



2021 - 2030



2022: The County Government of Kilifi

Job Number:

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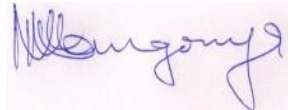
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H.E. Amason Jeffah Kingi

Foreword



Kilifi is one of the six Kenyan Coastal Counties, that includes Kwale, Mombasa, Taita Taveta, Tana River and Lamu. It is one of the four counties that borders the Indian Ocean's western shores. The County is an excellent destination for *sun and sand* seeking local, regional and global tourists. Extensive beaches form its long coastline from Mtwapa in the South, through Kikambala Kilifi, Watamu, and Malindi further North. Kilifi County has a number of creeks namely Mtwapa, Kilifi and Mida Creeks. The creeks, not only provide unique estuarine but also nature mangrove ecosystems along the coastline. The ocean presents numerous developmental possibilities especially marine eco-tourism, maritime transport infrastructure and urban development. The county has rich historical insights, with remnants of settlements that date back to

between the fourteenth and seventeenth century located at Gede, Mnarani and Mambrui. The county also has huge areas covered by indigenous forests including the Arabuko Sokoke Forest and Dakacha woodlands which, in addition to hosting a wide variety of wildlife species, are of significant cultural and religious importance to the people of Kilifi. Kilifi is however not all about tourism, although the region's economy is heavily reliant on the sector, both for employment and income generation. Like every other coastal county, fishing is one of the historical economic activities.

In the interior, fertile soils coupled with good weather patterns support a vibrant cash and subsistence crop farming and farm products, the most prominent being sisal, cashewnuts, pineapples, maize, dairy and coconuts. The county has huge mineral deposits that have seen the establishment of a number of raw material extraction and value addition industries including cement manufacturing. Services are the backbone of the county's vibrant urban sector. The people of Kilifi, who number 1,453,787 as per the 2019 census are likewise an important resource. The County has a cosmopolitan population comprising predominantly the Mijikenda ethnic communities, Swahili-Arab descendants, Barawas, Bajunis, Somalis and immigrant communities of Kenyan interior, Indians and Europeans descent, thus presents a melting pot of cultures.

The foregoing notwithstanding, Kilifi County is yet to fully exploit the benefits that accrue from its location and landscape. The A7 highway, which traverses Kilifi is the region's main development corridor, stringing the counties together and connecting the region to Tanzania in the South and Somalia through the A14 and A3 highways, respectively. The county also borders the world-famous Tsavo National Park to the west, the Nyika plateau which forms the border serves as a wildlife dispersal area.

The Kilifi County Spatial Plan has not only brought these assets and potentials into focus, but has also enabled us to appreciate the County's limitations. Most importantly it provides the necessary tools to enable the County Government and Development Partners to better available resources in positioning itself in the path of sustainable development for the benefit of all its residents. The plan, which was prepared through a thorough consultative approach, promotes inclusiveness, equitable distribution of County resources to re-orient the development trajectory. I sincerely want to thank all parties involved in this strenuous process of the preparation and approval of the Kilifi County Spatial Plan and will ensure that the County commits adequate resources towards implementing its key proposals.

H.E. Amason J. Kingi

The Governor, Kilifi County

Acknowledgement



The successful completion of the Kilifi County Spatial Plan would not have been possible without the active participation and generous contribution of numerous people, to whom the County Government would like to express its gratitude.

The planning process was initiated by the County Executive headed by the Governor, **H.E Amason Jeffa Kingi**, which provided all the resources and goodwill necessary for the effective execution and completion of various components of the planning process. The plan formulation process proceeded under the able coordination of the *County Department of Lands, Energy, Housing, Physical Planning and Urban Development*. Special mention goes to the Late **Hon. John Mweri Mazuri** and **Mr. Charo Kenneth Kazungu**, the Department's former CECM and Chief Officer respectively. Their successors **Hon. Charles Karisa Dadu** and the current CECM **Hon. Maureen Mwangovya** and Chief Officer **Arch. Moses Gunda** were instrumental in bringing the process to a close. The Ag. *County Director of Physical Planning*, **Plan. Eric Randu** and his equally able associate *County Physical Planner* **Plan. Jacinta M. Makau** performed exceptionally well in overall coordination and in providing technical inputs to the planning process. Also worth mentioning are administrators of the various Sub-counties and Wards of Kilifi County, who together with the National Government's Regional Administration assisted in mobilizing stakeholder participation in the planning process. Special thanks to the National Lands Commission for their oversighting role.

The County Government wishes to acknowledge the contribution of its principal partner, the Technical University of Kenya (TUK), particularly the Vice Chancellor, **Prof. Francis Aduol**, who led an able team at the University through the *Faculty of Engineering and The Built Environment (FEBE)* in providing administrative support to the project. We acknowledge the University's *Planning Team* under the strong leadership and effort of **Prof. Lawrence Esho** for effective management and timely execution of various components of the planning process, and successful formulation of the plan and associated process outputs.

The County Government cannot forget the Immense support both Financial and Technical offered by the WWF-Kenya, special mention goes to the *CEO – WWF Kenya* **Mr. Mohamed Awer**, *Head of the Technical Team* **Mr. Zachary Maritim** and the entire Technical Team at WWF-Kenya. WWF-Kenya received funding from the Global Environment Facility through the Implementation of the Strategic Action Programme for the Protection of the Western Indian Ocean from Land-Based Sources and Activities (WIOSAP project), executed by UNEP - Nairobi Convention. Their support enabled stakeholder engagements and technical expert work sessions that ensured completion of this important plan for the county.

Finally, this work would not have been possible without the numerous engagements with the people of Kilifi County whose dedicated participation in the visioning workshops, plan review and validation sessions conducted across the county, as well as their response to the numerous interview schedules administered at the grassroots, provided insights critical to the planning process.

We know that we may have forgotten the names of different persons who took part in the entire process. This final product is a testimony of their contribution. We thank you all.

Hon. Maureen Mwangovya

County Executive Member in charge of Lands, Energy, Housing, Physical Planning & Urban Development

Executive Summary



The legal basis for preparing a County Spatial Plan for Kilifi is based on County Government Act of 2012. It outlines the content and objectives of the County Spatial Plan. It sums up a County Spatial Plan as a GIS-based County Spatial Development Plan covering a period of 10 years (Kilifi County Spatial Plan covers 2021 to 2030) as a broad framework for organizing and distributing population and activities in the County to achieve both National and County development objectives.

The plan preparation was guided by various planning legislation in the Country, starting with the supreme law of the land – the Kenyan Constitution 2010 and other supportive legislations. The process followed through various stages of physical and land use planning undertaking. A rigorous stakeholders' engagement was undertaken which resulted among other things in vision formulation. A robust situational analysis was carried out which was informed by an extensive fieldwork research, literature review and focused group discussions. Stakeholders' engagement outcome together with the situational analysis formed the pedestal upon which the plan formulation was done. Finally, the plan was prepared in line with the objectives of Vision 2030 with the aim of improving the living standards of all residents of Kilifi County.

The main issues that emerged from the situational analysis include inter alia; Proximity to the Indian Ocean means that Fishing is a major economic activity. The presence of extensive sandy beaches, wildlife sanctuaries and famous historical sites has supported a vibrant and viable Tourism industry. Opportunities exist in agriculture, thanks to availability of vast amounts of arable land, fertile soils and a good weather pattern.

Kilifi County also has appreciable quantities of mineral resources including iron ore, manganese, titanium and vast quantities of clinker and salt deposits. Their exploitation has supported the development of a strong industrial sector with the iron sheet and cement manufacturing contributing heavily to the region's economy both in employment provision and in income generation. Although active, the mining sector is yet to achieve its full potential. Kilifi County has a fledging commercial sector, supported mainly by tourism and trade. The imbalance settlement structure of the County is found to be tilting the scales in favor of skewed development. A rethink of settlement strategy has been addressed in the Kilifi County Spatial Plan 2021 - 2030.

Kilifi County can pride itself from its resourceful socio-cultural capital, from its young population, newly established formal and informal institutions to the rich cultural assets, these are development enablers and triggers. Kilifi County's enormous growth potential is inhibited by inadequacies in the quantities, qualities and distribution of current physical and social infrastructure and service. The Kilifi County Spatial Plan 2021 – 2030 has developed strategies to address these challenges as well as redirect the County development trajectory.

Arch. Moses Gunda

Chief Officer – Housing, Physical Planning and Urban Development



The preparation of the Kilifi County Spatial Plan started in earnest towards the end of 2014. The process has been elaborate and engaged various groups of stakeholders within the County at various stages of the process. Through consensus, a vision and strategy for the county was developed, as well as a detailed programme of interventions to guide the County's development framework.

The County Spatial Plan espouses a number of principles. In the first instance, the plan seeks to address the age-old problem of skewed and imbalanced development across the County. Consequently, the plan has come up with strategies that target the spatial distribution of investments and activities across the County. Secondly, the plan is people-focused and seeks to bring benefits to a majority of the people of Kilifi County and improve their welfare through improved incomes and living standards. Thirdly, the plan seeks to activate the County's entire stock of resources, and advantages presented by its geography, demography and institutions, and leverage these to promote its development agenda.

The output considered industrialization, tourism, hospitality and finally trade and commerce as pathways to adopt the above-mentioned strategies. Industrialization is intended to revolutionize agriculture through value addition thereby putting the County biggest resource, land into proper use. It is also intended that supporting industries should be developed alongside primary industries for both development of the areas and boosting employment to farmers, traders and the general populace of the County. Hospitality and tourism are primarily considered to take advantage of the already existing infrastructure, natural assets but also to embrace new ways of enriching the sector for wider development of the County. Trade and commerce has targeted strategies to develop new and sampled existing urban areas to balance development of urban areas across the County. Key projects are proposed in the plan to ensure delivery of the development promises guided strategically within the County.

The plan period is given as ten years but some proposals go beyond the stated period. The plan will be reviewed after 5 years to take stock of the progress, achievements as well as failures of the plan. It is my hope that the Kilifi County Spatial Plan 2021 – 2030 captures your aspiration for the development of Kilifi County and that you will engage the plan and partner with the County Government of Kilifi to support the implementation of the plan



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Authors

This plan is the product of concerted efforts by the County's various Sectorial Departments and their field officers. It also benefited from contributions made by a wide range of non-governmental and civil society actors. The primary authors of the document however, are the *Joint Planning Team* comprising of professionals from the *County Government of Kilifi*, who coordinated the project, National Land Commission who provided oversight over the planning process, and the *Technical University of Kenya(TUK)*, who were responsible for the process outputs and deliverables. The members of the team were;

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Plan Formulation and Implementation

Kilifi County Spatial Plan was formulated through the guidance of the plan vision which states; *A globally competitive County that embraces innovative and sustainable technologies in exploring, enhancing and optimal utilization of resources for equitable development by the year 2030.* Various alternatives were identified as possible pathways that would lead the County to attain the stated vision. These alternatives were industrialization, tourism, conservation, trade, and commerce respectively. The alternatives were evaluated, debated and validated by stakeholders. A consensus was reached to borrow the good strategies from all these alternatives to make a hybrid alternative, which is superior to any singular alternative.

A framing structure plan was developed which took cognizant of the available resources, opportunities and the desired end state. The structure plan is anchored on industrialization, tourism, and conservation as the main operative theme. That notwithstanding, the strategy is supported by other sub-themes that will give traction to realizing the overarching theme. The strategies to attain the vision of the plan are numerous and interconnected. The key strategies include;

Value addition Agro-based Industrialization: This strategy is deemed to have lots of *low-hanging fruits*. It is assessed to have wide and far-reaching multiplier effects across sectors and will impact majority of people almost in an instant. Agriculture is a direct beneficiary. For agriculture to measure-up, it has to be modernized and mechanized. Value addition industries are set up strategically across the County based on available resources. Apart from the value-addition industries, extractive and other existing industries are earmarked for expansion. These industries will create direct and indirect benefits to locals and County government. In addition, related supportive industries are expected to develop as a result.

Infrastructural Strategy: This strategy took cognizant of the need to connect and network the entire County to improve productivity and to support all the other proposed strategies. Of essence is developing a new development corridor at the far interior of the County to decongest the existing Mombasa-Lamu corridor. This corridor is earmarked as an industrial corridor. A minor corridor is proposed in between the two main developmental corridors as an administrative corridor. The existing Mombasa-Lamu corridor is supported as tourism and hospitality corridor. Other infrastructural services such as expansion of water, power and sewerage connections are proposed.

The Human Settlement Strategy: This Strategy is aligned together with the infrastructural strategy. Industrial towns are proposed along the exterior corridor at Mariakani, Bamba, two new proposed towns at ADC irrigation scheme. New growth centers are also proposed where new target trade and commerce investments and initiatives are located. Supportive infrastructural services are proposed to trigger the necessary developments. The guiding principle in location of these proposed settlements is primarily to direct and redistribute development across the County. Rural settlements developments strategies aimed at reviving back the rural settlements as an important driver of the County development and growth.

Tourism and Conservation Strategy: This Strategy is conceptualized to revamp and fully utilized the existing County resources. New tourism activities and sites are identified and located appropriately in suitable areas. Hospitality will remain a main economic mainstay of the County and for that reason, conservation and preservation of historic tourist sites are proposed. In addition, environmental protection is key to maintaining environmental integrity. Thus, all sensitive ecological zones such as forests, mangrove ecosystems and wetlands, conservation measures are outlined therein. To revamp the tourism and hospitality sector, new marketing strategies are identified to ensure the County scenic assets remain a top tourist destination.

Education and Health Services: This strategy is to increase the quality and expand the coverage geographically across the County. Education is recognized as a supportive pillar to general growth of the County. For this reason, new higher institutions of learning are proposed in growth centers to address the problem of low retention levels in the County. Further, to support the capacity building that is needed to support the plan proposals implementations. To improve on health indicators in the County, quality healthcare is emphasized over quantity. This include equipping the existing facilities and recruiting qualified staff to measure up with the population.

An implementation strategy is outlined that will guide actualization of the plan proposals. The strategy has outline capacity building, communication, participation, funding, co-ordination, policies and fiscal

environment to make the implementation effective and successful.

Plan Organization

In summary, the Plan is organized into nine chapters. The first three chapters are Background, The strategic direction and the existing situation. These chapters discuss the need for the Plan, the Planning area and its situation. The next three chapters are: The Plans, Development Strategies and the Action Area Plans. These chapters focus on all the proposals of the County spatial plan from the overall County framing structure, to the various strategic layers of the Plan and finally on sample detailed plans of selected action areas. The final three chapters are the Implementation Mechanism/Framework, The Capital Investment Plan and Monitoring and Evaluation. The aim of the final three chapters is to provide a roadmap for the implementation of the proposals identified in the previous three chapters. They provide details of all the projects identified, their location, their purpose, their implementing agencies, their estimated cost, their possible sources of funds and mechanisms for ensuring their success.

List of abbreviations

ADC - Agricultural Development Corporation
AGOA - African Growth and Opportunity Act
ASALS - Arid and Semi-Arid Lands
B.O.T -Build Operate Transfer
CBOs - Community Based Organizations
CDA - Coast Development Authority
CDF - Constituency Development Funds
CESA - Critical Ecologically Significant Areas
CGA - County Government Act
CGK - County Government of Kilifi
CORDIO - Coastal Oceans Research and Development – Indian Ocean
COTU - Central Organization of Trade Unions
CWWDA - Coast Water Works Development Agency
DNI - Direct Normal Irradiation
EMCA - Environmental Management and Coordination Act
EPC - Export Processing Council
EPZs - Export Processing Zones
ESA - Ecological Support Areas
FEST - Faculty of Engineering Sciences and Technology
FKE - Federation of Kenya Employers
GIS - Geographic Information Systems
GoK - Government of Kenya
IBAs - Important Bird and Biodiversity Areas
ICT - Information and Communications Technology
INGOs - International non-governmental organizations
KAA - Kenya Airways Authority
KALRO - Kenya Agricultural and Livestock Research Organization
KDSP - Kenya Devolution Support Programme
KEFRI - Kenya Forestry Research Institute
KEPSA - Kenya Private Sector Alliance
KETRACO -Kenya Electricity Transmission Company
KFS -The Kenya Forest Service
KIMAWASCO - Kilifi-Mariakani Water & Sewerage Co.Ltd.
KeRRA - Kenya Rural Roads Authority
KMA - Kenya Maritime Authority
KMFRI - Kenya Marine and Fisheries Research Institute
KNBS - Kenya National Bureau of Statistics
KNHA - Kenya National Highways Authority
KPHC - Kenya Population and Housing Census
KPLC - Kenya Power and Lighting Company
KTB - Kenya Tourism Board
KURA - Kenya Urban Roads Authority
KWS - Kenya Wildlife Service
LAPSSET - Lamu Port Southern Sudan-Ethiopia Transport

L.U – Livestock Unit
MAWASCO - Malindi Water & Sewerage Co.Ltd.
MBW – Mangrove Board Walk
MCH - Mother Child Care
MSW - Municipal Solid Waste
MW- Megawatt
NDMA - National Drought Management Authority
NEMA - National Environment Management Authority
NGO - Non-Governmental Organization
NIB - National Irrigation Board
NLC - National Land Commission
NOFBI - The National Optic Fiber Backbone Infrastructure
PA - Protected Areas
PLUPA - The Physical and Land Use Planning Act
PPP – Public Private Partnership
PV - Present value
RD&D - Research, Development and Demonstration
SGR - Standard gauge railway
TARDA - Tana & Athi Rivers Development Authority
UN - United Nations
VAT - Value Added Tax
WSPs - Water Service Providers

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1 Chapter One: Background

This section introduces Kilifi County as the planning area and the regional planning exercise.

1.1 Introduction

Kilifi County is one of the counties that constitute the Coastal region of Kenya with an area of 12,539.7 km² and population of 1,453,787 according to the 2019 KPHC census data. Kilifi is bordered by Mombasa County to the South, Kwale County to the West, Tana River County to the North and Indian Ocean to the East. The County population comprises various ethnic groups with the Mijikenda, Arabs and Europeans being the major communities. Fishing is the main economic activity in Kilifi due to its proximity to the Indian Ocean; Tourism industry plays a major role also due to the presence of Wild life sanctuaries, Sandy beaches, and Historical sites. Agriculture is also practiced and the County is known for Sisal and Cashew nuts growing. Agro-based industries are also present making use of the fertile arable lands. Kilifi County has appreciable quantities of mineral resources (Titanium, iron ore and vast deposits of salt deposits) which are exploited to support the development of a strong regional industrial sector especially from iron sheet and cement manufacturing industries. There is provision of employment and generation of income.

Commercial sector in Kilifi County is supported mainly by trade and tourism. The overall growth potential of the County is inhibited by inadequacies in the quantities, qualities and distribution of current physical and social infrastructure and services outlays necessity to activate potentials dormant in key productive sectors. Kenya's new constitutional dispensation, which provides for devolution of governance and resources from the National level to the grass roots, present a perfect opportunity to remedy this situation. For devolution to be effective however, it is necessary that each county formulates suitable frameworks to guide its investment agenda, as well as development initiatives of all County stakeholders.

1.2 Obligation and purpose of Kilifi County Government to plan

The preparation of the County Spatial Plan is an initiative of the county government as provided by the County Government Act 2012 and in the fourth schedule of the Constitution Part 2(8), in relation to devolved functions and overall County Planning and article 184(1) in relation to the governance and management of urban areas and cities. The obligation of the County Government to plan is outlined in the County Governments Act section 104 and is designed around the key pillars of the county planning as highlighted in section 102 and 103 include:

- Facilitating the development of a well-balanced system of settlements
- Facilitate the productive use of scarce land, water and other resources for economic, social, ecological and other functions across the County.
- Facilitating environmental conservation by working towards the achievement and maintenance of a tree cover of at least ten percent of the land area of Kenya as provided in Article 69 of the Constitution and maintaining a viable system of green and open spaces for a functioning eco-system.
- Harmonizing the development of county communication system, infrastructure and related services.

- Developing urban and rural areas as integrated areas of economic and social activity
- Providing the preconditions for integrating underdeveloped and marginalized areas to bring them to the level generally enjoyed by the rest of the county
- Protecting the historical and cultural heritage, artifacts and sites within the county and making reservations for public security and other critical national infrastructure and other utilities and services
- Developing the human resource capacity of the county through institutional strengthening and capacity building
- Promoting a democratic culture by developing and supporting community participation in planning processes, and promoting access to governance and sustainable management of County resources

1.3 The scope of the plan

The planning horizon for Kilifi County Spatial plan covers an area of 12,509.7km² and is set to take ten years to give a reasonable period for strategic planning and to determine the trends of various variables over that period to ensure that the services provided suffice the entire population now and the near future to achieve the goals of the Kenya vision 2030.

1.4 The organization of the plan

This report presents Kilifi County Spatial Plan (2021-2030) and is divided into Nine Chapters as described below.

Chapter One: Background

This section introduces the exercise of preparation of Kilifi County Spatial Plan followed by a discussion on why Kilifi County is obligated to plan. Then the discussion on the spatial and theoretical Scope of the assignment follows. The Methodology used in this exercise is then discussed as provided for by the National Lands Commission (NLC), The Physical Planning Department and the Council of Governors (COG). In conclusion, this section discusses the Policy and Legal Context that are relevant and were adhered to during the preparation of Kilifi County Spatial Plan.

Chapter Two: The strategic direction

The people of Kilifi County have a Vision or Aspirations, Mission, Strategic objectives and Specific objectives. These issues are captured and discussed in this section. They are then followed by a discussion of the principles that were used in the preparation of the plan.

Chapter Three: The existing situation

In order to adequately familiarize and understand the situation of Kilifi County, a detailed situational analysis of the county was conducted. This was done sector by sector. The sectors were Population and demography, the Socio-economy, the Climatic condition, Relief and drainage, Geology and Soils, Land Cover, Agriculture, Settlements, Infrastructure, Utilities, Energy, the Economy, Urbanization and human settlements and finally the Governance and institutional framework. After this, a summary of all the Strengths, Weaknesses, Opportunities and threats as derived from all the sectors were discussed here as Synthesis of the situational analysis.

Chapter Four: The spatial development framework

Having done the synthesis, the section that followed aimed at the preparation of the plan. In order to do that, the process began by the preparation of the County framing structure which would guide development proposals in Kilifi County. This then led to the building of development scenario for Kilifi County. The development scenarios were then translated into three alternative scenarios which were later evaluated to assist with the selection of the best scenario which guided the preparation of the final Plan.

Chapter Five: Development strategies

Having prepared the Plan. There was need to deconstruct the plan into different sectors for a better understanding. The plan was therefore further divided and discussed into six sectors or strategies. The sectors are Human settlement, Trade and commerce, Improving and managing infrastructure, Improving and managing social services, the Education sector and the health sector.

Chapter Six: Action area plans

Having discussed and presented the sector strategies in detail, there was a need to demonstrate in further detail, how specific areas of interest of the county are to be developed. These outputs were to be presented as action area plans.

Chapter Seven: Implementation mechanism/Framework

This section focused on the demonstration of the nature of proposed projects in Kilifi County, their goals and objectives, their implementing agencies and their timelines.

Chapter Eight: The Capital Investment Plan

The Capital Investment plan demonstrates the estimated budgetary allocations of various projects of the county spatial plan. It also indicates how the funds shall be sourced and how the funding shall be phased.

