarcation refers to the fixing of a limit or extent of private or public property in dry terrestrial lands, inland waters, and tidelands.[170] A clearly demarcated boundary is essential for effective

[167] Urban Area and Cities Act 2011, s 37.
[168] Urban Area and Cities Act 2011, s 40.
[169] G D Libecap and D Lueck, The Demarcation of Land and the Role of Coordinating Property Institutions. (2011) 119(3) Journal of Political Economy 426-467 <www.jstor.org/stable/10.1086/660842>
[170] G G Esch (ed), Marine Managed Areas: Best Practices for Boundary Making. (Marine Boundary Working Group Federal Geographic Data Committee 2006) <https://coast.noaa.gov/data/digitalcoast/pdf/marine-managed-areas.pdf>

division of a state's administrative responsibility and managing property rights regarding individuals and organizations.[171]

In the regulation of tourism uses within the land-sea interface through spatial planning, it is important to know where the land begins and where it ends, where the territorial ocean starts and where the interface between the two is. This is because tourism activities can take place on land on sea or on the interface between the land and sea. Section 45 of the Survey Act gives the Minister (now Cabinet Secretary) powers to make regulations pursuant to which the Survey Regulations 1994 play a major role in delimiting public areas and protection of the beach.[172] Specifically, regulation 110. (1) provides that "Where unalienated Government land fronting on the area coast is being surveyed for alienation, a strip of land not less than 60 metres in width shall normally be reserved above high-water mark for Government purposes". This Act supports the utility of spatial planning by providing for the delineation of geographical boundaries for application of spatial planning. Within the land-sea interface, it clarifies the baseline from which touristic developments should be planned for and allowed.

### 4.4.8: Land Registration Act

Section 15 of the Land Registration Act cap 300, requires the Director of Survey to "prepare and maintain a map or series of maps, to be known as the cadastral map, for every registration unit". Within the context of the interface, such demarcation through the preparation of a cadastral map is important in delimiting public and private rights and in clarifying the mandate and regulatory authority of the government. The Act is therefore vital in supporting the application of spatial planning as the cadastral maps are important during allocation of user rights and development control.

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[171] H Srebro (ed), International Boundary Making. (The International Federation of Surveyors, FIG 2013) <https://www.fig.net/resources/publications/figpub/pub59/Figpub59_screen.pdf>

[172] Survey Act Cap 299, s 45

In *Kiluwa Limited & another v Commissioner of Lands & 3 others,* the High Court of Kenya while noting that "The 60 meters High Water Mark is held by the State as a public trust as a buffer zone before the baseline from which the country's territorial sea is measured" also issued orders of mandamus "to restore the 60 meters High Water Mark in respect of the coast for purposes of access by all citizens of Kenya to run along and recreate in the open shores of the Indian Ocean".[173] This judgement highlighted the need for effective regulation of activities within the land-sea based on a clear boundary delimitation based on a cadastral map. This would ensure that the jurisdiction and extent of application of any law is consistent and that private and public rights to the beach front and ocean waters do not conflict.

### 4.4.9: Land Act

Section 5 of the Act provides for various forms of land tenure being; freehold, leasehold and customary tenures. This provision on the different types of tenures recognized is therefore essential in clearly demarcating the limits of land rights and guarding land rights within the land-sea interface. Under section 7 of the Act, various methods through which title can be acquired have been stated, these are: allocation, land adjudication process, compulsory acquisition, prescription, settlement programs, transmitions, transfers, and long-term leases. Section 12 (7) predicates the issuance of tittle on an approved physical plan. It further states that land shall not be allocated unless it has been planned, surveyed, serviced and guidelines for its development prepared. It however, does not speak to the allocation of uses within the sea nor does it require that such allocation of use be based on spatial planning.

### 4.4.10: Wildlife Conservation and Management Act

The Wildlife Conservation and Management Act No. 47 of 2013 provides for the protection, conservation, sustainable use and management of wildlife in Kenya. The Act establishes the Kenya Wildlife Service (KWS) in charge of conserve and manage

[173] Kiluwa Limited & another v Commissioner of Lands & 3 others [2015] eKLR 8(HC at Mombasa)

national parks, wildlife conservation areas, and sanctuaries.[174] Kenya Wildlife Service (KWS) in charge of preparing and implementing national park management plans.[175] In this case they are expected to prepare and implement management plans for all Marine Protected Areas (MPA) within the coastal land-sea interface.[176]

Marine Protected Area (MPA) is defined as **"**any area of intertidal or subtidal terrain, together with its overlaying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment".[177] Marine protected area planning relates to planning carried within the on-shore or offshore area set aside for management and conservation measures or within areas where some degree of protection, whether enacted or not, is exercised at the land-sea interface.[178]

These apply to marine national parks and marine national reserves which are found within the land-sea interface.[179] As such, the Act provides that no development shall be approved within these areas in the absence of such a management plan.[180] 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 cause contravenes an approved management plan; or fraudulently alters the approved management plan to have committed an offence.[181]

Marine Protected Area (MPA) management plans are outside the scope of the Physical and Land Use Planning Act limiting involvement of the County Government

[174] Wildlife Conservation and Management Act No. 47 of 2013, ss 6 and 7.
[175] Wildlife Conservation and Management Act No. 47 of 2013, s 7.
[176] Wildlife Conservation and Management Act No. 47 of 2013, s 44(1)
[177] A Tuda and M Omar, Protection of Marine Areas in Kenya (2012) 29(1) The George Wright Forum 43–50 <www.georgewright.org/291tuda.pdf>
[178] A T White, C A Courtney and A Salamanca, Experience with Marine Protected Area Planning and Management in the Philippines (2002) 30(1) Coastal Management 1-26.
[179] Wildlife Conservation and Management Act No. 47 of 2013, s 44(1).
[180] Wildlife Conservation and Management Act No. 47 of 2013, s 44(4).
[181] Wildlife Conservation and Management Act 2013, s 88

in carrying out its development control role as provided by section 56 of the Act. The Act provides that preparation and adoption of these management plans should encompass wider consultation with the county wildlife conservation committee and participation of the neighboring communities.[182]

However, there is no provision in the Wildlife Conservation and Management Act or the Physical and Land Use Planning Act requiring institutional coordination with the county government which is in charge of spatial planning and development control within the entire county where these marine protected areas are found. Also, the Physical and Land Use Planning Act, 2019 does not have any provisions requiring coordination and linkage of the marine management plans with the wider county spatial plans. This limits utility of the management plan as a tool for regulating the entire interface in Malindi where majority of other tourism activities are found and which also have an impact on the MPA.

### 4.4.11: Forest Conservation and Management Act

The Forest Conservation and Management Act No. 34 of 2016 provides for the development and sustainable management, conservation and rational utilization of all forest resources in the country. It establishes the Kenya Forest Service (KFS) who amongst other functions is mandated to conserve, protect and manage all public forests.[183] In carrying out this function, KFS is expected to: "prepare and implement management plans for all public forests; assist in preparation of management plans for community forests or private forests in consultation with the relevant owners; in consultation with relevant stakeholders, develop programmes for tourism and for recreational and ceremonial use of public forests; among others".[184]

The Kenya Forest Service (KFS) is therefore expected to prepare forest management plans for all mangrove forests found within Kenya's coastal zone. A forest management plan "means a written document establishing direction and goals for the

[182] Wildlife Conservation and Management Act 2013, s 44(2).
[183] Forest Conservation and Management Act No. 34 of 2016, ss 7 and 8
[184] ibid.

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".[185] The Kenya Forest Service has the overall mandate of their preparation.[186] This Act does not provide for utility of spatial planning of mangrove forests which are a major touristic attraction within the land-sea interface.

### 4.4.12: Maritime Zones Act

The Maritime Zones Act Cap 371 of 1989 consolidates the law relating to the territorial waters and the continental shelf of Kenya. It among others provide for the establishment and delimitation of the exclusive economic zone of Kenya; and provide for the exploration and exploitation and conservation and management of the resources of the maritime zones. Section 4 (2) provides that:

> "*the exclusive economic zone shall comprise those areas of the sea, seabed and subsoil that are beyond and adjacent to the territorial waters, having as their limits a line measured seaward from the baselines, low waterlines or low tide elevations …, every point of which is 200 nautical miles from the point on the baselines, low water marks or low tide elevations"*

Section 5 provides that Kenya shall exercise sovereign rights with respect to the exploration and exploitation and conservation and management of the natural resources of the exclusive economic zone. Specifically, section 5 (b) provides that the exercise of the sovereign rights shall be in respect of regulation, control and preservation of the marine environment. However, there are no explicit provisions relating to spatial planning as an approach for regulating tourism and other activities within the maritime zones.

[185] Forest Conservation and Management Act No. 34 of 2016, s 2.
[186] Forest Conservation and Management Act No. 34 of 2016, s 42.

### 4.4.13: Kenya Maritime Authority Act

The Kenya Maritime Authority Act Chapter 370 provides for the establishment of the Kenya Maritime Authority as a body with responsibility to monitor, regulate and coordinate activities in the maritime industry. The Act mandates the Authority to "co-ordinate the implementation of policies relating to maritime affairs and promote the integration of such policies into the national development plan".[187] These powers are limited to regulating shipping activities in the inland waterways.[188] This Act does not provide for spatial planning as a tool for the envisaged integration of maritime affairs policies.

### 4.4.14: Water Act

The Water Act No. 43 of 2016 provides for the regulation, management and development of water resources, water and sewerage services. The Act gives jurisdiction in all water resources including any lake, pond, swamp, marsh, stream, watercourse, estuary, aquifer, artesian basin or other body of flowing or standing water, whether above or below the ground, sea water and transboundary waters within the territorial jurisdiction of Kenya. It further provides for guidelines on plan proposals touching on management, conservation, use and control of water resources, water supply, and sewerage services. Every water resource is vested in and held by the national government in trust for the people of Kenya.[189]

The Water Resources Authority established in section 11 serve as an agent of the national government and regulate the management and use of water resources. [190] Key functions of the Authority include: formulating and enforcing standards, procedures and regulations for the management and use of water resource; receiving, determining and enforcing conditions of water permit applications for water abstraction, water use and recharge; and collecting water permit fees and water use

[187] Kenya Maritime Authority Act cap 370, s 5(1)(b).
[188] Kenya Maritime Authority Act cap 370, s 5(1)(p).
[189] Water Act 2016, s5.
[190] Water Act 2016, s 6.

charges.[191] In carrying out these mandates, the Authority is expected to coordinate with other regional, national and international bodies.[192] Nevertheless, the High Court in *Water Resources Management Authority v Krystalline Salt Limited*, noted that "the Water Act of 2016 was amended to expressly remove the obligation to obtain a permit or pay water use charges with regard to abstraction and or use of seawater to extract salt" but still upheld the role of the state as the custodian of the sea waters.[193]

### 4.4.15: National Land Use Policy Sessional Paper No. 1 of 2017

The principle objective of the National Land Use Policy 2017 is to provide legal, administrative, institutional and technological framework for optimal utilization and productivity of land and land related resources in a sustainable and desirable manner at national, county and sub county and other local levels. The policy is set to promote best land use practices for optimal utilization of the land resource in a productive, efficient, equitable and sustainable manner. It therefore provides key policy directions to be implemented through the Physical and Land Use Planning Act of 2019. On regulation of use within the land-sea interface, section 3.17 provides for adoption of sound spatial planning of the marine resource that is integrated with the terrestrial planning system.

### 4.4.16: National Environment Policy 2013

This Policy proposes a broad range of measures and actions responding to key environmental issues and challenges. It seeks to provide the framework for an integrated approach to planning and sustainable management of natural resources in the country. One of the policy statements states that the government will ensure the development and implementation of a harmonised Integrated Coastal Zone Management (ICZM) Policy and Integrated Ocean Management Policy, Strategy and Action Plan. Spatial planning as a tool under the ICZM will ensure that the

[191] Water Act 2016, s 12.
[192] Water Act 2016, s 12(h)
[193] Water Resources Management Authority v Krystalline Salt Limited Environment [2018] eKLR 47 (ELC at Milimani, Nairobi).

government achieves a planning and sustainable management framework specific to the land sea interface thus ensuring a sustainable tourism and tourism services.

### 4.4.17: Sessional Paper No.13 of 2014 on Integrated Coastal Zone Management

The Policy notes that there has been a sectoral approach to planning and inadequately regulated development along the coast, which has led to physical development that has often not mainstreamed environmental concerns. Thus, the objectives of the policy are to: promote integrated planning and coordination of coastal developments across the various sectors; promote sustainable economic development to secure livelihoods of coastal communities; and conserve the coastal and marine resources and environment for sustainable development.

The ICZM policy is rooted in the understanding that the coastal and marine environment is a limited spatial area and a distinctive system in which a range of environmental and socio-economic interest interconnect in a manner which requires a dedicated and integrated management approach. Part of the spatial areas is the land-sea interface. Spatial planning forms part of this integrate management approach and will be best to ensure the sustainability of tourism and tourism service in the land sea interface.

## 4.5: KENYA'S INSTITUTIONAL FRAMEWORK

The Constitution of Kenya 2010 redefined the institutional framework for spatial planning and development control. Through this Constitution, Kenyans settled for a multi-dimensional approach to the organization and management of governance and state power and hence the devolved system of government.[194] Thus, the Constitution created two levels of government namely national and county governments.[195] It assigned functions to the two levels of government, allocated finances to the two levels and demarcated geographical territory for each county.[196] As a result,

[194] Constitution of Kenya 2010, art 10(2)(a).
[195] Constitution of Kenya 2010, art 175.
[196] Constitution of Kenya 2010, art 186.

preparation of spatial plans which was hitherto a preserve of the national government was devolved, giving county governments more responsibility in the preparation and implementation of spatial plans.[197]

The Constitution also established the National Land Commission (NLC) with the responsibility to monitor and have oversight responsibility over land use planning throughout the country.[198] In relation to the land-sea interface the Constitution provides that such land shall be held by the national government and administered by NLC.[199] The Physical and Land Use Planning Act has provided the roles of NLC in matters of spatial planning to include monitoring and overseeing land use planning throughout the country.[200] The Act has also allocated other specific spatial planning roles to National Government agencies including the National Physical and Land Use Planning Consultative Forum, the office of Cabinet Secretary responsible for land and physical planning and the Director-General of Physical and Land Use Planning.[201]

There is the National Environment Management Authority (NEMA) charged with general supervision and co-ordination over all matters relating to the environment.[202] NEMA is mandated to co-ordinate various environmental management activities being undertaken by the lead agencies and may direct such agencies to perform such roles as relates to environmental management.[203] Such co-ordination by NEMA is supposed to realise integration of environmental considerations into development policies, plans, programmes and projects for proper management and rational utilization of environmental resources.[204] Thus, the Authority is mandated to ensure that all proposed developments undergo environmental impact assessment to demonstrate their impacts on the environment.[205] In doing so, the Authority is

[197] Constitution of Kenya 2010, 4th sch
[198] Constitution of Kenya 2010, art 67 and National Land Commission Act No. 5 of 2012
[199] Constitution of Kenya 2010, art 62(3).
[200] Physical and Land Use Planning Act, s 9.
[201] Physical and Land Use Planning Act 2019, ss 6, 10 and 11.
[202] Environmental Management and Coordination Act 1999, ss 7 and 9.
[203] Environmental Management and Coordination Act 1999, ss 9 and 12.
[204] Environmental Management and Coordination Act 1999, s 9.
[205] Environmental Management and Coordination Act 1999, s 58.

supposed to ensure stakeholder participation by publishing the report in the Gazette and newspaper to enable persons submit their comments.[206] The Authority also involves the other sectoral agencies by requiring them to comment on the proposed developments within their areas of jurisdiction.[207]

On the other hand, County Governments have an overall responsibility for planning and development control within their area of jurisdiction. In undertaking this mandate the county is expected to perform the functions of; formulating county specific policies, strategies and guidelines, preparation of county spatial plans and urban spatial plans, implementation of the plans, undertaking of research on spatial planning within their area of jurisdiction and participating in the preparation of regional spatial development plans. Section 56 of the Physical and Land Use Planning Act 2019 expressly mandates the county governments to carry out development control within their areas of jurisdiction by ensuring that no development is carried out without approval.

However, this responsibility does not extend to the land between the high and low water marks, the territorial sea, the exclusive economic zone and the sea bed which constitute the land-sea interface, as these is under the administration of the NLC. The implication of this is that the responsibility of the county to implement spatial planning starts from the edge of the boundary of the high-water mark, but as noted earlier, the lack of a survey plan demarcating this boundary has led to poor implementation of this role by the County and NLC as demonstrated by encroachment of tourism developments within this space.

There are other sectorial government agencies involved in its planning and regulation. The leading agencies dealing with coastal and marine related issues include: Kenya Wildlife Services (KWS) which manages Marine parks and reserves through preparation of management plans (Malindi marine Park);[208] Kenya Forest Service

[206] Environmental Management and Coordination Act 1999, s 59.
[207] Environmental Management and Coordination Act 1999, s 60.
[208] Wildlife Conservation and Management Act No. 47 of 2013, ss 6 and 7.

(KFS) who is mandated to conserve, protect and manage all public forests including mangrove forests such as the Malindi Mida Creek Mangrove Forest that stretches to Watamu.[209] National Museums of Kenya responsible for forests within the coastal zone declared as protected areas and also monuments such as the Vasco Da Gama museum in Malindi.[210]

The State Department of Fisheries, Aquaculture and the Blue Economy is mandated to develop and implement appropriate legislative measures as well as to enforce the guidelines for sustainable economic development.[211] This is under the directive of the Cabinet Secretary responsible for agriculture, livestock and fisheries. In particular, the State Department is to govern mariculture, fishing inclusive of trawling, and other sustainable tourism activities encompassing the sea grass and coral areas. They therefore control all fishing activities that take place within Malindi Marine Park. With respect to managing fisheries at the county, the Beach Management Units (BMU) serves as the main body established by the Kenya Fisheries (Beach Management Unit) Regulations, 2007. The BMUs are supposed to co-manage fisheries and its resources with the aim of reducing degradation, pollution and over-exploitation of coastal and marine resources.

There is also the Kenya Marine and Fisheries Research Institute (KMFRI) established by the Science, Technology and Innovation Act No. 28 of 2013. KMFRI is responsible for all aspects of aquatic research including biological, physical and chemical oceanography, pollution, fisheries, aquaculture, fishing technology and fish processing.

First established by Presidential Order in 2004, the Kenya Maritime Authority (KMA) was officially constituted under the Kenya Maritime Act, No.5 of 2006 and its footing even furthered by the amended Merchant Shipping Act of 2009. KMA is an autonomous state corporation in charge of regulating, coordinating as well as

[209] Forest Conservation and Management Act No. 34 of 2016, ss 7 and 8.
[210] National Museums and Heritage Act No. 6 of 2006, s 25.
[211] Fisheries Management and Development Act 2016.

overseeing all maritime affairs throughout the country.[212] It's also under the obligation to ensure conformity with standards laid down in international conventions, treaties, agreements. In addition, the government agency is required to develop, coordinate and manage a national oil spill contingency plan.

The multiplicity of institutions is attributed to bureaucratization and fragmentation of government that induces contradictory mandates and goals.[213] This fragmentation results to poor coordination as more actors i.e. quasi-governmental corporations and private entities operate in different sectors and levels of government. Consequently, leading to weak collaboration in the management of cross-cutting spatial issues of the land-sea interface.[214] This challenge was also noted by Okidi who argued that there is potential for use conflict within the interface among legal permissible activities such as exploration and production of oil, laying of submarine cables, and mariculture.[215] On such premise, it is agreed within international circles under publications by the UN[216] and IUCN[217] that for effective spatial planning, that is, integrative, sustainable and transformative, there ought to be collaboration, negotiation and compromise among responsible institutions in the design of spatial plans and implementation.

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[212] Kenya Maritime Authority Act cap 370, s 5(1)(b)

[213] B Lausche, Integrated Planning. Policy and Law Tools For Biodiversity Conservation and Climate Change (Gland, Switzerland, International Union for Conservation of Nature 2019) xvi + 120 <https://doi.org/10.2305/IUCN.CH.2019.EPLP.88.en> accessed 15 October 2019.

[214] ibid.

[215] C O Okidi, Legal Aspects of Management of Coastal and Marine Environment in Kenya in Charles O Okidi, P Kameri-Mbote and Migai Akech (eds) *Environmental Governance in Kenya: Implementing the Framework Law* (East African Educational Publishers 2008).

[216] United Nations, Transforming our world: the 2030 Agenda for Sustainable Development (UNGA Resolution A/RES/70/1, Resolution adopted by the General Assembly, United Nations 2015)

[217] International Union for Conservation of Nature Commission on Environmental Law, Landscape Conservation Law: Present Trends and Perspectives in International and Comparative Law (Proceedings of a Colloquium commemorating the 50th Anniversary of IUCN, The World Conservation Union 30 October 1998, Paris, IUCN Environmental Policy and Law Paper No. 39, Gland, Switzerland, IUCN 2000) <https://portals.iucn.org/library/node/7699 > accessed on 16 October 2019.

## 4.6: GAPS IN THE REGULATORY FRAMEWORK

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.[218] Basically, the framework law regulating spatial planning of activities on all land in Kenya is the Physical and Land Use Planning Act, which provides for the preparation of various physical development plans and development control. However, this act still has a focus on regulating physical accommodation facilities on terrestrial land which are considered as material change in land use. Other tourist activities which are not physical in nature are not covered by this law limiting its application in the sustainable regulation of all tourism activities within the land-sea interface.

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.[219] This points to a lack of a systems approach to regulating uses for environmental sustainability.

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[218] Government of Kenya, State of the Coast Report: Towards Integrated Management of Coastal and Marine Resources in Kenya (National Environment Management Authority 2009) 1-88.

[219] ACTS-UNEP, The Making of a Framework Environmental Law in Kenya (Nairobi: ACTS Press 2001).

There is therefore lack of institutional integration exemplified by the 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.[220] These powers are limited to regulating shipping activities in the inland waterways.[221] 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.[222] Effectively, counties have no mandate of mangroves or marine parks, yet they give development control permits on contiguous land due to a lack of functional and geographical integration of the legal frameworks. They also regulate waste disposal which affects mangroves and marine parks.

There is also inconsistency in the delimitation of the land-sea interface baseline which affects the preparation of comprehensive and long-term land use plans for controlling development along the coast.[223] 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.[224] 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

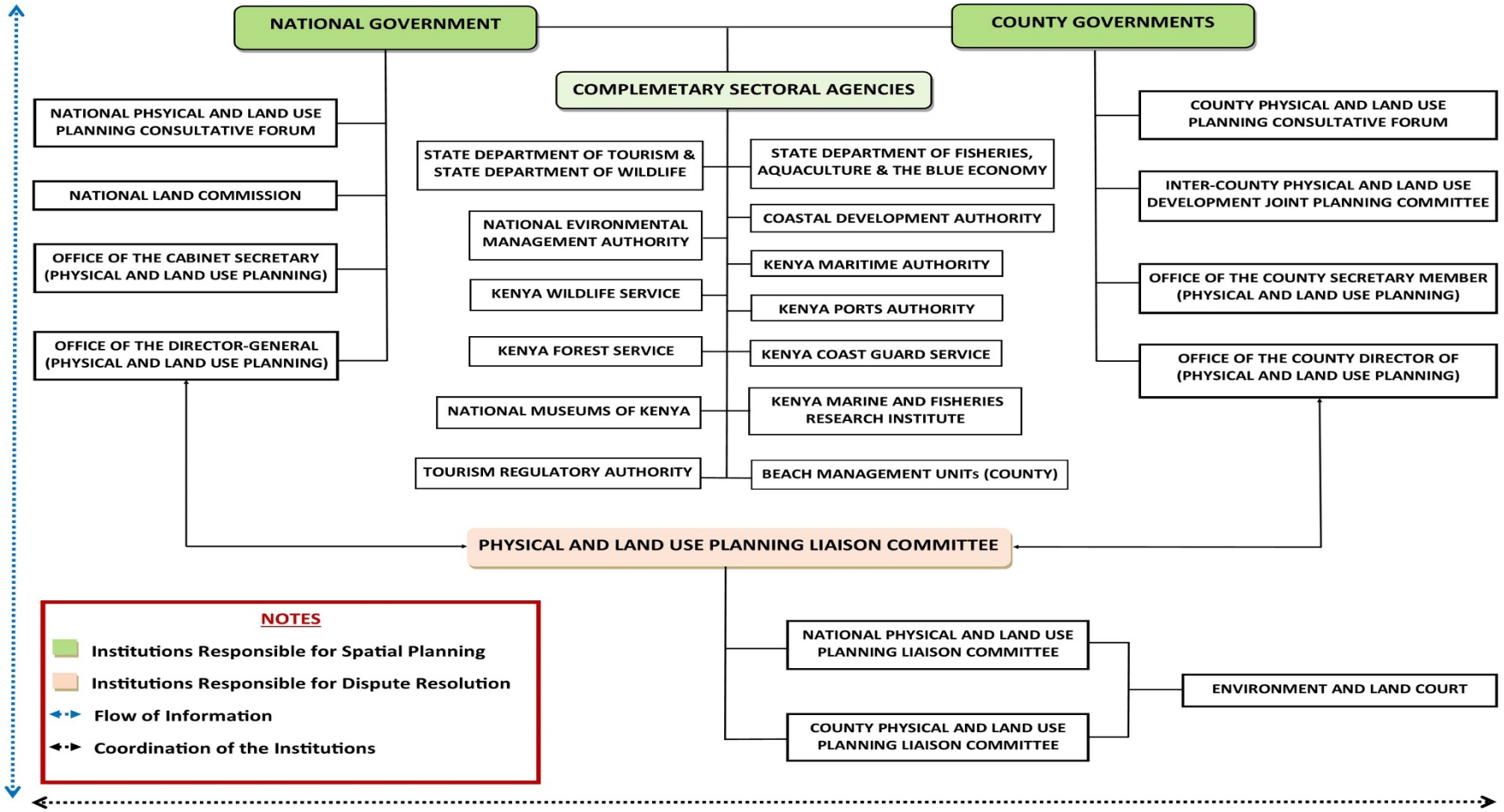
[220] Kenya Maritime Authority Act 2006 cap 370
[221] Kenya Maritime Authority Act 2006 cap 370, s 5(1)(p)
[222] County Government Act 2012, s 107
[223] C O Okidi, Legal Aspects of Management of Coastal and Marine Environment in Kenya in Charles O Okidi, P Kameri-Mbote and Migai Akech (eds) *Environmental Governance in Kenya: Implementing the Framework Law* (East African Educational Publishers 2008).
[224] Government of Kenya, Physical Planning Handbook [Physical Planning Department 2007]

the high water mark.[225] 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.[226] 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.

Both the Constitution of Kenya and the framework law on spatial planning provide for public participation. However, the framework law does not provide adequate provisions in terms of indicators that can be used as a basis for evaluating the adequacy of a public participation process in planning.

[225] Government of Kenya, Integrated National Land Use Guidelines [NEMA 2011].
[226] Survey Regulations 1994, reg 110

*Figure 4.2: Institutional Framework for Regulation of Tourism Activities*




Source: Author, 2020

# CHAPTER FIVE
# IMPACTS OF TOURISM ACTIVITIES ON THE LAND-SEA INTERFACE IN MALINDI

## 5.1: OVERVIEW

This chapter presents findings from objective two of this study. It assesses the tourism activities found within the land-sea interface in Malindi study area and the manifestation of pollution by these activities and their link to spatial planning.

## 5.2: TOURISM ACTIVITIES WITHIN THE LAND-SEA INTERFACE IN MALINDI

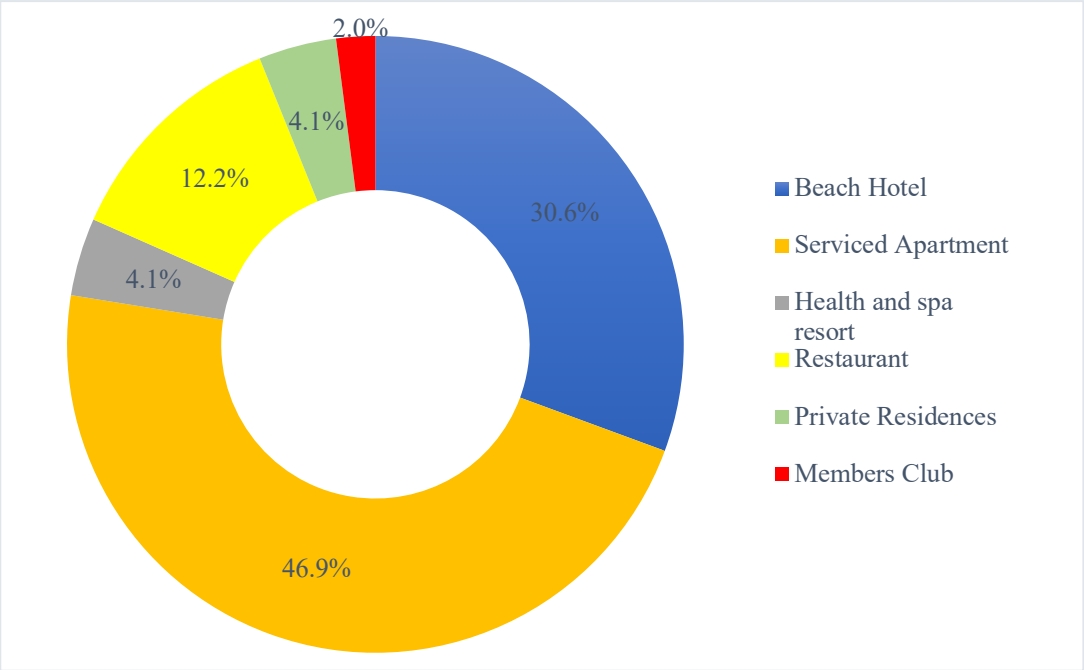
The various tourism uses observed within the land-sea interface in Malindi included: tourist hospitality facilities, Malindi Marine Park and Reserve, boat snorkeling, curio vending, swimming, leisure walks, waste management and sport fishing. These activities are subject to regulation through spatial planning and are discussed in detail in section 5.2.1 to 5.2.7.

### 5.2.1: Hospitality Facilities

Hospitality facilities are the major tourism activity found within the Malindi land-sea interface. Figure 5.1 demonstrates that there exist a variety of hospitality facilities in Malindi which include; serviced apartments, beach hotels, restaurants, health and spa resorts, private residences and member's clubs. Notably, amongst the six types, serviced apartment emerged as the predominant type (46.9 percent) whereas members club stood out as the minority at 2 percent. According to NEMA, hospitality

facilities such as those found in Malindi cause degradation of water quality and loss of aesthetic value of some beaches due to poor waste management.[1]

*Figure 5.1: Type of Hospitality Facility*




*Source: Field Survey, 2019*

Assessment of the classification of these tourism activities demonstrated that 68 percent of them are 3-star and above as demonstrated in figure 5.2. Hotel classification, which involves ranking by use of nomenclature such as stars or diamonds, is used as an indicator of the level of service and standards found within an individual establishment.[2] For example, one star denotes basic facilities while five star denotes luxurious facilities and services.[3] While hotel classification is mainly used as an indicator by potential guests on what to expect, they also implicitly demonstrate the level of pollution emanating from such establishments. In a study of the impacts of solid waste pollution from beach hotels on the Kenyan South Coast,

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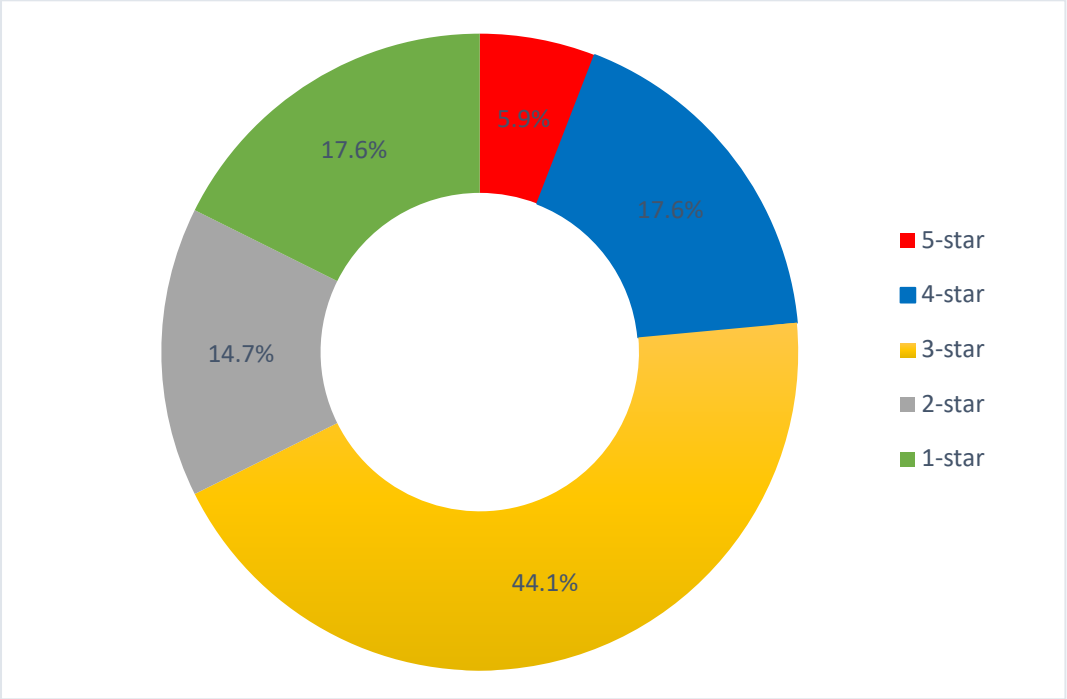
1 Government of Kenya, Pollution Prevention and Control Guidelines for the Coastal and Marine Environment of Kenya (National Environment Management Authority 2012) 1-75.

2 United World Tourism Organization, Hotel Classification Systems: Recurrence of criteria in 4- and 5-stars hotels (Madrid. UNWTO, 2015).

3 United World Tourism Organization, Hotel Classification Systems: Recurrence of criteria in 4- and 5-stars hotels (Madrid. UNWTO, 2015)

Muthuni *et al* note that there is a correlation between the amount of waste generated by the beach hotels and their level of classification and bed occupancy rates.[4] Thus, facilities with higher standard of services generate more waste.

*Figure 5.2: Classification of Facility*



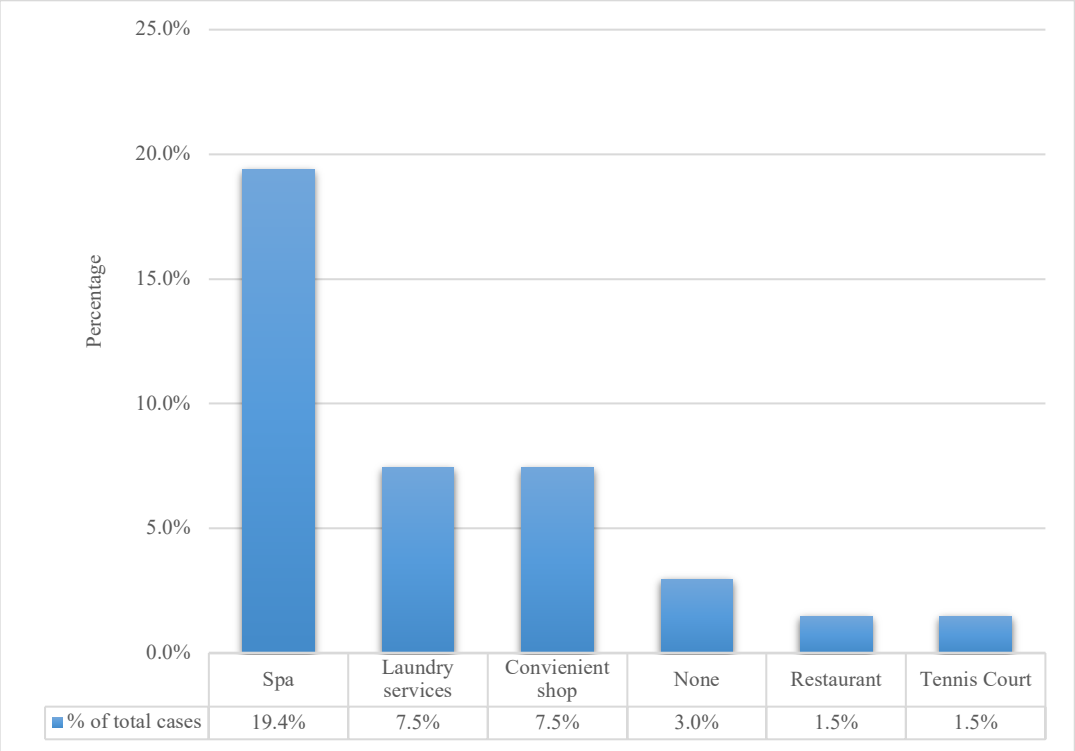

*Source: Field Survey, 2019*

In addition to their primary function of accommodation and related to their classification levels, tourism hospitality facilities in the Malindi land-sea interface also offered extra services *(See figure 5.3)*. Approximately 59.7% of the facilities offer swimming pool services which emerged as the main type of amenity among categories of extra services. Other types of extra services offered by the tourism establishments included spa offered by 19.4% of the facilities and laundry services together with convenient shop each offered by 7.5% of the facilities. Depending on the nature of these additional services, they add to the polluter effect of the general establishment. According to Rajak, this is due to concentration of human and

[4] Muendo Muthini, Mwakio P Tole and Dismas Otieno, Solid Waste Pollution Loads In Beach Hotels on the Kenyan South Coast (undated) https://www.oceandocs.org/bitstream/handle/1834/8998/ktf70ex1253933-067-10.pdf?sequence=1&isAllowed=y

machine activities to support these additional services such as additional air conditioning, automobile emissions from generators and increased solid and liquid waste from restaurants, spa, laundry and swimming pools.[5]

*Figure 5.3: Extra Services Carried Out by Establishment*

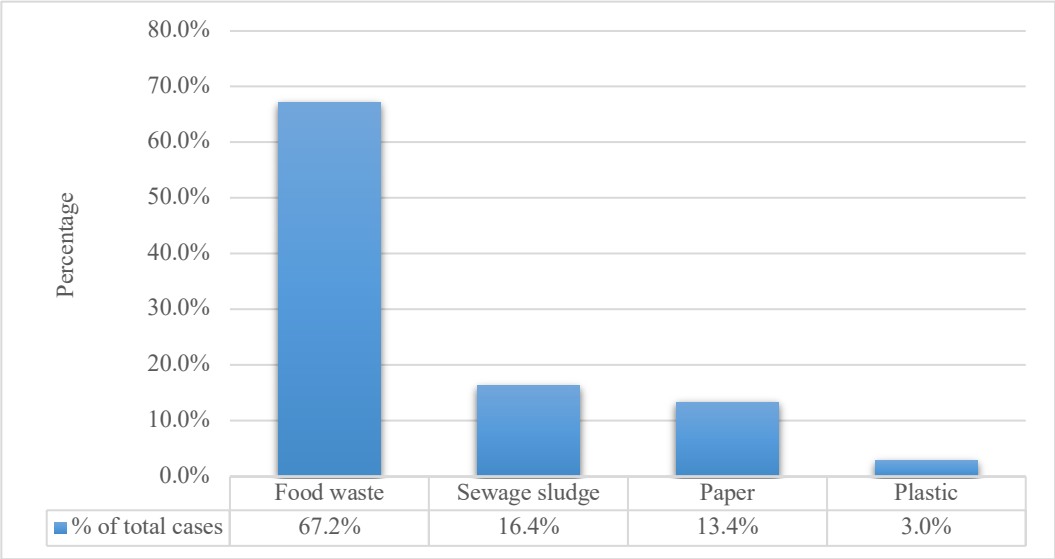



*Source: Field Survey, 2019*

Solid waste management is a critical activity that arises from the hospitality facilities within the Malindi land-sea interface. From figure 5.4, it was evident that food waste formed the primary type of solid waste produced as indicated by 67.2% of the tourism establishments while plastic waste formed the smallest amount produced by 3% of the respondents. Other solid wastes produced were sewage sludge and paper produced by 16.4% and 13.4% of the tourism facilities respectively.

[5] Himanshu Rajak, Pollution Related to Hotel Industry (2019) https://hmhub.me/pollution-related-to-hotel-industry/

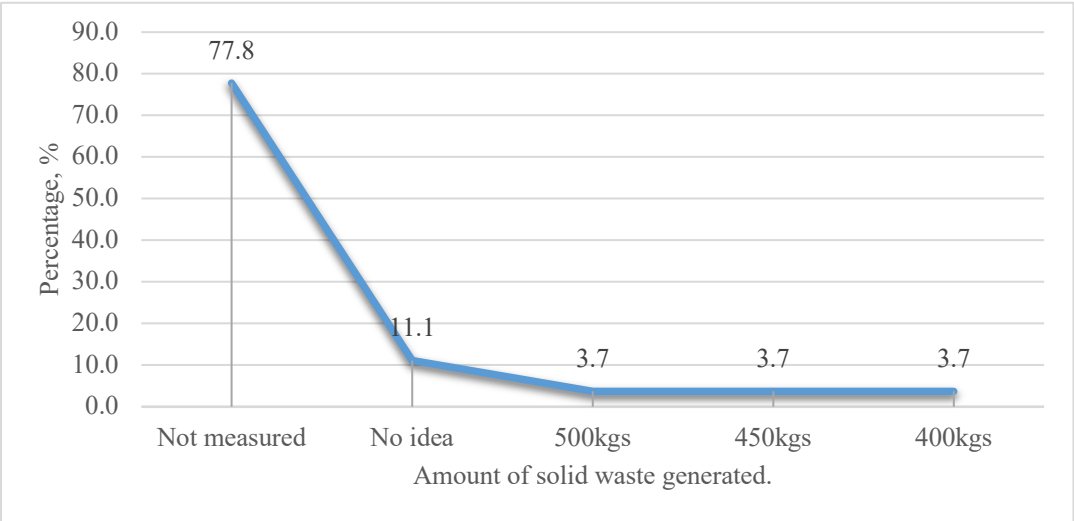
*Figure 5.4: Main Type of Solid Waste*




*Source: Field Survey, 2019*

Despite apparent clarity on the various types of solid waste generated, the study found out that most tourism establishments and related activities within Malindi interface did not have accurate quantified estimate for the actual amount of solid waste generated. This was corroborated by about 88.9% of the establishments where the management argued that they had no idea as well as knowledge of the amounts being generated by their tourism facilities *(See figure 5.5)*.

*Figure 5.5: Monthly Average Amount of Solid Waste Generated*




*Source: Field Survey, 2019*

### 5.2.2: Malindi Marine Park and Reserve

Malindi Marine Park and Reserve was the first marine protected area in Kenya to be established in 1968 and later identified by the UNSECO's Man and the Biosphere Programme (MAB) as a Biosphere Reserve in 1979.[6] The park is situated south of Malindi town extending to the Mida Creek which neighbors the Gede Ruins and thick canopy of the only surviving indigenous Arabuko Sokoke forest.[7] The Malindi Marine Park covers an approximate radius of 213 $km^2$ inclusive of the 5 nautical miles inshore. According to the Warden in Charge, there are over 250 species of fish recorded. Moreover, there are whales migrating from the Western Indian Ocean who use the park as a migratory corridor. There are also endangered species of green turtle among other species of turtle who use the beaches as breading ground. In addition, migratory birds come to nest in the Marine protected area and particularly on the golden sandy beaches.

This unique natural resource endowment has led to the park attracting high numbers of tourists who come to engage in various activities such as swimming, snorkeling, boat rides, diving, dhow rides, sun bathing, educational tours, picnic and barbeque and wind surfing. According to NEMA, the increase of coastal tourism as demonstrated in the Malindi Marine Park is directly responsible for exerting pressure on marine resources leading to pollution.[8] In addition, the Park has attracted tourism hospitality facilities which have been built within the 60-meter baseline leading to degradation of the land-sea interface and endangering the fragile beach ecosystem.

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[6] Kenya Wildlife Service, Malindi Marine National Park, [Kenyabrussels.com, KWS n.d]<www.kenyabrussels.com/ckfinder/userfiles/files/about%20Kenya/tourist%20brochures/Malindi_Marine_NP.pdf> accessed 13 November 2019.

[7] U Wiesmann U, B Kiteme, Z Mwangi, Socio-Economic Atlas of Kenya: Depicting the National Population Census by County and Sub-Location. (Second revised ed, ISBN [e-print]: 978-9966-767-55-4, Kenya National Bureau of Statistics, Centre for Training and Integrated Research in ASAL Development, Centre for Development and Environment 2016) <http://dx.doi.org/10.7892/boris.83693>

[8] Government of Kenya, Pollution Prevention and Control Guidelines for the Coastal and Marine Environment of Kenya (National Environment Management Authority 2012) 1-75.

### 5.2.3: Vasco Da Gama Pillar Museum

The Vasco da Gama Pillar is found south of Malindi town and within the Malindi land-sea interface. It is one of Malindi wonders rich in living history since it marks the last stop in Africa before Vasco Da Gama sailed across the Indian Ocean to India in 1498. The Pillar was built by Vasco da Gama, a Portuguese explorer, as a symbol of appreciation for the welcome that the Sultan of Malindi gave him. Together with a Portuguese Chapel also built by Vasco da Gama in 1498, they form the most significant tourist destination sites in Malindi town under the management of National Museums of Kenya (NMK). Domestic tourists pay Ksh. 100 while foreigners pay Ksh. 500 to access the monument and museum. Notwithstanding its historic value, the NMK affirms that the shoreline heritage site lying between 0-15 feet from the high-water mark has been affected by natural tidal erosion and neglect due to lack of funds for periodic maintenance.[9] This museum attracts visitors who contribute to the pollution of the land-sea interface by indiscriminately dumping solid waste such as water bottles along the beach.