Chapter Nine: Monitoring and Evaluation

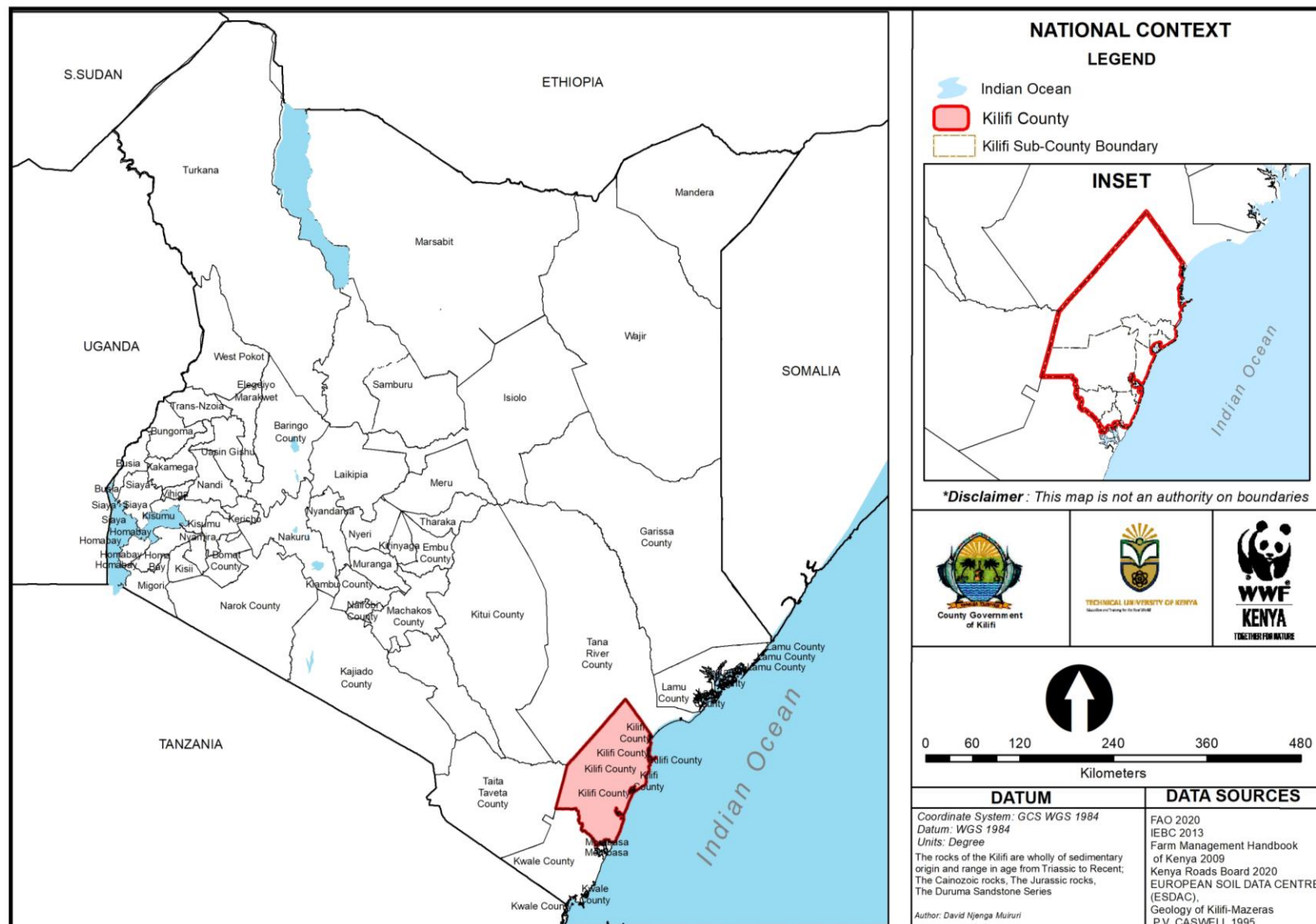
In order for the county spatial plan to be implemented within the proposed or reasonable timelines, the monitoring and evaluation framework has been provided for in this section.

1.5 Situational Context

Kilifi is located along the East African Coastline which extends from the horn of Africa to halfway Mozambique. From Kilifi County, one can access the rest of the regions through the Northern corridor to Ethiopia and to Northern Africa and through East and Central Africa corridor through Uganda to Central and West Africa. Through the Ocean, international sea routes links Kilifi to the rest of the world.

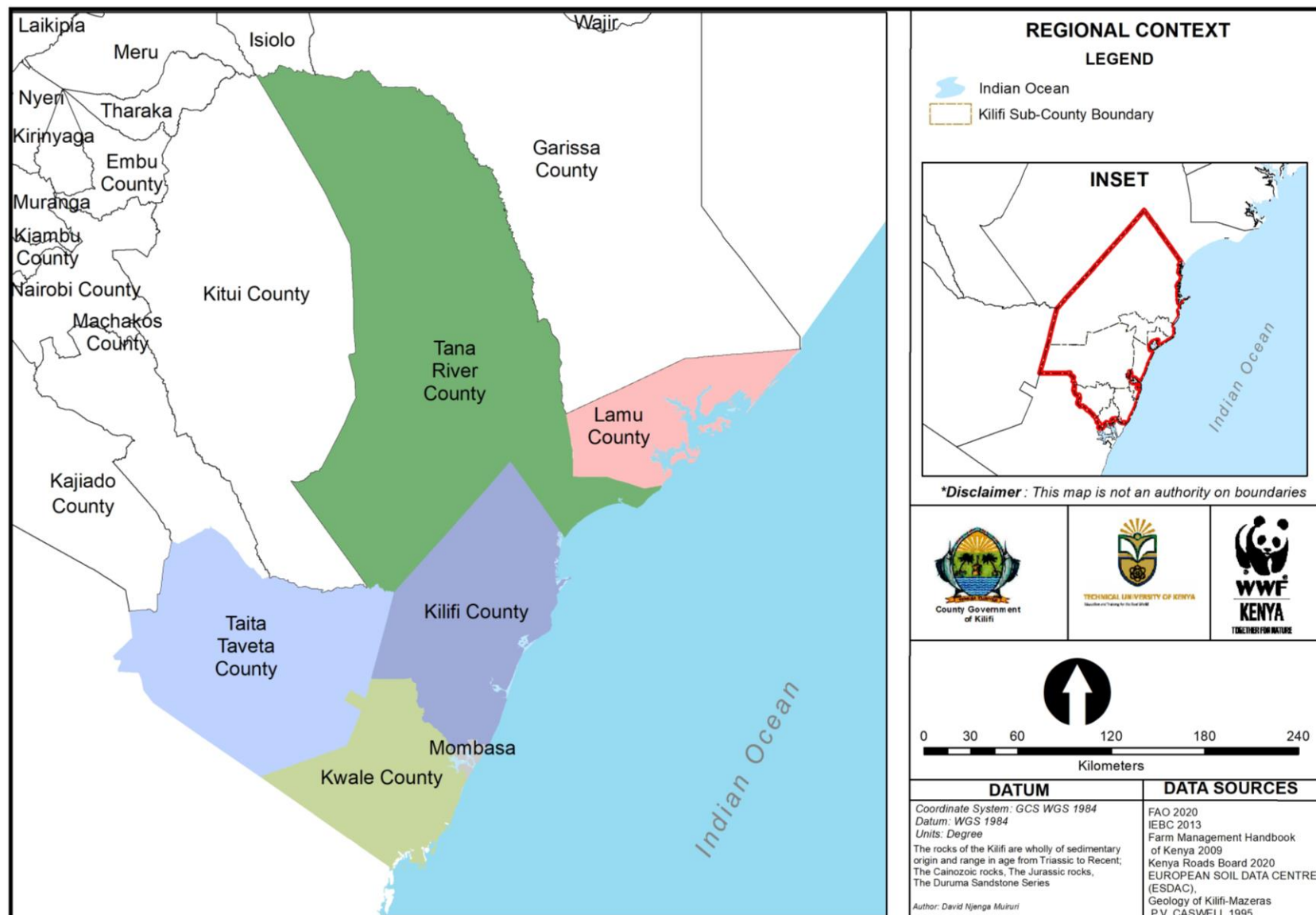
Kilifi County is one of the 47 counties of Kenya geographically bound by Latitude 3°38'0" South and Longitude 39° 51'0" E a s t. It is located along Kenya's Indian Ocean and is part of the six counties of the Coastal Zone. The county lies along the existing transport Corridor and is adjacent to the proposed LAPPSET corridor, which has a railway line, a class A Road and oil pipeline. On the Eastern land mass boundary, the A7 road runs along it linking the County to Mombasa, Lamu, Tana River, Garissa and to Ethiopia, Somalia, via North Eastern Kenya. There are seven sub counties in Kilifi which doubles as constituencies (Ganze, Kaloleni, Kilifi North, Kilifi South, Magarini, Malindi, and Rabai) The sub counties further subdivide to 37 wards. Map 1 and 2 shows the national and regional context. Map 3 is the base map of Kilifi County showing the distribution of all natural and man-made resources. Map 4 and 5 shows the subcounty and ward boundaries of Kilifi County.

Map 1: National Context of Kilifi County.



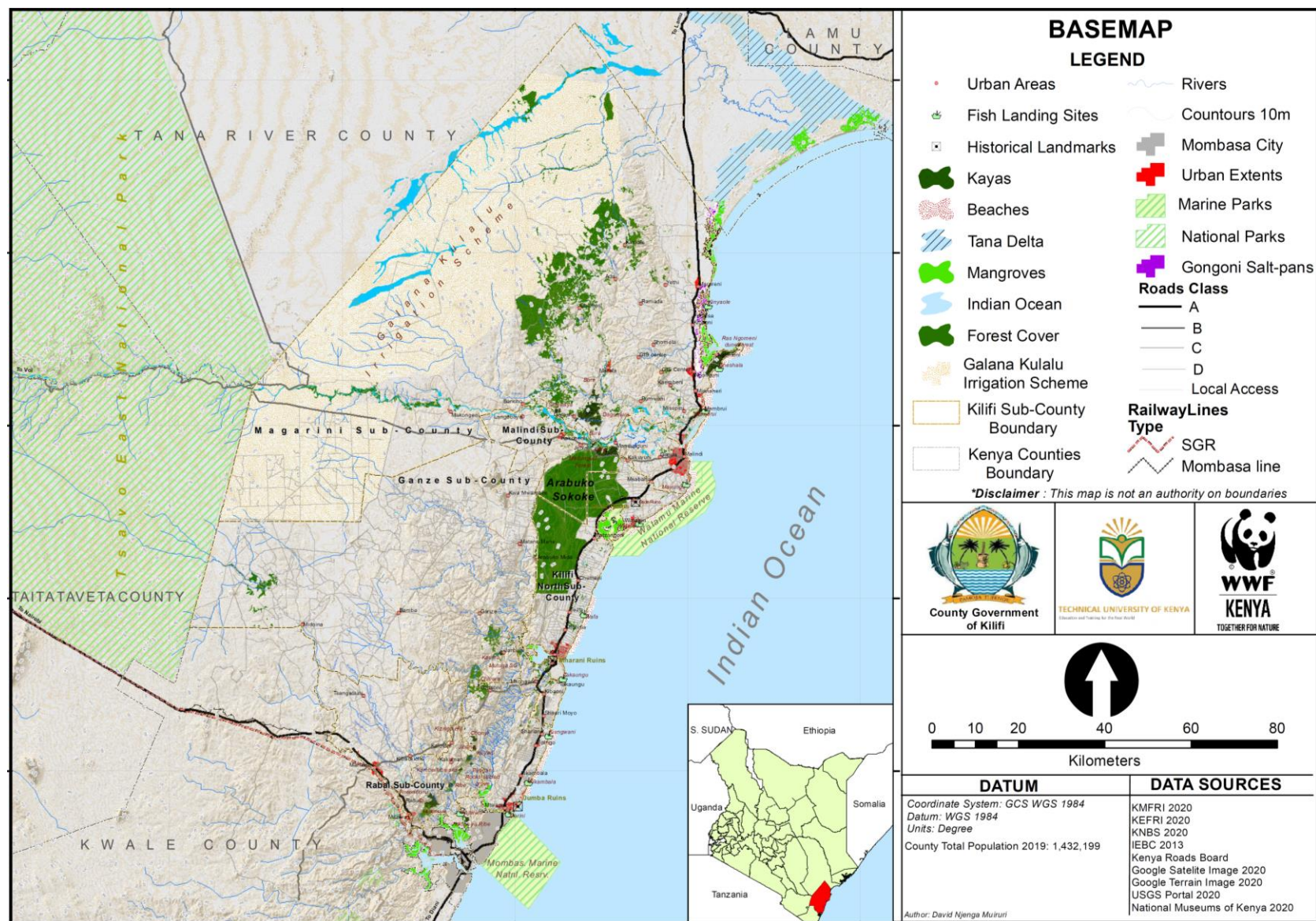
Source: Author, 2022

Map 2: Regional context of Kilifi County



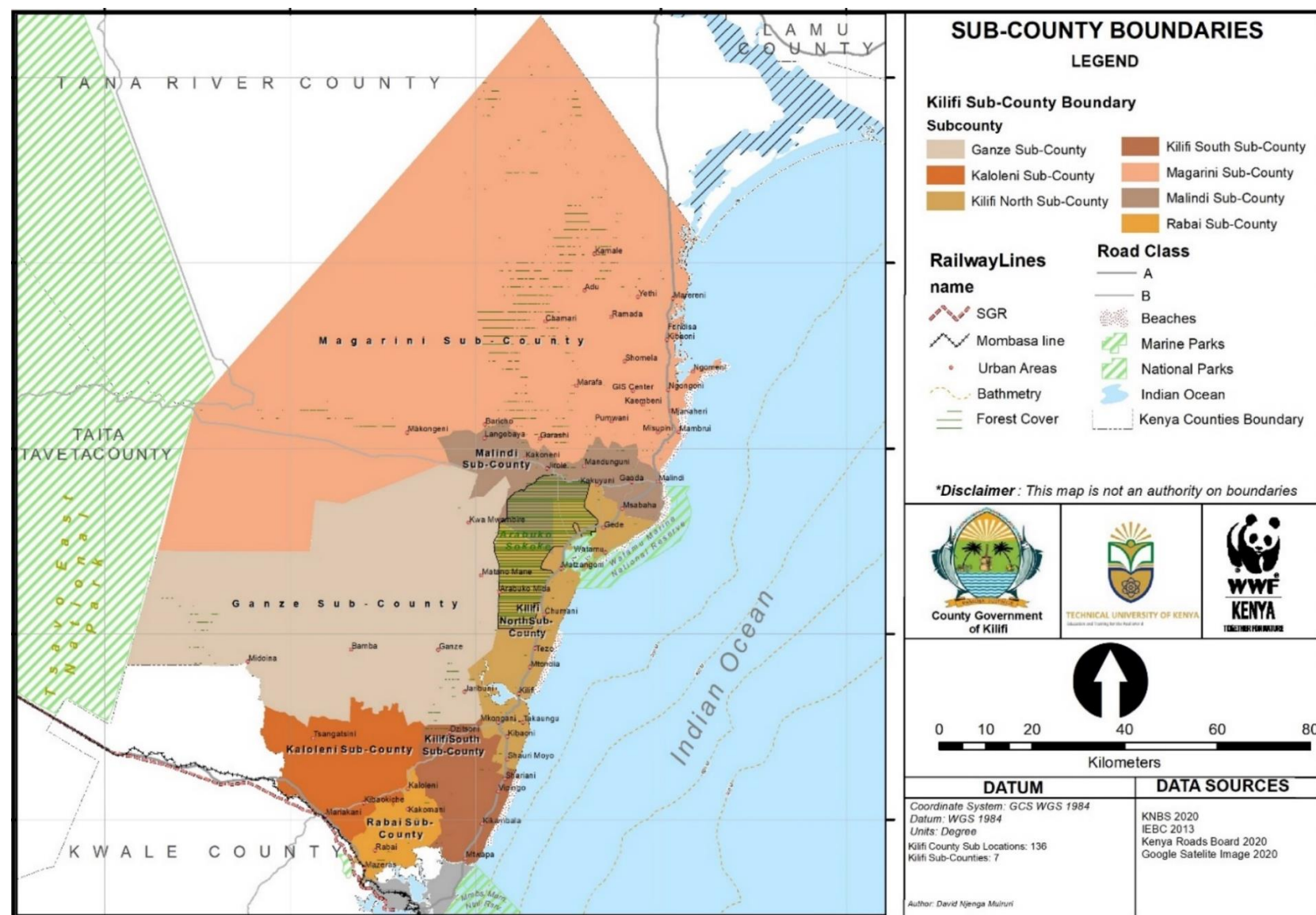
Source: Author 2022

Map 3: Kilifi County Base Map



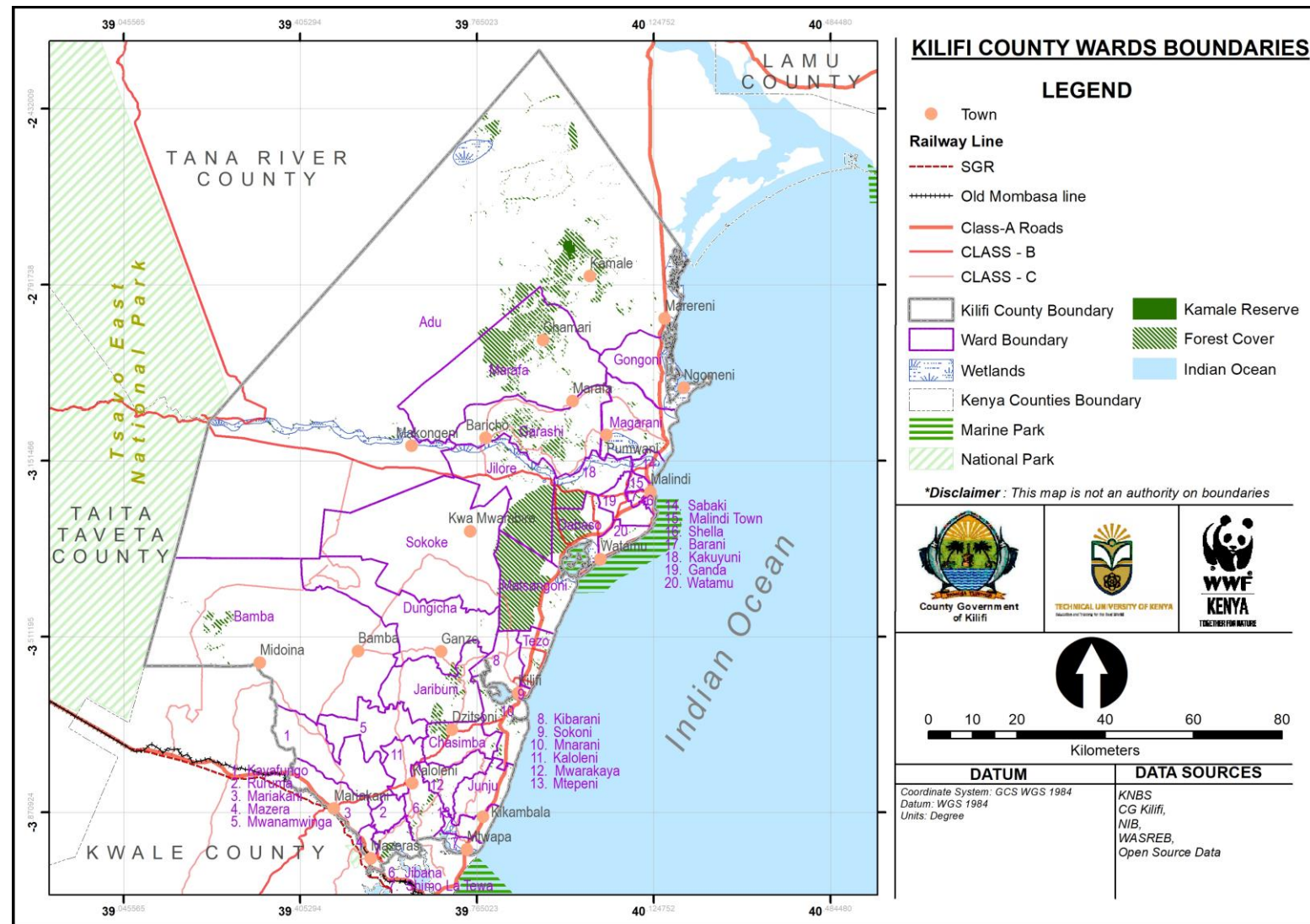
Source: Author 2022

Map 4: The Sub County Boundaries within Kilifi County



Source: Author 2022.

Map 5: Wards within Kilifi County

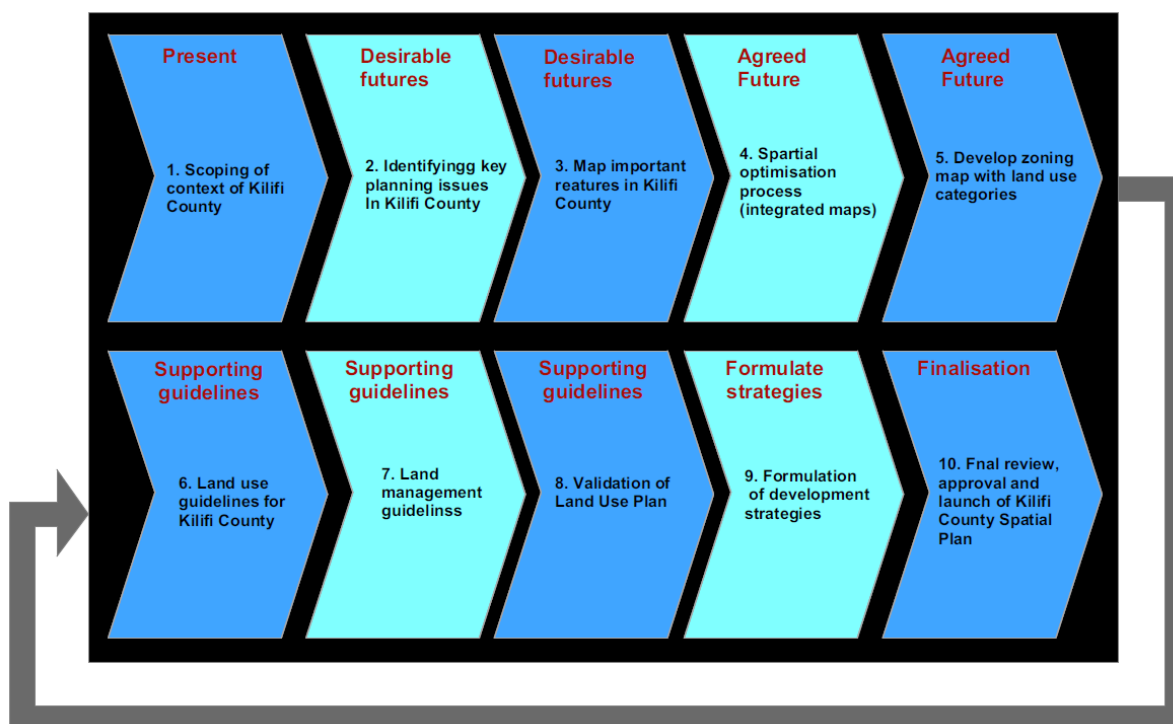


Source: Author 2022

1.1 Methodology

The preparation of Kilifi County Spatial plan followed a 10-step process as illustrated in the diagram below.

Figure 1: The process of preparing Kilifi County Spatial Plan



Source: Author 2022

1.2 Policy and Legal Context

1.2.1 Policy, legal and institutional framework

Spatial planning in Kenya is guided, controlled, regulated and performed under a framework created by policies, acts of parliament and regulations. This framework is divided into specific roles played by the National and County government created under Article 6 of the Kenya Constitution (2010). This section presents policy, legal and institutional framework for the preparation and implementation of the County Spatial Plan for Kilifi County.

1.2.2 The Constitution of Kenya (2010)

The Constitution of Kenya (GoK, 2010) provides a crucial basis for spatial planning in Kenya. It provides the roles that are specific to the National Government as well as those that are played by the County Government as indicated in the fourth schedule. Article 66(1) states that “The State may 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”. Further in article 67(1), there is established the National Land Commission whose mandate is outlined in article 67(2) that is to monitor and have oversight responsibilities over land use planning throughout the country.

1.2.3 The Physical and Land Use Planning act, 2019

The Physical and Land Use Planning Act (PLUPA) of 2019 provides for preparation and implementation of physical development plans (spatial plans) and for connected purposes. This Act is the basis for physical and land-use planning in Kenya.

The act categorizes Physical and Land Use Development Plans as National, Inter-County, County and Local Physical and Land Use Development Plans. The County Spatial Plan in this context is thus categorized as County Physical and Land Use Development Plan.

Section 36(1) of the Act states that once in every ten years, a County government shall prepare a county physical and land use development plan for that county. The act also states the Purpose, contents, special provisions to be inserted in County Physical and Land Use Development Plans, approval, and publication of approved regional physical development plan and amendments of approved regional physical development plan.

The first schedule of PLUPA provides for the content and procedural process for the preparation of County Physical and Land Use Development Plans. This County spatial plan has diligently adhered this legal requirement.

1.2.4 County Governments Act of 2012

County Government Act (CGA) 2012 defines the roles and functions of County Government. Section 104(1) provides that 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. This is further qualified in section 107(1) which provides that to guide, harmonize and facilitate development within each county there shall be the following plans;

- i. County Integrated Development plan
- ii. County Sectoral Plans
- iii. County Spatial Plan
- iv. Cities and Urban area plan as provided for under the urban areas and cities act

The content of the County spatial plan is provided for in section 110 of the County Government Act.