### 5.2.4: Snorkeling

Snorkelling offers tourists an opportunity to sample the natural resources underneath the ocean surface but also contributes to its pollution and degradation. Boat snorkelling provides a distinct way for tourists to observe and enjoy the diverse species of fish found in the waters of Malindi along the Indian Ocean. It is a popular activity undertaken mainly in Malindi Marine Park offered by the local tourist operators under supervision of the KWS warden. On their tour, the local and foreign tourists get to marvel at the Park's underwater beauty of coral reefs, mudflats, mangrove, and sea-grass beds through glassed bottom boats and typical boats. Other tourists opt to jump inside the water with their snorkel to be able to view the sight of the flurry of activity displayed by marine mammals such as the sea turtles and

[9] F Oluoch, Kenya' s Historical Sites Crumbling into A Pile of Rubblen [The East African 2019] <https://www.theeastafrican.co.ke/magazine/Kenya-s-historical-sites-crumbling-into-a-pile-of-rubble--/434746-2748608-molqe3/index.html> accessed 12 November 2019.

dolphins, and of fish species that include coral reef fish, sweetlips, surgeonfish, butterfly fish, damsels and parrot fish.[10]

In a study of the impact of recreational diving in the Philippines, it was noted that divers and snorkelers cause degradation of reefs through damage from fin kicks, pushing or holding coral, dragging gear, and kneeling/standing on coral.[11] Though not documented within the Malindi study area, the ongoing snorkelling activities can also lead to degradation of the reef. Additional pollution from snorkelling activities was reported by the warden in charge who noted that there are cases where tourist carry bread to feed the fish and end up dumping the polythene covers in the ocean leading to pollution. Boat engines also emit toxic substances mainly from oils and fuel into the water. The noise from the engines also contribute to noise pollution within the marine environment.

The boat operators further noted that they do not have adequate space planned and allocated for docking the boats when not in operation or when carrying out mechanical repairs.[12] This has resulted to them using any available spaces leading to pollution mainly from maintenance oil that seeps into the sandy beach soil into the ocean.[13]

### 5.2.5: Curio Vending and Souvenir Collection

Curio made from corals are an important economic activity within coastal regions but also lead to degradation of the coral reefs. Curio-vending in Malindi is mainly an afro-craft outdoor tourist activity located along the land-sea front characterized by existing curio stalls and vending shops where tourists buy an assortment of souvenir

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[10] F Oluoch, Kenya' s Historical Sites Crumbling into A Pile of Rubblen [The East African 2019] <https://www.theeastafrican.co.ke/magazine/Kenya-s-historical-sites-crumbling-into-a-pile-of-rubble--/434746-2748608-molqe3/index.html> accessed 12 November 2019.

[11] R C Roche and others, Recreational Diving Impacts on Coral Reefs and the Adoption of Environmentally Responsible Practices within the SCUBA Diving Industry (2016) 58 Environmental Management 107–116. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4887546/

[12] FGD with tour operators.

[13] FGD with tour operators.

items. The most notable place for curio vending is the Malindi Tourist Market located along Silversand Road.[14] It is synonymously recognized as Malindi Curio Market that is rich in art and creativity.

The Malindi Tourist Market has a substantial collection of art canvases, animal wood carvings, animal bone carvings, accessories, ornaments, pots, African printed clothes, shoes and wall paintings made by local artists and artisans. Other accessories are made from baobab seeds, bottle tops, plastics and other upcycling beach trash. Some accessories are also made from coral collected by the locals along the beach. This collection of corals for curios and souvenir purposes may lead to conservation challenges as reported by the United Nations Environment Programme study on marine and coastal area problems in Bangladesh.[15]

### 5.2.6: Swimming and Leisure Walks

Swimming and leisure walks are core tourism activities that also contribute to pollution of the land-sea interface. As one of the oldest tourist coastal zone in Kenya, the Malindi land-sea interface offers swimming as a coastal recreational activity carried out on Malindi beach, Malindi Marine Park and tourism hospitality facilities such as serviced apartments and beach hotels. Malindi beach has golden-brown sand where may tourists enjoy leisure walks. The open access areas to the coastal sea-waters along the Indian Ocean are not great for swimming since the water is dirty as evident by floating plastic waste alongside with the spurting of the sands that often make the waves brown.[16] This phenomenon potentially predisposes a lower tourists' turnover within these open access areas.

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[14] H Bien, Malindi Tourist Market Tour' [Byba Peaches, 2019] <https://bybapeaches.com/2019/06/10/malindi-tourist-market-tour/> accessed 13 November 2019.

[15] United Nations Environment Programme, Environmental problems of the marine and coastal area Bangladesh: National Report (UNEP Regional Seas Reports and Studies No. 75, UNEP n.d) <https://wedocs.unep.org/bitstream/handle/20.500.11822/8778/Environmental_problems_marine_coastal_Bangladesh_rsrs075.pdf?sequence=3&isAllowed=y>

[16] Malindi Beach Kenya Pictures, Videos & Insider Tips [Beach-inspector.com, 2019] <https://www.beach-inspector.com/en/b/malindi-beach> accessed 13 November 2019.

The relatively privatized and controlled access along Silversand beach and Casuarina beach are relatively free from litter and still offers conducive swimming and sunbathing points. This is because the hospitality facilities which occupy the site carry out periodic cleaning to rid the place of litter. The same applies to sea water in Malindi Marine Park which is relatively clean and preferred for swimming as demonstrated by a higher tourists' turnover regardless of age.[17] With respect to leisure walks, the beaches and seafronts of Malindi offers a platform of engaging leisure walks.[18] Swimming and leisure walks contribute to the degradation of coral reefs through trampling especially in areas with high human use. Similar findings were reported in a study in the United States that argued that damage of coral reefs is found within shoreline access points where people stand or walk to enter or exit the ocean water.[19]

### 5.2.7: Recreational Sport Fishing

Recreational fishing refers to "fishing of aquatic animals that does not constitute the individual's primary resource to meet nutritional needs and are not generally sold or otherwise traded on export, domestic or black markets".[20] The Malindi Fisheries Resource Officer, reported that sport fishing is mainly done by foreign tourists who hire boats for their fishing expeditions. This tourism activity contributes to degradation of the land-sea interface through damage of coral reefs due to anchoring of boats, pollution through littering in the ocean and loss of the scenic beauty due to indiscriminate anchoring and abandoned boats. According to Reef Resilience

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[17] V Tsiluma, Malindi Marine Park and Reserve in Kenya: A Tourist Attraction In Coast Kenya – Zakenya [*Zakenya.com*, 2014] <http://www.zakenya.com/travel-leisure/malindi-marine-park-and-reserve-in-kenya-a-tourist-attraction-in-coast-kenya.html>accessed 14 November 2019.

[18] Malindi Beach Kenya Pictures, Videos & Insider Tips [Beach-inspector.com, 2019] <https://www.beach-inspector.com/en/b/malindi-beach> accessed 13 November 2019.

[19] J E Waddell (ed.), The State of Coral Reef Ecosystems of the United States and Pacific Freely Associ- ated States: 2005 (Silver Spring, MD, NOAA Technical Memorandum NOS NCCOS 11, NOAA/NCCOS Center for Coastal Monitoring and Assessment's Biogeography Team 2005) 1-522 <http://aquaticcommons.org/2238/1/CoralReport2005_C.pdf>

[20] FAO (2016) Recreational Fisheries Economic Impact Assessment Manual and Its Application in Two Study Cases in The Caribbean: Martinique and The Bahamas. (Bridgetown, Barbados, Circular No. 1128, Food and Agriculture Organization of the United Nations Fisheries and Aquaculture 2016) <http://www.fao.org/3/a-i6148e.pdf>

Network, boat anchors within areas of heavy recreational boating can cause considerable damage to coral reefs through coral breakage and fragmentation.[21] Just like the boats used for snorkeling, those used for sport fishing also contribute to pollution of marine water through emission of toxic substances and noise from the engines.

## 5.3: MANIFESTATTION OF IMPACTS FROM TOURISM ACTIVITIES

The tourism activities discussed in section 5.2 have resulted into pollution and degradation of the interface. Some of these impacts include: disposal of untreated wastewater in the ocean; pollution from inadequate solid waste management; loss of breeding ground for endangered species; encroachment on public beach land; visual pollution form indiscriminate siting activities and loss of natural scenic beauty as elaborated in this section.

### 5.3.1: Disposal of Untreated Wastewater in the Ocean

The Environmental Management and Coordination Act (EMCA) provides regulations for the disposal of wastewater where such can be discharged either into an existing sewerage system or into the environment.[22] When an establishment wishes to discharge wastewater into an existing municipal sewer, the operator is required to obtain permission through a discharge license from the County Government that manages the sewer system.[23] When discharging wastewater in to the environment, EMCA requires that one acquires an effluent discharge licence from NEMA and demonstrate as part of the condition that there is an appropriate plan for treatment of such effluents before they are discharge to the environment.[24] However, there are tourism establishments that use the Indian Ocean to dump untreated waste

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[21] Reef Resilience Network, Tourism and Recreational Impacts (2020) <https://reefresilience.org/stressors/local-stressors/coral-reefs-tourism-and-recreational-impacts/> accessed 1 August 2020

[22] Environmental Management and Coordination Act 1999, ss 74 and 75: Republic of Kenya, Environmental Management and Coordination (Water Quality) Regulations 2006.

[23] Environmental Management and Coordination Act 1999, s 74(1).

[24] Environmental Management and Coordination Act 1999, ss 74(2) and 75(1).

water effluents.[25] This findings conforms to those by UNEP who identified discharge of sewage directly into water without any treatment as a key environmental threat to the ocean.[26] This constitutes a violation of environmental regulations which prohibits the releasing into the coastal zone any polluting or hazardous substances.[27]

The study found out that these violations largely occur due to conduct of unscrupulous developers who disregard NEMA conditions on waste water discharge as per the effluent discharge licence (EDL).[28] This emanates from the widespread use of septic tanks for wastewater management as attested to by 74% of the tourist hospitality respondents (see figure 5.6). The Malindi Municipality Physical Planner noted that despite the availability of septic tanks and private sewers the discharge of sewage sludge and its toxic substances still find its way to the ocean eventually. Further, the lack of a trunk municipal sewer as well as inconsistency of inspections and monitoring due to inadequate technical capacity within Malindi Municipality has exacerbated the uncontrolled waste water disposal in the ocean.[29]

As a consequence, the Malindi land-sea interface continues to be affected by pollution from the untreated wastewater and sludge. These findings corroborate the arguments of the court in *Peter K. Waweru v Republic* where the Judges noted that raw sewage and wastewater threatens the lives of users downstream and also poses a threat to the water table in terms of pollution through seepage.[30] The court also noted that the "uncoordinated approval of development and the absence of sewerage treatment works" in many towns in Kenya posed serious environmental challenges for the present and future generations.

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[25] Malindi Marine Park Senior Warden officer interview; Malindi Municipality Physical Planner interview; Kilifi County NEMA regional officer interview

[26] United Nations Environmental Programme, Sustainable Coastal Tourism: An Integrated Planning and Management Approach (Supported by French Ministry of Ecology, Energy, Sustainable Development and Physical Planning, UNEP 2009) 1-87.

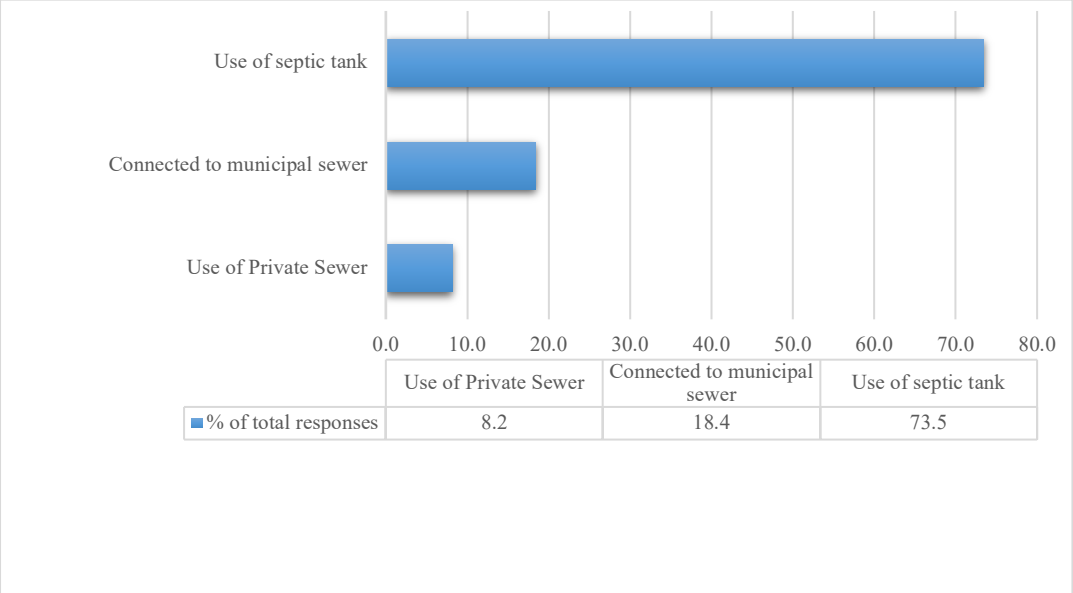
[27] Environmental Management and Coordination Act 1999, s 55(5).

[28] Malindi Marine Park Senior Warden officer interview; Malindi Municipality Physical Planner interview; Kilifi County NEMA regional officer interview

[29] Malindi Marine Park Senior Warden officer interview; Malindi Municipality Physical Planner interview; Kilifi County NEMA regional officer interview

[30] *Peter K. Waweru v Republic* [2006] eKLR 118 (HC Nairobi).

*Figure 5.6: Facility's Wastewater Management Methods*




*Source: Field Survey, 2019*

Malindi Marine Park and Reserve that forms a single ecosystem with the Watamu Marine Protected Area has been greatly affected by this phenomenon.[31] The Warden in charge noted that there has been a decline of mangroves, sea grass meadows, salt marshes and coral reefs by ocean acidification, toxicity and bleaching as a result of disposal of untreated wastewater.[32] Further pollution impact is evident on the migration and loss of various fish species and marine mammals such as whales, dolphins and Olive Ridley sea turtles because of eutrophication.[33]

### 5.3.2: Pollution from Solid Waste

Unlike the disposal of untreated wastewater, the predominant cause of solid waste pollution is by individual people who live along the beach in tourist hospitality facilities and those who visit the beach for nature walk as indicated in table 5.1.[34]

[31] Malindi Marine Park Senior Warden officer interview; Kilifi County NEMA regional officer interview
[32] Malindi Marine Park Senior Warden officer interview; Kilifi County NEMA regional officer interview.
[33] Malindi Marine Park Senior Warden officer interview
[34] Malindi Municipality Physical Planner interview

This is mainly through disposal of food waste, paper and plastics mainly juice and soda bottles within Malindi land-sea interface.[35] This is mainly due to lack of designated waste collection points within the beach fronts. Pollution from plastic waste continues despite a nationwide ban on single-use plastic bags in 2017. To further reduce impacts of plastic waste within its parks, beaches, forests and conservation areas, the Government of Kenya directed that with effect from 5th June 2020, visitors will no longer be allowed to carry plastic water bottles, cups, disposable plates, cutlery, or straws into protected areas.[36]

Additional solid waste comes from fishing activities where fishermen using fishing vessels dispose solid waste in the sea which is sometimes washed back to the interface.[37] There are also cases where fishermen using trawlers dispose unwanted fish either because the fish has decayed or they are smaller than the approved size.[38]

These finding corroborates with arguments by the World Fund for Nature who argues that discharges from *"floating towns"* namely; tourist yachts, excursion boats, container ships, car ferries' and cruise ships are a major marine pollution sources as they release pollutants by means of dumping of rubbish and untreated sewage directly to the sea.[39] This inadequacy in solid waste management poses adverse effects on the marine environment and marine organisms within Malindi.[40] According to Malindi Marine Park Senior Warden, the accumulating solid waste within Malindi land-sea interface leads to injury and even death through blockages and malnutrition to sea birds, fish species and marine mammals.[41] This emanates from the lack of integrated

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[35] Malindi Municipality Physical Planner; Malindi Municipality Fisheries officer; Kilifi County NEMA regional officer interview

[36] See Kenya bans single-use plastics in protected areas; https://www.unenvironment.org/news-and-stories/story/kenya-bans-single-use-plastics-protected-areas

[37] FGD with fishermen

[38] ibid.

[39] World Wide Fund for Nature, Problems: Tourism & Coastal Development (WWF 2007), <www.panda.org/> accessed 3 October 2019.

[40] Malindi Marine Park Senior Warden officer interview; Malindi Municipality Physical Planner; Malindi Municipality Fisheries officer; Kilifi County NEMA officer interview.

[41] Malindi Marine Park Senior Warden officer.

spatial planning which would designate appropriate zones for solid waste disposal and management.

*Table 5.1: Respondents' View on Solid Waste Disposal to Beach and Ocean*

| Response | Percent |
|---|---|
| Dumping by visitors/guests/residents | 51.9% |
| Blown by the wind | 33.3% |
| Dumping by county government | 7.4% |
| Sewage bursts | 3.7% |
| Dumping by private contractors | 3.7% |
| Dumping by visitors/guests/residents | 51.9% |
| **Total** | 100.0% |

*Source: Field Survey, 2019*

### 5.3.3: Loss of Breeding Ground for Endangered Species

Without effective spatial planning, rising seas and increasing global temperatures, coupled with property walls constructed by coastal and tourism hospitality developments, have been exerting constraints on nesting habitats of fish species and marine mammals within Malindi land-sea interface.[42] The resulting coastal erosion, rising sea-water temperatures and coastal armouring for instance, the contentious Billionaire's sea wall in Casuarina area, considerably interferes with the natural shoreline processes such as sand deposition that is critical to laying of eggs as well as propagation.[43] The most endangered are the sea turtles, particularly, the Olive Ridley species.[44]

Moreover, there has been an increasing loss of reefs via coral bleaching as a result of ocean warmth, ocean acidification, siltation from Galana-Sabaki River, stepping by the over 30,000 persons who visit the marine park annually.[45] Tuda and Omar note

[42] Malindi Marine Park Senior Warden officer interview; FGD with fishermen; FGD with tour boat operators.
[43] ibid.
[44] Malindi Marine Park Senior Warden officer interview.
[45] Malindi Marine Park Senior Warden officer interview; Malindi Municipality NEMA officer interview.

that changes in land use in adjacent watersheds contribute to the problem of sedimentation in coral reefs.[46] Coral reefs only grow a centimetre annually, thus, the gravity of their destruction to the overall functionality of the ecosystem.[47] This has not only led to geographical shifts in populations, but also alterations to food webs for the marine dependant species.[48] This demonstrates the need for spatial planning to zone such breeding grounds and designate them as areas for conservation to cub their destruction from tourism activities.

*Figure 5.7: Section of Visitors shades within Billionaire's Resort which have been constructed within the public beach and breeding ground for Olive Ridley turtles*

### 5.3.4: Encroachment on Public Beach Land

The Constitution of Kenya mandates the National Land Commission with the management of the beaches as public land on behalf of the people of Kenya. However, encroachment of the public beach continues to take place within Malindi

[46] A Tuda and M Omar, Protection of Marine Areas in Kenya (2012) 29(1) The George Wright Forum 43–50 <www.georgewright.org/291tuda.pdf>

[47] Malindi Marine Park Senior Warden officer interview.

[48] ibid.

land-sea interface where approximately 96% of the tourist accommodation facilities are situated within the 60 meters reserve in contravention of the law. Encroachment is attributed to the existing conflict in law on the reserve from which development is allowable.[49] Pursuant to the Physical and Land Use Planning Act, 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.[50] 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.[51]

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.[52] This has resulted in conflicting application of development control where the Physical Planning department continues to issue development permission in respect to the 30 meters reserve and not the 60 meter reserve.[53] This has led to proliferation of physical touristic developments within the 60 meter baseline in contravention to the provisions of the Survey Act. Continued encroachment is also due to inadequate development control mainly emanating from the lack of an approved spatial plan.[54] This continues to limit the regulation of tourism activities which have encroached on the public beach land further limiting the realization of a sustainable blue economy.

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[49] Municipality Physical Planner interview held on 28 June 2019; also see chapter 4

[50] Government of Kenya, Physical Planning Handbook [Ministry of Lands and Physical Planning, Physical Planning Department 2007] 1-135.

[51] Government of Kenya, Integrated National Land Use Guidelines [National Environment Management Authority 2011].

[52] Survey Regulations 1994, reg 110.

[53] Municipality Physical Planner interview held on 28th June 2019.

[54] Malindi Municipality Land Surveyor interview held on 28th June 2019; Malindi Municipality Physical Planner interview held on 28th June 2019.

*Figure 5.8: Illegal Wall constructed along the beach*

### 5.3.5: Visual Pollution from Indiscriminate Siting of Tourism Activities

Visual pollution occurs when the local identity of a place is changed due to additional uses that are out of character. Lack of land-use planning and building regulations in tourism destinations has facilitated sprawling developments along the coastline, historic monuments and scenic routes. Poor design and construction of tourism facilities and other supporting infrastructure such as roads, employee housing, parking, service areas, and waste disposal has the potential of changing the indigenous identity in addition to causing visual pollution, due to incompatibility with the indigenous architectural style and scale.[55] Other factors that contribute to alteration of identity along the interface as observed by the researcher include the poor integration of tourism facilities into the natural ecosystems; poor layout plans

[55] B O Vehbi, A Model for Assessing the Level of Tourism Impacts and Sustainability of Coastal Cities in Murat Kasimoglu and Handan Aydin, *Micro and Macro Perspectives*. (IntechOpen 2012) 1-18.

of the tourist amenities and; impediment of the beautiful scenery by tourism developments.

The scenic beauty of Malindi land-sea interface lies within its endowment of sandy beaches and dunes, sea-grass beds, mangrove forest, coral reefs, wildlife and the vast Indian Ocean.[56] However, this scenic beauty is increasingly being lost given the aggravated effects posed at the interface by some of the tourist related activities. This is largely attributed to solid waste pollution, untreated waste water pollution, and encroachment by tourism related development. Further, the loss of scenic beauty is ascribed to siltation and debris from upstream rivers notably, Galana-Sabaki River.[57] The accumulated pollution upstream degrades the ecosystem and its services within Malindi land-sea interface.[58] This mixture of stress factors as well as cumulative effects by tourism related activities combining and overlapping with global effects eventually infringe the rich scenic atmosphere of the interface.[59] Additional impact on the natural scenic beauty is contributed by the abandoned old fishing vessels along the interface.