1.2.5 Land Act No.6 of 2012

This is an act of parliament to give effect to article 68 of the constitution, to revise, consolidate and rationalize land laws; to provide for the sustainable administration and management of land and land-based resources, and for connected purposes. According to this Act, “public land” has the meaning as signed by article 62 of the Constitution and includes the coast fore shore, river, dams, lakes and other reserves under the Survey Act (Cap.299) or under any other law; section 4(1) provides the guiding values and principles of land management and administration in this section bind all state organs, state officers, public officers and all persons whenever any of them;

- a) Enacts, applies or interprets any provisions of this act; and
- b) Makes or implements public policy decisions

In many ways, the Land Act provides a strong basis for aligning the county spatial plans to the provisions on land as stipulated in the Constitution of Kenya, 2010.

1.2.6 Environment Management and Co-ordination Act, No.10 of 1999

Environment Management Coordination Act (EMCA) Number 10 Of 1999 provides for the establishment of an appropriate legal and institutional framework for the management of the environment. General principles of the act are that every person in Kenya is entitled to a clean and healthy environment and has the duty to safeguard and enhance the environment. The entitlement to a clean and healthy environment includes the access by any person in Kenya to the various public elements or segments of the environment for recreational, educational, health, spiritual and cultural purposes which are all in line with the goal of Kilifi County Spatial Plan. The plan has provided for the management, protection and preservation of fragile environmental ecosystem such as the coast line, mangrove forests, rivers and wetland and other land resources.

1.2.7 Urban Areas and Cities (Amendment) Act, 2019

The act vests the responsibility of management of urban areas and cities to the County governments. The objective and the purpose of the act is to establish legislative framework for:

- i. Classification of areas as urban areas or cities
- ii. Governance and management of urban areas and cities
- iii. Participation by the residents in the governance of urban areas and cities
- iv. Other matters for the attainment of the objectives. The Kilifi County Spatial plan employs same methodology for classification of urban areas based on population and demand for services, which will be used to determine the level of investment for services provision within these urban centers.

1.2.8 The National Land Commission Act 2012

The Act makes provision as to the function and power of the National Land Commission, qualification and procedures for appointments to the commission and gives effect to the objects and principles of devolved government in Land management and administration. This act provides the National Land Commission, the role of oversight over land use planning as stipulated in section 5(1k).

1.2.9 Kenya Vision 2030

Vision 2030 is Kenya's national long-term development blue print to the year 2030. Spatial planning and development is at the core of the vision. The Kilifi County spatial plan aims at improving the living standards of all residents of the County.

1.2.10 SDGs

In the preparation of Kilifi County spatial plan, the Sustainable Development Goals were put into consideration. The plan aimed at achieving the following goals: No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Work and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities,

Responsible Consumption and Production, Climate Action, Life Below Water, Life On Land, Peace, Justice and Strong Institutions, Partnerships for The Goals

1.2.11 National Land Policy of 2009

The vision of the National Land Policy is to guide the county towards efficient, sustainable and equitable use of land for the prosperity and posterity. Its mission is to promote positive land reforms for the improvement of the livelihoods of Kenyans through the establishment of accountable and transparent laws, institutions and systems dealing with land. The County Spatial Plan endeavor to plan the county to attain the goals espoused in the National Land Policy. Part 3(103) recognized that land use planning is essential to the efficient and sustainable utilization and management of land and land-based resources.

1.3 Linkages with other Plans

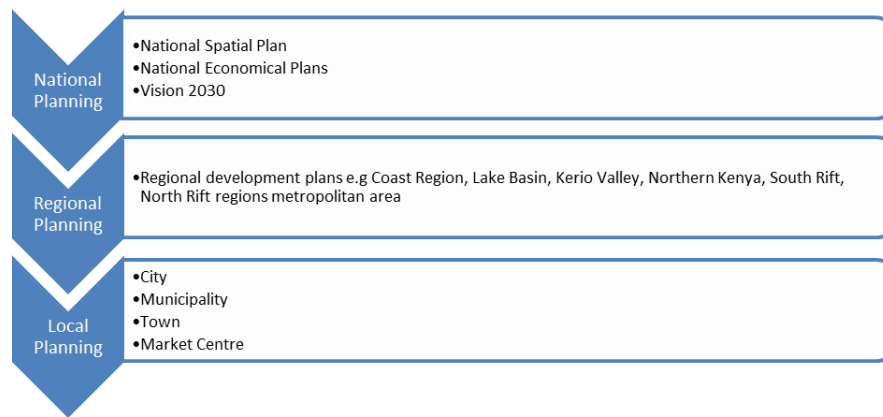
This plan was prepared in relation to the country's policy framework, Kenya Vision 2030 and the National Spatial Plan. It aims at establishing a long-term, sustainable framework for social, environmental and economic development in the country. The role of the National Spatial Plan is to enhance sectoral integration in areas such as housing, transport, energy, industry, and agriculture. It is also intended to improve local urban–rural development systems.

The Plan is also linked with the Kilifi County Integrated Development Plan (2018-2022) which is a basis for appropriating county public funds and integrates economic, physical, social, environmental and spatial aspects of our county. The CIDP Plan preparation is also guided by the Constitution, aspirations of Kenya Vision 2030 and its Third Medium Term Plan (MTP 2018-2022).

This plan is also linked with the Coast Region Master Plan (CRMP) which integrated development across all the counties of the Kenyan Coastline. The figure 2 below illustrates the various levels of planning in Kenya and how they are linked with the Kilifi County Spatial plan.

The Kilifi County Spatial Plan is also linked to the Kenya Coastal Development Project – KCDP which is a multi-sectoral development project financed by the World Bank and the Global Environment Facility, hosted by the Kenya Marine and Fisheries Research Institute (KMFRI) and implemented by seven Government Agencies. The Project Development Objective (PDO) is to improve management effectiveness and enhance revenue generation of Kenya's coastal and marine resources. Figure 2 shows the various levels of planning in Kenya.

Figure 2: Levels of planning in Kenya



Source: Author 2022

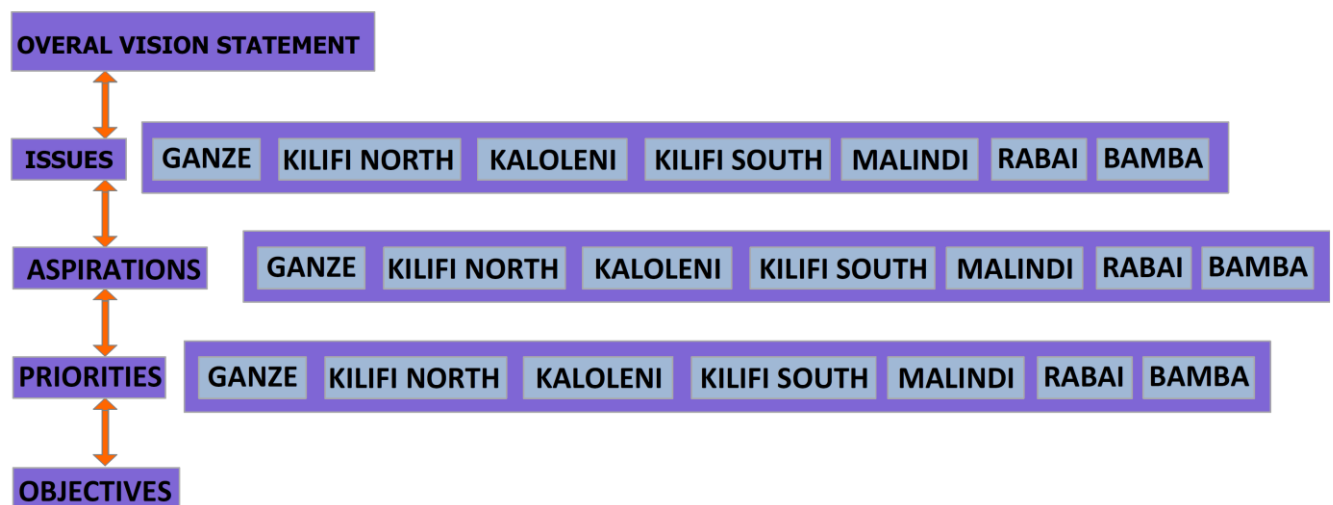
2 Chapter Two: The Strategic Direction

This section describes how the visioning and development strategies for Kilifi County were arrived at. It then gives the final and agreed vision statements and strategies for Kilifi County.

2.1 Vision Statement

The vision statement was derived through an inclusive process that covered all the sub counties. The process involved the incorporation of the county objectives and the sub county issues, aspirations and priorities. The figure below describes how the visioning process was undertaken.

Figure 3: The visioning process for Kilifi County



Source: Author 2022.

The vision statement of Kilifi County is therefore:

To be a leading, vibrant, highly productive, secure and prosperous county providing a high quality of life for all its residents.

2.2 Mission

The county will provide the environment for efficient utilization of resources, effective provision of essential services, and industrial growth and development initiatives for improved quality of life for all.

CORE VALUES

- (a) Honesty, Integrity and prudent use of public resources
- (b) Team work and appreciation for diversity
- (c) Environmental Sustainability
- (d) Good governance, transparency and accountability
- (e) Equity, inclusive people-driven leadership
- (f) Use of ICT and innovation
- (g) Hardwork
- (h) Harmonious and peaceful existence.

2.3 The specific objectives

The specific objective of the plan entails the following key activities:

- (a) To conduct an elaborate stakeholder engagement throughout the County.
- (b) To carry out detailed situational analysis of the current physical, environmental demographic, socio-economic, and cultural characteristics of the County
- (c) Identify and suggest development and investments priorities.
- (d) Describe policy frameworks and development strategies the County will adopt to address the current and future development needs and challenges as identified and prioritized by County stakeholders.
- (e) Prepare a ten-year County Spatial Development Framework to facilitate the opening up of the county.
- (f) Formulate strategies for key sectors including: education, health, transportation, trade/commerce, urbanization, industry, tourism, cultural and heritage preservation, environmental conservation and disaster management.
- (g) Suggest a resource mobilization and management framework.
- (h) Suggest an institutional framework and organizational structures.
- (i) Prepare an implementation plan that clearly outlines a clear schedule of deliverables, a capacity building for plan implementation and provisions for monitoring and evaluation.

2.4 Strategic Objectives

The Plan's strategic objectives include;

- (a) To provide framework for the management and regulation of the use of land and to guide day to day planning decisions.
- (b) To protect and nurture the County's natural resources, cultural heritage, landscape and other amenities in accordance with plans and policies that will be developed in order that the full potential of the county can be realized.
- (c) To formulate settlement strategies that will direct new investments in a manner that is sustainable (development that is accessible, energy efficient and supported by high quality infrastructure and services) for the initial period 10 years and beyond
- (d) To facilitate countywide economic regeneration by providing opportunities for employment creation at locations that are near to the majority of the county's inhabitants
- (e) To protect the county's inhabitants by encouraging safe and environmentally friendly industrial investments and by ensuring sustainable exploitation of local resources
- (f) To formulate a framework for provision of high-quality physical as well as social infrastructure to trigger and support appropriate development within the County

2.5 Principles of the Plan

The Kilifi County Spatial Plan was guided by the following precepts;

- (a) **The link between spatial quality and sustainability** - The quest to prepare a County Spatial Plan was informed by appreciation of the central role of space as a coherent basis for integrating all socio-economic courses of action and developmental initiatives of man.

The link between spatial quality and sustainability cannot be understated. Consequently, the Plan's adopted spatial framework will serve as the basis for ensuring, and guaranteeing the efficient realization of policy aspirations and programmatic interventions of the County government.

- (b) **Integrated** - The adopted planning approach acknowledged an inherent nexus between economic, social, cultural and environmental dimensions of development, and their integration as imperative to the overall attainment of desired policy goals. In spite of the Plan's spatial inclination, the adopted planning approach advocated a vision formulation process that integrated diverse policy and sectorial concerns of the County and its stakeholders.
- (c) **Inclusive** - The planning approach acknowledged that the development processes and outcomes are subject to the collective decisions that individuals and organizations make on a daily basis. Likewise, it recognized the potential value that local knowledge, attitudes and perspectives can add to planned outcomes. Ultimately, the success of any plan is measured against its ability to influence local decision processes towards more positive outcomes. Consequently, the adopted planning approach advocates for open and inclusive planning processes that enlist the active, effective and meaningful participation of diverse stakeholder interests in vision-building, strategy, and programme formulation and implementation processes. Diverse stakeholder's forums and workshops were undertaken to not only involve but also take in their invaluable insights to inform the plan formulation.
- (d) **Flexibility** - The planning approach also acknowledged that developing contexts such as Kilifi County are subject to constant change, and as such, they are fluid and dynamic. Consequently, the adopted planning approach, even while responding to opportunities, needs, and priorities of the local populace, made cognizance of uncertainties shaped by the altering dynamic during the entire plan period. Ultimately, the plan itself and adopted strategies of intervention, have a flexible outlook and inbuilt capacity for adaptation in response to changing realities of setting and context, as well as changing priorities of local people.
- (e) **Selectivity** - The challenging resource environment in which institutions in developing contexts such as Kilifi County Government operate demanded a selective approach. Consequently, the planning approach, even while seeking to respond to local aspirations, appreciated uncertain circumstances, limited organizational capacities, inadequate resource endowments and undeveloped competencies of local institutions. In turn, the offered programme of action needed to be supported by strategic and selective implementation processes.

3 Chapter Three: The Existing Situation

This section focuses on understanding the existing condition of various sectors of development of Kilifi County.

3.1 Population and Demography

The focus here is on the population structure, projections and distribution within the sub counties.

3.1.1 Population Size, Household Sizes and Household Formation

Kilifi County has a total population of 1,453,787 (KNBS 2019) which constitutes 3.1 percent of the National population. 52 percent of this population comprises of females (749,673) while 48 percent comprises of males (704,089). The population in Kilifi County ranks at 6 out of 47 counties in Kenya. It also shares 2.6 percent of the national urban population with a ranking of 9 out of the 47 counties (KNBS 2019). Malindi has the highest population while Kauma has the lowest. There are 298,472 households in Kilifi and the average household size is 5.6, 1.2 higher than the National household size of 4.4. The table below shows population structure at the sub-County level.

Table 1: Population distribution, density, age and gender structure.

Sub-County	Male	Female	Total Population	House Hold size	Population density (No/sq. km)	Sex Ratio
Rabai	58,571	62,242	120,813	4.9	581	1.063
Malindi	163,351	169,866	333,217	4.4	147	1.04
Magarini	93,302	98,308	191,610	5.8	37	1.054
Kilifi North	97,951	103,509	201,460	4.5	676	1.056
Kaloleni	92,614	101,063	193,677	5.3	274	1.091
Ganze	66,921	76,981	143,902	6.2	45	1.15
Kilifi South	131,379	137,704	269,083	3.8	712	1.030

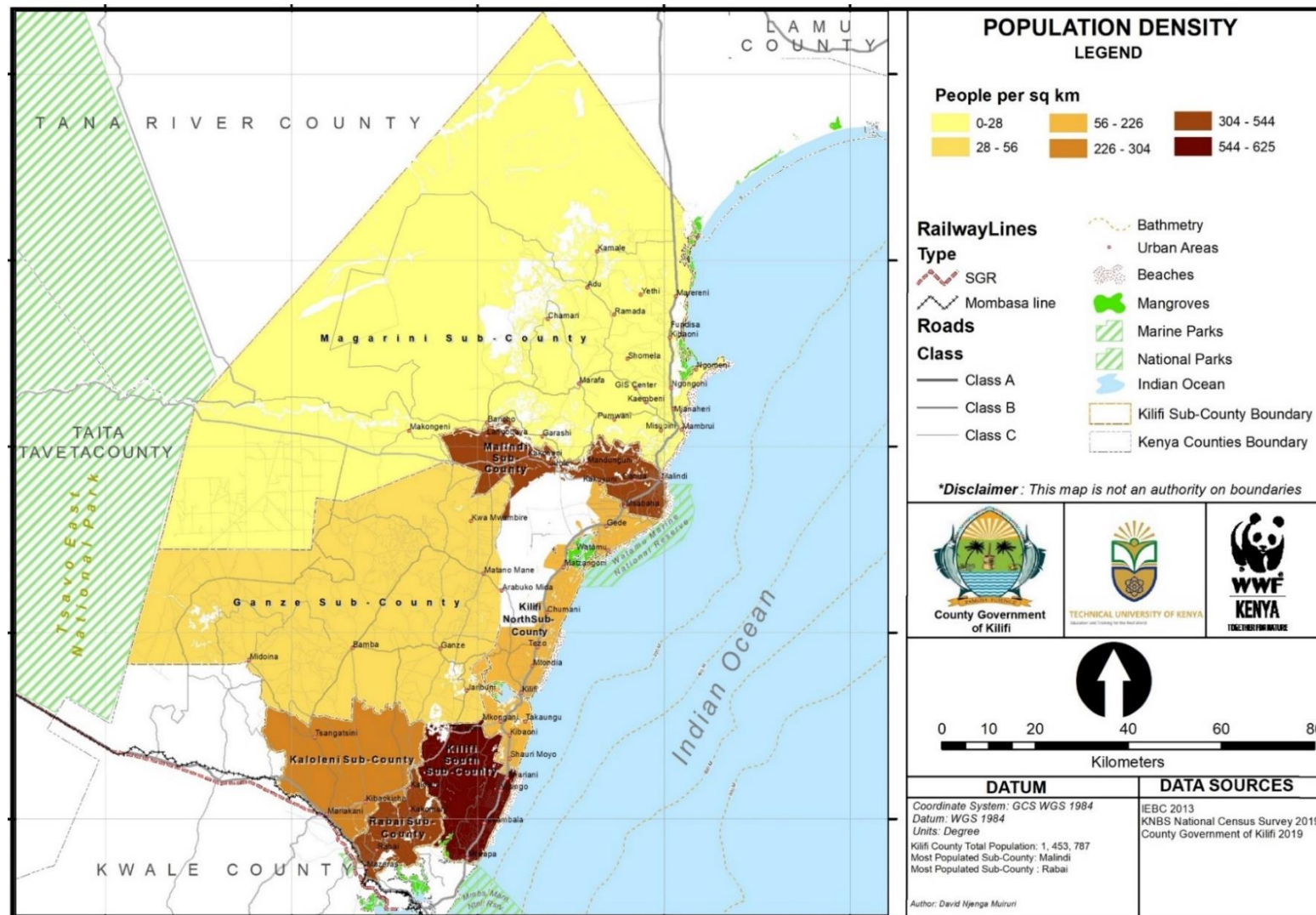
Source: 2019 census report

High potential zones and the coastline are heavily settled compared to other parts of the County. Areas such as Kaloleni, Rabai and almost the entire stretch of the coastline are densely populated compared to drier parts of Magarini and Ganze which are sparsely populated. There is a series of ridges north to south that are found at the mid- section of the County, which bounds the high potential zones to the coastline. Approximately 60 percent of the population of the County is settled here.

Population density is at 119 persons/km² for the entire County. As implied earlier, population density is varied where high potential zones have higher densities compared to less potential zones. However, the population of Ganze and Magarini are large because of the sheer size of the sub-counties.

Source shows population densities per sub- County for Kilifi County.

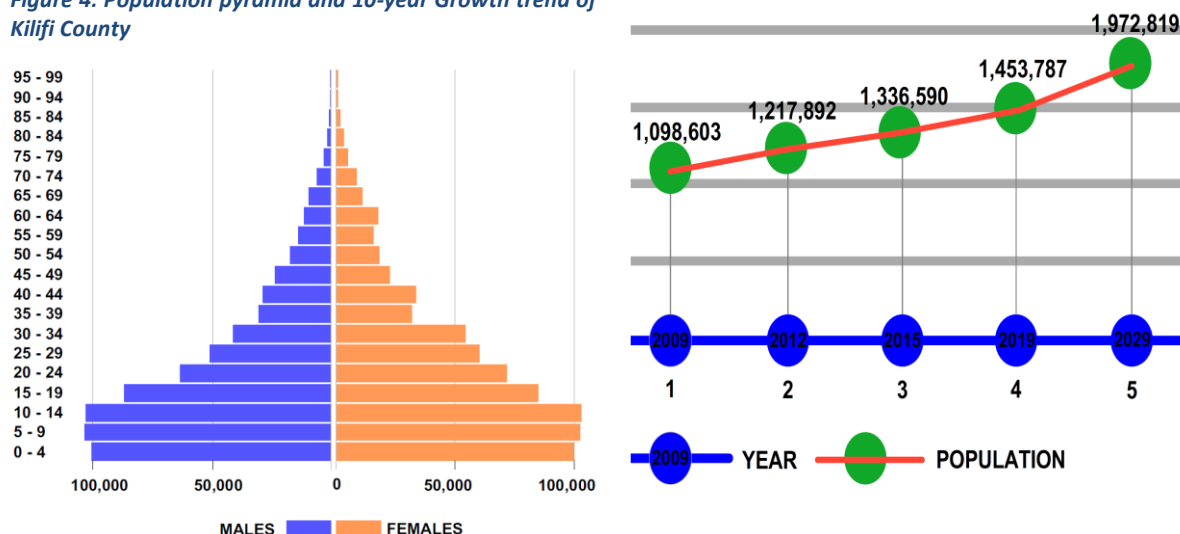
Map 6: Population density



Source: Author 2022.

The gender structure reveals the female population being slightly higher than their male counterparts with statistics of 52 percent and 48 percent respectively. The dependent population which comprises of those below 15 years and above 64 years' accounts to 50 percent of the population. Kilifi County has a child rich population, whereby 0 -14-year-old constitute 42 percent of the total population. This is as a result of high fertility rates among women as shown by the highest percentage household size of 7+ members at 36 percent. The County's age structure goes in tandem with the National structure such that those below age of 30 years are in the ration 3:1 to older generation. A ten-year projection of the population shows that by 2029, the total population of the County will be 1,972,819 persons. **Error! Reference source not found.**Figure 4 Shows the population pyramid and growth trends respectively.

Figure 4: Population pyramid and 10-year Growth trend of Kilifi County



Source: 2019 census report

Life expectancy in Kilifi County is 56 years (KDSP 2005/2010). This is slightly lower than the National life expectancy, which is 59 years. The low life expectancy can be attributed to malnutrition, natural calamities (flooding, famine) and diseases.

The challenge facing the County is ensuring that the dependent population have basic needs such as health, adequate housing, reasonable sanitation standards adequate food, social security, education, safe and clean water as stated in the Chapter Four of the Kenyan Constitution on Bill of Rights 43(1).

3.2 Socio-economic Indicators

This section focuses on the social and economic activities taking place within Kilifi County.

3.2.1 Economic Activities

Traditionally, the Mijikenda people engaged in agriculture, fishing and pastoralism for livelihoods. Currently, crop farming is still the main economic activity with coconut crop being the most cultivated. In high potential zones, the level of crop farming is intense in areas around, Kaloleni, Rabai, Chonyi and along the Coastline south of Malindi town.

Farming is largely for subsistence purposes while a few large-scale farming is mostly done by companies.

The opportunity presented by the Indian ocean together with improving fishing methods has seen fishing activity grow as the main economic mainstay for communities along the Coastline. Trade is another component of economic livelihood for the communities of the County. The growth of urban settlements in the County has not only increased the trading activities but also the increased sophistication of the level and type of trade.

The type of economic activities the people in Kilifi engage in is determined by educational level. The highly educated in the County are formally employed in higher proportion compared to those with lower education levels. The table below summarizes the nature of employment by education levels in the County.

The table below describes the different employment patterns within Kilifi County

Table 2: Employment patterns in Kilifi County

Education Level	Work for pay	Family business	Family agricultural holding	Intern/ volunteer	Retired/ homemaker	Full-time student	Incapacitated	No work	Number of individuals
Total	24.8	12.2	22.3	1.3	17.1	13.7	0.5	8.1	544,445
None	15.8	11.8	35.5	1.7	26.0	0.4	1.2	7.7	144,005
Primary	23.2	12.0	21.0	1.1	15.7	18.5	0.4	8.2	281,751
Secondary	39.4	13.0	9.4	1.3	9.5	18.6	0.2	8.6	118,689

Source: Adapted from Kilifi County inequality report 2013

From the table above, it's clearly shown that the higher the educational level, the higher possibilities of deriving income from pay while at the same time, the less educated are relegated to family agricultural farming. Northwestern and southern parts of the County show wide inequality of 0.6 and 0.3 respectively. The figure below shows the various Socio-economic activities within Kilifi County.