In addition, visual pollution is caused by the lack of specific spaces purposely allocated through a spatial plan which has resulted to the fishermen or the tour boat operators indiscriminately anchoring their boats on any available space. Boats are anchored at any available space within the show without much consideration of the impact to the other users such as obstruction on the available access points. The same applies to old boats that have been decommissioned and those that are requiring periodic maintenance which are also indiscriminately left on any available space. This has led to space contestation with other tourism activities such as nature walking and swimming.[60] This finding is supported by Vehbi who noted that inadequate

[56] Kilifi County NEMA officer interview; Food and Agriculture Organization of the United Nations, Survey Findings: Overview of Kenya's Coastal Area (FAO, 2018) <www.fao.org/docrep/field/003/AC574E/AC574E03.htm>

[57] Malindi Municipality Fisheries officer; Kilifi County NEMA officer interview; Malindi Marine Park Senior Warden officer interview

[58] Malindi Marine Park Senior Warden officer interview

[59] Malindi Municipality Fisheries officer interview; Kilify County NEMA officer interview; Malindi Marine Park Senior Warden officer interview

[60] Researcher observation; FGD with fishermen; FGD with tour boat operators.

planning controls is one of the core factors triggering degradation and alteration of the environment within the larger coastal zone ecosystem.[61]


*Figure 5.9: Abandoned old boats that contribute to visual pollution*

## 5.4: CHAPTER SUMMARY

This chapter has demonstrated that tourism activities occur on both the land and the territorial ocean space. This establishes the import of spatial planning framework responding to both the terrestrial and ocean space use. Activities such as construction of hospitality facilities (service apartments, beach cottages, holiday cottages, villas), curio vending, leisure walks occur mainly on the terrestrial space while boat snorkeling, swimming and sport fishing mainly use the ocean space. There are also those activities that require to use both the terrestrial and ocean space. For example, boats used for fishing and snorkeling require space for docking and space for maintenance and servicing on terrestrial space.

[61] B O Vehbi, A Model for Assessing the Level of Tourism Impacts and Sustainability of Coastal Cities in M Kasimoglu and H Aydin, *Micro and Macro Perspectives* (IntechOpen 2012) 1-18.

The impacts of these activities traverse the land-sea continuum. For example, hospitality facilities which are located on terrestrial space, have their impacts traverse both spaces as illustrated by waste management where both solid and liquid waste find its way into the ocean space. Lack of adequate regulation of tourism activities through spatial planning has led to the manifestation of various forms of degradation within the land-sea interface including pollution from waste water and solid waste, loos of breeding ground for endangered species, loss of public access to the beach and visual pollution from indiscriminate siting of touristic activities.

# CHAPTER SIX
# CHALLENGES FACING REGULATION OF TOURISM ACTIVITIES USING PLANNING IN THE LAND-SEA INTERFACE IN MALINDI

## 6.1: OVERVIEW

This chapter discusses the challenges facing regulation of tourism activities using planning. The key challenges addressed by this chapter based on the conceptual framework presented in figure 1.1 include inordinate focus of planning tools on regulating tourism activities on land, lack of survey plan delineating the land-sea interface, focus on regulating physical touristic accommodation facilities as opposed to all tourism land use activities, inadequate public participation and access to planning information and conflicting mandates arising from multiple institutions. It also presents innovative approaches for better application of spatial planning such as marine spatial planning and integrated coastal zone management approach.

## 6.2: CHALLENGES FACING REGULATION OF TOURISM ACTIVITIES USING SPATIAL PLANNING

### 6.2.1: Inordinate Focus on Regulating Tourism Activities on Land

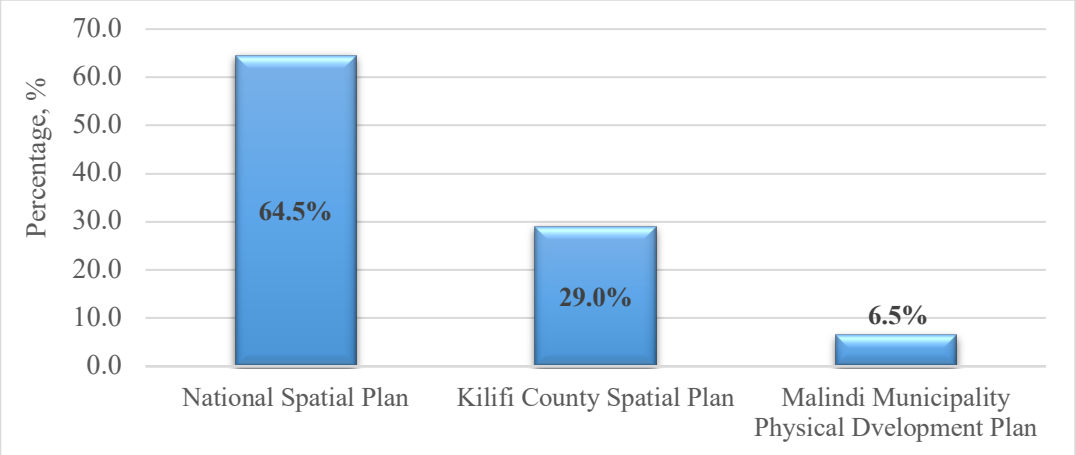
Formulation of a spatial plan starts with determining the current situation of the planning area as identified in the notice of intention to plan, the current situation then informs the development of scenarios to illustrate possible future development options based on identified challenges and potentials. Thereafter, strategies, policies and measures to address the challenges, and harness opportunities in order to achieve the stated plan objectives and vision are developed. These proposals (strategies, policies and measures) are represented on maps and text describing the desired spatial structure. The maps and text constitute the spatial plan as a tool for regulating land uses. In the regulation of tourism uses within the coastal zone through spatial

planning, it is important that the strategies in the spatial plan addresses tourism activities on land, sea and the interface between the land and sea.

The spatial planning tools applicable in Kenya for regulating all land use activities including tourism are based on the national physical and land use development plan, county physical and land use development plans, and local physical and land use development plans which are prepared for city, municipality, town or urban centre jurisdictions. The provisions for the preparation of these spatial plans and the ensuing tools is contained in Part III of the Physical and Land Use Planning Act of 2019.

Accordingly, the spatial plans applicable in Malindi are the National Spatial Plan (NSP) 2015-2045 and the 1979 Malindi Physical Development Plan. These plans were identified by the questionnaire survey respondents as indicated by 64.5 percent who identified the use of the National Spatial Plan in regulating tourism related activities. There were about 30% who identified the use of draft Kilifi County Spatial Plan which is yet to be adopted and approved for implementation. Only 7% identified use of Malindi Municipality Physical Development Plan – see figure 6.1. Nonetheless, the presence of the Malindi Marine Park which is a Marine Protected area has led to the application of a marine management plan as provided in section 44 of the Wildlife Conservation and Management Act of 2013.

*Figure 6.1: Type of the Plan*




*Source: (Field Survey, 2019)*

The National Spatial Plan (NSP) 2015-2045 approved in 2015, provides a framework for better national organization and linkages between different sectors within the national space. This Plan recognizes Coastal circuits as one off the 5 tourism circuits in Kenya. In respect to coastal areas, the NSP calls for strict regulation of marine resources through the preparation of coastal management plans. In addition, it provides that spatial development plans shall be prepared to guide implementation of the flagship projects for the tourism sector. Although, the NSP serves as vital spatial planning tool that provides a broad national framework for coastal zone management, it hasn't exclusively stipulated provisions on regulation of tourism activities within the land-sea interface. It has left the focus on specific zoning rules and prohibitions on use and development within the coastal zone to be provided by lower level plans such as the coastal management plans which are yet to be prepared. This means that the NSP is not effective in regulating tourism uses at the coastal zone without other lower level plans that provide detailed and specific allocation of user zones, development control guidelines and building regulations focused on the Malindi coastal zone.

The other type of statutory plan applicable is Malindi Physical Development Plan which was prepared in 1979 (see appendix 7). The plan has been the basis for regulating spatial activities and uses including tourism within the terrestrial areas of the Malindi Municipality. However, the plan is not integrative as it does not zone the allowable uses within the Indian Ocean's territorial zone but only focusses on the physical tourist facilities on the terrestrial land. Thus, it is vague as to where the demarcation of the land-sea interface begins and ends and the uses therein limiting the management of this zone as an integrated system. In addition, the plan lacked zoning regulations as guidelines for specific densities, plot ratios and permissible auxiliary touristic activities. This has limited its efficacy as such regulations are important in providing specific rules and prohibitions to aid in the implementation of the spatial plan. This is because they contain the criteria against which planning applications are assessed and development control permits issued in line with the approved plan. Hence, without such regulations, developers are not clear on the nature and character of allowable development. Moreover, the plan become obsolete

in 2009 having been in place for 30 years which is the statutory time limit for a long-term plan.

However, in 2007 the Municipality engaged in an exercise to update the plan by preparing zoning guidelines. The draft 2007 guidelines are currently being implemented in the regulation of uses even though they have not been formally approved as per the requirement of the Physical and Land Use Planning Act 2019. Section 47 of the Act requires public participation while section 50 requires approval of such guidelines by the respective County Assembly, in this case the Kilifi county assembly, before being gazetted by the County executive. Thus, the continued application of unapproved guidelines together with an obsolete plan limits their efficacy as the decisions made by the agency responsible for development control are illegal, null and void.[1]

In addition, these draft guidelines have not mentioned the undertaking of environmental impact assessment (EIA) before approval of proposed development or commencement of works on site. This limits the vital role of EIA as a tool for evaluating potential impacts of a proposed development and in consequently providing mitigation measures if the project is permitted as provided by schedule three of the Physical and Land Use Planning Act and section 58 of the Environmental Management and Coordination Act of 1999. These draft zoning guidelines also do not have explicit regulations to ensure orderly development of tourism activities within the ocean front or even the territorial sea.

Another key limitation in the application of the Malindi Physical Development Plan relates to its non-integration of protected area planning as it does not apply within the jurisdiction of the Malindi marine park which is managed using a different type of plan prepared pursuant to section 44 of the Wildlife Conservation and Management Act 2013. The marine park is managed using a management plan which is not defined as a spatial plan as per part III of the Physical and Land Use Planning Act 2019.

[1] See David Kemboi v Cabinet Secretary, Ministry of Lands and Physical Planning & 5 others [2019] eKLR < http://kenyalaw.org/caselaw/cases/view/172325>

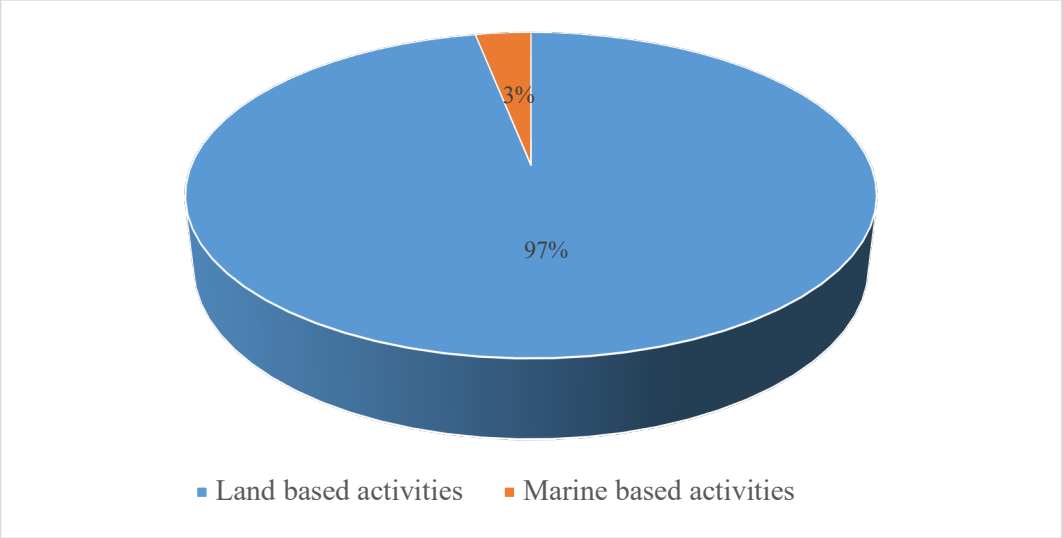
Nonetheless, the management plan provides for the administration of various resources found in the park including: fringing reefs, coral gardens in the lagoons, sea grass beds, mangroves, mudflats, marine mammals, turtles and various species of shorebirds. Whereas it provides useful guidelines for tourism activities allowable within the park such as glass bottom boat rides, snorkelling, camping and beach walks, the plan does not have a zoning map demarcating the space use activity areas and is also not available to the public.

The two plans are also not integrated because the marine park management plan only regulates tourism activities taking place within the jurisdiction of the Marine Protected Area (MPA) and within the ocean waters and not on terrestrial land where the Malindi Physical Development Plan applies. The MPA is outside the scope of the Physical and Land Use Planning Act limiting involvement of the County Government of Kilifi in carrying out its development control role as provided by section 56 of the Act. Further, neither the Wildlife Conservation and Management Act or the Physical and Land Use Planning Act provides for, or requires for institutional coordination. This limits utility of both the management plans and the physical development plan in applying the systems approach in regulating the entire interface in Malindi where majority of other tourism activities are found. Consequently, the two planning regimes do not address the regulation of tourism activities which occur as a comprehensive system with pollution impacts traversing the land-sea continuum.

Subsequently, majority of the respondents, 97%, reiterated this non-integrative approach to planning where land-based activities were perceived as the main type of tourism uses the existing plans sought to regulate (see figure 6.2). This means that the respondents viewed the plans as being unconcerned with tourism issues at the ocean. This is evidenced from the fact that only 3%, argued that the statutory plans in operation are oriented towards regulating ocean-based tourism activities in Malindi land-sea interface. This phenomenon corresponds to various commentators such as Álvarez-Romero *et al.*, Smith *et al.,* and the UNEP who have noted this lack of integration caused by an unprecedented focus in the regulation of the land-based activities while neglecting sea-based activities or even those activities that occur on

both the land and the sea.[2] Thus, the Malindi land-sea interface is still left highly vulnerable to both single and cross-systems threats from tourism activities such as pollution, erosion and encroachment of developments fronting the ocean due to this lack of a systems approach to application of spatial planning tools.

*Figure 6.2: Main Activities Regulated by the existing Plans*




*Source: (Field Survey, 2019)*

### 6.2.2: Lack of Survey Plan Delineating the Land-sea Interface

Despite legal provisions which provide for delimitation of the boundary from which private developments and use is allowed, this study noted a lack of clarity on the demarcation of the extent of the interface in Malindi thorough an approved survey

[2] United Nations Environmental Programme, Sustainable Coastal Tourism: An Integrated Planning and Management Approach (Supported by French Ministry of Ecology, Energy, Sustainable Development and Physical Planning, UNEP 2009) 1-87; H D Smith and others, The Integration of Land and Marine Spatial Planning (2010) 15 Journal of Coastal Conservation 291; J G Álvarez-Romero and others, Integrated Land-Sea Conservation Planning: The Missing Links (2011) 42 Annual Review of Ecology, Evolution, and Systematics 381 <https://doi.org/10.1146/annurev-ecolsys-102209-144702> accessed 30 September 2019;

plan.[3] A survey plan is important for the commencement of spatial planning process for a particular geographical scope. The geographical scope is based on a survey plan which demarcates the area that would be subject to the spatial plan. This is in line with section 15 of the Land Registration Act cap 300, that requires the Director of Survey to "prepare and maintain a map or series of maps, to be known as the cadastral map, for every registration unit". In the context of spatial planning for the coastal zone such demarcation provides the foundation of land and sea use by defining property boundaries, parcel shapes, and plot locations. In the absence of such a survey plan, there is bound to be conflicts which will arise due to conflict of enforcing private and public rights to the land-sea interface during the regulation of tourism activities.

According to an interview with the Malindi Municipality Land Surveyor, the Government has not undertaken survey of the coastal zone to produce survey maps which would clearly show the spatial extent of the coastal zone in respect to the 60-meter reserve and the territorial sea. The Land Surveyor noted that the lack of an authenticated survey plan has negatively affected implementation of spatial planning and development control measures. This is due to lack of a clear legitimately enforceable survey plan that lucidly demarcates the extent and boundary of the three jurisdiction of land, territorial sea and the interface where tourism activities thrive.

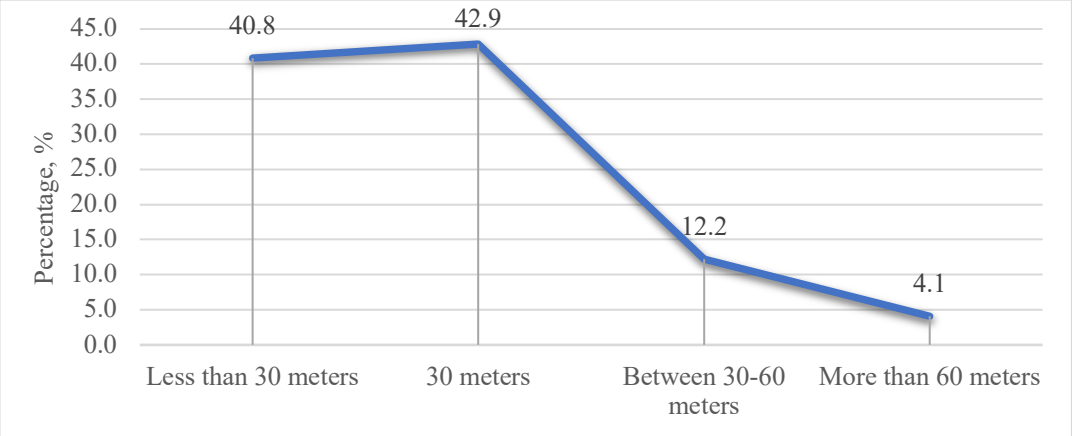
The study found out that about 96% of the tourist hospitality facilities are situated within the 60 meters baseline in contravention of the law. Through an interview with the Physical Planner, it was noted that this scenario is also due to the application of guidelines in the draft Physical Planning Handbook of 2007. The Handbook 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.[4] This contravenes regulation 110 of the Survey Regulations 1994 which designate a stretch of land not less than 60 metres in width above the high water mark from which such

[3] See Section 15 of the Land Registration Act cap 300 and Survey Regulations of 1994, reg 110

[4] Government of Kenya, Physical Planning Handbook [Ministry of Lands and Physical Planning, Physical Planning Department 2007] 1-135.

developments are permissible.[5] The Malindi Physical Planner noted that the County approves developments that respects the 30 meter reserve. This explains why a majority of the tourism facilities were found to be located within the 60-meter reserve.

*Figure 6.3: Average Distance of Facility from the High-water Mark*




*Source: Field Survey, 2019*

Despite presence of some tourist establishments within the 60m setback line on the land and sea interface, the NEMA officer interviewed asserted that the Authority does not give any EIA licenses for developments with the riparian areas and protected coastal zone. The regional officer noted that majority of the establishments within the 60m shoreline setback did not have EIA licences and probably ended up locating there due to lack of awareness on the actual setback by the developers. However, this contradicted with the arguments emanating from focus group discussions with fishermen and the tour boat operators. In these forums, the participants argued that there were instances where NEMA had issued EIA licenses for tourist establishments located within the 60m shoreline setback. For example, the tour boat operators recalled an instance where they had opposed the licensing of a resort located within the marine park protected area. One of the participants said that:

[5] Survey Regulations of 1994, reg 110.

> "*NEMA approved the development of this Billionaire's Resort and the development of a wall along the beach. We protested against building of the wall because it prevented turtles from laying and hatching their eggs. Secondly, the wall has reduced the beach space, which has led to reduction of palm tree cover since all the strong waves are now directed to the 'un-walled' part of the beach."*

On further inquiry on the assertions by community members that NEMA had indeed granted licenses to some of tourist developments within the 60m shoreline setback, the regional officer noted that such permits could have been issued due to political interference. This same reason was noted by the tour boat operators who said that despite their efforts to oppose the resort development, they gave up after being informed that "the development was being pushed by higher offices." While giving an example of Zimbabwe, Muchadenyika and Williams note that political interests advanced by politicians and the ruling elite have eroded the integrity and credibility of sound administration of development control.[6] This is because environmental experts, planners and other professionals in the development control system succumb to political pressure at the expense of spatial planning principles of integration and sustainability.[7] Failure by government agencies to respond effectively to partisan political pressure while executing legally enforceable police power leads to degradation of public goods. As such the political interference continues to jeopardise the utility of environmental impact assessment and licensing in regulating the impacts of tourism developments in Malindi.

These findings conform to those by Okidi and the National Environment Management Authority (NEMA), who also note that ambiguity characterizing the demarcation of the interface limits sustainable spatial planning and implementation of development control within the land-sea interface.[8] Both Okidi and NEMA

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[6] D Muchadenyika and J J Williams, Politics and the practice of planning: The case of Zimbabwean cities (University of the Western Cape Research Repository 2017) <https://doi.org/10.1016/j.cities.2016.12.022>

[7] ibid.

[8] C O Okidi, Legal Aspects of Management of Coastal and Marine Environment in Kenya in Charles O Okidi, P Kameri-Mbote and Migai Akech (eds) *Environmental Governance*

contend that the obscurity on the delimitation of the coastal zone continues to negatively affect the regulation of various activities from a spatial planning perspective. For example, NEMA, has pointed out that the lack of a clear definition of the extent of the coastal zone, have led to many facilities being built very close to or encroaching on the beach.[9] This has led to continued encroachment of tourism activities into the public beach fronts further contributing to pollution and degradation of critical ocean ecosystems such as corals, mangroves and breeding grounds for endangered turtle species jeopardizing a sustainable blue economy.

### 6.2.3: Over-focus on Regulating Physical Touristic Accommodation Facilities

Tourism accommodation facilities are physical developments on land and are thus subject to regulation through spatial planning. This is because they are within the definition of development as provided in the Physical and Land Use Planning Act of 2019. Section 2 of the Act defines development as "carrying out any works on land or making any material change in the use of any structures on the land". Based on Section 57 of the Physical and Land Use Planning Act, all proponents of any physical developments are supposed to make formal development application to the county and only commence construction upon being issued with development permission as contained in an instrument referred to as PPA 2.[10] The study found that about 96% of the tourist accommodation facilities acquired a development permit before they were constructed. The Malindi physical planner affirmed that they usually receive applications from prospective developers of accommodation facilities requiring approval and issuance of a development permit.

The PPA 2 issued focuses on permitting development of physical accommodation facilities without integrating the impact other touristic activities will have on the sustainability of the land-sea interface. However, other auxiliary tourism activities

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*in Kenya: Implementing the Framework Law* (East African Educational Publishers 2008); Government of Kenya, State of the Coast Report: Towards Integrated Management of Coastal and Marine Resources in Kenya (National Environment Management Authority 2009) 1-88.