Figure 5: Socio economic activities in Kilifi County



Source 1: Field survey 2015

The explanation to the economic inequality prevailing in Magarini, Ganze to the other areas like Rabai, Kilifi south, Kilifi North and Malindi is attributed to prevailing climatic conditions, level of economic activities and social factors such as education and health. Areas with high economic inequality are characterized by harsh climatic conditions, which have resulted in low productivity hence reduced economic value and opportunities. Notwithstanding, the numerous economic opportunities created along the coastline through trade and commerce, tourism, agricultural activities and fishing is accessible to a wide majority of people in these areas.

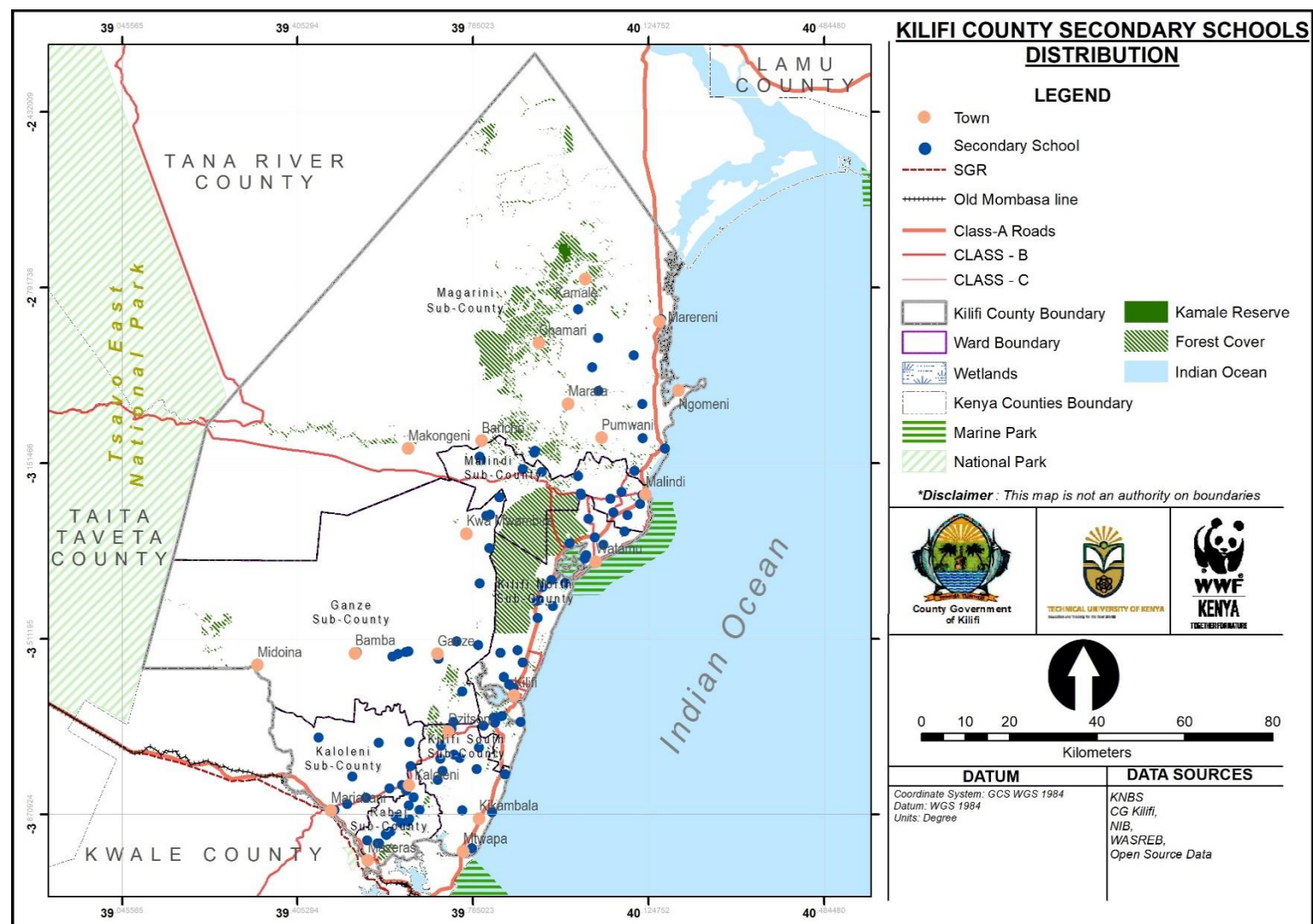
3.2.2 Social Services

(a) Education sector

Education in Kenya is offered at three levels; Early Childhood Education (ECD), Basic Education (primary and secondary schools) and higher education which includes tertiary system comprised of polytechnics and universities. According to the Constitution of Kenya, 2010, early child development, adult education and vocational training is a devolved function which should be handled by the Kilifi County Government. Both Basic Education and Higher education is a function of National Government.

Kilifi has a total of 1550 ECD centers (777 public centers and 773 private centers) with a total enrollment of 58,628 pupils. On the other hand, there are 41 vocational training centers spread across the County with a total enrollment of 5494 students. These centers offer various vocational courses bringing learning closer to the people. Kilifi County has an established system promoting both Early Child Development (ECD) education and Vocational training. The main challenge facing the education level is low staffing levels. Map 7 shows the distribution of secondary schools in Kilifi County.

Map 7: Distribution of secondary schools in Kilifi County



Source: Author 2022

(b) Health Sector

Kilifi county has a total of 1,453,787 persons as per 2019 population census. The population is projected to be 1,887,601 by the year 2031 with a growth rate of 2.2 percent shown by the KNBS estimated population annual progress. Based on the Ministry of Health norms and standards guidelines, every citizen should access health facilities within their area of operation. The catchment population requirement is indicated in the table below.

Table 3: Classification of Health Services in Kilifi County

Catchment population /Norms	Tertiary Referral Hospitals	Secondary Referral Hospitals	Primary Referral Hospitals	Primary care level		Community level
	Level VI	Level V	Level IV	Health Center/ Level III	Dispensary/Level II	Community Health workers/Level I
	5,000,000	1,000,000	100,000	30,000	10,000	5,000
Demand	1	2	18	63	189	378
Available	0	2	3	15	132	Data Not available
deficit	1	0	14	48	57	

Source: 2019 census report

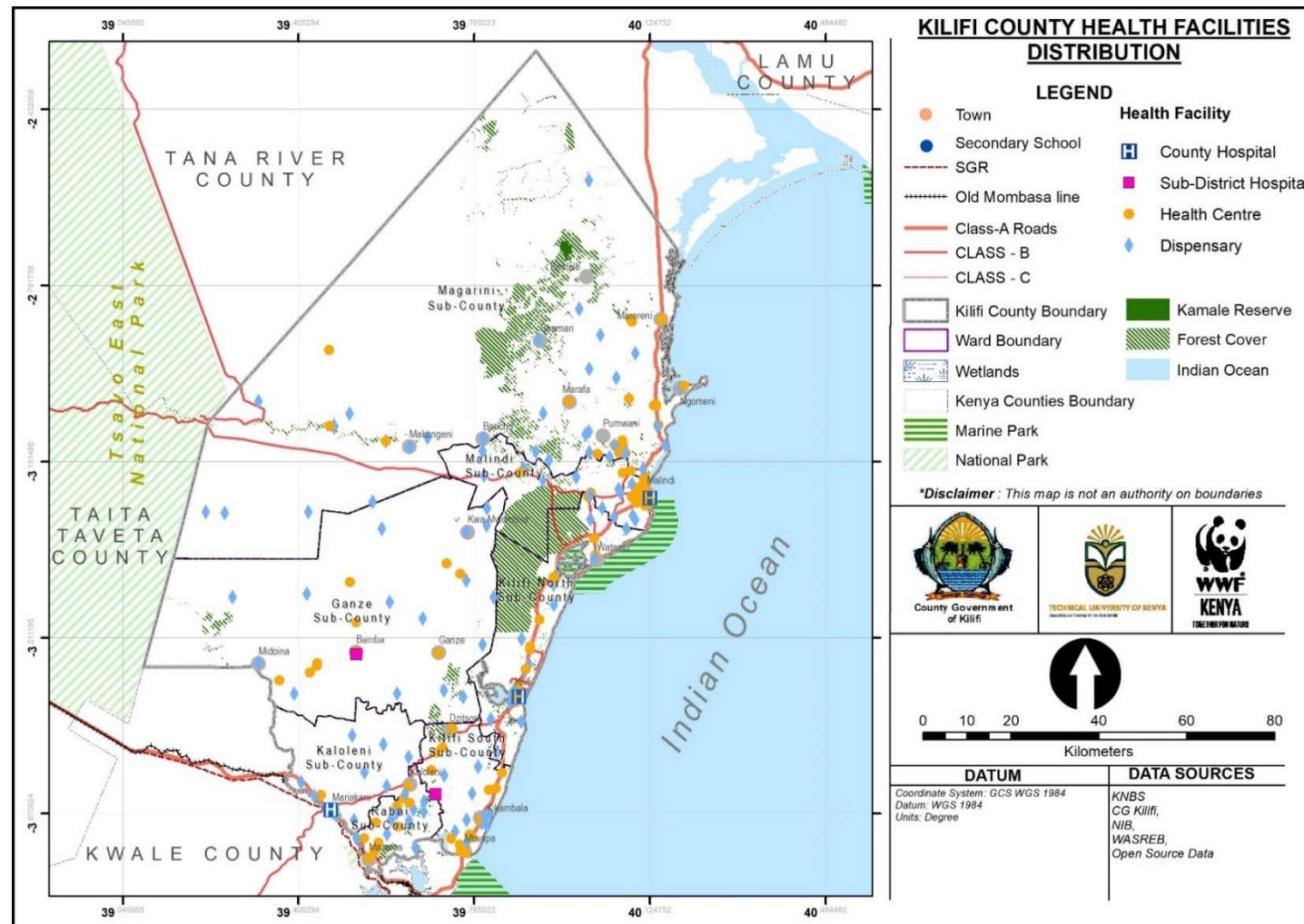
Level I

This level is composed of trained and dedicated community health workers who offer services and counselling on matters child and mother health, community health among others. The Ministry of Health recommends one community health worker for a population of 5,000 persons. Based on these norms and standard, Kilifi should have a total of 378 health workers stationed at village level whereby Mother Child Care (MCH) services can easily be offered. Besides, every village should have a committed and trained community health worker attached to the dispensary.

Level II and Level III

Primary health care is provided at level II and level III. They form the basis for promoting preventive measures and curing basic ailments. There are a total of 132 level II facilities in Kilifi against demand of 189 facilities, thus implying a deficit of 57 facilities. For level III facilities, there are 15 established facilities against a demand of 63 facilities giving a shortage of 48 facilities. Map 8 Shows the distribution of health facilities in Kilifi County.

Map 8: Distribution of health facilities in Kilifi County



Source: Author 2022

3.2.3 Culture

Community Composition

The Communities of Kilifi are predominantly the nine subtribes of the Mijikenda which include Rabai, Kauma, Kambe, Digo, Duruma, Ribe, Giriama, Chonyi, and Jibana. Other communities in Kilifi include the Swahili, whose ancestry is the intermarriage between the Mijikenda and the Arabs. The rural areas are predominantly occupied by the Mijikenda, however, urban centers particularly those along the coastline, have had an influx of other communities from the rest of the country.

(a) Community Organization and Cultural Practice

Prior to the mid-nineteenth century, each Mijikenda group lived together in or near its own Kaya. Each kaya was located in a cleared, circular glade on a hilltop, surrounded by dense forest. At the center of the kaya were the meeting houses of the different clans. The clans played a central role in kaya affairs. Each clan had its own area within the kaya and its own specialized function. The sub clans were not important political units, but they played an important role in the social life of the Mijikenda, particularly with regard to the organization of major social events, such as weddings and funerals. Figure 6 shows some of the cultural practices within Kilifi County.

Figure 6: Cultural practices in Kilifi County



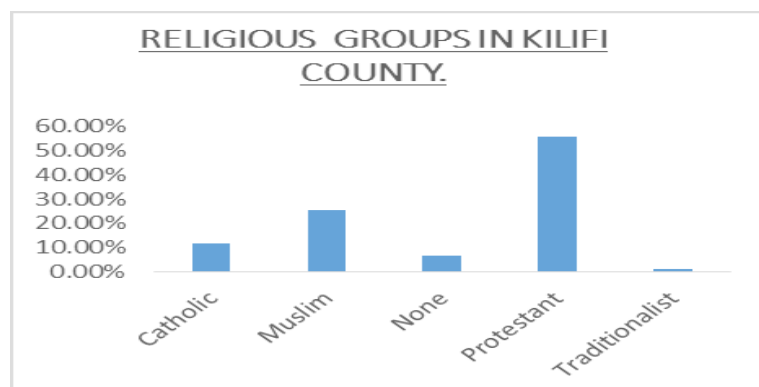
Source: Field survey 2015

(b) Religious Composition of Kilifi County

The most common religious group in Kilifi County are the Protestants followed by Muslims,

Catholics and finally traditionalists. The figure below illustrates the distribution of religious groups in Kilifi County. Map 9 shows the distribution of various sports and cultural facilities within Kilifi County. Figure 7 shows the distribution of religious groups within Kilifi County.

Figure 7: Distribution of Religious groups in Kilifi County

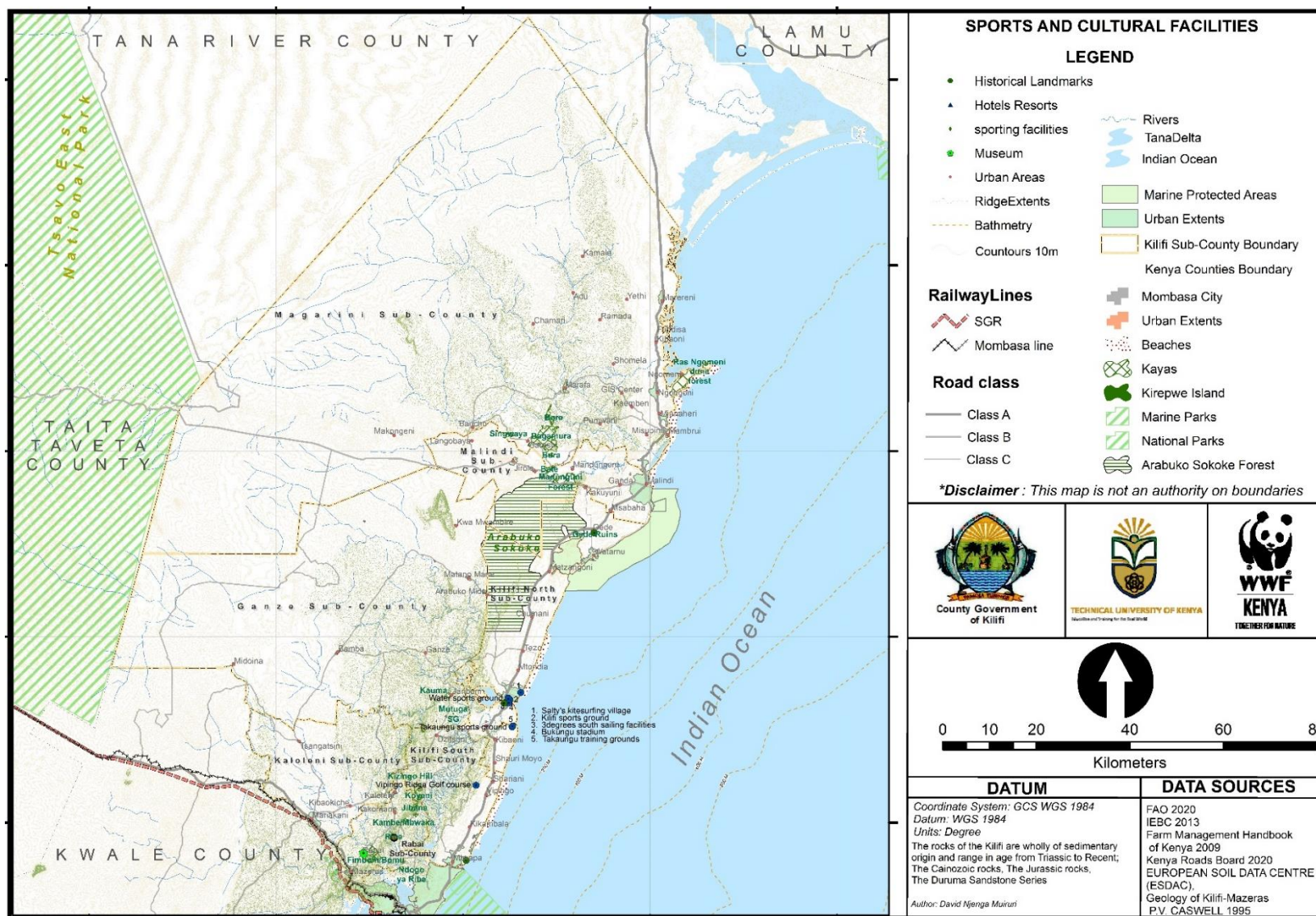


Source: Field survey 2015

(c) Impacts of Cultural Practices on Development

- Retrogressive cultural practices such as early marriages, witchcraft, gender relations etc. have impacted the level of education, school dropouts, girl child growth and development and have contributed to increased levels of poverty and low skill labour pool within the County.
- Good cultural practices such as preservation of cultural shrines, heritage, and good practices have promoted the growth of tourism in the County hence created opportunities for income generation for majority of residents such as tourism hence promoting economic development.
- Modern practices and lifestyles have impacted positively on the education, health services, employment opportunities, and improvement on means of production.
- Negative influence on the culture is the erosion of good cultural practices and adoption of Western cultures that are at odds with the good cultural practices of the communities. Some of the negative aspects include promotion of prostitution, gay marriages, disregard of faith and trust in higher power etc.

Map 9: Sports and cultural facilities in Kilifi County.



Source: Author 2021

Issues and Prospects in the Socio-economic sector

Table 4: Issues and prospects in the socioeconomic sector.

Sector	Issues/challenges	Prospects
Population and Demography	<ul style="list-style-type: none"> • Large young Population. • Skewed population in favor of the coastline. • Unutilized potential of the population. 	<ul style="list-style-type: none"> • The developmental needs and services of this population should be articulated in the plan. • Addressing imbalances in the population distribution. • Reorganization of the human capital.
Socio-economic	<ul style="list-style-type: none"> • Slow transition from primary to secondary and later to higher education. • Schooling is directly impacted by economic ability of the families. • Poor quality of educational facilities resulting in low education quality. • Health indicators such as mortality, maternal and life expectancy are still not at par with national levels. • Inadequate health infrastructure with respect to serving population. • Low level of awareness and ignorance on health issues. 	<ul style="list-style-type: none"> • School retention strategy should be addressed by the plan to curb this challenge. • Empower communities to reduce high levels of poverty which is affecting education standards. • Improve both physical and human resources in education sector to improve the quality. • Address root cause of the prevailing indicators. • Adequately plan for health infrastructure across the County to address the shortage and resultant quality. • Develop an awareness and campaign strategy to address the problem.
Culture	<ul style="list-style-type: none"> • Declining cultural practices. • Cultural erosion. • Unexploited diverse culture. 	<ul style="list-style-type: none"> • Unlock the rich cultural resource of the County. • Isolate and eliminate the needless cultural practices.

Source: Author 2021

3.3 Climatic Condition

The weather is generally warm throughout the year (above 25⁰C) with two seasons of moderate rainfall (about 800- 1000mm). Long periods of rain start around March and last into July, while the short periods start around October and last until December.

3.3.1 Rainfall Patterns, Amount, Distribution & Seasons.

Kilifi County climatic conditions are determined by two major factors, which are its location along the Indian Ocean Coastline and its position along the tropics as indicated in Map 10.

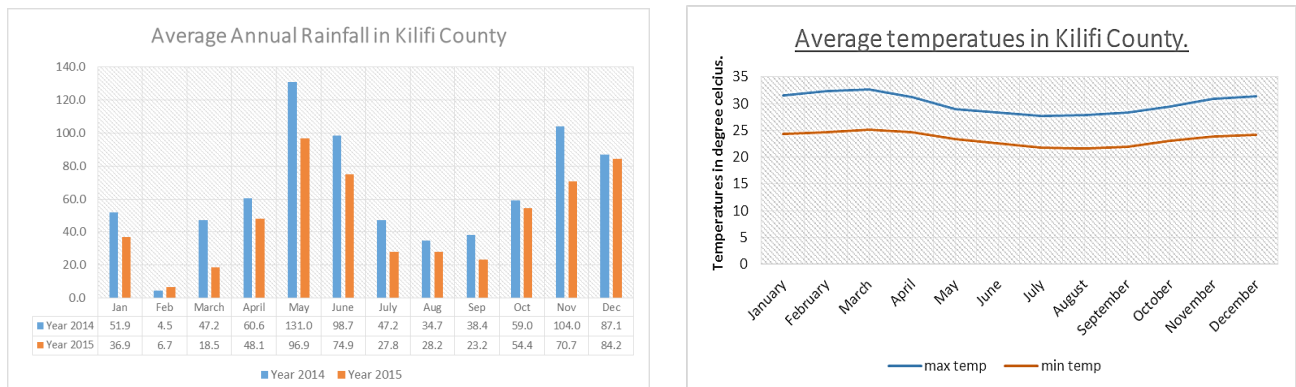
The County experiences two rain seasons, the long rains and the short rains. The long rains are between the months of March and May while the short rains are between October and November. The highest

rainfall amounts are experienced during May (128.85mm) and the driest month is February (8.45mm). The annual rainfall amounts are 1200mm along the coastline and 600mm in the hinterland.

3.3.2 Temperatures and Humidity

The County is generally hot and humid all the year round with average relative humidity of 60 percent along the coastal belt. July and August are the coolest months with pleasant temperatures in the range of 24°C to 26°C. The diagram below shows the annual rainfall and temperature distribution within Kilifi County.

Figure 8: Average rainfall and temperatures in Kilifi County for the year 2014 and 2015



Source: Adapted from National Drought Management Authority 2016.

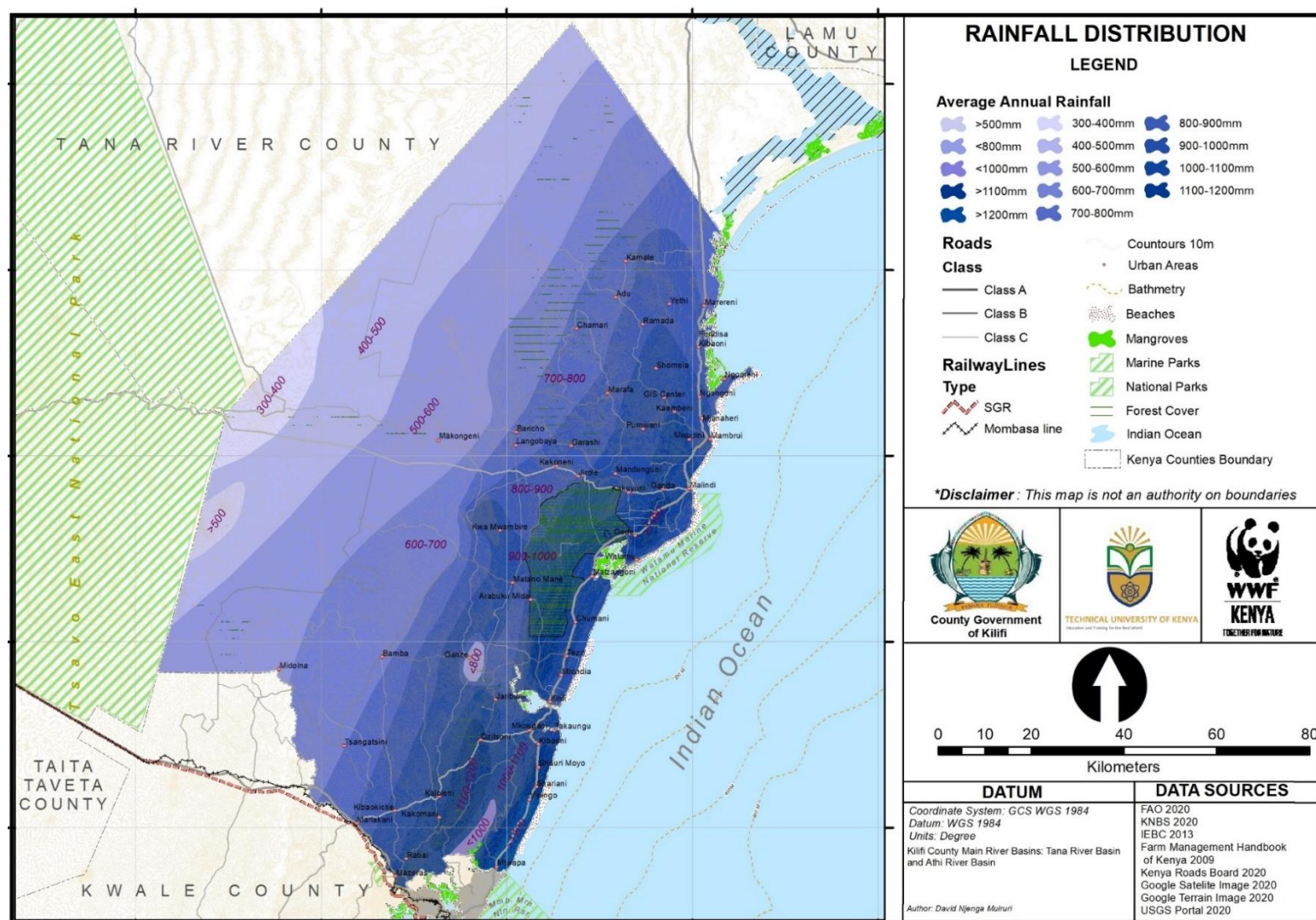
3.3.3 Wind Direction and Speed

Prevailing winds blow from South and East. The average wind speed is 160km/h per day. The Southeast Monsoon wind is responsible for the long rains period in April and May. From May to October winds blow from the South causing rain around L. Victoria region, meanwhile, the coastal region does not experience rain during this period. From November to March winds blow into the low-pressure belt, from Northeastern direction.

3.3.4 Climate Change and Variability

This awakening has been occasioned by an intensification and frequency in occurrence of extreme weather events such as rising in temperatures and severe droughts and floods. Tourism is mainly disrupted during floods which cause impassable roads.

Map 10: Rainfall distribution



Source: Author 2021

3.4 Relief and Drainage

The drainage pattern for Kilifi County is formed by seasonal rivers, which drain into Sabaki river and the Indian Ocean. The rivers and streams are Nzovuni, Goshi, and Wimbi. Map 11 shows the digital elevation model of Kilifi County and how it affects drainage.

3.4.1 Topography and Terrain

The land rises gradually from sea level to 900 meters above the sea level from the east to the west side of the County. The County has five major physiographic regions namely the Coastal Plain, the Foot plateau, the Coastal range and Nyika plateau as illustrated in Map 12.

(a) The Coastal Plain

The coastal plain varies in width from 3km to 20km and lies below 30m above sea level with a few prominent peaks on the western boundary including hills like Mwembetungu and Mambrui old sand dunes.

(b) The Foot Plateau

The western extension of the coastal plain lies between 60m and 135 m in altitude. It is characterized by a flat surface except in areas such as Membe Chungu, Ngoni and Mtuni hills between Mtwapa and Kilifi which rise to over 120m above sea level.

(c) The Coastal Range

Several sandstone hills mark the beginning of the coastal range. There is Daka Wacha and Gaabo in the Northwestern part of the County: Samba (374m), Kiwara (323m) and Jabana in the Kilifi and Mazeras areas and Mwangea (705m) west of Watamu.

(d) The Tana River Basin and the Low Land

This is the northern part of the County, generally below 300m. It is made up of alluvium and old sediments including sand gravel, silt, clay, marsh and composed of narrow elongated plateau and lowlands.

(e) The Nyika Plateau

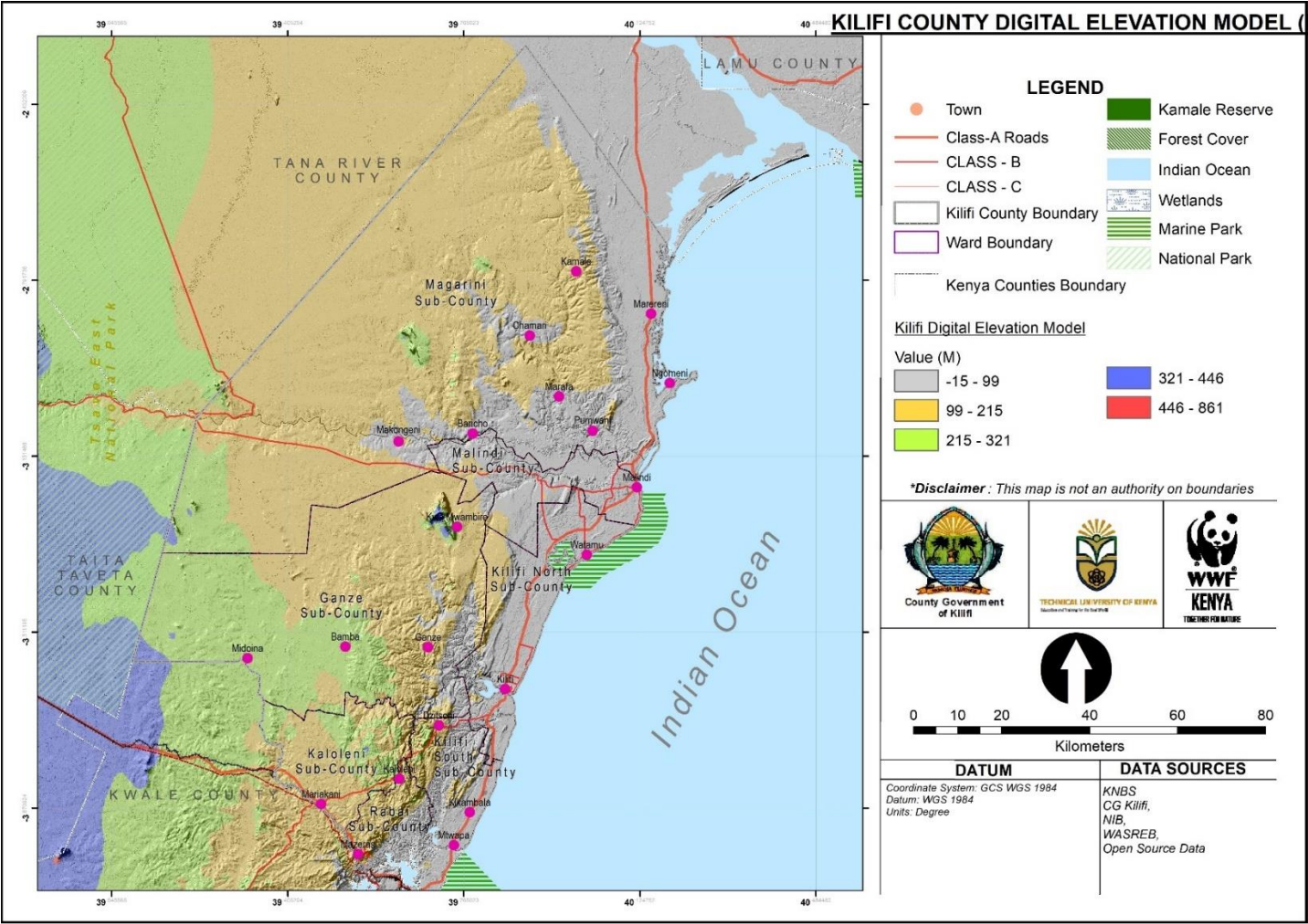
The Nyika Plateau is a large lowland west of the coastal range. Its altitude is between 150m and 300m except where the rivers have reduced the altitude to below 150m level. The figure below shows the various landforms within Kilifi County.

Figure 9: Various Landforms within Kilifi County



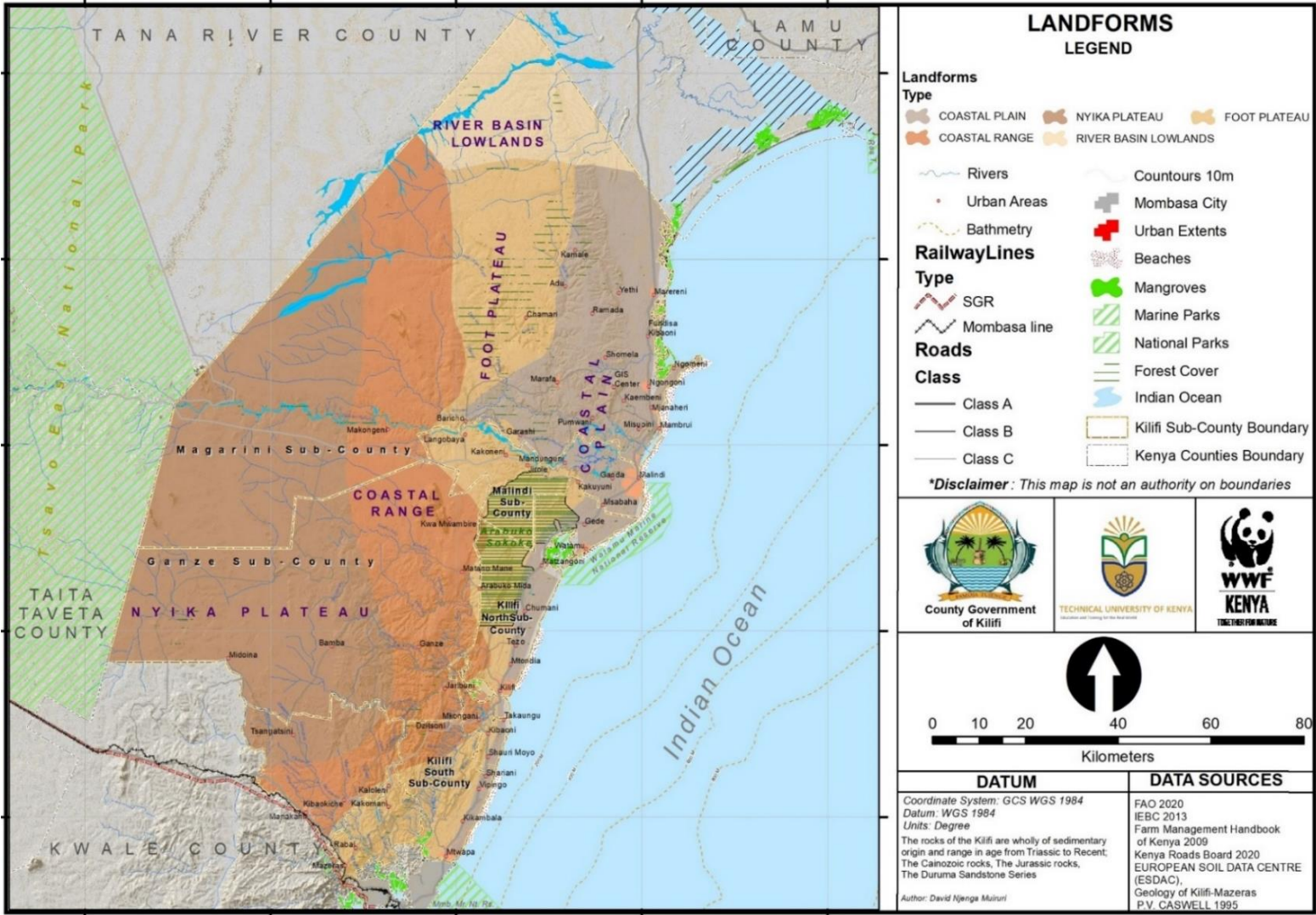
Source: field survey, 2015

Map 11: Digital Elevation Model of Kilifi County



Source: Author 2022

Map 12: Landforms in Kilifi County.



Source: Author 2021

3.5 Geology and Soils

3.5.1 Rocks

Kilifi County is geologically described by a system of sedimentary and basement rocks lying in a north easterly to southeasterly direction to the coastline. The rocks typology is broadly categorized based on the time period of formation and include:

Basement rocks: They are located on the western side of the County and have a history of having metamorphosed from limestone and sandstones and thus includes gneisses and schist.

Sedimentary rocks: They mainly include the Duruma sandstones but are further classified into; Mazeras- coarse grained with yellow to purple bands. Mariakani- fine grained deltaic and lacustrine sandy deposits and located to the west of Kaloleni to Gotani and to the north of Bamba.

Jurassic rocks: Kambe limestone -are reddish, clayey sands existing at altitudes of 120m in Njora and 130 m at Ndovuni Jurassic Shales- These rocks are prone to erosion at 120 m of altitude. They are also found on the broad, flat River valley of the Rare.

Carboniferous rocks: Include the sandstones and shales located to the south west of the County.

Quaternary sediments: These rocks are located on the immediate coastline areas including coral reefs, coral breccia, sandstones, alluvial and marine sands. Some rocks within the County contain mineral contents with some being mined but the rest are still unexploited commercially.

Map 13 shows the various geological soil features of Kilifi County.

3.5.2 Soils Types

Soils within the County are varied in nature in terms of texture, depth, physical and chemical properties though with poor fertility. The types of soil are based on the types of rocks formed and some have more or less similar chemical properties to the rocks. The areas with fertile soils have traces of indigenous vegetation soils existing in the past. These rock types include:

- **Coastal plains:** These rocks developed on coral limestone and Kilindini coastal sands. Those of coral descent are well-drained and of loamy to sandy clay nature while the Kilindini are of sandy to sandy loamy and poorly drained.
- **Coastal Uplands:** It is composed of varied types due to the type of the existing rock type found there. They include Maharini sands, Jurassic shales, Kambe limestone, Mazeras sandstone and Mariakani sandstones.
- **Erosion Plains:** Generally, Kilifi County has a lot of areas prone to erosion due to the high local relief in coastline areas. Swamping, waterlogging and flooding occur especially along Sabaki, Marafa, Koromi and Luga Buma Rivers and along the Coastline north of Ngomeni and Mtwapa, Kilifi and Mida creeks.

Figure 10: Geological and soil features in Kilifi County



Source: Field survey, 2015

3.5.3 Minerals

Kilifi County is rich in minerals such as titanium, iron ore, barites, galena, rubies, pozzolana, gypsum, limestone, manganese, coral rock, silica and salt. Other natural resources in the County with potential for exploitation include iron ore, titanium, oil and manganese. Kilifi County has 10 times more titanium than Kwale in Mambrui area. Kilifi has approximately 1.4 billion tons of titanium according to Base Titanium. The Vipingo, Mambrui and Sokoke area that has titanium deposits covers 450.7 kilometers in total. Map 13 Shows the geology and distribution of minerals within Kilifi County. The figure below shows some of the mining activities within Kilifi County.

Figure 11: Mining activities within Kilifi County



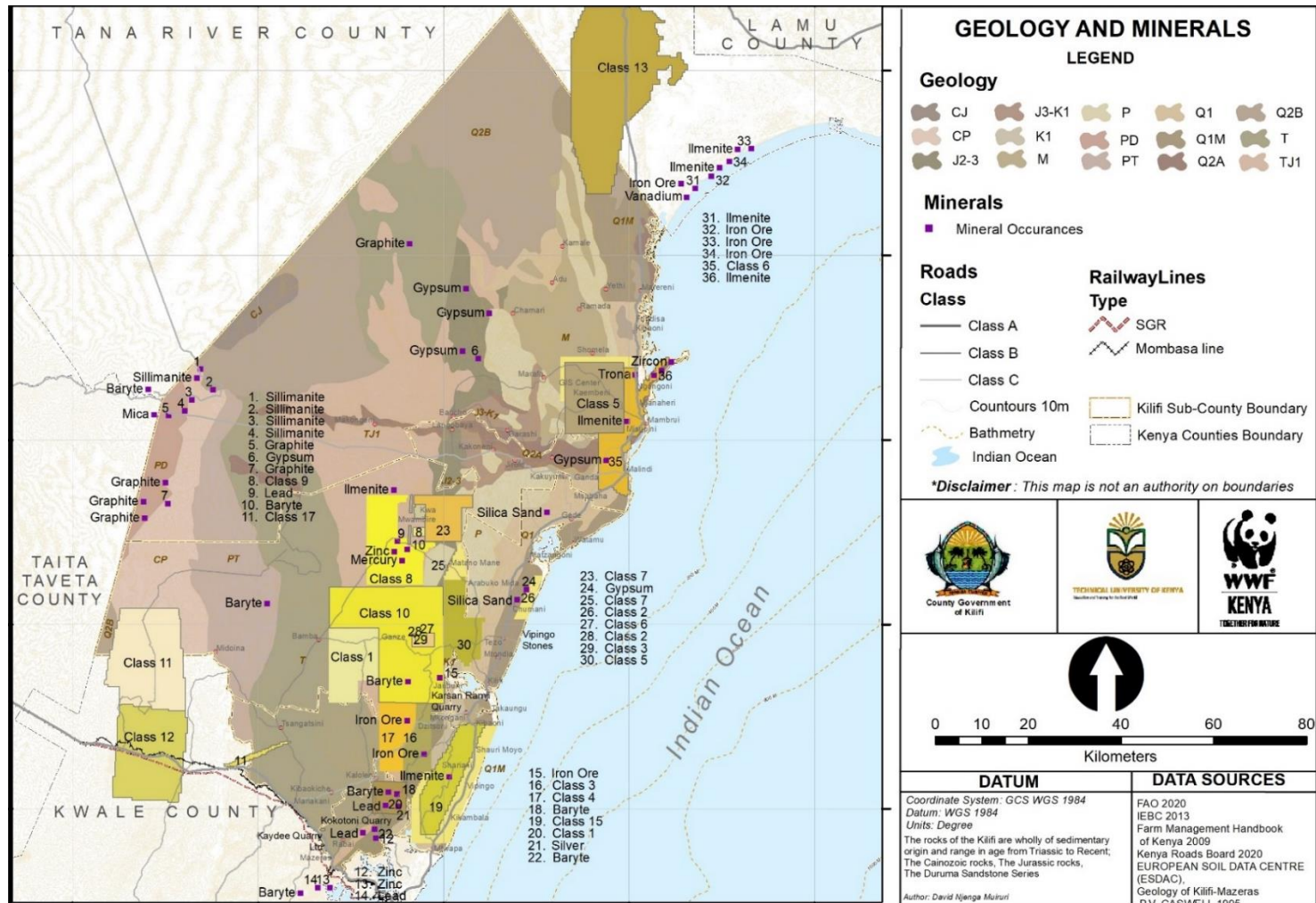
Source: Field survey, 2015



Issues arising from the mining sector

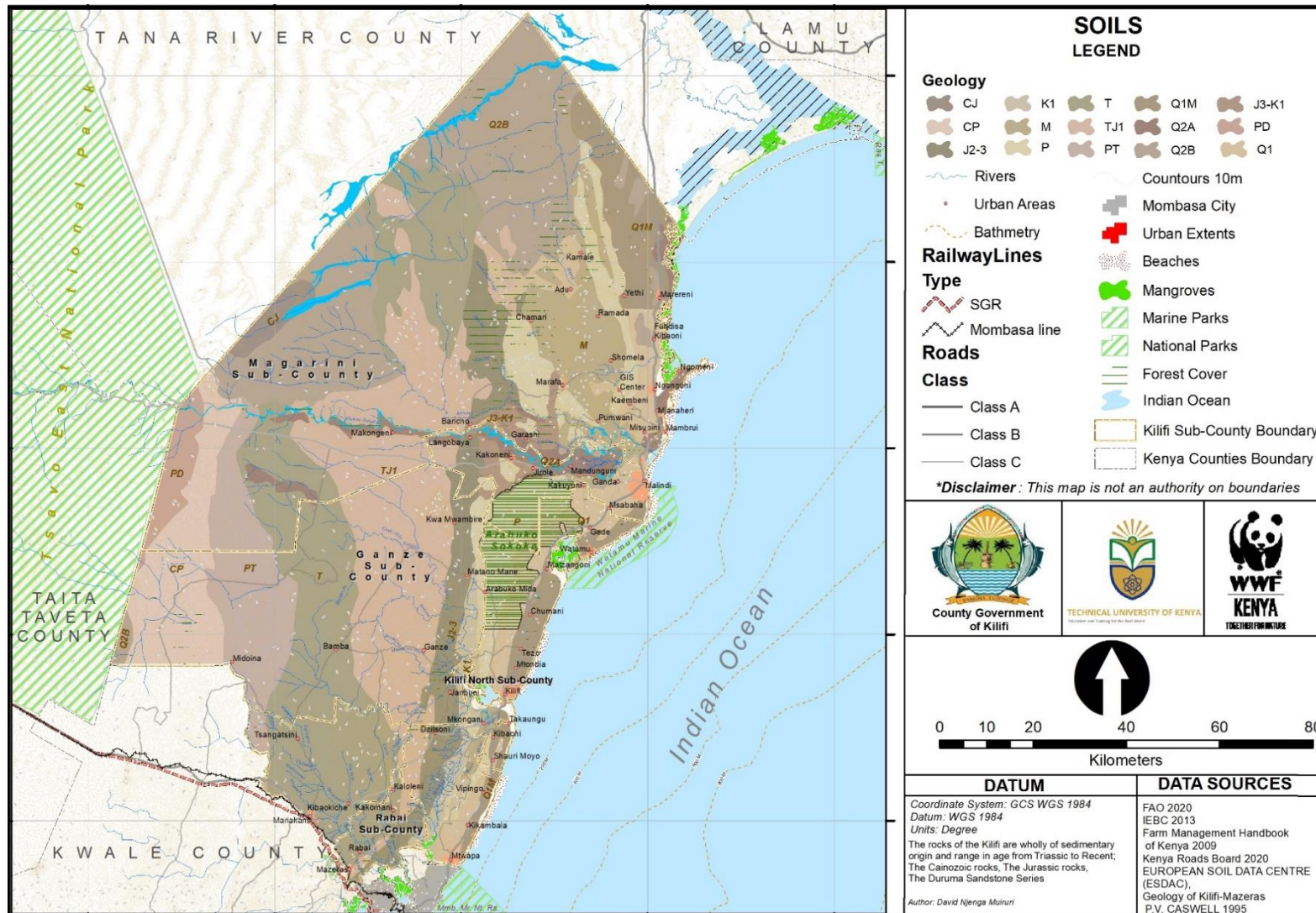
- (a) Unexploited resources due to inadequate knowledge on their status and economic viability.
- (b) Destruction of wildlife habitat in Arabuko Sokoke forest.
- (c) Non-compliance to environmental regulations by the Mining Companies.
- (d) Conflicts with local communities due to their non-involvement.
- (e) Low payments to local employees.
- (f) Issues of land use conflicts and land ownership status.
- (g) Lack of mining policies and procedures at the County level.

Map 13: Geology and Minerals in Kilifi



Source: Author 2021

Map 14: Soils distribution in Kilifi County.



Source: Author 2021

3.6 Land cover

The natural vegetation and cultivated vegetation of any given place depends on the climate, soils, topography as well as human activities in the area. The land cover in Kilifi County can be grouped into the following ten major groups. Shows the distribution of the various land cover within Kilifi County.

i. Acacia Thorn Bush Land

This vegetation is commonly found in areas receiving less than 600mm of rainfall annually.

ii. Mangroves and Swamps

Mangrove forests cover 6,378 hectares. The major mangrove forests are found at Ngomeni, Mida and Mtwapa creeks. Other mangrove forests include Kilifi and Takaungu creeks. Mangroves connect the green and blue economies as they occupy the ocean peripheries. Mangrove forest provides ecosystem services that support coastline protection, fisheries and blue carbon. The ecosystem also confiscates a high amount of carbon per unit area up to three to five times more than terrestrial forests. Carbon is also stored underground for a long period of time due to low aeration. The contribution of mangroves to National Determined Contribution (NDC) can be very significant if well conserved and protected.

iii. Lowland Dry Forest

Located within the foot plateau area, the Arabuko Sokoke Forest forms the major remnant of this type of vegetation. The indigenous trees include *Hymenaea Verrucarum* (Mtandarusi), *Brachystegi Aspiciformis* (Mrihi) and *Afzelia Guazensis* (Mbambakofi).

iv. Lowland Cultivated Savanna

This type is found on the clay soils of the Jurassic shale again within the lower foot plateau area. Some of the natural species are *Sterculia Rhynchocarpamorya*, *Acacia Zanzibarica* and *Manilkarasansibarensis* (Mngambo).

v. Lowland Woodland

This type of vegetation is found on the drier parts of Mazeras and Mariakani. The dominant trees are Mrihi (*Brachystegia spiciformis*), Mbambakofi (*Afzelia quanzensis*) and Muyumbu (*Lannea stuhlmannii*). This rich vegetation is threatened by environmental degradation and clearing for human settlements mainly along Sabaki pipeline.

vi. Lowland Dry Forest on Coral rag

Remnants of natural lowland dry forest are found near Gede (Mida). Some of the indigenous trees include *Combretum schumanii* (Mgurure), *Ficus bussei* (Mgandi) and *Cassipourea euryloies*.

vii. Lowland Rain Forest

This is found on limestone and wetter parts of the Mazeras sandstone. Today only scattered remnants of this type of forest remain as sacred forests known as Kayas or homesteads. This is where the Mijikenda clans took refuge when they were attacked by other tribes.

viii. Lowland Moist Savanna

This vegetation type covers a small area near Mtwapa. It developed on coastal sand and Jurassic shale and is somewhat wetter than the surrounding area. The main species are *Albizia anthelmintica* (Mporojo) and *Hyphae necompressa* (Mlala or Mkoma).

ix. Beach vegetation

Beach vegetation on sandy areas along the beaches is divided into three classes namely, the seaward zone, behind the seaward zone and in the sand dunes proper. Although a few trees do well, most of the plants are grasses, shrubs and vines.

x. Coral Rock

This variety of trees and plants grow on exposed coral rock along the coast.