9 cf Government of Kenya (n 8) 1-88.

10 Physical and Land Use Planning Act 2019, s 57.

such as snorkeling, leisure walks within the beach, visitation to Vasco da Gama Pillar Museum, collection of souvenirs from corals, recreational fishing, and swimming in the ocean which are supported by the accommodation facilities are not subject to regulation by the planning act as they do not constitute material change in land use. Nevertheless, these touristic activities in their totality have generated demand for both land and ocean space, creating conflicts over use and significantly having an impact on the environment thus requiring regulation through spatial planning.[11] The lack of focus on other auxiliary tourism activities speaks to the non-integrative approach to spatial planning where such activities are not considered as part of the whole system.

While processing development control permits, the Physical and Land Use Planning Act requires that applications for major developments be subjected to environmental and social impact assessment.[12] The physical planner said that all proposals for development of tourism accommodation facilities identified to have impact on environmentally sensitive areas were required to prepare an environmental impact assessment as a condition for approval and issuance of a development permit. Undertaking of EIA in accordance with Form PPA2 development permit supports the underlying provisions of environmental impact assessment as provided in the Environment Management and Coordination Act of 1999. However, the study noted that when approving these development applications, the Malindi Physical Planning Department did not insist on an approved EIA license from NEMA as a condition prior to the issuance of planning development permit.

A review of a sample of the PPA 2 that has been issued for a proposed tourism accommodation facility within the land-sea interface in Malindi revealed that such approval is usually issued before submission of an EIA report. This approval is usually based on the condition that an EIA project report is prepared, submitted and

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[11] J S Akama, The Efficacy of Tourism as a Tool for Economic Development in Kenya (1990)<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.603.7432&rep=rep1&type=pdf?>; Coast Development Authority, Towards Integrated Management and Sustainable Development of Kenya's Coast (CDA 1996) 1-88; Government of Kenya, State of the Coast Report: Towards Integrated Management of Coastal and Marine Resources in Kenya (National Environment Management Authority 2009) 1-88.

[12] Physical and Land Use Planning Act, s4 of the 3rd sch on Development Control.

approved by NEMA before any construction of the tourist accommodation facilities commences. According to the planner, this situation emanates from conflict in administrative procedures by both NEMA and the County Government where NEMA requires all EIA for proposed developments to be accompanied by an approved development plan and permit. The physical planner argued that the condition by NEMA requiring developers to submit approved development plans as part of the EIA was improper. According to the planner:

> *"An EIA should be prepared and submitted together with the application for development permit because the EIA will be an important decision-making tool to aid in the final decision by the County to approve or deny a permit."*

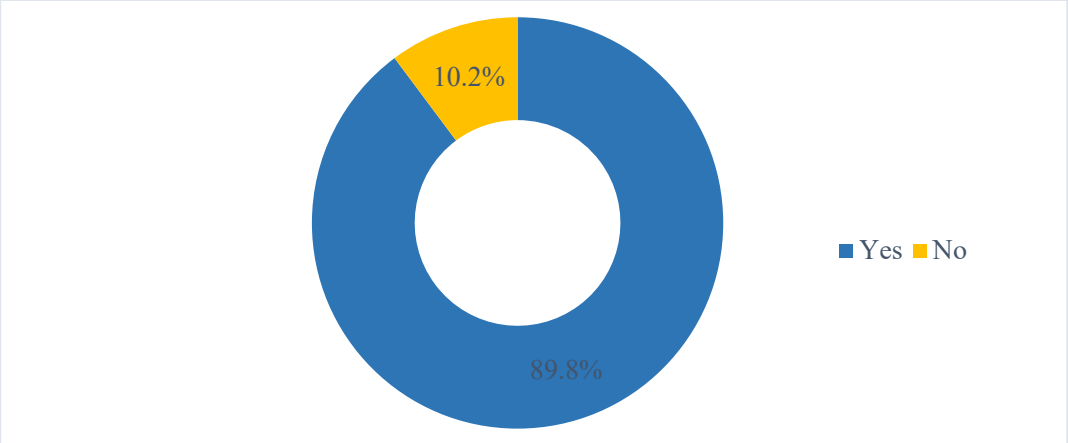
This assertion by the planner is based on section 57 of the Physical and Land Use Planning Act 2019 which gives the County Government overall responsibility of development control. The key challenge identified by the study on this procedural matter was that the County is not able to follow up to ensure that the EIA has been carried out as provided in the development permit conditions. Some of the reasons for this were inadequate technical capacity, inadequate equipment and financial resources to facilitate the periodic inspections. The physical planner noted that there were currently 3 development control and enforcement officers covering the entire Malindi municipality and a shortage of vehicles to transport these officers. This finding resonates with those by Nduthu who also found out that limited human resource capacity was one of the institutional challenges affecting development control in Kenya.[13] The net effect is that these two permitting processes are not integrated leading to developments which are not in line with the sustainable management of the coastal zone. This is because decisions with regard to planning, management and development control are not aligned and harmonized across the institutions leading to challenges in implementation and monitoring of development activities.

[13] D M Nduthu, The Institutional Challenges of Development Control in Urban Areas: A Case Study of Thika Municipality, Kenya (Thesis, University of Nairobi Research Archives 2014)

Despite the procedural challenges, majority of the survey respondents (90%) noted that they had acquired environmental impact assessment license for their tourism accommodation facilities. According to the NEMA regional officer interviewed, these permits were granted in order to ensure that the tourism facilities do not contribute to pollution of marine and shoreline environment. In granting the permits, the Officer noted that the Authority considered among others the provisions in the physical and land use development plan applicable to the particular area of the proposed development. The officer argued that this was the reason for NEMA insisting that the proposed project must have been first approved by the County Government.

Therefore, the EIA licenses are also issued in respect to physical developments without focusing on the other touristic activities. The EIA licenses are also not publicly available limiting the involvement of the public and other stakeholders in monitoring the compliance with the conditions of approval and reporting any violations. This also demonstrates a lack of transparency of the approval procedures. However, section 3A of the Environmental Management and Co-ordination (Amendment) Act No. 5 of 2015 now provides for access to information after making an application to NEMA or the respective lead agency implementing mandates under the Act.

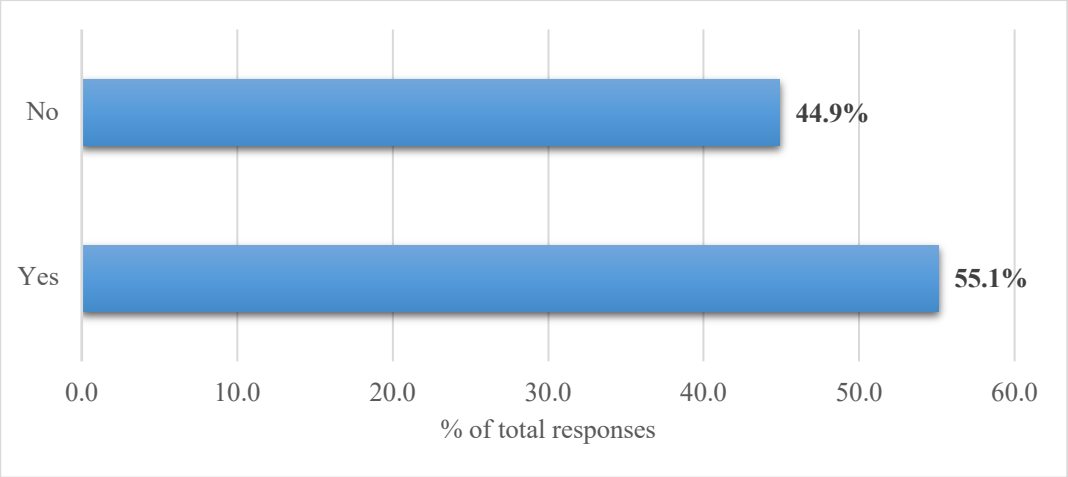
*Figure 6.4: Acquisition of Environmental Impact Assessment License(s)*




*Source: (Field Survey, 2019)*

In relation to conducting environmental audits, which are important in monitoring compliance, focus is still on physical developments where 55% of the respondents managing the accommodation facilities noted that they had conducted self-audits since they started operations. The other touristic activities such as snorkeling are not covered by the environmental auditing processes as they are not licensed through an EIA process.

*Figure 6.5: Conduction of Environmental Audits*




*Source: (Field Survey, 2019)*

This conforms to findings by Mwaguni and Munga who noted that response to undertake annual self-audits by firms within the coastal area had improved.[14] The NEMA regional officer interviewed posited that the Authority conducts periodic control auditing of tourist accommodation facilities to check for any environmental violation as per the licenses issued, the environmental management plan and the self-auditing reports. This includes aspects of pollution such as effluents discharge to the Indian Ocean. The NEMA officer reported that after issuance of an EIA license permitting a proposed development, the Authority in conjunction with Malindi Physical Planning Department usually carry out joint inspection of the licensed developments. However, the officer added that they lack adequate capacity as they

[14] S Mwaguni and D Munga, Integrated Coastal Zone Management Action Plan for Kenya (2010).

only have 3 environmental officers covering the entire Kilifi County. As argued by Omondi and Ochanda, this inadequate human resource capacity limits the role of NEMA in monitoring tourism projects after issuance of licenses.[15] This inadequate monitoring of tourism projects results in non-compliance which contributes to unsustainable management of the entire interface and a compromised blue economy.

### 6.2.4: Inadequate Public Participation and Access to Planning Information

Spatial planning is a public and political process of examining and allocating the spatial and temporal distribution of human activities.[16] Its success is therefore largely dependent on how effective it incorporates varying interests, preferences and aspirations of stakeholders. Thus, participatory approach in spatial planning not only denotes the engagement with communities and other stakeholders but also access to information and accommodation of their views in decision making.[17] Participatory approach to spatial planning right from the preparation of the frameworks to their implementation provides a strong link in the realization of integration and sustainability in the management of the coastal zone.[18]

Public participation is a requirement of all public policy and legal processes as provided by article 10 of the Constitution of Kenya 2010, which requires all State organs, State officers, public officers and all persons to comply. Public participation and access to information are provided by article 10 and 35 (3) of the Constitution of Kenya 2010 and under section 23 (1) (c), section 40 and section 55 (1) (g) of the Physical and Land Use Planning Act 2019. Under the respective sections of the

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[15] S O Obudho and V Ochanda, Environmental Impact Assessment in Kenya: Challenges of Emerging Technologies on Development Projects (Proceedings of 2014 International Conference on Sustainable Research and Innovation, Vol 5, 7-9 May at JKUAT 2014) <http://sri.jkuat.ac.ke/ojs/index.php/proceedings/article/view/16

[16] N Chu Hoi and Bui Thi Thu Hien, Integrated Spatial Planning and Management for Marine and Coastal Sustainability in Vietnam (International Union for Conservation of Nature and Natural Resources 2014) 1-13.

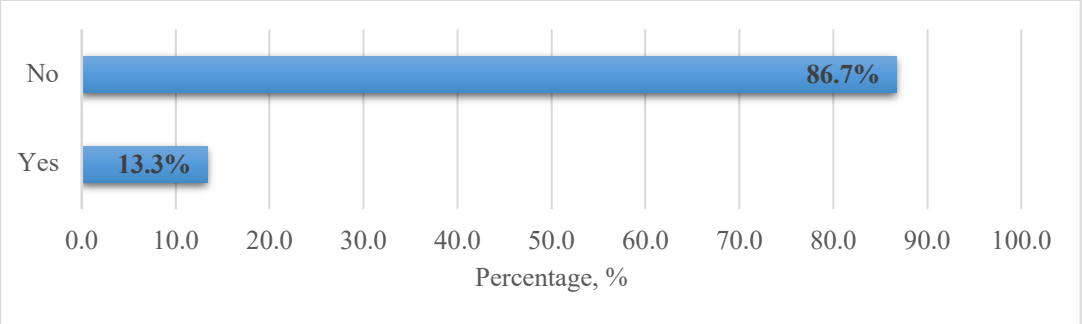
[17] S Jay and H Jones Towards a framework for higher education for marine spatial planning (2009) 99 Marine Policy 230-238.

[18] International Federation of Surveyors, Spatial Planning in Coastal Regions: Facing the Impact of Climate Change (Publication of FIG Commission 8, Working Group 8.4 Urban Planning in Coastal Region, ISBN 978-87-90907-90-7, Copenhagen, Denmark FIG 2010)

Physical and Land Use Planning Act, public participation is enabled through publication of plan completion notices which allow the stakeholders to access information on the draft plans for comments and input.

Despite these provisions requiring public participation, majority of the respondents in Malindi, 87%, asserted that they had not engaged in preparation of any spatial plans. This lack of public participation affects the efficacy of these plans associated with Malindi land-sea interface as members of the public are not aware of the regulations and user guidelines that they contain. According to Lausche and UNEP the limitation of public participation as well as inadequate consultations fundamentally affects user awareness and comprehension of the spatial plans further limiting implementation and sound decision making.[19] This ultimately leads to unsound decision making in the addressment of local needs, misuse of ecosystem services and poor mitigation and adaptation measures for managing biodiversity and environment in general.[20]

*Figure 6.6: Public Participation in the Plan Preparation*




*Source: (Field Survey, 2019)*

[19] United Nations Environmental Programme, Sustainable Coastal Tourism: An Integrated Planning and Management Approach (Supported by French Ministry of Ecology, Energy, Sustainable Development and Physical Planning, UNEP 2009) 1-87; Barbara Lausche, Integrated Planning. Policy and Law Tools For Biodiversity Conservation and Climate Change (Gland, Switzerland, International Union for Conservation of Nature 2019) xvi + 120 <https://doi.org/10.2305/IUCN.CH.2019.EPLP.88.en> accessed 15 October 2019.

[20] B Lausche, Integrated Planning. Policy and Law Tools For Biodiversity Conservation and Climate Change (Gland, Switzerland, International Union for Conservation of Nature 2019) xvi + 120 <https://doi.org/10.2305/IUCN.CH.2019.EPLP.88.en> accessed 15 October 2019.

The issue of public participation in environmental governance was a subject of litigation in *Mohamed Ali Baadi and Others v. Attorney General* where the court reiterated the right of public participation in environmental decision-making.[21] In this judgement, the court held that public participation in environmental governance is important in: expanding knowledge base on the nature of environmental problems; enabling public vigilance during implementation, monitoring, inspection and enforcement of environmental laws and policies by identifying and reporting violations; and in improving the credibility, effectiveness and accountability of governmental decision-making processes.

It is important that stakeholder participants should be included at the inception stage in plan preparation and that they remain to contribute on subsequent stages throughout the spatial planning process.[22] Such involvements could be via participatory mapping, meetings and workshops entailing representatives of key sectoral interests, non-governmental organizations, coastal authorities and community groups.[23] Therefore, the lack of adequate public participation affects the sustainable management of the interface in Malindi as the people who carry out tourism activities are not empowered to make sound decisions relating to the use of the space.

The lack of adequate public participation further impacts sustainable management because the capacity of public is not built as they are not aware of the regulations, guidelines and prohibitions contained in the spatial planning tools. More importantly, the lack of adequate public participation limits the integration of local knowledge to inform the planning process, implementation and monitoring of development. Therefore, integrated spatial planning in the regulation of tourism activities within

[21] Mohamed Ali Baadi and Others v. Attorney General [2018] eKLR 22 (HC, Malindi).
[22] Republic of South Africa, National Framework for Marine Spatial Planning in South Africa. (Gazette of the Republic of South Africa, RSA 2017) <www.gpwonline.co.za>
[23] Republic of South Africa, National Framework for Marine Spatial Planning in South Africa. (Gazette of the Republic of South Africa, RSA 2017) <www.gpwonline.co.za>

the land-sea interface faces the barrier of insufficient public participation limiting realization of a sustainable blue economy.[24]

### 6.2.5: Conflicting Institutional Mandates

Conflicting mandates arising from multiple institutions across levels of government as identified under section 4.6 is viewed as one of the overarching challenges for integrated spatial planning in the regulation of tourism activities on the land-sea interface in Malindi. There are agencies responsible for land administration and management such as the National Land Commission (NLC), those responsible for management of tourism activities such as Kenya Wildlife Service (KWS), National Museums of Kenya (NMK) and those responsible for planning and development control such as the Ministry of Lands and Physical Planning and the County Government of Kilifi. Challenges with institutional coordination points to the lack of systems approach to the use of spatial planning in the regulation of tourism activities within the land-sea interface. The presence of both national and county government agencies in Malindi has resulted in challenges with implementation of roles as demonstrated by mismatched expectations on the ground by the local community and stakeholders and an overlap of mandates. This points to a failure in functional and legal integration which would otherwise clarify areas for coordination and synergy.

Additional lack of functional and geographical integration is demonstrated on the ground, where the public perceive the County Government of Kilifi to be the institution responsible for regulation of all tourism activities irrespective of where they occur. Thus, according to participants in the focus group discussions, they expect the county to be responsible for controlling development, cleaning the beach area, providing sanitation facilities such as toilets along the beach, mainly for tourists and beach operators and providing waste receptacles where tourists and other people along the beach can dispose plastics and other solid wastes. In the discussion with the

[24] F Saunders and others, Bonus Baltspace Deliverable D1.2: Possibilities and Challenges for MSP Integration <www.divaportal.se/smash/get/diva2:1050666/FULLTEXT01.pdf>

fishermen, they argued that they also expect the county to provide them with landing sites within the interface.

On the other hand, the study noted that mandates by the national government agencies overlap with the overall mandate of the county government further demonstrating a lack of geographical, functional and legal integration. For example, lack of geographical integration is witnessed where counties have no mandate of marine parks, yet they give development control permits on contiguous land where some of these developments have a direct impact on the sustainable management of the marine park. They also regulate waste disposal from tourist establishments located on the terrestrial space but whose impacts affects marine parks especially when there is illegal discharge of waste water in the ocean. In addition, the Malindi fisheries officer noted that the county government has an essential role in the fishing jurisdiction where the county is expected to provide and regulate fish landing sites. This, the officer argued is a challenge when the same county is not in charge of licensing the various carders of fishing activities including those carried out by tourists. On the same note, the warden in charge of Malindi marine park also noted that they face a challenge in regulating sport fishing vessels and gear which are under the jurisdiction of the State Department for Fisheries Aquaculture and Blue Economy.

There is also a challenge of poor institutional coordination in managing solid waste from fishing vessels due to overlapping administrative mandates. For example, in managing solid waste from fishing vessels the County Government of Kilifi does not have jurisdictional mandate when the vessels are in the ocean as this mandate lies with the Director-General in charge of the Kenya Fisheries Service.[25] The county's mandate was reported to be limited to the terrestrial sections of the land-sea interface.[26] According to the fishermen, Kenya Fisheries Service does not carry out

[25] Fisheries Management and Development Act 2016, ss 9 and 49.
[26] Malindi Municipality Physical Planner interview; Malindi Municipality Fisheries officer interview.

inspections of the vessels to confirm that they have come back with all the waste after a fishing expedition.[27]

The lack of an integrated approach to implementation of institutional roles hampers effective regulation of tourism activities within the interface leading to unsustainable blue economy. According to Lausche, this lack of institutional integration leads to weak checking and consultation with other government agencies, especially on cross-cutting spatial issues of the land-sea interface.[28] This challenge was also identified by the National Spatial Plan 2015-2045 which notes that the disconnect in the institutional mandates is seamlessly portrayed between spatial planning procedures and its sound implementation mechanisms.[29]

### 6.2.6: Lack of an approved County Spatial Plan

To sustainably manage the coastal zone, there should be a specific spatial plan that addressees itself to the unique needs of the three jurisdictions where tourism activities occur. Such a plan should demarcate the geographical extent of the coastal zone and allocate specific uses to specific areas of both the terrestrial and ocean space. However, the study found that no such plan has ever been prepared. Other than Lamu County, the rest of the remaining four coastal counties (Mombasa, Kilifi, Tana River, and Kwale) do not have approved county spatial plans.

In 2016, Lamu County which is neighboring Kilifi County where Malindi is found, adopted and approved a County Spatial Plan. The plan recognized both the terrestrial and the territorial sea space as part of the planning area with important benefits to its blue economy. The Lamu spatial plan has zoned the land-sea interface as a conservation zone with only compatible uses permitted under strict development

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[27] FGD with fishermen.

[28] B Lausche, Integrated Planning. Policy and Law Tools For Biodiversity Conservation and Climate Change (Gland, Switzerland, International Union for Conservation of Nature 2019) xvi + 120 <https://doi.org/10.2305/IUCN.CH.2019.EPLP.88.en > accessed 15 October 2019.

[29] Government of Kenya, *Kenya National Spatial Plan* 2015-2045 (30 Year Spatial Plan, Nairobi, Government Printer 2015).

control regulations.[30] In addition, the plan has provided for land use regulations that seek to integrate urban development, economic activities such as fishing and tourism with the natural heritage of the ocean ecosystem.[31]

The lack of an approved county spatial plan by Kilifi County and other coastal counties implies that these four counties have not complied with schedule 4 of the Constitution of Kenya, section 36 of the Physical and Land Use Planning Act 2019, and section 107 of the County Governments Act 2012 which allocates the role of preparation of county spatial plans to the respective county governments. Section 104 (2) of the County Governments Act 2012 provides that such spatial plans to be prepared by the county shall integrate economic, physical, social and environmental planning. Section 107 of the County Governments Act 2012 mandates county governments to prepare spatial plans relating to various geographical areas to guide, harmonize and facilitate development within the county. These spatial plans are also vital in ensuring that county governments strengthen the coordination of sectoral projects, programmes and mitigate duplication of efforts and waste of resources. Therefore, the lack of approved county spatial plans for these four coastal counties limits the integration of the land-sea interface planning in their operations leading to unregulated land and sea uses which include tourism.

### 6.2.7: Limitations in Plan Preparation Enforcement and Dispute Resolution

Preparing physical and land use development plans constitutes four critical stages which include plan initiation, plan development based on situational analysis, plan approval and plan implementation.[32] These are critical procedures that are important

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[30] County Government of Lamu, *Lamu County Spatial Plan* (10 Year Spatial Plan, Vol II, County Government of Lamu 2016) ch 4. <www.kpda.or.ke/documents/County_Spatial_Plans/Lamu%20County%20Spatial%20Plan%20ARBRIDGED%20VERSION%20Vol%20II.pdf>

[31] County Government of Lamu, *Lamu County Spatial Plan* (10 Year Spatial Plan, Vol II, County Government of Lamu 2016) ch 4 <www.kpda.or.ke/documents/County_Spatial_Plans/Lamu%20County%20Spatial%20Plan%20ARBRIDGED%20VERSION%20Vol%20II.pdf>

[32] Government of Kenya, *County Spatial Planning Guidelines: Towards Sustainable Development and County Effectiveness* (Ministry of Lands and Physical Planning & Council of Governors 2018) 1-79.

in spatial planning but which are also susceptible to dispute and conflicts. Plan initiation involves an official declaration of the intention to plan and is articulated through an advertisement by the Government.[33] The main aim of this procedure is to inform the public of the intention to plan so as to allow them an opportunity to participate in the plan development and later implementation.