3.6.1 Forest Cover

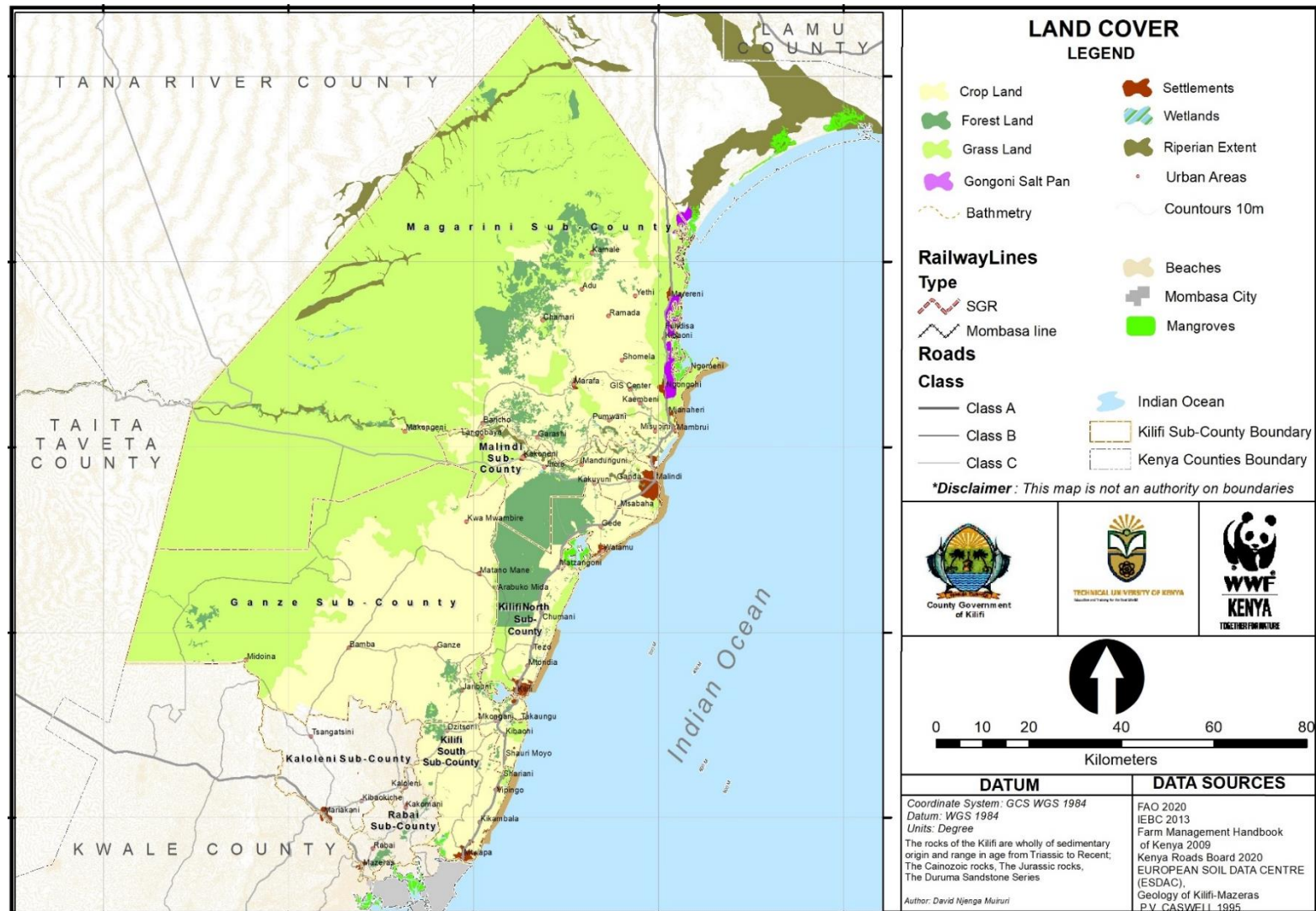
Forests are of great importance for a number of reasons, notably the conservation and improvement of water supplies, the prevention of soil erosion, nature conservation, as well as the needs of the local people in terms of wood fuel, building poles and timber.

Main Forest Types and Size of Forests

The forests within the County, falls within the Eastern African coastal forests which are heterogeneous group of isolated evergreen or semi-green forests with high biodiversity. The County has 14 gazetted forests with a total size of 220Km² and 7 non-gazetted forests with a total size of 25Km². The main forests include; Arabuko Sokoke, Mangrove and Dakacha woodlands. Kilifi County has an approximate area of 1,500,000 hectares under forest cover out of which 48,000 hectares are gazetted forest reserves whereas the rest un-gazetted are mostly community lands. There are two kinds of forests in the County, namely the Kaya Forests which are regarded as sacred forests by the residents and the Arabuko Sokoke forest which is largely the gazetted forest in the County.

There are four gazetted Kaya forests namely Kaya Jibana (140 ha), Kaya Ribe (36.0 ha), Kaya Kambe (56.6 ha) and Kaya Chonyi (94.5 ha). The main Kayas are Kaya Rabai, Kaya Ribe, Kaya Kambe and Kaya Jibana. Arabuko Sokoke Forest Reserve is the largest stretch of Coastal dry forest remaining in Eastern Africa. It covers an area of 420 km². The county has recently recorded a noticeable reduction in the forest cover, this has resulted in formulation of forest management policies to conserve the forests as well as to help in waste management. These policies include: Forest Management and Conservation Act of 2021, Climate Change Act 2021, Solid waste management Act of 2019 and EMCA for Kilifi County.

Map 15: Major land cover in Kilifi County



Source: Author 2022.

3.6.2 Environmental Resources

This section seeks to bring out the challenges in land sector, which limits optimal utilization of land, and land-based resources in Kilifi County. Map 16 shows the distribution of marine and terrestrial environmental resources in Kilifi County.

(a) Land Resources

There are three broad categories of wildlife habitats in Kilifi County. These are the dry hinterland bordering Tsavo East National Park, including Galana and Giriama ranches, forested coastal uplands of which Arabuko Sokoke forest is typical including settlement areas and the coastal marine margin near Mida creek (includes Malindi and Watamu Marine National Parks and Watamu National reserves).

(b) Marine Resources

Coral Ecosystem: Between Mombasa and Malindi there is a continuous formation of coral reefs. This ecosystem hosts Malindi and Watamu marine national parks and the Watamu National Reserves. The coral reef runs parallel to the coastline, at 300 to 1000 meters from the shore.

Mangrove Ecosystem: Mangrove forests occupy an approximate area of 6378 hectares in Kilifi County. The local communities use the mangroves for building poles and rails on boats, fuel wood and charcoal. In addition, tannins extracted from mangrove are used in the process of tanning leather.

Fisheries: The largest share of Kilifi catch comes from the area north of Malindi, especially Ugunda Bay, which is particularly important for shrimp trawling.

(c) Water resources

The only permanent river is River Sabaki which originates in the Central highlands and flows down to Indian Ocean.

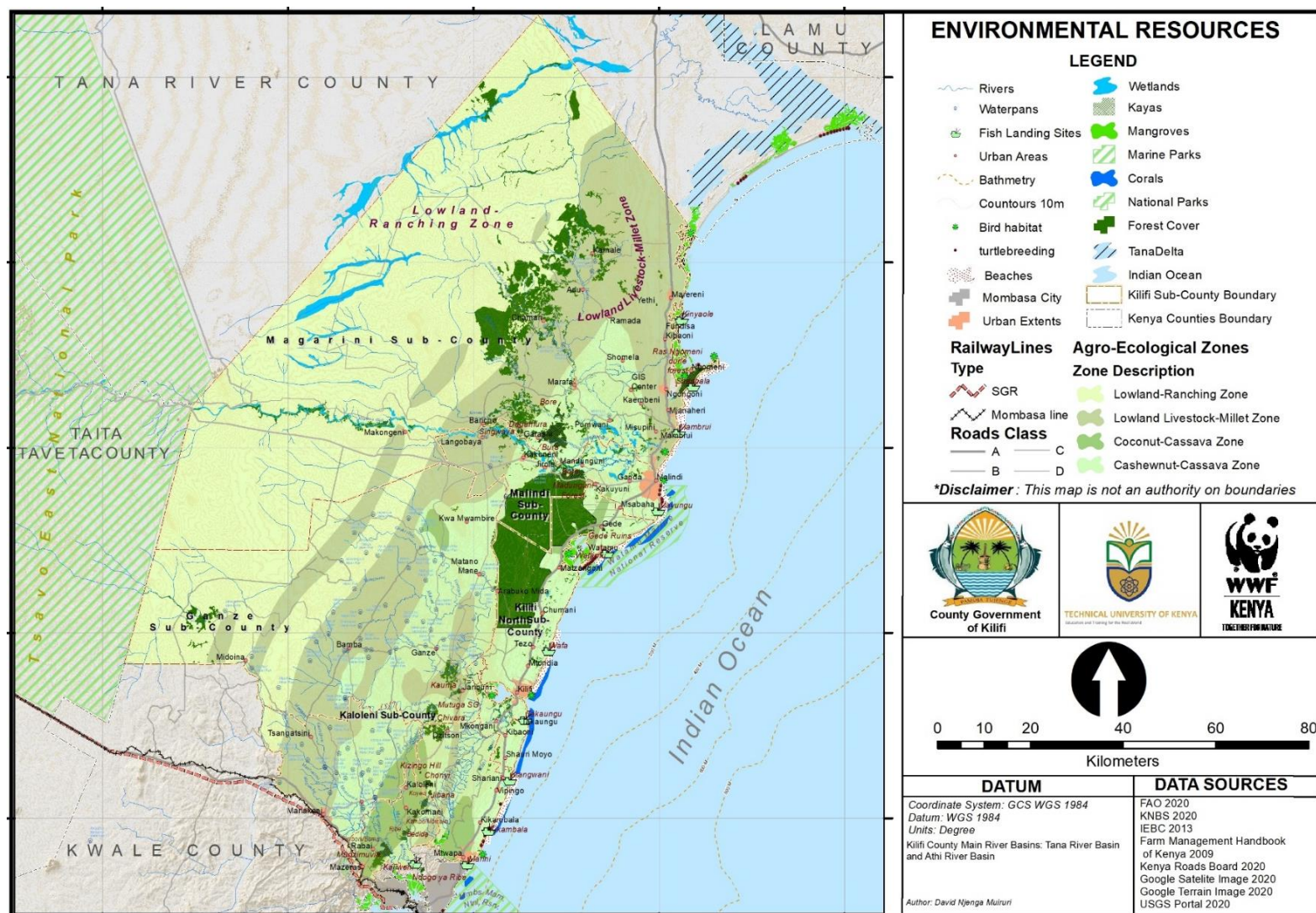
Surface Water: River Sabaki is the only permanent River in the County. The flow of its waters is very low during the dry seasons and at this time, the river is entirely maintained by Mzima springs via Tsavo River. The water quality is moderately colored, soft, well mineralized and slightly alkaline with a PH of 7.6 to 8.2. The other seasonal Rivers in the County are Goshi, Rare, Ndovuni, Gandi, Wimbi and MtoMkuu Rivers which originates from Taita hills.

Underground Water: The water table along the coastal plains is very shallow and therefore numerous wells are found along the coast. In the hinterland, and especially the high-altitude areas, the water table is usually very deep, although there are a few successful boreholes.

Fresh Water Fisheries: The most common types of fish in the County are the Tilapia, Clarkias and Protopterus. The Sabaki River is the most important fishing ground in the County, although there are a few fish ponds.

Beaches: Kilifi County takes up 12,639 kilometers of the Kenyan Coastline. The Public Beaches and Coral Reefs include Malindi, Watamu and Kilifi Public beaches.

Map 16: Environmental Resources in Kilifi County



Source: Author 2021.

Emerging issues and prospects

Table 5: Emerging issues in the physical setting

Sector	Challenges	Strategy
Climate	<ul style="list-style-type: none"> • Climate variability and climate change • Rainfall reliability is low • High humidity makes drying and storage of crops difficult • Kilifi County is susceptible to droughts • Severe windstorms that destroy property 	<ul style="list-style-type: none"> • Environmental conservation and management • Planned agricultural activities • Disaster preparedness
Relief and Drainage	<ul style="list-style-type: none"> • Splash erosion and especially in areas where there is no land cover 	<ul style="list-style-type: none"> • Areas with serious soil erosion problems and those with potential problems should be closely monitored. • Cultivation on steep slopes and River banks should be limited • Soil management practices should be encouraged and adopted
Geology and Soils	<ul style="list-style-type: none"> • The County has a lot of areas prone to erosion. This erosion also affects the road network, as the roads become eroded and almost impassable during the wet seasons 	<ul style="list-style-type: none"> • Upgrading major roads to all weather roads to minimize transportation problems during rain seasons • Increasing land cover especially in steep areas to minimize soil erosion practice soil management practices
Minerals	<ul style="list-style-type: none"> • Most minerals still remain unexploited due to inadequate knowledge on their status, economic viability and appropriate mining technologies • Inadequate research to explore the reserve deposits and discovery of new market channels • Conflict with other existing natural resources especially forests and arable land 	<ul style="list-style-type: none"> • Mineral resource mapping • mining policy conducive to investment and Private Public Partnerships (PPP) mineral value addition
Wildlife	<ul style="list-style-type: none"> • Human wildlife conflicts particularly near the forest's reserves • Poaching is rampant in the County for food, hides and trophies. Poaching continues to be a major threat to 	<ul style="list-style-type: none"> • The indigenous habitats must be preserved where they protect unique species. This means creating small parks and reserves integrated into surrounding land uses • Anti-poaching activities must be increased and legal

	elephants and rhinos. Threat to wildlife due to conversion of their natural habitats into agricultural lands, grazing areas, settlement and forest plantations	actions stiffened <ul style="list-style-type: none"> • create buffer zones around wildlife conservation areas create wildlife corridors for ease of movement between the parks
Marine Resources	<ul style="list-style-type: none"> • Oil spills • Lack of proper gears and equipment for fishing • Lack of fish landing points • Minimal utilization of fish resources • Removal of shore sand for construction has increased the beach slope and changed the beach dynamics 	<ul style="list-style-type: none"> • Promote the maximum exploitation of the fishery resources • Improved fishing technology such as improved fishing gear and practices, motorized boats. • Improve on financial institutions for fishers for acquisition of vessels and training. <p>Landing and cold storage facilities should be provided in strategic place to include ice-plants, cold stores, jetties and ramps</p>
Water Resources	<ul style="list-style-type: none"> • The water problem in Kilifi County is the major cause of slow development in agriculture, livestock, ranching, permanent human settlement and infrastructure especially in dry hinterland • The Athi/Galana/Sabaki River system has not been utilized to its fullest. • Minimal utilization of freshwater fishing 	<ul style="list-style-type: none"> • Water catchment areas should be rehabilitated and conserved explore ways to use the waters for other uses such as domestic and agricultural use

Source: Author 2021

3.7 Agriculture

The County has a total area of 5044 Km², 3958 Km² (78.5 percent) is agricultural land. A total of 64,198 families (over 90 percent of the population) depend wholly on agriculture and derive their incomes from the agricultural sector, while the remaining (10 percent) depend partially on the sector for their livelihoods.

3.7.1 Climate and Agro- Ecological Zones

The County is divided into 5 agro-ecological zones (AEZ) which define areas that have similar characteristics such as annual mean temperatures, vegetation and humidity. These zones can further be grouped into two climatic zones. These two climatic zones are the hot dry coastal hinterland and the hot and humid coastal strip. These zones are illustrated in Map 17.

(a) *Hot dry Coastal Hinterland*

It extends inland from the hot humid coastal strip. Rainfall ranges from 500-750mm annually. Altitude ranges from sea level to 1000m. The area is too dry and it does not favor crop production.

(b) *The hot and humid Coastal strip*

This is the coastal strip which runs approximately 16 km wide from the coast line. Annual rainfall is between 760-1270mm falling in two seasons a year. The soils are fertile and it supports a variety of crops. The zone cuts across Kilifi South and North Kilifi, Rabai, part of Ganze, and Malindi sub-counties. The Agro - ecological zones are summarized in the table below.

Table 6: Agro ecological zones on Kilifi County

Zone	Carrying capacity (Ha/L. U)	Coverage of Agricultural land	Rainfall	Temperature
Coconuts – Cassava (CL3):	0.7Ha/LU	6.5%	1,000 to about 1,300 mm,	24°C
Cashew nuts – Cassava (CL4):	1.5Ha/LU	19%	800 to about 1,100	24°C
Livestock – Millet (CL5):	2-3Ha/LU	25%	About 600 mm to 900 mm	-
Lowland Ranching (CL6):	505Ha of the total area of the County	41%	Below 700 mm	27°C

Source: Author 2021

3.7.2 Acreage under Food Crops and Cash Crops

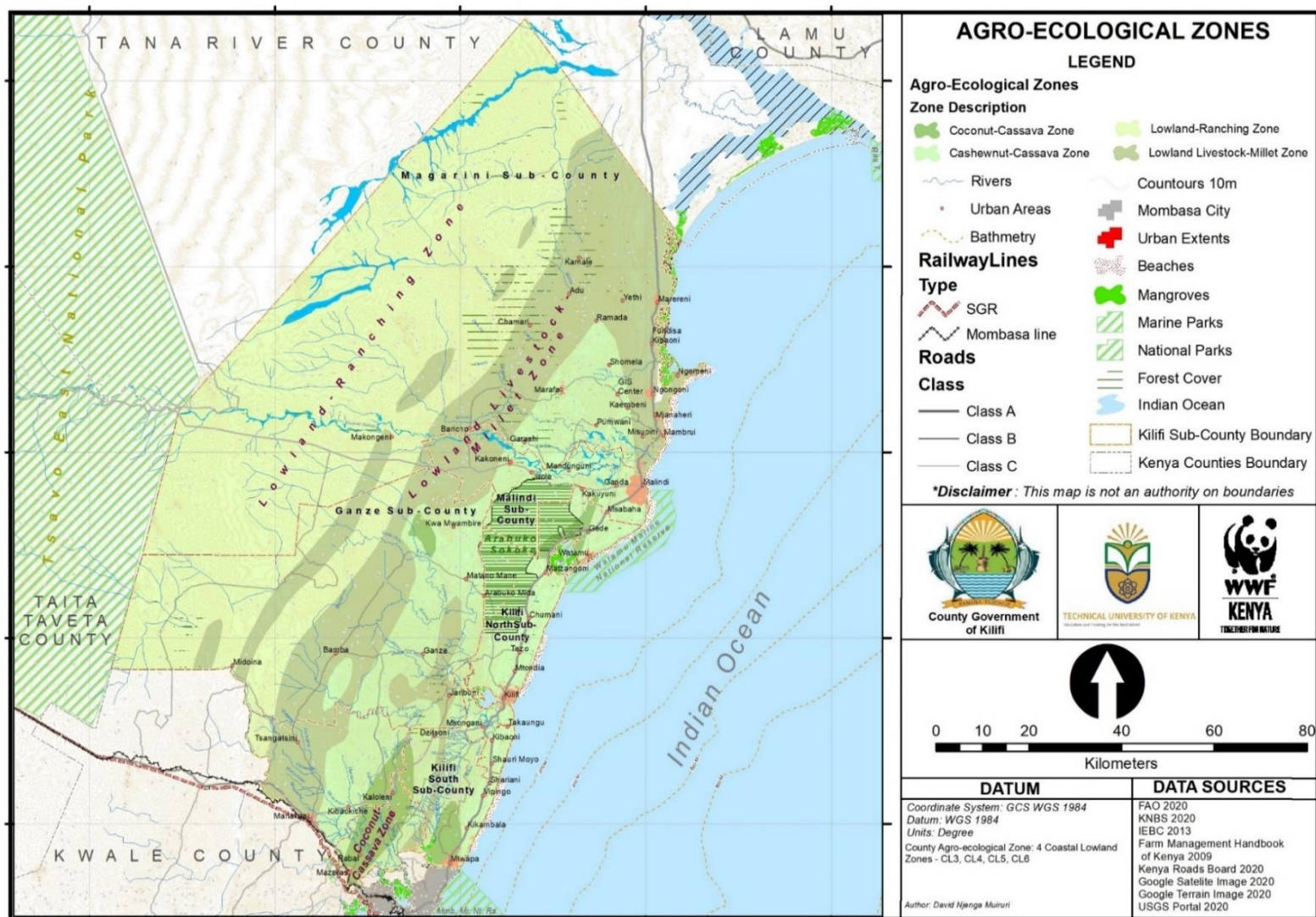
The acreage under food crops and cash crops are 52,519.4 Ha and 47,681 Ha respectively. The acreage under food crop is higher than that of cash crop. The County arable land is

estimated to be approximately 6,891.2 km² with a non-arable land of 5,407 km². This indicates that 56 percent of the land is useful for agriculture while 44 percent could be made useful through irrigation and this would help achieve and sustain SDG goal Number one which is to eradicate extreme poverty and hunger by 2030.

3.7.3 Ranching

Kilifi is endowed with a good weather pattern which supports all types of livestock farming and large tracts of land. The County has twelve ranches with a land carrying capacity of 3 livestock per hectare in dairy zones and 0.25 livestock per hectare in the rangelands. The ranches include: Birya, Giryra, Ndigiria/Mapotea, Mnagoni, Dola and Kilifi among others. However, some ranches have been closed down due to poor animal breeds and management issues.

Map 17: Agro - Ecological Zones in Kilifi County



Source: Author 2021.

3.7.4 Settlements

In Kilifi County, rural settlements are found beyond designated urban centers. These are the settlement schemes that are predominantly agricultural and ranches. These settlements are in rural, market and local centers.

Human Settlement Structure

The human settlement structure of Kilifi County is influenced by the proximity to infrastructure network (roads, water, and electricity) and high agricultural potential zones. A linear settlement pattern is exhibited from Mtwapa to Kinangoni along the Mombasa-Malindi Road via Kilifi town and Mombasa-Nairobi Road up to Mariakani urban town. Map 18 Shows the distribution of urban and rural centers within Kilifi County. The table below describes the classification of urban centers within Kilifi County.

Table 7: Classification of centers in Kilifi County

Municipalities	Urban Centres	Market Centres	
Malindi	Mtwapa	Tsangasini	Lango Baya
Kilifi	Mariakani	Ganda	Ramada
	Gongoni	Chakama	Ngomevi
	Watamu	Adu	Shakahola
	Ganze	Kakayuni	
	Rabai	Kakuneni	
	Gede		
	Bamba		

Source: Author 2021

Classification of centers based on level of service provision.

This analysis was developed by first ranking the various centres within Kilifi County based on urban population, social services such as education and health, urban condition, economic and finance services and administrative roles.

This ranking system aimed at finding the gaps that each individual center has so as to aid in making proposals. Source: shows some of the scales used in the ranking of centers.

Table 8: Scales for ranking centres in Kilifi County

Scale	Population thousands	Health	Primary Schools	Secondary Schools	Administrative Role
1	5	Medical clinics	1-2	1	Ward Headquarter
2	5 -10	Health clinics	3-4	2	Sub County Headquarter
3	10 - 14	Medical centers	5-6	3	County Headquarter
4	14 - 30	Nursing homes	7-8		
5	30 - 100	Health centers			
6	Over 100	Missionary Hospital			
7		Level 4 hospital			

8		Level 5 hospital			
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Source: Author, 2021

Source: Show the ranking of centers based on the analysis of level of service provision.

Table 9: Ranking of centres based on level of service provision

Tier		Scores	Proposed strategies
1	Malindi, Kilifi	22 - 29	<ul style="list-style-type: none"> • An airstrip in Kilifi and Mtwapa. • An airport at Langobaya • Addition of education facilities • Promoting tourism and commercial sectors • Establishment of an elaborate sewer system
2	Mtwapa, Rabai, Kaloleni, Mariakani, Matsangoni, Gongoni Tezo, Marafa, Watamu, Mazeras, Bamba, Kakuyuni, Lango baya Mkongani, Chumani, Gede, Marereni	9 - 28	<ul style="list-style-type: none"> • Potential of lifting to a municipality status. • Development of Kaloleni – Mariakani industrial development corridor • Establishment of industrial parks • Connection of centers with piped clean water
3	Ganze, Kakomani, Kikambala, Mambrui, Mtondia, Takaungu, Dzitsoni, Kakoneni, Shariani, Mjanaheri, Ngomeni	6 - 8	<ul style="list-style-type: none"> • Promotion of Health and education facilities. • Development of local markets • Connection of centers with piped clean water • Promotion of local industries
4	Midoina, Yethi, GIS, Adu, Arabuko, Mida, Ganda, Garashi Kaembeni, Vipingo, Fundisa, Kibaoni, Kwa Pumwani, Mwambire, Mandunguni, Matanomane, Ramada, Msabaha, Baricho, Chamari, Jaribuni, Jirole, Kamale, Kibaokiche, Misufini, Kibaoni	2 - 5	<ul style="list-style-type: none"> • Promotion of Health and education facilities. • Development of local markets • Connection of centers with piped clean water

Source: Author, 2021

3.7.5 Land Tenure

(a) Historical Perspective

The Land on the Coast has a distinct history different from the rest of the Country. Along the Coast, and particularly along the ten-mile coastal strip of the Sultan of Zanzibar. Problems around the control and ownership of land have roots in the pre- colonial situation

(Mwaruvie, 2011).

(b) Land Classification

The area of the land under each interest in Kilifi County is yet to be established, previously it had been classified as indicated in the table below. Map 18 also shows the distribution of urban and rural centres based on the analysis of the level of service provision in Kilifi County.

Table 10: Classification of land tenure in Kilifi

Land tenure in Kilifi County	Percentage(%)	Area in Km ²
i. Public land	40	5043
ii. Water mass	0.9	109
iii. Community land	53.3	6736
iv. Private Land	5.9	744

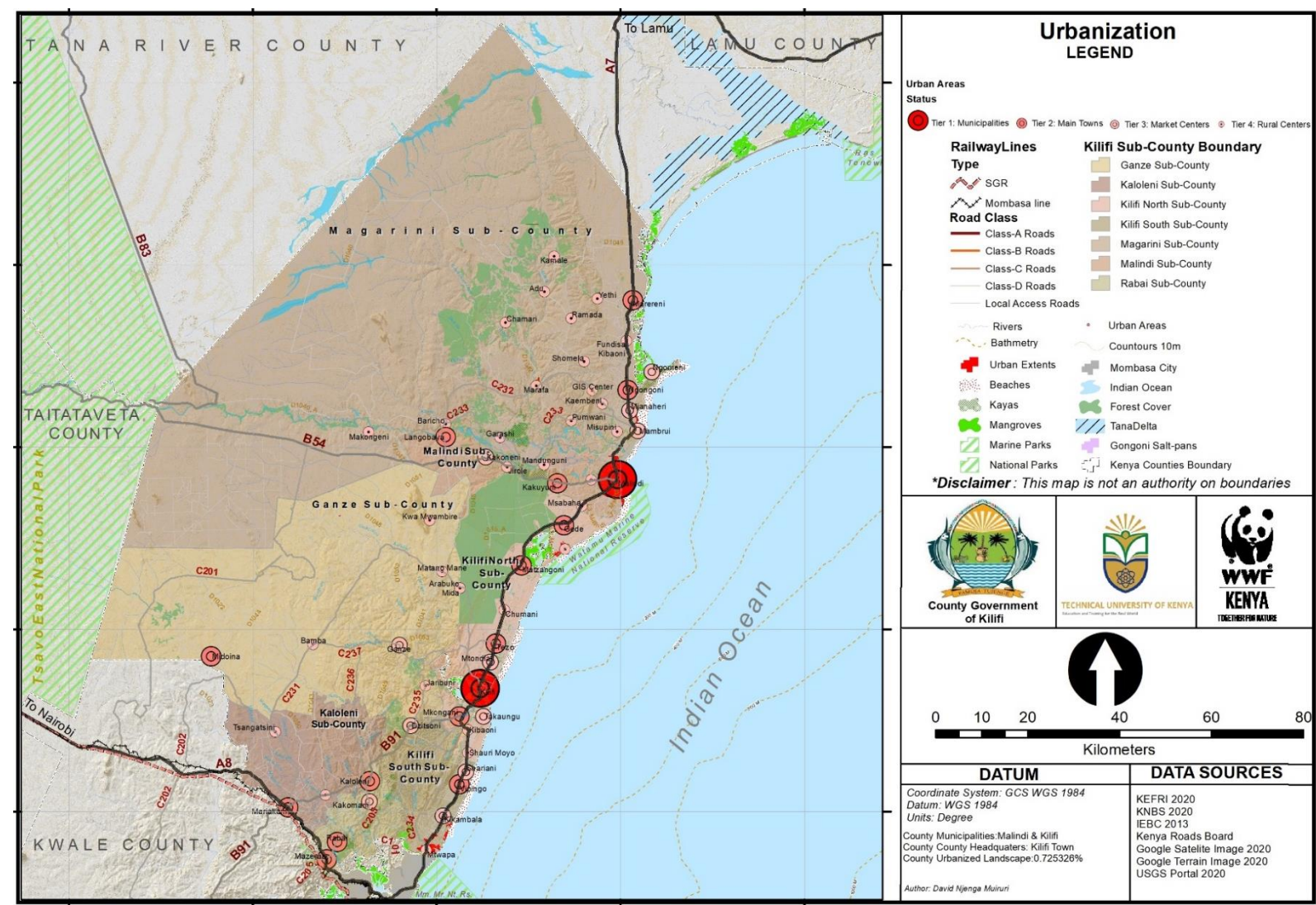
Source: Field survey, 2015

(c) Land ownership and Registration Status

A total of 33 schemes are registered to date, covering 1,279,527 hectares with a total of 219,435 titles. Additional 52,551.20 hectares of land is at various stages of land processing at the Ministry of Lands. The sector covers only Trust-land and Government Land. It is estimated that 11.3 percent of the households in the County are landless according to the data available in the Lands offices.

- i. **Average Holding Size:** The average land holding size in the County is 3.04ha per household. The average holding size for large scale farmers is 8.09ha.
- ii. **Incidence of Landlessness:** Landlessness exhibited by squatters is a major phenomenon in the County. However, the Government has taken measures to establish settlement schemes to settle the squatters in the County.
- iii. **Percentage of Land with Title Deeds:** Land tenure is a major development challenge in the County with more than 60 percent of the residents lacking title deeds.
- iv. **Land Acquisition:** It was noted that, much land at the Coast is in the hands of powerful families, some absent landlords, who charge ground rent. Some of the land is idle and thousands of people who live on it are squatters.
- v. **Land Ownership documents:** Over 48 percent of those interviewed had title deeds, about 10 percent had letter of allotments and approximately 32 percent had no documents.
- vi. **Squatters:** Squatters in Kilifi County are mostly found in Kikambala, Bahati, Chonyi and Vitengeni.
- vii. **Settlement Schemes:** The settlement schemes were established in order to cope with the increasing squatter problem and to bring mismanaged or unused land into use. The schemes covered a total area of 14500 Ha divided into 3400 plots. (Hoorweg, 2000).

Map 18: Urban and Rural centres in Kilifi County.



Source: Author 2021.

Emerging issues and challenges

Table 11: Emerging issues in the land sector

Sector	Challenges	Strategy
Landover	<ul style="list-style-type: none"> • Conversion of indigenous land cover to other uses such as agriculture • Charcoal burning • Over exploitation of indigenous plantations • Overstocking livestock 	<ul style="list-style-type: none"> • Land use planning • Maintaining carrying capacity in livestock farming • Conservation of indigenous plantations • Curbing charcoal burning
Forest	<ul style="list-style-type: none"> • Conversion of forest land to other uses such as farming, livestock keeping and or settlements. • Encroachment of forests reserves 	<ul style="list-style-type: none"> • Promotion and development of non-timber forest products • Curbing illegal harvesting of forest products • Conservation and protection of forest gazetted areas • Proper land use zoning • Gazette forests as heritage areas to avoid conversion of forest land to other uses
Agriculture	<ul style="list-style-type: none"> • Harsh climatic conditions in most hinterland • Poor rainfall reliability • High dependence on rain fed agriculture • Poor plant selection i.e., failure to use dry resistant crops in areas of low rainfall • Land owners limits agricultural potentials and development • Poor agricultural techniques leading to low production • Environmental degradation resulting from poor farming methods. • Poverty- lack of skills and knowledge • Crop infestation by pests and diseases as well as livestock. • There is reduced browse for livestock • Lack of market for livestock products • Increasing average distance to watering points • Influx of livestock from neighboring counties • Low production of milk in the 	<ul style="list-style-type: none"> • Promote irrigation-based agriculture along the rivers to reduce the impacts of unreliable rains • Develop and appreciate modern agricultural technologies such as green housing, smart agriculture and Agri-business • Selecting and planting crop varieties which are drought resistant in areas of low rainfall availability. • Establishment of slaughter houses and tanneries • Restricting movements of animals from other counties to curb spread of diseases and land degradation. • Reduce the distance of animal watering points by construction dams and water points

	county	
Settlements	<ul style="list-style-type: none"> • High population growth rate especially in urban areas which is not in tandem with support infrastructure and services. • Increase in urban poverty and informality • Settlement schemes versus land ownership conflicts • high rate of Rural Urban Migration • Decay of Rural areas and some urban settlements. • Insufficient water for domestic use 	<ul style="list-style-type: none"> • Promoting appropriate Innovative Technology in Building-Rain water harvesting, ground catchments and construction of pans/dams. • improved services in Urban areas • Provision of Settlement and Development plans. • Need for Urban area planning • Densification of urban area • Creation of Growth zones- fishing and agriculture (Bahali, Kikambala, Chonyi. • Development of systematic hierarchy of settlements and service centers.
Land tenure	<ul style="list-style-type: none"> • Too many land disputes, Conflict of Interests in allocation of Government Land • None Performing boards • Corruption and Low Staff Morale • Cumbersome Legislative policies • Wrong Attitudes Towards Land vs. Government Inaction • Lack of cadastral information 	<ul style="list-style-type: none"> • Improvement of land tenure through adjudication, survey, registration and issuance of Title Deeds. • Land use planning by providing spatial framework within which development activities can be harmoniously undertaken • Provision of Settlement and Development loans. • Settlement of any disputes that arise in the course of development of Land as a Resource <p>Better Trained Staff: A successful land Adjudication/Settlement Programme depends on an array of talents; - planners, surveyors, Settlement Social Workers and even Lawyers.</p>

Source: Author, 2021

3.8 Infrastructure

This chapter documents the existing situation of the infrastructure and services. It looks into their distribution, the quantities, their demand and adequacy, the gaps and the desired future scenario. Map 19 shows the distribution of rail, road, air and sea-based transport infrastructure within Kilifi County.

3.8.1 Transport

Essentially, the entire transport system of the Kilifi County relies on four major modes of conveyance, namely: waterways, roadways, railways and airways. Map 19 shows the distribution of transport infrastructure in Kilifi County.

(a) Roads

This mode of transport is terrestrial (overland) in nature and performs most functions of transportation system. Kilifi County has three primary terrestrial means of access, namely; the Southeast-Northeast roadway system that runs parallel to the Indian ocean shoreline (A14/B8), the westbound railroad bundle to Central Africa and Tanzania (A109/23), and the Eastbound Garissa highway (A3) system that traverses the northern tip of the County. The table below shows the various road classification in Kilifi County.

Table 12: Road classification in Kilifi County

Road type	Classes	Number	Lengths in Km	Road surface
Trunk road	A	2	203	Bitumen
National	B	1	34	Bitumen
Primary	C	5	219.3	Bitumen
Secondary	D		414.0	Gravel
Minor roads	E		648.0	Earthen

Source: Author, 2021

The only railway line in Kilifi County is the Mombasa-Nairobi railway with stations in Mazeras and Mariakani.

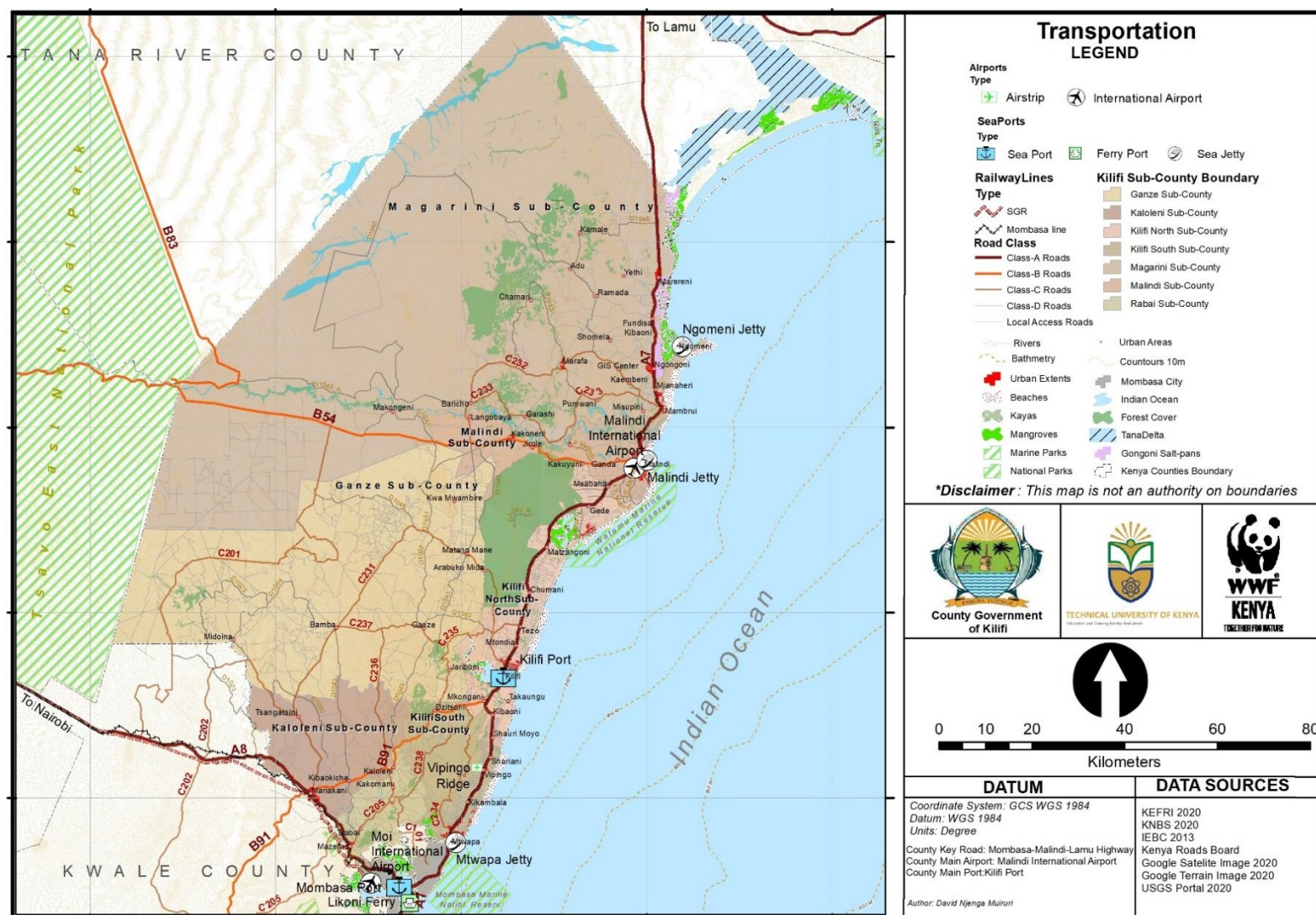
(b) Waterways

The most active waterway in Kilifi County is undoubtedly the *Indian Ocean*, which is the focal point for maritime activities. The river-based water ways are minimally served as axis of conveyance. They however serve the function of facilitating access to resource territories such as fisheries, riverine and lake-base tourist sites.

(c) Airways

AN airport at Malindi and several airstrips at Mnarani Club, Kiswani farm, Vipingo ridge and Galana Game Ranch serve Kilifi County.

Map 19: Transportation infrastructure in Kilifi County.



Source: Author 2022.

3.9 Utilities

3.9.1 Telecommunications

The County is covered by all the major mobile telephone service providers. It has mobile coverage of 75 percent and 7,037 landline connections.

(a) ICT

Kilifi County is not adequately covered by GSM cellular networks. The major towns in the County have good reception; however, most of the remote areas have intermittent reception due to sparsely located GSM stations that cover short distances of not more than 20 km radii.

(b) Fiber optic

Kilifi County is served by fiber optic network built by the Sagem company that originates from Mombasa town along the coastline to Kilifi County. The fiber optic serves major towns like Kilifi and Malindi.

3.9.2 Water Distribution Services

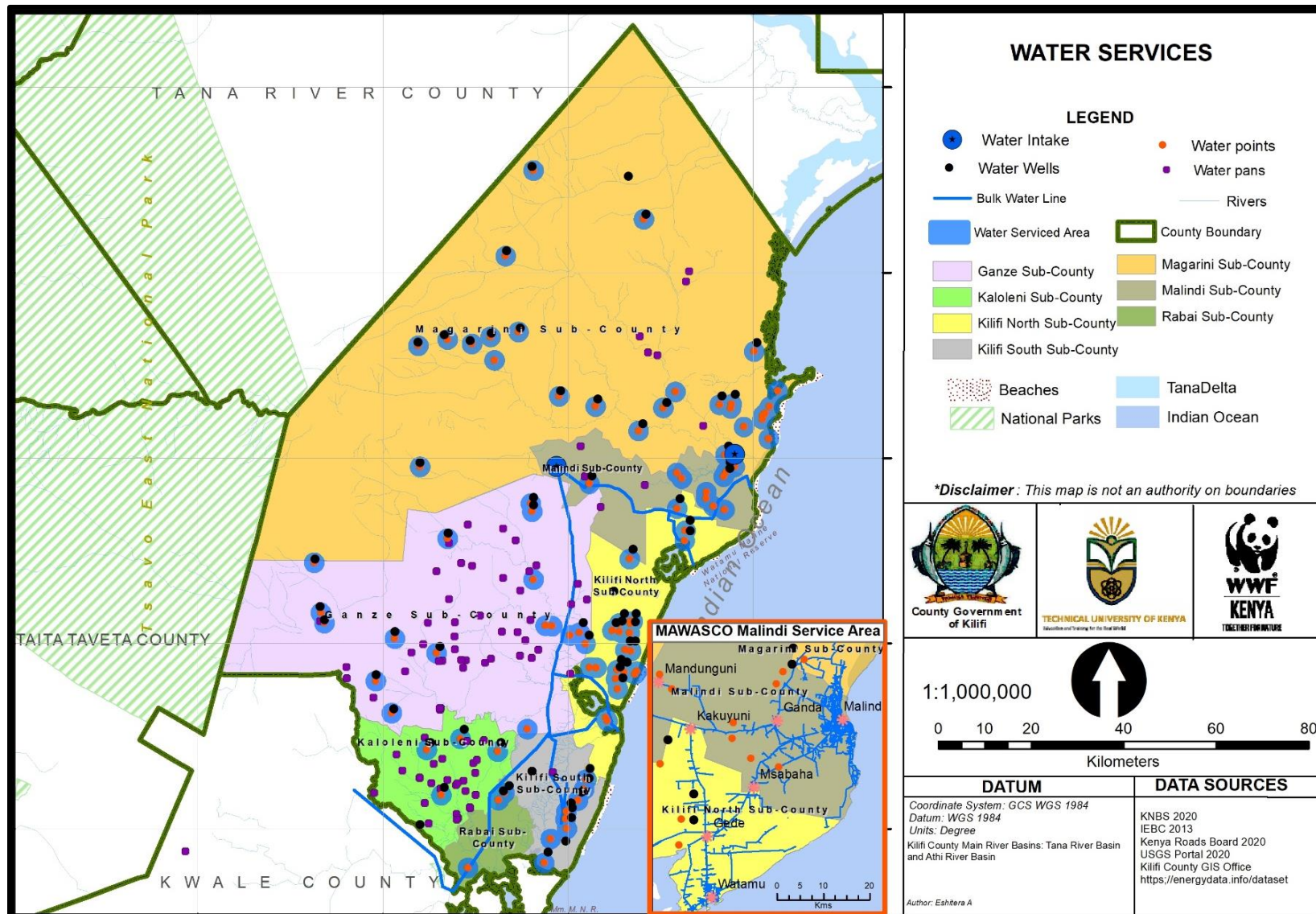
Water Supply

Water is a key factor determining the development of any region. Water is needed for consumption at domestic level, for agriculture, in various institutions and in industrial parks. The main player in water sector within the county is Coast Water Service Board. which is a state corporation whose main objective is ensure the seven counties in Kenya Coastal region get enough water and sewer systems to support their development agenda.

To offer quality service there are two Water Service Providers (WSPs) companies affiliated to CWWDA within the Kilifi County that is Malindi Water & Sewerage Co.Ltd.(MAWASCO) and Kilifi-Mariakani Water & Sewerage Co.Ltd. (KIMAWASCO). A detailed analysis indicates that the two service providers have concentrated their activities within Kenya Urban nodes with rural areas being disadvantaged. The main bulky lines are concentrated in the East Southern part of the County which has key urban nodes. MAWASCO has its coverage in Malindi Municipality, Gede, Watamu and the neighboring zones. On the other hand, KIMAWASCO serves Kilifi Municipality, Mtwapa, Mariakani, Mazeras and Kaloleni urban nodes together with neighboring areas as indicated in an insert in Map 20.

In order to meet their own water requirements rural areas, have a number of coping mechanisms including water pans or sourcing water directly from rivers. There are also a number of shallow water wells across the County.

Map 20: Water infrastructure distribution within Kilifi County



Source: Author 2022

Water Supply Systems in Kilifi

The main water sources serving Coast Water Works Development Agency (CWWDA) operation area is mostly shared by various counties. The main source of water CWWDA for is Mzima springs which serves the counties of Taveta, Mombasa and some urban nodes located on Mombasa – Nairobi highway in Kilifi and Kwale. The table below shows the water sources and capacity in Kilifi County.

Table 13: Water sources and capacity in Kilifi County

Water Source	Status	Current Capacity (m3/d)	Potential Production (m3/d)	Areas served
Baricho Well Field	Existing	96,000	180000	Mombasa North Mainland and Island, Malindi, Watamu, Kilifi, Mtwapa
Mzima Springs	Existing	35000	105000	Mariakani, Mazeras

Source: Mida-Matsangoni water supply report

The capacity of the existing sources however is inadequate to meet the present water demand in the target service areas. The water scarcity problem compounded with the high Non-Revenue Water (NRW) results in heightened water shortages in the region leading to increased prevalent poverty levels and health problems especially among the low-income population group. The Existing Bulk Water Supply System for KIMAWASCO is as shown in Source:. Despite spending money to upgrade the water supply system, some storage facilities operating below their capacity.

Table 14: KIMAWASCO water supply system

Mzima springs		Baricho wellfield	
Reservoir	Capacity	Reservoir	Capacity
New Mariakani Reservoir	2500 m3	Sokoke BPT	180m3
Mariakani Reservoir	345 m3	Kilifi Reservoirs	1500m3
Mazeras Reservoirs	81,000m3 (Bulk Supply)	Boma Reservoir	1250m3
Lower Ribe Reservoirs	2000 m3	Mavueni BPT	400m3
Upper Ribe Reservoirs	450m3	Ubaoni Reservoirs	2650m3
Kaloleni Reservoirs	1225 m3	Mtepeni BPT	510m3

Source: Mida-Matsangoni water supply report

Table 15: Kilifi County Water demand assessment per sub-county

	2019		2021		2031	
Sub County	Population	Water demand(m³/d)	Population	Water Demand(m³/d)	Population	Water Demand(m³/d)
Kilifi County		58,152	1518457	60738	1,887,607	75,504
Kilifi North	201,462	8,059	210,424	8,417	261,579	10,463
Kilifi South	206,753	8270	215,950	8638	268,449	10738
Ganze	143906	5756	150,306	6012	186,849	7474
Malindi	333,226	13329	348,049	13921	432,663	17307
Magari ni	191,610	7664	200,134	8005	248,788	9952
Rabai	120,813	4833	126187	5048	156864	6275
Kaloleni	193682	7747	202298	8092	251478	10059

Source: Author, 2021

Table 16: Water demand in urban areas

	2019		2021		2031	
Urban areas	Population	Water demand(m³/d)	Population	Water Demand(m³/d)	Population	Water Demand(m³/d)
Kilifi town	75434	3017	78,790	3151	97,945	3,918
Gongoni	21200	848	22,143	886	27,526	1,101
Mtwapa	127737	5109	133,419	5337	165,854	6,634
Kaloleni	21000	840	21,934	877	27,266	1091
Mariakani	39120	1564	40,860	1634	50,793	2,032
Mazeras	12643	506	13,205	528	16,415	657
Malindi	333226	13,329	348,049	13,922	432,663	17,307
Mambrui	23952	958	25,017	1001	31,099	1244
Rabai	57973	2318	60,552	2422	75273	3011
Gede	38759	1550	40,483	1619	50,325	2013

Source: KNBS census report, 2019

3.9.3 Sewerage and Sanitation

There are intermittent sewer line networks within the major towns of Kilifi and Malindi. The rest of Kilifi County is not served by sewer. Access to sanitation facilities remains a big challenge in the County. Toilet coverage is estimated at 67 percent and 20 percent of household hand washing facilities. An average of 42 percent of Kilifi County residents use improved

(Protected) sanitation while the rest use unimproved sanitation. Kilifi South sub-County has the highest share of residents using improved sanitation at 69 percent, while Magarini Sub County has the lowest share using improved sanitation (Kilifi County Inequality Report).