Plan development involves analysis of existing data on the planning area to aid in formulation of future scenarios for development and the requisite regulations to guide such development.[34] Public participation in the process is enabled through publication of notices of plan completion which allows the stakeholders to access the draft plans form the respective county offices for comments and information.[35]

Plan approval involves a number of administrative steps to make the plan legally enforceable. For example, spatial plans that are prepared by the county government are presented to the County Assembly, which is constituted by representatives of the people at the ward level, for debate and approval. Once the County Assembly has approved the spatial plan, it is signed by the Governor on behalf of the County Government and published through a Legal Notice in both the Kenya Gazette and County Gazette. This makes the spatial plan a legal policy document that can then be used to enforce development control. In Malindi, the spatial plan currently being used to regulate tourism uses has not been approved as noted by the Municipal Physical Planner. Plan implementation involves regulating land and sea uses to ensure that operations on land conform to the approved spatial development plans as well as the zoning guidelines, regulations and standards. This involves enforcement through the process of development control.

Mechanism for redress are important for these spatial planning process as it provides aggrieved parties with an opportunity to challenge decisions relating to preparation

[33] ibid 36 and 64.
[34] Government of Kenya, County Spatial Planning Guidelines: Towards Sustainable Development and County Effectiveness (Ministry of Lands and Physical Planning & Council of Governors 2018) 22-33.
[35] Physical and Land Use Planning Act 2019, ss 23(1)(c), 40 and 55(1)(g).

and implementation of development plans. In Kenya, the redress mechanism as relates to spatial planning are through administrative mechanisms as provided under part VI of the Physical and Land Use Planning Act 2019. The Act provides for the establishment of physical and land use planning liaison committees at the national and county government levels to hear and determine appeals against decisions made by the planning authority.

One of the key functions of the liaison committees is to hear appeals in respect to physical and land use development plans. The decision of the liaison committee is to be filed with, and considered as a judgment of the Environment and Land Court in line with section 80 (3) of the Physical and Land Use Planning Act 2019. If a complainant is not satisfied with the administrative mechanism in relation to the dispute relating to spatial planning, they can thereafter seek further redress from the Environment and Land Court which has jurisdiction on issues touching on land in respect of its use, planning, possession, control, title, compulsory acquisition or any other dispute touching on land.

However, one of the key challenges with the existing dispute resolution mechanism is on the establishment of the liaison committees. This was a major issue argued in *Republic v County Government of Nairobi, Kilimani Project Foundation & 21 others* where the complainant argued that they sought redress of their grievance in the High Court instead of the established system of liaison committee because the latter were not in existence at the time of the dispute. At the time of this study, there were equally no liaison committees established within Malindi and Kilifi County limiting the utility of this conflict redress mechanism.

To compliment the liaison committees, the Environment and Land Court Act of 2011, established a superior court to hear and determine disputes relating to the environment and land. As argued by Odote, the establishment of this court was one of the innovations advanced by the 2010 Constitution of Kenya to enhance access to

justice on matters related to environment and land.[36] Section 13 of the Act provides that the Court shall have powers to determine disputes relating to environmental planning and protection, climate issues, land use planning, title, tenure, boundaries, rates, rents, valuations, mining, minerals and other natural resources. According to Odote, the justification for such a specialized court emanates from the need for improved quantity and quality of cases handled and the need "to develop an alternative jurisprudence that moves from the traditional 'legalistic' adjudications to a more 'problem-solving', 'therapeutic' or 'interdisciplinary' approach".[37] In respect to efficiency in resolving environment and land use conflicts, Odote notes that the court has been facing a jurisdictional issue of determining which cases are environmental, which ones are land or those that have both land and environmental issues to be canvassed.[38] Consequently, this court has not adequately delivered in quantity and quality of environmental and land cases as envisioned.

## 6.3: APPROACHES FOR INTEGRATING LAND AND SEA PLANNING

### 6.3.1: Marine Spatial Planning

An integrated land-sea planning approach is vital in mitigating potential problems associated with increased human activity in coastal communities by addressing the human use of land, freshwater, and marine resources while also working to maintain the integrity of terrestrial, aquatic, and marine/estuarine ecosystems.[39] Commentators have continued to demonstrate the benefits of integrating terrestrial and marine planning systems due to the interdependence of land and offshore systems.[40] In this

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[36] C Odote, The role of the Environment and Land Court in Governing Natural Resources in Kenya, in P Kameri-Mbote, et al, Law Environment Africa (Nomos, 2019) 335-356

[37] ibid.

[38] ibid.

[39] P Crist and others, Integrated Land-Sea Planning: Technical Guide to the Integrated Land-Sea Planning Toolkit (EBM Tools Network 2009) <www.ebmtools.org> accessed 19 July 2020.

[40] H D Smith and others, The Integration of Land and Marine Spatial Planning (2010) 15 Journal of Coastal Conservation 291; J Granit and others, Water Governance and Management Challenges in the Continuum from Land to the Coastal Sea – Spatial Planning as a Management Tool (SIWI Paper 22, 2014) 1-17 <https://siwi.org/wp-

regard, Marine spatial planning (MSP) is considered as a sustainable and integrated management framework of human activities at land and sea.[41] Marine spatial planning has increasingly been identified as a solution to resolving tensions on the coasts and in the seas by enabling development whilst providing improved protection of the marine environment.[42]

Appraisal of planning approaches from other jurisdictions with similar coastal zones has demonstrated that marine spatial planning (MSP) provides a useful tool to ensure sustainable and integrated management of human activities within the land-sea interface.[43] Marine spatial planning (MSP) provides a framework for identifying the most appropriate area for different uses to reduce or mitigate environmental impacts and facilitate a sustainable blue economy through reasonable utilization, as well as increase socio-economic efficiency and ecological security. It also provides an opportunity for long-term planning so that the process of controlling development becomes predictable and transparent. This ensures that there is a greater certainty in development permitting and allocation of uses for both developers and environmental managers.

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content/uploads/2015/09/Paper-22-Spatial-Planning-Land-to-Coast-web.pdf>;K Veidemane and Nikodemus, Coherence between Marine and Land Use Planning: Public Attitudes to Landscapes in the context of siting a wind park along the Latvian coast of the Baltic Sea (2015) 58(6) Journal of Environmental Planning and Management 949 <http://dx.doi.org/10.1080/09640568.2014.903167> accessed 19 July 2020

41 A Deidun, S Borg and A Micallef, Making the Case for Marine Spatial Planning in the Maltese Islands (2011) 42 (1-2) Ocean Dev Int Law 136-154; Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014, Establishing a framework for maritime spatial planning (OJL 257/135 2014) <http://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=uriserv:OJ.L_.2014.257.01.0135.01.ENG%20 > accessed 19 July 2020.

42 A Slater, What is Marine Spatial Planning? (2012) 14 Environmental Law Review 1.

43 A Deidun, S Borg and A Micallef, Making the Case for Marine Spatial Planning in the Maltese Islands (2011) 42 (1-2) Ocean Dev Int Law 136-154; C N Ehler and F Douvere, Visions for a Sea Change. Report of the First International Workshop on Marine Spatial Planning (Intergovernmental Oceanographic Commission and Man and the Biosphere Programme, IOC Manual and Guides, 46: ICAM Dossier, 3, UNESCO 2007) <http://jodc.go.jp/jodcweb/info/ioc_doc/Manual/153465e.pdf> accessed 19 July 2020; Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014, Establishing a framework for maritime spatial planning (OJL 257/135 2014) <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2014.257.01.0135.01.ENG%20>

Deidun et al underscore the importance of marine spatial planning by saying that it "incorporates a public process of analysing and allocating the spatial and temporal distribution of human activities in coastal and marine areas to achieve ecological, economic, and social objectives that are usually specified through a political process".[44] It is a framework for achieving integration between different objectives; managing competing demands on the marine area, taking an ecosystem approach; enabling the coexistence of compatible activities wherever possible; and integrating with terrestrial planning.[45] Through MSP, the maritime dimension of some coastal uses or activities and their impacts are integrated to provide a strategic vision for the land-sea interface.[46]

In addition, Veidemane and Nikodemus contend that MSP plays a critical role in addressing the "interdependency of land and offshore economic sectors and different interests, including identification of conflicts and synergies, evaluation of trade-offs among multiple uses and interests, and proposing different development options".[47] It does this by bringing together multiple users of the land-sea interface – including tourism, energy, industry, government, conservation and recreation – to make informed and coordinated decisions about how to use the resource herein sustainably.[48] In many cases, users have free access to marine resources, including space that leads to excessive over use and eventual destruction of resources which

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[44] N Chu Hoi and B Thi Thu Hien, Integrated Spatial Planning and Management for Marine and Coastal Sustainability in Vietnam (International Union for Conservation of Nature and Natural Resources 2014) 5.

[45] ibid 2 and 5-6.

[46] Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014, Establishing a framework for maritime spatial planning (OJL 257/135 2014) <http://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=uriserv:OJ.L_.2014.257.01.0135.01.ENG%20>

[47] K Veidemane and O Nikodemus, Coherence between Marine and Land Use Planning: Public Attitudes to Landscapes in the context of siting a wind park along the Latvian coast of the Baltic Sea (2015) 58(6) Journal of Environmental Planning and Management 949ff <http://dx.doi.org/10.1080/09640568.2014.903167> accessed 19 July 2020.

[48] H Heap and W Post, Application of Biophysical Information to support Australia's representative Marine Protected Area Program (2008) 51(10) Ocean & Coastal Management 701.

necessitates regulation.[49] Thus, the end result of the MSP process is an extensive and all-inclusive spatial plan for the land-sea interface.

Various countries, particularly in the densely used marine areas of Northwest Europe, are developing and applying MSP.[50] Germany, the Netherlands, and Belgium, for example, have developed marine spatial plans for their territorial seas and exclusive economic zones.[51] Other countries are creating legislation or new policy frameworks that will enable MSP in the near future. The United Kingdom, for example, has passed a Marine and Coastal Access Act that aims at ensuring clean, healthy, safe, productive and biologically diverse oceans and seas.[52] Enander *et al* state that MSP (referred to as marine planning in the UK) is proposed as one of the tools to deliver the aims of the Marine and Coastal Access Act.[53] In Kenya, the journey towards marine spatial planning gained momentum in June 2018 when the President issued an Executive Order No 1 mandating the State Department for Fisheries, Aquaculture and the Blue Economy, under the Ministry of Agriculture, Livestock, Fisheries and Irrigation with the responsibility to coordinate Marine Spatial Planning and Integrated Coastal Zone Management.[54]

Despite the promise of MSP, the difficulties experienced in geographically integrating the two planning regimes through MSP have been underscored . Kidd and Ellis have explored the connection between marine spatial planning (MSP) and land-

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[49] ibid 701ff.

[50] S Kidd and G Ellis, From the Land to Sea and Back Again? Using Terrestrial Planning to Understand the Process of Marine Spatial Planning (2012) 14(1) Journal of Environmental Policy & Planning 49 <https://doi.org/10.1080/1523908X.2012.662382> accessed 19 July 2020.

[51] ibid 49ff.

[52] Coastal and Marine Access Act 2009 (UK), s 1-325 <www.defra.gov.uk/environment/marine/legislation/index.htm> accessed 19 July 2020.

[53] G Enander and others, Better Management of the Marine Environment (Final report developed for the Swedish Government 2008)

[54] See H Ong'anda's presentation made during the 'Marine Spatial Planning' Workshop, -28-29 March 2019, Dar es Salaam, Tanzania; <http://nairobiconvention.org/Meeting%20Documents/March%202019/MSP%20Presentations/Kenya_MSP%20experience_REV3.pdf>

based terrestrial spatial planning (TSP).[55] They argue that the profoundly different organization of property rights in marine and terrestrial environments limits the degree of policy and practice transfer.[56] Conversely, Kidd and Ellis portend that in the marine environment, up to territorial limits, development rights rest largely with nation states and are governed more by international rather national law.[57] The authors further argue that the profound emotional, cultural and historical attachment and sense of place that are greatly established in inland environments and are reflected in the intensity of public and political interest in TSP are not so well developed in marine areas beyond core stakeholder communities such as fishermen.[58] Hence, according to Kidd and Ellis, the link between development and impact in marine environment is usually far less visible or often completely hidden, meaning that alternative safeguards need to be in place for the defence of key non-human and indeed human interests in the application of MSP.[59]

Duck also discusses the challenges facing integration of onshore and offshore planning systems through MSP.[60] He argues that MSP should closely blend and integrate TSP, river basin and coastal zone management schemes.[61] However, Duck notes that such a process is inherently problematic mainly because of the poor understanding of the physical environment within the terrestrial and aquatic environment.[62] Basically, Duck argues that the difficulty experienced in marine spatial planning arises from the four-dimensional system (geological materials, overlying salt-water column, air mass above the water, time).[63] He thus juxtaposes this phenomenon with terrestrial land use planning which involves a two-layer system

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55 S Kidd and G Ellis, From the Land to Sea and Back Again? Using Terrestrial Planning to Understand the Process of Marine Spatial Planning [2012] 14(1) Journal of Environmental Policy & Planning 49–66.
56 ibid.
57 ibid.
58 ibid.
59 ibid.
60 R W Duck, Marine Spatial Planning: Managing a Dynamic Environment (2012) 14(1) Journal of Environmental Policy & Planning 67–79
61 ibid.
62 ibid..
63 ibid.

(land and the atmosphere).[64] Principally, the author contends that essential tools for marine spatial planning at the land-sea interface are underdeveloped.

Despite the potential of MSP to facilitate institutional integration, Flannery *et all* reports that little impact in addressing the complex, highly-fragmented institutional arrangements has been realized.[65] MSP has encountered difficulties when transitioning from plan development to implementation due to poor institutional design, lack of political support and under resourcing of some participating sectors.[66] The other challenge noted is the limitation of MSP in addressing land-based sources of land-sea interface degradation emanating from coastal urban developments and agriculture.[67] Application of MSP is also noted to be susceptible to the adoption of tokenistic participatory measures that are disconnected from decision-making resulting in a damaging impression of MSP amongst stakeholders and the wider public.[68] These challenges speak to the need for caution in the application of MSP within Kenya's land-sea interface.

### 6.3.2: Integrated Coastal Zone Management through Spatial Planning

The application of spatial planning to regulate terrestrial land use is relatively well developed as compared to its application within the land-sea interface areas.[69]

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64 ibid.

65 W Flannery, G Ellis, M Nursey-Bray, Jan P. M. van Tatenhove, C Kelly, S Coffen-Smout, R Fairgrieve, M Knol, S Jentoft, D Bacon & A Marie O'Hagan, Exploring the winners and losers of marine environmental governance/Marine spatial planning: Cui bono?/"More than fishy business": epistemology, integration and conflict in marine spatial planning/Marine spatial planning: power and scaping/Surely not all planning is evil?/Marine spatial planning: a Canadian perspective/ Maritime spatial planning – "ad utilitatem omnium"/Marine spatial planning: "it is better to be on the train than being hit by it"/Reflections from the perspective of recreational anglers and boats for hire/Maritime spatial planning and marine renewable energy (2016) Planning Theory & Practice, 17:1, 121-151, DOI: 10.1080/14649357.2015.1131482

66 ibid.

67 ibid.

68 ibid.

69 S Jay and H Jones, Towards a framework for higher education for marine spatial planning, Marine Policy 99 (2009) 230-238; H D Smith and others, The Integration of Land and Marine Spatial Planning (2010) 15 Journal of Coastal Conservation 291; C Walsh and A Kannen, Planning At Sea: Shifting Planning Practices At The German North Sea Coast (2019) 77(2) Raumforschung und Raumordnung Spatial Research and Planning 147-164 <https://doi.org/10.2478/rara-2019-0020> accessed 9 October 2019.

Underpinned by the systems approach and interdependence of terrestrial-based and marine-based planning, a prerequisite for integration has emerged that necessitates allocation of the best practices in spatial planning on the land-sea interface.[70] These practices occur as two-fold and are recognizably termed as approaches and mechanisms to the land-sea integration.[71] They include integrated coastal zone management (ICZM) inclusive of strategic environmental assessments and integration of the land-sea use spatial planning to regulate operations of the land-sea interface within the broader contest of sustainable blue economy.[72]

ICZM involves a continuous, proactive and adaptive process of resource management for achieving sustainable development at the land-sea interface, within the constraints of physical, social, economic, legal, financial and administrative conditions.[73] ICZM provides a better means of enabling integration and application of a systems approach to the planning of tourism activities within the land-sea interface. However, in practice, the use of ICZM to integrate spatial planning is recognized as a demanding mechanism as there is no quick solution for addressing integration and sustainable regulation of activities inclusive of tourism within the land-sea which continue to be viewed as independent systems[74] In spite of this, Walsh and Kannen argue that on realizing a transformative potential of spatial planning at the coast and sea, ICZM gives a clear emphasis on the importance of a communicative cross-sectoral approach that capitalizes on systems theory.[75] Therefore, implying a participatory and multi-stakeholder governance processes within ICZM's practice rather than the current silo

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70 H D Smith and others, The Integration of Land and Marine Spatial Planning (2010) 15 Journal of Coastal Conservation 291.

71 ibid 291-303.

72 ibid 291-303.

73 United Nations Environmental Programme, Sustainable Coastal Tourism: An Integrated Planning And Management Approach (Supported by French Ministry of Ecology, Energy, Sustainable Development and Physical Planning, UNEP 2009) 1-87.

74 cf Smith and others (n 70) 291-303.

75 C Walsh and A Kannen, Planning At Sea: Shifting Planning Practices At The German North Sea Coast (2019) 77(2) Raumforschung und Raumordnung Spatial Research and Planning 147-164 <https://doi.org/10.2478/rara-2019-0020> accessed 9 October 2019.

approach to regulating tourism activities whose impacts traverse the land-sea continuum.[76]

To further enhance the efficacy of ICZM approach to integrating spatial planning within the land-sea interface, countries within the European Union have included requirements for preparation of Strategic Environmental Assessments (SEA) to be undertaken simultaneously for all statutory spatial plans.[77] Such a combination provides a definitive practice of spatial planning within the land-sea interface towards integration.[78] SEA assesses impacts of proposed individual programs and actions, their global and cumulative effects for sound decision-making.[79] This ensures that decisions made on the specific use of the land-sea interface effectively considers sustainable environmental, social and economic integration in policy, plan and program making.[80] The final spatial plan should seamlessly focus on the links between sectoral activities to guide the sustainable management and equitable use of coastal and marine resources and eventually a sustainable blue economy.[81]

## 6.4: CHAPTER SUMMARY

This chapter has identified key challenges limiting the utility of spatial planning as a tool for regulating tourism activities within the land-sea interface. The chapter has demonstrated that application of planning is currently focused on regulating physical touristic accommodation facilities as opposed to all other auxiliary activities that tourists engage in and which cumulatively continue to degrade the land-sea interface. Other challenges identified include lack of harmonization of development control procedures, inadequate public participation in planning processes, conflicting

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[76] ibid.

[77] H D Smith and others, The Integration of Land and Marine Spatial Planning' (2010) 15 Journal of Coastal Conservation 291.

[78] ibid 291-303.

[79] ibid 291-303.

[80] National Environment Management Authority, Final SEA Guidelines (Nema.go.ke, 2019) <www.nema.go.ke/images/Docs/Guidelines/SEAGuidelines%20.pdf > accessed 9 October 2019.

[81] United Nations Environmental Programme, Sustainable Coastal Tourism: An Integrated Planning and Management Approach (Supported by French Ministry of Ecology, Energy, Sustainable Development and Physical Planning, UNEP 2009) 1-87.

mandates arising from multiple institutions limiting effective integration, lack of an approved spatial plan that speaks to the unique challenges of the land-sea interface, limitations in plan preparation, enforcement and dispute resolution. The chapter has also argued for innovative approaches that can be leveraged to better apply integrated spatial planning of land and sea space. These approaches include Marine Spatial Planning and Integrated Coastal Zone Management approach.

# CHAPTER SEVEN
# CONCLUSION AND RECOMMENDATIONS

## 7.1: CONCLUSION

This study aimed to assess the extent to which spatial planning processes and frameworks can be better utilized in the regulation of tourism activities within the land-sea interface in Kenya so as to ensure sustainable blue economy.The study focused on the geographical scope of the land-sea interface in Malindi town and sought to: analyse the extent to which the legal framework regulating tourism activities incorporate spatial planning; assess the tourism activities polluting the land-sea interface in Malindi; examine the challenges to integrated implementation of spatial planning for sustainable tourism activities in the land-sea interface; and assess innovative strategies for integrating land and sea use spatial planning to enhance sustainable management of tourism activities in the land-sea interface.

The findings captured in this thesis demonstrates that tourism activities that thrive within the terrestrial land and the ocean continue to degrade the land-sea interface and jeopardize the sustainability of the blue economy. This emanates from a planning legal framework that is focused on regulating physical facilities such as hotels and holiday homes located on terrestrial land because they constitute what the law refers to as ‘material change in use”. In this case, activities that tourists engage in outside of the physical building such as swimming, leisure walks, sport fishing, souvenir collection, and snorkeling are not subject of physical and land use planning. The application of physical planning as a tool for regulating pollution from tourist activities is further inhibited by: the lack of clarity in the demarcation of the extent of the land-sea interface; lack of integration of other complimentary land use regulation tools such as environmental impact assessments, environmental audits and development control; inadequate public participation and a multiplicity of institutions affecting coordination of planning functions. The study demonstrates that pollution of the land-sea interface from tourism activities continues despite statutory provisions

that anchor physical and land use planning as a tool for implementing police power in the regulation of land and sea use for a sustainable blue economy.

While the 2010 Constitution has provided a wider scope for spatial planning by including territorial waters as part of land to which the state's police power applies, the applicable spatial planning framework has not adequately provided for realizing this constitutional provision. The limitations to the current spatial planning approach point to a weak link and focus to integrated spatial planning which is germane in regulating tourism activities whose impacts transcend the land-sea continuum.

This has left the ocean space and the transitional zone exposed to unsustainable use as they are considered as separate systems where the focus still remains on regulating activities on land without much consideration of the impact of these activities on the sea. The lack of focus on a systems approach to spatial planning as conceptualized in figure 1.1 that would integrate regulation of tourism activities both on land and territorial ocean space continue to impede the ability of the land-sea interface to support a sustainable blue economy. The recommendations made seek to contribute to realization of the systems approach to the regulation of touristic activities in light of the studies conceptual framework summarised in figure 1.1.

## 7.2: RECOMMENDATIONS

### 7.2.1: Adoption of Integrated Land and Sea Use Spatial Planning

To effectively regulate tourism activities and realise a sustainable blue economy, there is need for integrated spatial planning (ISP) that addresses itself to the interdependence of land and ocean where tourism thrives. Such spatial planning should be based on the principles of Integrated Coastal Zone Management (ICZM) which seek to realise an adaptive and multi- sectoral approach for a balance between development, use and protection of coastal environments. The key principles of ICZM that the integrated spatial planning should embrace are the principles of good governance, inter and intra-generational solidarity, safeguarding the distinctiveness of coasts, and the precautionary and preventive principle. The integrated spatial

planning proposed for regulating tourism activities within the land-sea in Malindi should involve geographical, functional and legal integration.

Geographical integration would involve planning of land and ocean space as a comprehensive system due to the fact that tourism activities thrive in the transition zone between land and the ocean. This would lead to the preparation of a specific tourism spatial plan that regulates tourist activities within both the terrestrial and ocean space based on the ICZM approach. This plan would designate allowable tourism uses within these areas. To ensure a sustainable blue economy, the plan would also provide strategies to prevent the natural heritage from being further destroyed and protect environmentally sensitive areas such as sandy beaches that are particularly threatened by the growing tourism sector. The spatial plan would also designate the location of areas at risk, buffer such areas and set mechanisms for regulating all tourism activities. The tourism activities subject to regulating by the plan should include physical accommodation developments and auxiliary tourist activities such as swimming, snorkeling, curio collecting which are currently treated in a non-integrative way by the physical and land use law.

Functional integration would then be realized with all sectoral management bodies involved in the preparation of the integrated plan based on common development objectives and strategies. This will ensure that institutional actors view the land-sea interface as a cross-cutting subject and not as a stand-alone environment in tackling pollution challenges within the land-sea interface arising from the non-integrative spatial planning. The systems theory signifies a systemic approach to integrate the different attributes, levels of sectors and sub-sectors of the government as well as the natural and social systems that are taken into account in dealing with land-sea governance through spatial planning. Aspects such as preparation of spatial plans, development control and environmental impact assessment for both the land and ocean tourism activities should be considered as one system requiring coordination.

Policy and legal integration would involve ensuring that sectoral management policies, strategies and plans are incorporated in the overall integrated tourism spatial

plan. For both policy and functional integration to be realized, the institutional architecture should also be reformed to clarify the mandates of the national and county government agencies, especially in matters of preparation of spatial plans and development control. Similar review of institutional role and liability should also include clarity on institution responsible for integrating spatial planning within the land-sea interface including development permitting with management planning within marine protected areas. To further support functional integration, clarity of institutional mandate should focus on mainstreaming environmental impact assessment procedures with spatial planning and development permitting. This should be through administrative reform where the National Land Commission, which is mandated with the administration of the coastal zone land, provides procedural guidelines on how each agency should carry out its sectorial mandate based on the integrated spatial plan. This will ensure that the responsibilities of the various institutions are harmonized and effectively communicated to the public. The reviewed legal framework should also include robust public participation guidelines which are able to demonstrate the threshold of adequate participation in the process of preparation of spatial plans. This would allow the regulator to benefit from local knowledge while developing the capacity of the public to comply with the spatial planning regulations.

The integrated spatial planning embraces the systems approach to spatial planning framework for the land-sea interface which should not be determined or perceived in isolation. It should be viewed as a whole system thus removing the sectoral silo approach. The integrated spatial planning framework proposed advocates an open system with feedback communication channels to allow cross-pollination of knowledge and synergy in cognizance of the dynamic nature of the tourism activities within the land-sea interface. The development of an integrated model for a sustainable stewardship and regulation of tourism activities within the land-sea interface, therefore, should aim to bring together in a mainstreamed manner, the spatial planning tools and the institutions that are mandated to implement them.

The integrated approach proposes communication feedback channels that would encourage a much stronger and effective institutionalization of cross-disciplinary as well as governance for sustainable stewardship of the land-sea interface. Stronger feedback loops within the land-sea spatial planning contributes to adaptive and resilient corrective mechanisms which in turn leads to sustainable stewardship within the land-sea interface as opposed to the current weak communication and coordination. It is through this feedback communication advantage that the integrated model also heartens a negotiated consensus framework of involving the public. When the integrated planning approach is realized, it will be germane in addressing the human use of land and marine resources while also working to maintain the integrity of terrestrial, aquatic, and marine ecosystems within the land-sea interface leading to a sustainable blue economy.

### 7.2.2: Adoption of Marine Spatial Planning (MSP)

To resolve the limitation of the current inadequacy of spatial planning framework, the study recommends that marine spatial planning be developed to ensure sustainable resources use within the land-sea interface. Marine Spatial Planning should provide a framework for identifying the most appropriate area for different uses to reduce or mitigate environmental impacts and facilitate a sustainable blue economy through reasonable utilization, as well as increase socio-economic efficiency and ecological security.

The envisaged marine spatial planning should incorporate a public process of analysing and allocating the spatial and temporal distribution of human activities in coastal and marine areas to achieve ecological, economic, and social objectives that are usually specified through a political process.[1] It will provide a framework for achieving integration between different objectives; managing competing demands on

[1] N Chu Hoi and B Thi Thu Hien, Integrated Spatial Planning and Management for Marine and Coastal Sustainability in Vietnam (International Union for Conservation of Nature and Natural Resources 2014) 1-13.

the marine area, taking an ecosystem approach; enabling the coexistence of compatible activities wherever possible; and integrating with terrestrial planning.[2]

Through MSP, the maritime dimension of some coastal uses or activities such as tourism and their impacts will also be integrated to provide a strategic vision for the land-sea interface in Malindi.[3] As prerequisites, the MSP strategy should follow a series of 10-steps derived from the systems approach to planning for the successful preparation, adoption and implementation. These steps are detailed in figure 7.2 and include: identifying the need and establishing authority for MSP; organizing stakeholder participation as well as obtaining financial support; organizing the process through pre-planning that should entail forming a spatial team, having a work plan, defining principles, goals and objective and specifying both boundaries and time frames; defining and analyzing the existing and future conditions whilst taking emphasis in mapping of important biological ecological areas and existing areas of human activities that shall aid in identifying spatial conflicts compatibilities; and preparing and approving the spatial plan.

The end result of the MSP process will be an extensive and all-inclusive spatial plan for the land-sea interface in Malindi. The plan will provide an opportunity for long-term planning so that the process of controlling development and managing property rights becomes predictable and transparent. This will ensure that there is a greater certainty in development permitting and allocation of uses for both developers and environmental managers.

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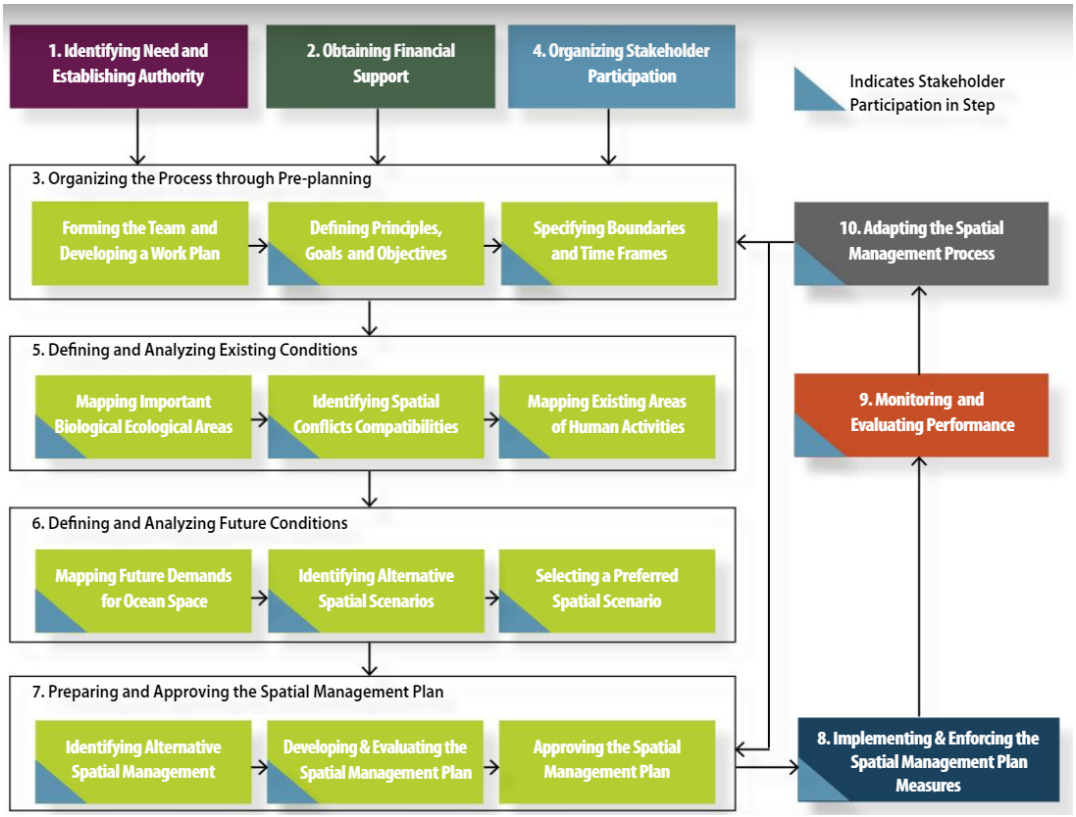
2 ibid 1-13.

3 European Parliament and the Council of the European Union, Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014: Establishing a framework for maritime spatial planning, Official Journal of the European Union L 257/135 (2014) <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0089&from=EN>

*Figure 7.2: Marine Spatial Planning Approach*




*Adopted from Ehler and Fanny Douvere* [4]

### 7.2.3: Undertake Delineation of Land-sea Interface

The extent of any riparian coastal and marine riparian areas should be secured from 60m from the highest water mark usually within the coastal berm or headland rocks as point of commencement towards the terrestrial land. The extent of the marine space should be secured at this point also known as high tideland boundary towards the offshore up to the 200nm EEZ. Both the riparian coastal and marine riparian areas as

[4] C Ehler and F Douvere, Marine Spatial Planning: a step by step approach toward ecosystem- based management (Intergovernmental Oceanographic Commission and Man and the Biosphere Programme, IOC Manual and Guides No. 53, ICAM Dossier No. 6, English ed, Paris, UNESCO 2009).

well as marine space boundaries should be geo-referenced to the current cadastral boundary coordinates and oceanic coordinates respectively.

The aim of this action would be to create boundaries for the coastal and marine riparian areas and the rest of the marine space. The Director of Surveys should also undertake cadastral survey and prepare a survey plan for the land-sea interface. This should include three fundamental steps; conceptualization of the parameters to be used in the delineation of the land-sea interface, description of the terrestrial and marine boundary and generation of digital boundary via mapping from GPS receivers and GIS platforms.

In the first step, the Director of Surveys should determine existing boundaries and jurisdiction in the municipality and the entire land-sea interface for country; recognized legal provisions; work with agencies and multi-stakeholders and develop a model of the coastal and marine riparian areas and the rest of the marine space. This first process should emphasize on enforcing cadastral surveying principles clearly to the riparian zones and abutting parcels of land. With regards to the second step, the Director of Surveys should focus on issues vital to the connecting terrestrial and marine environment into three distinct sections; preamble (name, location, purpose, features and adjacent jurisdiction of the boundary description); body (directions and measurements of onshore-offshore cadasters and starting reference point) and any limiting or augmenting clauses of the boundary description (rights and privileges to the land or marine space) whilst technically working with mapping professionals. The last step should focus on the Director of Surveys creating an authoritative data base of the digital boundary (generally referenced components include shoreline, nautical charts, bathymetry, geographic features and place names, and other boundaries inter alia). The step also entails sharing of such digital boundary information to the public for awareness and use by other agencies for spatial planning and development control.

This will ensure clarity on property rights of parcels abutting the land-sea interface and the extent to which developments are allowable thus protecting the beaches from

encroachment. The clearly demarcated boundary would help minimize conflicts and uncertainties with the adjacent terrestrial land such as pollution linked to tourism activities.

### 7.2.4: Regulating Tourism Activities beyond the Physical Building

Regulation of tourism activities using spatial planning should be addressed beyond the current narrow view of tourism as only comprising physical buildings which constitute material change in land use. Spatial planning should seek to view the regulation of tourism within the land-sea interface as an interrelated system of demand (international tourist markets, domestic tourist markets and residents' use of tourist attractions, facilities and services) and supply factors (attractions and activities, accommodation, other tourist facilities and services, transportation and other infrastructure).[5] This will ensure that other tourism activities not considered as material change in the use of space such as swimming, snorkeling, curio collection and nature walk, but whose pollutive impacts transcend the land-sea continuum are also regulated by linking them to the accommodation facilities hosting the tourist.

The consideration of tourism activities as integrated would also ensure that the responsibility for environmental management of pollutive activities emanating from a tourist are properly assigned where the owner of the approved physical development also retains an obligation to ensure that the use of their development does not lead to pollution in the land-sea interface. Similarly, tour guides commonly referred to as 'beach boys' would also have a responsibility of ensuring that the tourists under their care do not contribute to pollution of the land-sea interface as they engage in nature walks and souvenir collection.

[5] United Nations World Tourism Organization, National and Regional Tourism Planning: Methodologies and Case Studies (Madrid, UNWTO 1994).

### 7.2.5: Strengthen Institutional Capacity of County Governments to Effectively carry out Spatial Planning Functions

Effective implementation of spatial planning requires that County Governments have adequate resources. These resources should include both human resource and equipment. Sufficient human resource should include additional personnel such as physical planners and development control officers to the county government. For example, in Malindi, the respective county government would require at least one development control officer to enable efficacious implementation of spatial planning tools for approval, monitoring and enforcement within the land-sea interface. This would ensure effectiveness in detecting violations to the development permits issued. Strengthening of the county institutional capacity should also include an office equipped with a GIS laboratory consisting of desktop and laptop computers, plotters and printers, GPS receivers, a server and network infrastructure.[6]

### 7.2.6: Strengthen Institutional Capacity of NEMA

Strengthening institutional capacity of NEMA should include equipping the respective county regional offices with adequate environmental officers and vehicles for monitoring how development activities are complying with the conditions of the EIA licenses issued. This will ensure that the officers are able to have a structured and consistent schedule of monitoring developmental activities within the interface and implement any remedial strategies in a timely manner.

### 7.2.7: Harmonization of Development Control Permitting Procedures

A development control permit is an integral factor input in determining an orderly development and compatibility for sustainable management within the land-sea interface. It may not, however, resolve the research problem alone because it requires

[6] See County Spatial Planning Guidelines 2018 for technical specifications: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiE9duhqansAhV85OAKHRluCvIQFjABegQIARAC&url=https%3A%2F%2Fcog.go.ke%2Fmedia-multimedia%2Freportss%2Fcategory%2F93-county-spatial-planning-guidelines-county-spatial-planning-guidelines%3Fdownload%3D231%3Acounty-spatial-planning-guidelines-2018&usg=AOvVaw1XvfiLnvCuY5fs2pfSJT_L

consistency of legal provisions for instance, EMCA 1999 and Physical and Land Use Planning Act 2019 on the administrative procedures for issuance of planning approval license (PPA 2) and EIA license, all required before commencement of proposed tourism developments. As the final authority on matters development control, the planning approval license (PPA 2) should only be issued once a proposed development has received an EIA license. This enables the county during final decision making on whether to allow or disallow a proposed tourism activity by ascertaining that the proposed development will not lead to any environmental degradation.

Further, there should be cross-sectoral and cross-disciplinary coordination amongst the county government and NEMA on dissemination of information, monitoring and evaluation to avoid the overlapping of administrative and procedural mandates in monitoring and regulating tourism activities within the land-sea interface in Malindi.

There is need of clear implementation of mandates for institutions involved in governing the land-sea interface to achieve coherence in planning process. 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 developers not to be overwhelmed by numerous approval procedures initiated by the sectorial agencies.

Thus, issues of encroachment through the construction of sea-walls, within the 60-meter coastal baseline by tourism developments, land and disputes on rights of use and pollution would be prevented.

### 7.2.8: Enhanced Public Participation and Access to Information

Public participation ensures that programs/projects identified or to be implemented are better and more efficient in addressing the challenges effectively. By adopting a wider consultative framework, people are able to voice their concerns and needs leading to actions that are more likely to be relevant and appropriate to the conditions

they face. In addition, environmental mangers are able to ensure that there is no duplicity of initiatives thus saving on the scarce resources. The Aarhus Convention acknowledges that the right to live in a healthy environment as well as the duty to protect it for present and future generations requires that "citizens must have access to information, be entitled to participate in decision-making and have access to justice in environmental matters, and… that citizens may need assistance in order to exercise their rights."[7]

The integrated spatial planning for effective regulation of tourism activities towards a sustainable blue economy at the land-sea interface should include a robust public participation and information access framework which allows the regulator to benefit from local knowledge while building the capacity of the public to comply with the spatial planning regulations. As held in *Mohamed Ali Baadi and Others v. Attorney General*[8] satisfactory public participation must include "adequate notification, education and information, review and reaction and consultation, dialogue and interaction with the local population who will be affected by the Project". Consequently, the reasonableness standard which include compliance with the law would apply in ascertaining sufficiency of a public participation process. For ease of implementation of the reasonableness standard, the Physical and Land Use Planning Act of 2019 should have clear provisions on public participation. Good practice on this can be borrowed from section 24 of the Climate Change Act 2016 which has codified public participation and access to information. Under section 24 (3) of the Climate Change Act, the government is required to publish regulations on design and procedure for public participation to ensure that the threshold for decision making is realised. Similar provisions ought to be included in the Physical and Land Use Planning Act of 2019 for an efficacious public participation in all spatial planning processes.

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[7] Convention on access to information, public participation in decision-making and access to justice in environmental matters (Aarhus, Denmark 1998) <www.unece.org/fileadmin/DAM/env/pp/documents/cep43e.pdf>

[8] Mohamed Ali Baadi and Others v. Attorney General [2018] eKLR 22 (HC, Malindi)

Collaborative planning tools such as stakeholder representation on decision-making bodies, establishment of local-level planning committees and participatory budgeting to finance schemes for consultations should be adopted to enhance public participation framework in the regulation of tourist activities within the land sea-interface. Effective participation is dependent on access to information. News and updates on a participatory process can be transmitted via traditional media such as newspaper, radio, and television or electronic media such as websites, social medial and emails or via meetings and presentations with the communities in a given geographical area. Access to information should also include availability of final and approved spatial plans, zoning regulations and development permits issued to allow use of land for all tourism activities within the land-sea interface. This will ensure that the public are able to monitor compliance with the laid down conditions for the allowed development.

### 7.2.9: Undertaking Planning Clinics to create Awareness on Utility of Spatial Planning

Planning clinics are forums organized by an institution in charge of spatial planning to create awareness and capacity among the population resident in a particular area. Both the National and County governments should organize forums where the community and other stakeholders are trained on planning laws and regulations and procedures for compliance. It is also vital to note that effective development control largely depends on the awareness of the population which enables them to act as whistle blowers. This is in realization of the fact that development control officers cannot be in all areas of development to monitor day to day activities.

### 7.2.10: Undertake Comprehensive Marine Spatial Planning for the entire Land-sea Interface in Kenya

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 marine spatial plan covering the entire land-sea interface in Kenya. The National Land Commission should take lead in overseeing the preparation of a joint integrated marine spatial plan for the entire geographical stretch of Kenya's land-sea interface. The planning should be undertaken by the inter-county joint physical and land use development planning committee provided by section 29 of the Physical and Land Use Planning Act 2019. This spatial plan would then provide the basis for lower level zoning plans and guidelines to guide approval of all proposed tourism activities within the respective county governments.

### 7.2.11: Demolition of all Developments within the 60-meter Baseline

All permanent accommodation facilities developed within the 60-meter baseline should be demolished to restore the environmental integrity of the land-sea interface to continue supporting the blue economy. Permanent shore-hardening structures, such as seawalls and barriers, may be banned or discouraged in moderately developed areas. Limiting permanent stabilization of the shoreline will allow a gradual retreat from a sea-level rise and will allow the development market to determine if a property is worth developing, given the risk of erosion or inundation. The demolition should be carried out in public interest due to the important role of the land-sea interface in supporting a sustainable ecosystem. To support the reclamation of public land, there is sufficient jurisprudence from the courts in Kenya that have affirmed public interest in land property to outweigh an individual's rights.[9] In *Republic v Land Registrar Kilifi & another Ex-parte Daniel Ricci* the court argued that any transaction tainted with fraud or illegality cannot be enforced through a court process and that if the public land had been earmarked for a purpose it was not available for allocation without due procedure.[10]

[9] York Worldwide Holdings Limited v Kenya Forest Service & another; Friends of Karura Community Forest Association (Interested Party) [2019] eKLR

[10] Republic v Land Registrar Kilifi & another Ex-parte Daniel Ricci [2013] eKLR

### 7.2.12: Amendments to the Physical and Land Use Planning Act to enhance Integrated Spatial Planning

Amendments to the Physical and Land Use Planning Act of 2019 should start by renaming the act to Spatial Planning Act. A focus on spatial planning provides an improved framework from the hitherto approaches of physical planning or land use planning which have been conflict-ridden, unimaginative, costly, inequitable, inefficient and unsustainable.[11] Spatial planning paradigm emphasize on long term strategic thinking and creation of future visions in terms of integrated spatial strategies.[12] It embraces a holistic point of view, ecosystem-based approach and thought process in policy-making to expel individualistic and silo mentality across the professional boundaries of planning, hence, influencing integrated governance and management.[13] Spatial planning is also engrained towards sustainable development in representing social, economic and environmental goals as equally critical and mutually compatible.[14] Lastly, it gives emphasis to inclusivity in planning consultation mechanisms and delivery of services to promote gender parity and unbiased integrative decision making of issues from variety of societal groups.[15]

Section 2 of the Act should be amended to include a clear definition of land as encompassing all water bodies and the territorial sea as provided in the Constitution of Kenya 2010.[16] This will ensure that the law addresses itself to the unique spatial planning prerequisites of the land-sea interface which include multiple and increasingly expanding and conflicting uses that transcends the land-sea interface continuum. Section 2 of the Act that provides the definition of development control

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[11] G Haughton and others, *The New Spatial Planning: Territorial Management with Soft Spaces and Fuzzy Boundaries* (London and New York, Routledge: Taylor & Francis Group 2010) 1-289

[12] ibid 1-289.

[13] G Haughton and others, *The New Spatial Planning: Territorial Management with Soft Spaces and Fuzzy Boundaries* (London and New York, Routledge: Taylor & Francis Group (2010) 1-289; P Christie and others, Tropical Marine EBM Feasibility: A Synthesis of Case Studies and Comparative Analyses (2009) 37 Coast Management 374–385 <https://doi.org/10.1080/08920750902937994>

[14] ibid.

[15] ibid 1-289.

[16] Constitution of Kenya, art 260.

should also be amended to include a more integrated framework that conceptualizes regulation of land use beyond physical activities that lead to material change in use of space to include all activities that occur on land and territorial waters as long as they cause environmental degradation.

Part III of the Act that provides for the types of physical and land use development plans should be reviewed to provide for the preparation of an integrated marine spatial plan designating among others allowable tourism uses within the terrestrial and ocean geographical space. This would give express provisions committing both the national and respective county governments to apply marine spatial planning as a framework for planning activities within the land-sea interface. This will ensure that the responsibilities of the various institutions are harmonized and effectively communicated to the public based on the spatial plan.

Additional amendments to Part III of the Act should also include express provisions requiring all types of spatial plans to be subjected to Strategic Environmental Assessment (SEA). This will buttress the provisions for SEA as provided in section 57A of Environmental Management and Co-ordination (Amendment) Act No. 5 of 2015. Spatial plans meet the definition of "plans" as provided in section 57A because they are prepared and adopted by either national or county government at regional, national, county or local level. Moreover, spatial plans by their nature designate the type and character of land and sea use activities allowable over a specified period of time. More often than not, these uses have relatively permanent environmental and social impacts which ought to be assessed through SEA to inform final decision. The cross referencing of the EMCA provisions on SEA through amendment of PART III will provide clarity on enforcement and facilitate the integration of environmental management tools in spatial planning for sustainable development.

Section 58 of the Act should also be amended to include a substantive provision requiring developers to include as part of the application for development permission an environmental and social impact assessment report and associated license. The repealed Physical Planning Act of 1996 required all development application with

potential injurious impact on the environment to submit an environmental impact assessment report before issuance of a development permit.[17] However, this provision was not included in the substantive sections of the new Act but contained in the third schedule of the Act which requires applications for only "major developments" to be subjected to environmental and social impact assessment. The lack of a definition of what 'major development' means, which could lead to the counties issuing development permissions to some tourism activities not considered major but with injurious impact to the environment.

Amendments to section 58 should also address the institutional architecture of processing development permit and their linkage to implementation of other spatial tools such as environmental impact assessment. This will address the current lack of clarity on whether the environmental impact assessment license should be issued based on an approved planning development permission or before the planning approval. Clarity on this important procedural matter will ensure that the county government who has the final liability to control development in line with section 56 of the Act has adequate information on the impact of the development as they make a determination to allow or disallow the proposed application.

## 7.3: CONTRIBUTION OF THE STUDY

The study has confined its research scope to espousing the relationship between spatial planning and realization of sustainable management of the land-sea interface. The study notes that lack of integration of spatial planning within the land and sea realms continue to jeopardize the sustainable management of the land-sea interface. This phenomenon is evident in the land-sea interface in Malindi where there is inadequate application of spatial planning framework leading to spatial proliferation of tourism activities creating negative consequences of pollution, encroachment and disputes in assignment of rights of use within both the terrestrial and marine spaces. These outcomes reflect the ad hoc nature, disjointedness and poor efficacy in the

[17] Repealed Physical Planning Act 1996, s 36

application of the land-sea spatial planning in regulating tourism related activities in the study area.

Through literature review and analysis of primary and secondary data on the spatial planning legal framework, the study has answered its four objectives following the afore-mentioned conclusions. The study has identified and proposed an integrated spatial planning model for the sustainable management of land-sea interface through systems view of spatial planning. The existing conventional silo practice of spatial planning is not efficient in ameliorating the negative implications of poorly regulated tourism activities. In this respect, the study principally uses systems theory to improve the theoretical-practical gap in the sustainable management of the land-sea interface emanating from the fact that the land and the sea are interlinked and must be planned as one system.

The study has demonstrated that the existing isolated application of land and sea use planning lacks the use of a systems approach. The research concludes that an integrated spatial planning framework for the sustainable management of the land-sea interface should be based on the systems view of spatial planning and recognize the interlinkage between land and ocean systems. This study elucidates the link between spatial planning and environmental law towards the realization of a sustainable blue economy within the land-sea interface. Thus, the study provides a framework for achieving geographical, functional and legal integration which the study has identified as germane to a systems approach to regulation of tourism activities within the land-sea interface.

## 7.4: AREAS OF FUTURE RESEARCH

The areas for further research recommended by this study include:

i. An assessment of the utility of other police power instruments such as environmental easements in the regulation of touristic activities.
ii. The impact of divergent property rights for the sustainable management of coastal marine resources

iii. The development of marine spatial planning in Kenya to identify the specific bottlenecks to its adoption.

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# Appendix 1: ACCOMMODATION FACILITIES QUESTIONNAIRE

**UNIVERSITY OF NAIROBI**

**CENTER FOR ADVANCED STUDIES IN ENVIRONMENTAL LAW AND POLICY**
**Thesis Research - Doctor of Philosophy in Environmental Law**
**ACCOMMODATION FACILITIES QUESTIONNAIRE**

The purpose of this study is to evaluate the challenges of integration of land and sea use spatial planning framework in sustainable management of Kenya's land-sea interface.

**Declaration:** The information and data collected will be confidential and is intended purely for the research study being undertaken for a thesis that forms part of the requirements to complete a Doctor of Philosophy in Environmental Law at the Center for Advanced Studies in Environmental Law and Policy (CASELAP), University of Nairobi.

**Student:** *Olale O. Philip* **Reg. No:** ***Z82/51131/2016***

**Time:……Date:……..…….**

## SECTION 1: PROFILE OF FACILITY

| | | |
|---|---|---|
| **1.1** | Name of Facility | |
| **1.2** | Type of hospitality facility | Beach Hotel<br>Serviced Apartment<br>Health and spa resort<br>Other (specify) |
| **1.3** | Classification of the facility | 5-star<br>4 –star<br>3-star<br>2-star<br>1-star |
| **1.4** | Current bed capacity of the facility? | |
| **1.5** | Year of establishment of the facility? | |
| **1.6** | Does the facility have a current operation license from the Kenya Tourism Board (KTB)? | Yes<br>No |
| **1.7** | Does the facility have a single business permit from Kilifi County Government | Yes<br>No |

## SECTION 2: IMPACT OF FACILITY ON SPATIAL PLANNING

| | Question | Response |
|---|---|---|
| **2.1** | What is the average distance of the facility from the beach? | Less than 30 meters<br>30 meters<br>between 30 – 60 meters<br>More than 60 meters |
| | Why did you prefer to locate within this coastal zone in Malindi? | Proximity to the beach<br>Good weather<br>Good scenic views<br>Availability of land<br>Other. specify |
| | What challenges do you face by locating here? | Loss of beach access<br>Too many regulatory agencies<br>Pollution of the marine environment<br>Uncontrolled developments<br>Insecurity<br>Low client base<br>None<br>Others. specify |
| | What extra services are carried out in the establishment? | Spa<br>Swimming pool<br>Laundry services<br>Convenient shop<br>Others. specify |
| **2.2** | What is the main type of solid waste from the facility? | Food waste<br>Plastic<br>Paper<br>Demolition debris<br>Sewage sludge |
| | What is the average amount of solid waste generated per month? | |
| | What method of solid waste disposal does the establishment use? | Incineration<br>Collected by County Government<br>Private contractors<br>Composting |
| | Does any of the solid waste from the facility find its way to the beach and eventually the ocean? | Yes<br>No |
| | If yes, how does this happen? | |
| | What is the main challenge in solid waste management faced by the facility? | |

| | | |
|---|---|---|
| **2.3** | How does the facility handle waste water? | Connected to municipal sewer<br>Use septic tank<br>Waste treatment pond and disposal to ocean<br>Direct disposal to ocean<br>Others. specify |
| | Does the facility have an Effluent Discharge License (EDL, NEMA) or Effluent discharge permit, EDP from WRA? Does it have both. | |
| | If both, are the terms of compliance similar or different? | |
| | If both, have you experienced receiving different compliance instructions from the agencies? | |
| | Does the Agency from whom the EDL was issued carry out periodic inspections? | Yes<br>No |
| | If yes, what is involved in an inspection? | |
| | If yes, how often? | Fortnightly<br>Monthly<br>Annually<br>Others. specify |
| | Are the records of inspection available? | Yes<br>No |
| | Does any of the waste water from the facility find its way to the beach and eventually the ocean? | Yes<br>No |
| | Have you conducted environmental audits on the compliance of your effluent treatment plant? | Yes<br>No |
| | If no, why? | |
| | If yes, what is the result of the audit? | |
| | What are you doing to enhance compliance? | |

| | | |
|---|---|---|
| | What is the main challenge in waste water management within the facility? | |

## SECTION 3: SPATIAL PLANNING AND DEVELOPMENT APPROVAL PROCEDURES

| | Question | Response |
|---|---|---|
| | ***Physical Development Plan*** | |
| **3.1** | Is there a physical development plan for the Malindi coastal zone? | Yes<br>No |
| | What is the type of the plan? | National spatial plan<br>Kilifi County spatial plan<br>Malindi Municipality Physical Development Plan<br>Marine spatial plan<br>Other, specify |
| | What would you consider to be the main activities that the plan seeks to regulate? | Land based activities<br>Marine based activities<br>Other, specify |
| | Do you consider it appropriate in regulating tourism activities at the Malindi land-sea interface? | Yes<br>No |
| | If yes, did you participate in its preparation? | Yes<br>No |
| | How did you participate? | |
| | Were you satisfied with the level of participation? | Yes<br>No |
| | ***Sectorial Management Plans*** | |
| **3.2** | Are you aware of existence of a tourism management plan for the Malindi coastal zone? | Yes<br>No |
| | Are you aware of existence of a marine park management plan for the Malindi marine park? | Yes<br>No |
| | If yes, do you know when it was prepared? | Yes<br>No |
| | Were you consulted by the relevant agency | Yes<br>No |
| | If yes, by which agency? | |
| | Were your opinions featured in the final plan | Yes<br>No |

| | | |
|---|---|---|
| | ***Zoning Ordinance/regulations*** | |
| **3.3** | Does the Malindi coastal zone have zoning regulations by the County Government? | Yes<br>No |
| | If yes, do you consider them appropriate in regulating tourism activities? | Yes<br>No |
| | Explain answer in 3.3(b) | |
| | If yes, were you consulted in their preparation? | Yes<br>No |
| | Were your opinions featured in the final plan | Yes<br>No |
| | Do you believe that the Malindi marine park management plan, and the zoning regulations are in harmony? | Yes<br>No |
| | Explain (f) above | |
| | ***Development Control Permits*** | |
| **3.4** | Did the facility acquire a development permit (form PPA 2) from the county (or defunct local authority)? | Yes<br>No |
| | If yes, what were the conditions of the permit | |
| | Did the facility acquire a construction permit from the County (or defunct local authority) before commencing works? | Yes<br>No |
| | If yes, were there periodic inspections to check compliance? | Yes<br>No |
| | If no, was there an enforcement notice to stop construction? | Yes<br>No |
| | Did the facility acquire a certificate of compliance/occupancy permit (form PPA 5) from the county (or defunct local authority) upon completion of the construction of the facility? | Yes<br>No |
| | If the facility has the permits, how long did it take to acquire them? | |

| | | |
|---|---|---|
| | | |
| | Has the facility undergone any major renovations/extensions since its construction? | Yes<br>No |
| | If yes, were the renovations approved by the County Government | Yes<br>No |
| | Was an EIA licence a requirement prior to receiving the permit? | Yes<br>No |
| | If yes, what were the EIA conditions that influenced the conditions of approval of the development permit? | |
| | ***Environmental Impact Assessment and Audits*** | |
| **3.5** | Does the facility have an environmental impact assessment license or licences. | Yes<br>No |
| | If so, what activities were they issued for? | |
| | If yes, when was it issued? | |
| | If yes, have there been any environmental audits conducted? | Yes<br>No |
| | Was it an annual self-audit by yourselves or a regulatory audit by NEMA? | Self-audit<br>NEMA |
| | Kindly highlight some key findings from the environmental audit(s) that are relevant to how your facility relates to the marine and ocean environment – in terms of pollution management, for instance | |
| | How often does NEMA carry out inspection of the facility? | Monthly<br>Quarterly<br>Annually<br>No inspections done<br>Other, specify |

## SECTION 4: CHALLENGES FACED IN MEETING PLANNING REQUIREMENTS

| | **Planning Requirement** | **Response** |
|---|---|---|
| **4.1** | Zoning regulations | |

| | | |
|---|---|---|
| **4.2** | Development control permits | |
| **4.3** | Environmental impact assessment and audits | |

## SECTION 5: ROLES OF VARIOUS ACTORS IN REGULATION PROCESS

| | **Actor** | **Response** |
|---|---|---|
| **5.1** | National Government | |
| **5.2** | Kilifi County Government | |
| **5.3** | National Land Commission | |
| **5.4** | Kenya Tourism Board (KTB) | |
| **5.5** | National Environment Management Authority (NEMA) | |
| **5.6** | Water Resource Authority (WRA) | |
| **5.7** | Kenya Wildlife Service (KWS) | |
| **5.8** | Local Community | |
| **5.8** | OTHERS | |

# Appendix 2: KEY INFORMANT INTERVIEW SCHEDULE

**UNIVERSITY OF NAIROBI**

**CENTER FOR ADVANCED STUDIES IN ENVIRONMENTAL LAW AND POLICY (CASELAP)**
**Thesis Research - Doctor of Philosophy in Environmental Law**
**KEY INFORMANT INTERVIEW SCHEDULE**

**RESEARCH PURPOSE:** The purpose of this study is to evaluate the challenges of integration of land and sea use spatial planning framework in sustainable management of Kenya's land-sea interface.

**Declaration:** The information and data collected will be confidential and is intended purely for the research study being undertaken for a thesis that forms part of the requirements to complete a Doctor of Philosophy in Environmental Law at the Center for Advanced Studies in Environmental Law and Policy (CASELAP), University of Nairobi.
**Student:** *Olale O. Philip* **Reg. No:** ***Z82/51131/2016***
**Time:…….Date:……..…….**

**PROFILE OF KEY INFORMANT**

| | | |
|---|---|---|
| | Name of respondent | |
| | Respondents' profession | |
| | Respondents' experience in the profession *(in years)* | |
| | Respondents' current job designation | |
| | Name of institution/agency/organization where the Respondents' works | |

**GUIDING QUESTIONS**

1. What are the key challenges that affect the environment within the Coastal Region arising from tourism activities?
2. What is the role of your institution/agency in preventing and addressing the above challenges? Kindly comment on your staff and financial capacity to implement your roles.
3. How effective are the current processes of regulating tourism activities in the land-sea interface? Who are the main actors? Of these actors which is the weakest link? Why? Which institution should have the overall mandate and Why?

4. What is your opinion on the effectiveness of each of the following tools in regulating tourism activities from a planning perspective?

a. EIA and audits
b. Physical development plans
c. Zoning ordinance and regulations
d. Development control permits
e. Sectorial resource management plans

5. Is there a spatial development plan for the Kenya/Malindi coastal zone? What is the nature of the plan? Is it a land use plan or a marine spatial plan? How different are the two types of plans? Do the plans consider both land use and use of the sea (marine?) If so, what is the extent of such integration?
6. What is the role of various stakeholders in the planning of tourism activities in the land sea interface in Malindi?
7. Please identify other public agencies with planning, licensing and approval functions in this area that are similar to yours; and contradict your mandate? What is the impact of these other agencies on your ability to protect the land sea interface?
8. How do you address the multiple and/or contradicting mandates?
9. What do you consider to be the key gaps or inconsistencies with the laws and regulations governing spatial planning within Kenya/Malindi coastal Zone?
10. What changes would you propose to deal with the identified gaps and promote sustainability?

# Appendix 3: FOCUS GROUP DISCUSSION GUIDE

**UNIVERSITY OF NAIROBI**

**CENTER FOR ADVANCED STUDIES IN ENVIRONMENTAL LAW AND POLICY (CASELAP)**
**Thesis Research - Doctor of Philosophy in Environmental Law**
**FOCUS GROUP DISCUSSION GUIDE**

**RESEARCH PURPOSE:** The purpose of this study is to evaluate the challenges of integration of land and sea use spatial planning framework in sustainable management of Kenya's land-sea interface.

**Declaration:** The information and data collected will be confidential and is intended purely for the research study being undertaken for a thesis that forms part of the requirements to complete a Doctor of Philosophy in Environmental Law at the Center for Advanced Studies in Environmental Law and Policy (CASELAP), University of Nairobi.

**Student:** *Olale O. Philip* **Reg. No:** ***Z82/51131/2016***

**Time:…….Date:……..…….**

**PROFILE OF FGD**

| | | |
|---|---|---|
| a. | Venue | |
| b. | Number of participants | |
| | Male | |
| | Female | |
| c. | Category of participants | Fishermen<br>Beach operators<br>Curio vendors<br>Boat tour operators |

**FGD GUIDING QUESTIONS**

1. What key activities do you carry out that require space? Do you have a designated space within the beach for the activities identified? Is the activity carried out only on land? On both land and sea? Or within the sea?
2. Who allocated you the space you are using? Do you know who has legal ownership and/or control of the space you are using? Does any institution monitor your activities? How? How frequently? Do you pay any fees for using the space?

3. Are you aware of any of the following spatial planning processes; environmental impact assessment and audits, physical development plans, zoning regulation and development permits? If yes, what is your opinion on their use to regulate activities within the beach?
4. Have you ever been consulted for your opinion during any of the processes: EIA, Environmental audit, development of a physical plan, zoning regulation, or when a development permit is being considered? If yes, please recount how the process was conducted; what opinion did you give?
5. Does any of them apply to your activities?
6. Do you consider your activity to have a negative impact on the beach i.e. waste generation? If yes, what are some of these impacts your activities have on the ocean? How are these negative impacts prevented or remedied?
7. Do Hotels and other tourist accommodation facilities near you affect the environment? If so, how? Do you know how these impacts are addressed by the Hotels? And by Government Institutions?
8. Which institution are you aware of that regulates activities that take place on the beach and the land and sea around you? Comment on the manner in which they regulate these activities? Do you consider the institution(s) effective in carrying out this mandate?
9. What challenges do you face in carrying out your activities?
10. What key recommendations would you propose for effective regulation of tourism related activities within the beach front?

## Appendix 4: Form PPA 1

Form P.P.A.1 Registered Number of Application .....

APPLICATION FOR DEVELOPMENT PERMISSION

(To be submitted in TRIPLICATE in respect of each transaction and sent to or left at appropriate office of the Local Authority).

To the .....
(*Insert Name and address of the appropriate Local Authority Office*)

I/We hereby apply for permission to develop the land and/or building as described in this application and on the attached plans and drawings.

Date ..... Signature of Applicant or Agent .....

If signed by Agent state:

Name .....

Address .....

Profession.....

SECTION A—GENERAL INFORMATION

1. Owner's name and address .....

2. Applicant's name and address .....

3. If applicant is not the owner, state interest in the land e.g. leasee, prospective purchaser, etc. and whether the consent of the owner to this application has been obtained.

4. (*a*) L.R. or parcel No. .....

(*b*) Road, District and Town .....

(*c*) Acreage .....

5. If an application has been previously been submitted state the registered number of the application .....

.....

SECTION B—SUBDIVISION

6. Describe briefly the proposed subdivision including the purposes for which land and/or buildings are to be used .....

.....

7. State the purpose for which land and/or buildings are now used. If not now used, the purpose for which and the date on which they were last used .....

.....

8. State whether the construction of a new or an alternative of an existing means of access to or from a road is involved .....

.....

9. State method of:

(*a*) Water supply .....

(*b*) Sewerage disposal .....

(*c*) Surface water disposal .....

(*d*) Refuse disposal .....

10. Give details of any relevant easements affecting the proposed subdivision.....

.....

SECTION C—EXTENSION OF LEASE OR USER OR CHANGE OF USER

11. State whether subdivision is involved and if so whether permission has been applied for and if so give registered number of the application

.....

.....

12. Describe briefly the proposed development including the purpose for which land and/or buildings are to be used .....

.....

13. State the purpose for which land and/or buildings are now used. If

not now used, the purpose for which and date on which they were last used .....

.....

.....

14. State whether the construction of a new or alternative of an existing means of access to or from a road is involved .....

.....

15. If the proposed development consists only of a change of user and does not involve building operations state the exact nature of such change .....

.....

16. If the site abuts on road junction, give details and height of any proposed walls, fence, etc., fronting thereon .....

.....

.....

17. State method of:

(*a*) Water supply .....

(*b*) Sewerage disposal .....

(*c*) Surface water disposal .....

(*d*) Refuse disposal .....

18. Give details of any relevant easements affecting the proposals

.....

.....

19. State the:

(*a*) Area of land affected .....

(*b*) Area covered by buildings .....

(*c*) Percentage of site covered .....

(i) by existing buildings .....

(ii) by proposed buildings .....

*Note.*—Drawing and specifications must be prepared and signed by a registered physical planner.

## Appendix 5: Form PPA 2

Form P.P.A.2 Registered Number of Application .....

NOTIFICATION OF APPROVAL/REFUSAL/DEFERMENT OF DEVELOPMENT PERMISSION

To: .....

.....

.....

Your application number as above, submitted on ..... for permission to ..... on L.R. a Parcel No. ..... situate in ..... road ..... has been ..... on (date) ..... by the ..... for the following reasons/subject to the following conditions:

(*a*) .....

(*b*) .....

(*c*) .....

(*d*) .....

(*e*) .....

Date ..... Signed .....
*for Local Authority*

c.c. The Commissioner of Lands, Nairobi.
The Land Registrar.
The Town/County Clerk.
The Director of Physical Planning, Nairobi.
The Director of Surveys, Nairobi.

# Appendix 6: Form PPA 7

ENFORCEMENT NOTICE

FORM P.P.A. 7 (r. 3)

To: .....

.....

.....

1. The development/subdivision of land described hereunder has been carried out without the grant of permission and/or the following conditions required on that behalf under Part V of the Physical Planning Act.

.....

.....

Subject to which permission for the development/subdivision of land as described hereunder was granted in respect thereof under Part V of the Physical Planning Act has/have not been complied with.

2. (Description of development or subdivision of land)

.....

.....

.....

3. You are hereby required to (describe the steps to be taken)

.....

.....

within a period of .....

from the date of this notice failing which the ..... ** (local authority) may enter on the said land and execute the requirements as outlined hereinabove and may recover as a civil debt in any court of competent jurisdiction from any related expenses incurred.

4. This notice shall take effect on the ..... day of ....., 19 .....

5. If you are aggrieved by this notice you may appeal to the liaison committee or High Court as the case may be under provisions of part III of the Act

before the aforesaid .....day of

....., 19 ..... in which case the operation of this notice shall be suspended pending the final determination or withdrawal of the appeal.

6. Any person who uses or causes or permits to be used the land to which this notice relates or carries out or causes or permits to be carried out operations on the said land in contravention of this notice shall be guilty of an offence as provided for by section 30 of the Act.

Signed .....

Dated this ..... day of ....., 19 .....

## Appendix 7: Malindi Physical Development Plan, 1979