3.9.4 Solid Waste Management

Approximately 127-500tonnes of solid waste is generated daily in Kilifi accounting to approximate 80 percent Organic waste excluding rural households and agricultural waste. Mtwapa Town accounts for over half of the waste generated followed by Kilifi. Tens of thousands of the solid waste is collected by the County and disposed in open dumpsites. Uncollected waste and the disposed off in open dumpsites pollute ground and surface waters and also result in unpleasantly odorous environments, which provide breeding grounds for disease vectors such as rats, flies and mosquitos. Current and projected Waste generation rates for major towns where national average is 0.8kg/capita/day as shown in the table below.

Table 17: Projected waste generation rates in Kilifi County

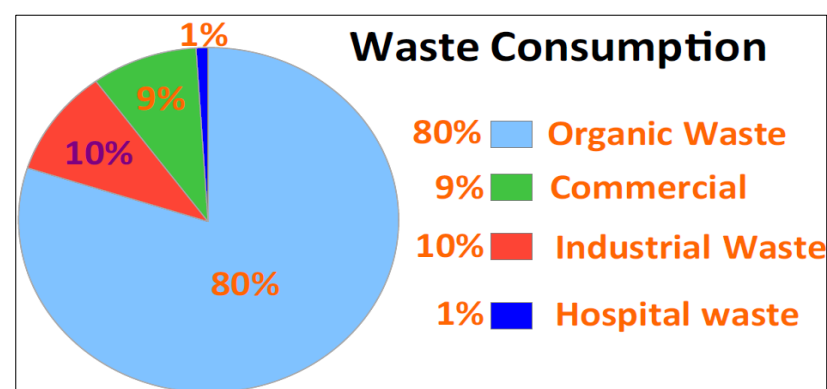
Year	2020	2025	2030	2035	2040
Population	333,226	369,881	410,568	455,730	505,860
Waste generation /kg/ /day in Tons	127	140	156	173	192

Source: Kilifi CWISP

Waste composition

The Municipal solid waste comprises of 80 percent organic waste, 10 percent industrial wastes, 9 percent commercial waste and 1 percent generated hospital waste. The figure 12 below shows the composition of various waste in Kilifi County.

Figure 12: Waste composition



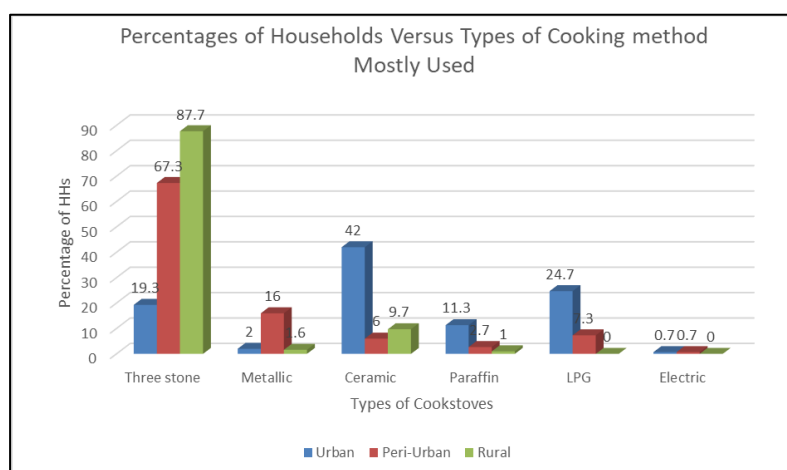
Source: preliminary report on sustainable integrated solid and liquid waste management in Kilifi 2017

3.10 Energy

3.10.1 Current Energy Sources

The method of cooking used by various households depends on the location. Rural areas depend on the traditional three stones where the source of energy is the firewood. Use of charcoal is high in Urban areas where ceramic and metallic stoves/jikos are mostly used. Electricity is the least used source of energy due to high costs. Liquified Petroleum Gas is also highly used in Urban areas. The figure below shows the various energy sources for cooking in Kilifi County.

Figure 13: Energy sources for cooking



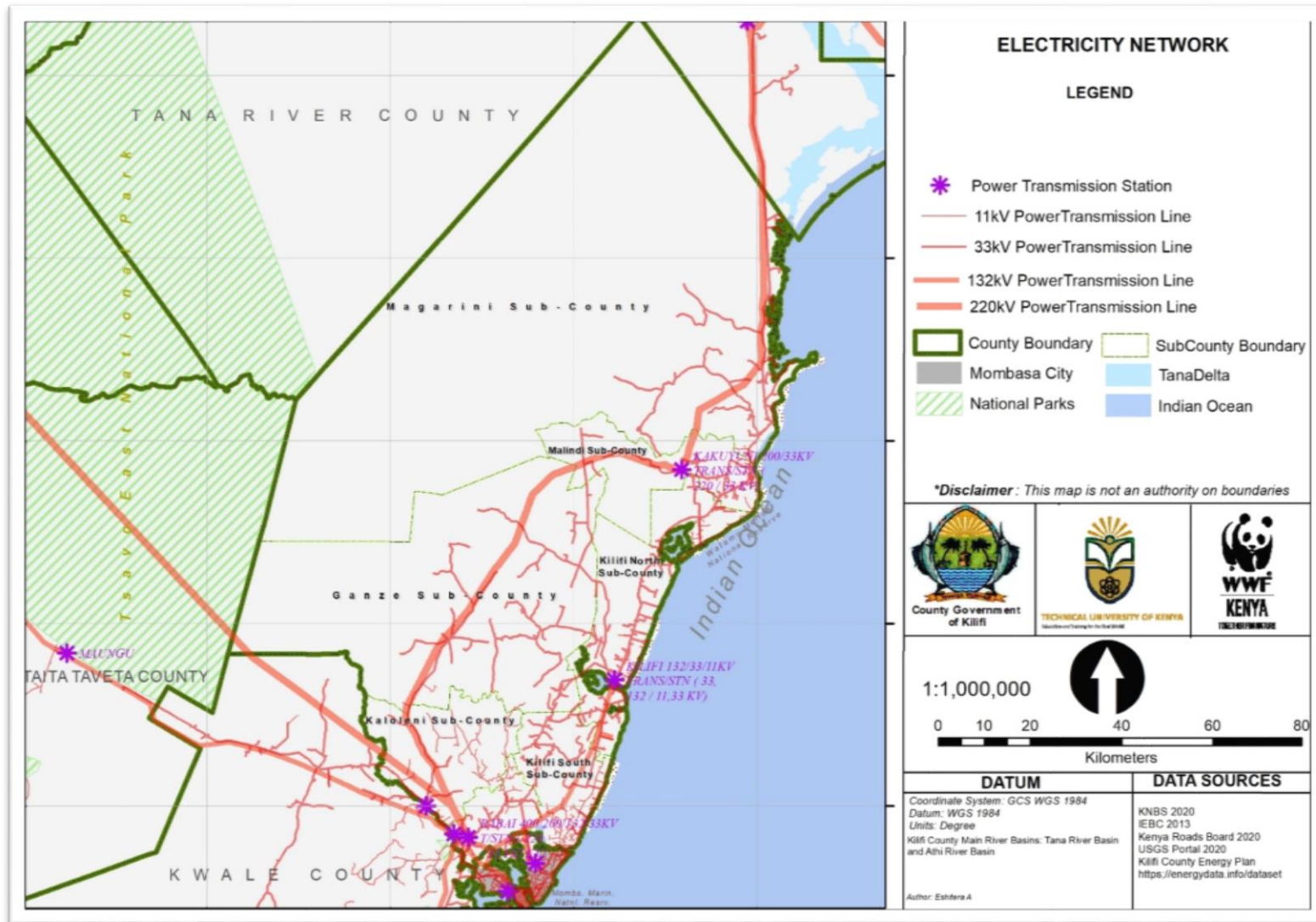
Source: Kilifi Energy Plan

3.10.2 Electricity Access

There are several power stations within the County which include Kilifi 132/33 kV and Rabai 220/132/33 kV. Several other transmission small substations are connected to the 132 kV line from Juja Road to Rabai, however they serve only industrial loads.

The transmission network comprises of a 220 kV National grid branching into 132 kV and 66 kV levels. The nominal fundamental system frequency is 50 Hz. The Kenya Electricity Transmission Company (KETRACO) established in 2008/2009, owns and operates part of the high voltage transmission lines and substations. Map 21 shows the electricity distribution network in Kilifi County.

Map 21: Electricity distribution network in Kilifi County



Source: Author 2021.

3.10.3 Bio Gas

The county is endowed with significant resources that can be targeted for biogas production with a view of meeting the energy demands for majority of the rural communities who are off grid. Kilifi is a home of over 1400 dairy farmers, majority of who live in the peri -urban and rural areas across the county. This would provide a robust investment in biogas production to meet the energy demands of rural communities across the county.

3.10.4 Coal Resource

Potential coal resource is high in Taru basin believed to have large quantities. The basin, which runs across Kwale and Kilifi counties is also believed to have large deposits of rare minerals such as gypsum, Titanium and Zircon and gas reserves. Taru basin covers 900 square kilometres.

3.10.5 Solar Energy Resource

The county has a high potential for solar energy. The entire county receives lengthy sunshine hours which makes solar energy a very promising enterprise. On daily basis the County experiences an average of Direct Normal Irradiation (DNI) ranging between 5.11 kWh/hr./m² per day in the hinterland areas. The Western parts of Magarini sub county records the highest DNI of 5.95 Kwh/hr./m² per day together with the Coastal strip of Kilifi and north of Malindi town. The solar energy potential zones are illustrated in Map 22.

3.10.6 Wind Resource

The county experiences wind speed with an estimated average of 3.30M/s-7.86M/s which has high potential for developing wind energy to support social and economic activities.

3.10.7 Potential Municipal Waste Energy

The county has three Municipal Solid Waste (MSW) dumpsites namely Mayungu in Malindi, Katsimini in Mariakani and Mtondia near Kilifi town.

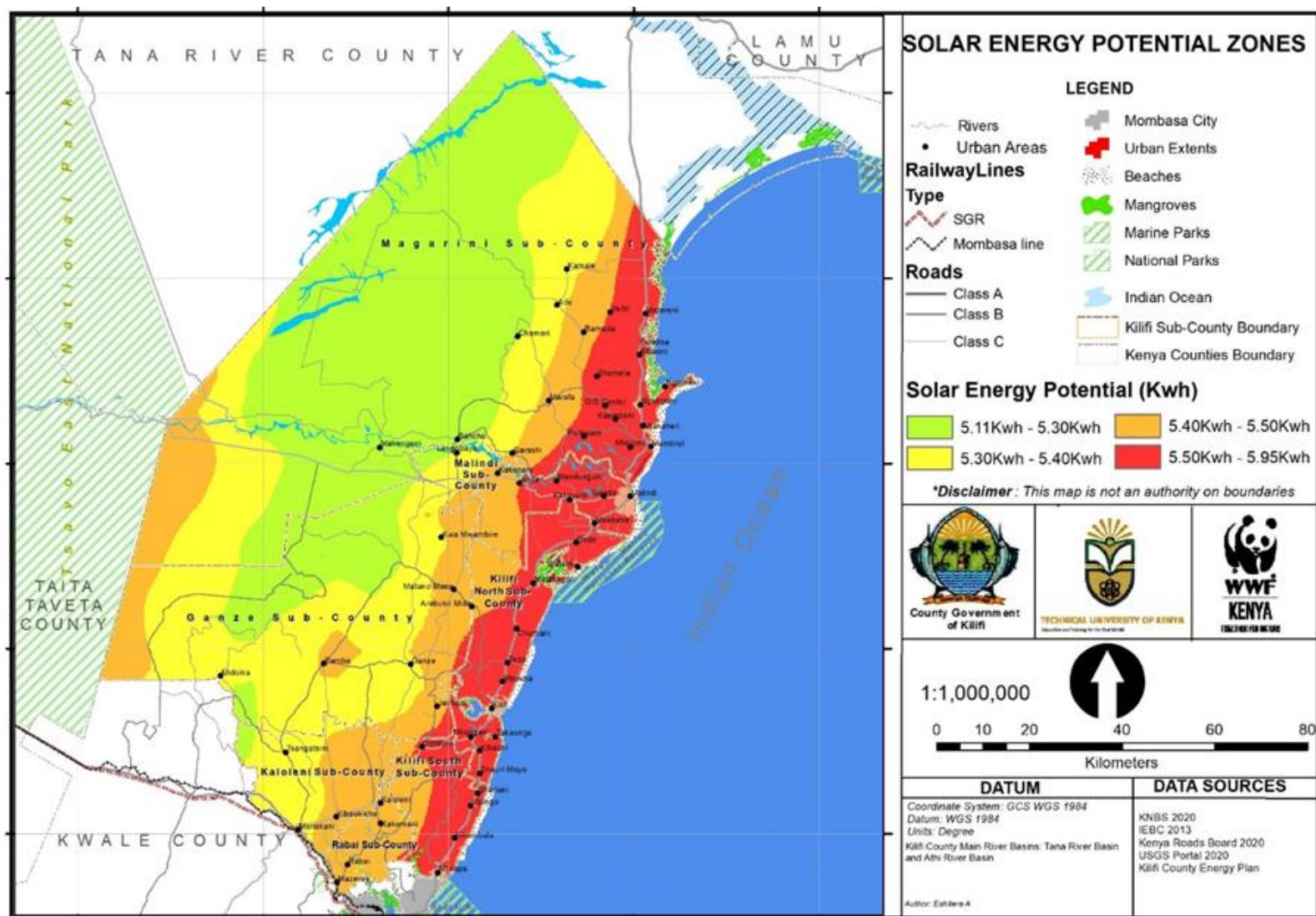
The key major industrial waste with potential to produce energy is the sisal processing at Vipingo and Tabu Estate, Rea Kilifi Plantations. Vipingo production of waste fiber is estimated at 5,000 tons annually. Kilifi Plantations Ltd. production estimated 1,000 tons annually while Tabu Estate Ltd. production estimated 1,000 Tons annually. This is sector which need to be explored as a major source of renewable energy through boilers or bio digesters.

3.10.8 Oil and Gas

The National Government is carrying out petroleum exploration both on-shore and off-shore with a view to discovering commercially viable oil and gas deposits within Kilifi oil blocks.

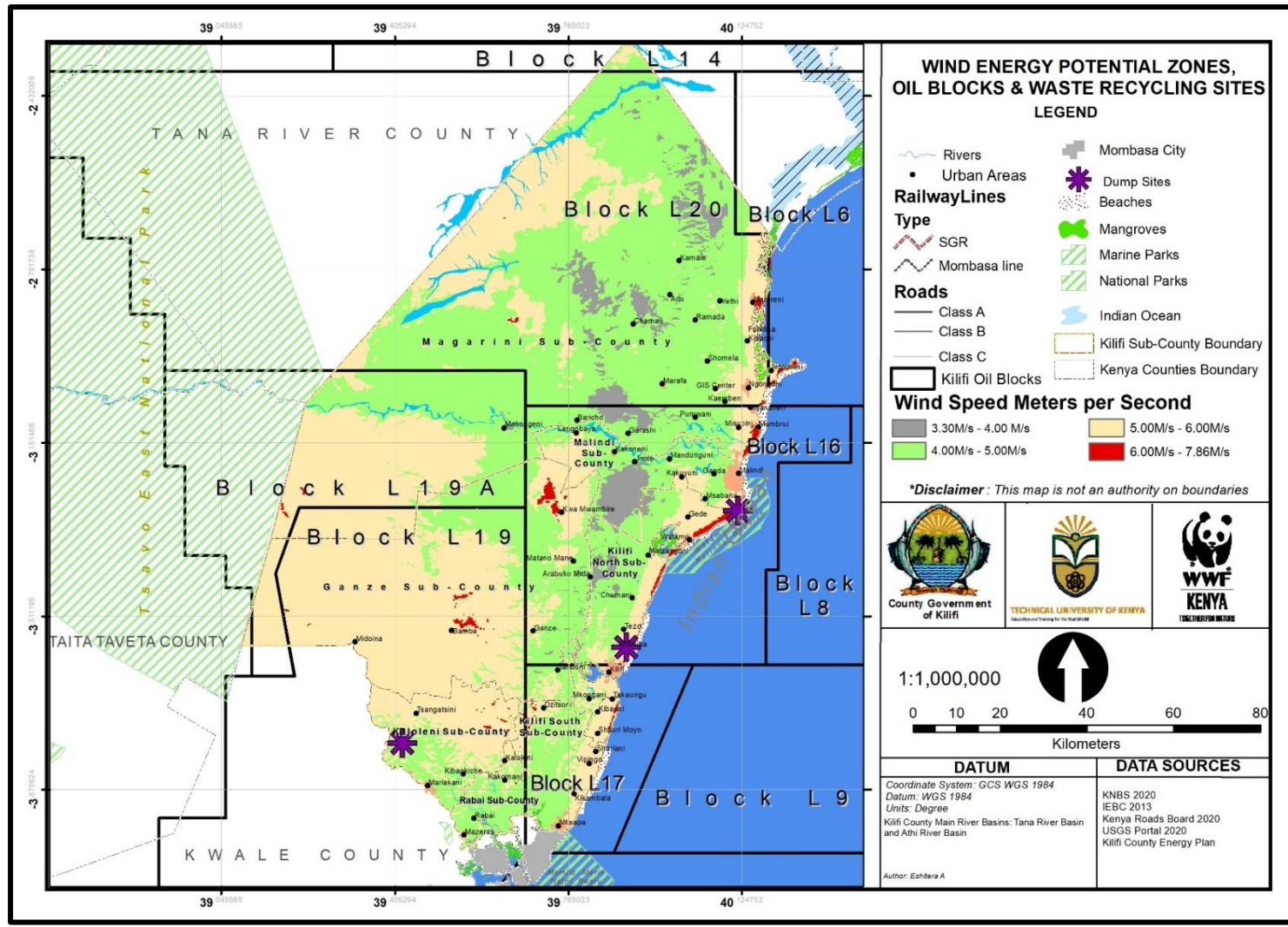
Map 22 shows the solar energy potential zones While Map 23 shows the wind energy potential zones and oil exploration blocks within Kilifi County. A total of seven (7) blocks are located within Kilifi territory that is Blocks L17, L9, L19, L19A, L20, L16, and L8.

Map 22: Solar energy Potential zones within Kilifi County.



Source: Kilifi County Energy Plan 2022.

Map 23: Wind Energy Potential, Oil exploration Blocks and waste recycling sites.



Source: Author 2021.

Table 18: Synthesis of the infrastructure sector. (Source: Author 2021)

Planning Issues/Challenges in the Infrastructure Sector	Development Perspective
Road Transport	
Low connectivity and network within the rural parts of the County	Increase the road network within the County.
Poor condition of some of the roads	Upgrade the earth roads to gravel status.
Majority of the roads are single carriage.	Upgrade the Main Roads to a dual carriage status.
Frequent traffic jam at Mtwapa.	Complete the Dongo Kundu bypass.
Rail transport	
The connection to rail does not serve most parts of the County	Connect parts of the County using the standard gauge rail
Air transport	
The Malindi airport is congested with no room for expansion.	Expand the existing Malindi Airport to increase its capacity
Water ways	
The waterways transport has not been utilized within the coast region.	Build a sea port in Kilifi town and docking points along the shoreline.
The challenge of piracy	Establishment and equipping of the antipiracy patrols along the coast.
Water and sanitation	
The rural parts of the county lacks water services	Increase the water supply coverage to other parts of the County.
Use of unimproved and unprotected water in the county	Carry out water treatment programs
Limit to water supply due to limitation of the transmission lines.	Increase the capacity of the existing water distribution system.
Sewerage services are only available within Malindi and Kilifi Town.	Build sewerage treatment plants in all tier 1 and tier 2 centers.
Telecommunications and ICT	
The fiber optic network is limited	Extend the fiber optic network to all tier 1 and tier 2 centers.
Energy	
Electricity services are mainly available within Centers.	Increase the electricity distribution within the County to all centers.
Overreliance on electric energy for the running of the urban centers	Introduce wind, solar and tidal wave energy for generating electricity.
Overreliance on wood fuel as the main source of cooking energy	Subsidize the use of liquified petroleum gas (LPG).
Underutilized biogas plants within Kilifi County.	Reignite the use of biogas energy within the region

3.11 The Economy

This section focuses on understanding the various economic activities taking place within Kilifi County and the challenges they are experiencing.

3.11.1 Agriculture

It is the major economic activity to the majority of the residents of Kilifi County and is classified into either Livestock keeping or crop farming. Crop farming and livestock keeping contribute significantly to the economy providing opportunities for agribusiness and employment creation. Cash crops and horticultural crops earn the country foreign exchange through exports.

(a) Crop production

The County is endowed with extensive arable land of approximately 6891.2km². The area is composed of mainly sandy-loam soils with high water holding capacity and rich in plant nutrients, hence the residents are able to cultivate a wide range of crops on the land. The main food crops grown across the County include: maize and cassava while **cash crops** include: coconuts, pineapples, sisal, cashew nuts, citrus fruits, oranges and mangoes. **Horticultural crops** such as fruits and vegetables that include: okra, tomatoes, bananas, watermelon, citrus, amaranthas while **Industrial crops** include: coconut, cashew nuts and sisal.

Labor and Capital for Agriculture: Due to high poverty levels, majority are unable to raise capital for the intensive and mechanized agriculture.

Market and transportation facilities for agricultural produce: The cost of transport to the market is very expensive hence affecting the competitive power of the agricultural output. This is because the County is not well linked with transport networks. The table below shows the various agricultural practices in Kilifi County.

Table 19: Agricultural practices in Kilifi County

Sub County	Crops grown	Fruits grown	Livestock kept
Ganze	Maize, cassava	Coconuts, mangoes, bananas and pineapples	Beef, Dairy goats, Sheep, Poultry and bees
Rabai	Maize, cassava	Coconuts	Dairy cattle, Beef cattle, Goats, Poultry and bees.
Kaloleni	Maize, peas, cassava and potatoes	Coconuts	Beef cattle, Poultry, goats, dairy cattle and Sheep.
Magarini	Maize, green grams, beans and pumpkins	Watermelon, paw paws, cashew nuts, coconuts and tomatoes	Goats, beef cattle, dairy cattle, sheep and Poultry.
Kilifi south	Maize, green grams, cassava and rice	Coconuts and watermelons	Poultry, sheep, pigs, dairy cattle, beef cattle and Poultry

Kilifi north	Maize, beans, peas, tomatoes, green grams and cassava	Pineapples, watermelons, coconuts, mangoes and cashew nuts	Poultry, dairy, beef cattle, goats, sheep, poultry
Malindi	Maize, cassava, beans and green grams	Pineapples, coconuts and watermelons	Goats, beef cattle, dairy cattle, sheep, poultry and bees.

Source: field survey 2015

(b) Livestock Keeping:

The County is stocked with 164,033 heads of cattle, 129,000 goats and 25,350 sheep. The total livestock herd is composed of beef cattle(zebu), dairy cattle, sheep, goats and poultry (indigenous and commercial). The figure below shows some of the agricultural practices in Kilifi County.

Figure 14: Various agricultural activities in Kilifi County



Source: field survey 2015

3.11.2 Tourism

Tourism is a major component of economic growth in Kilifi County. It is the second largest industry after agriculture. It contributes to the country's economy; 18 percent to Foreign Exchange earnings, 11 percent Revenue to the Government, 10 percent for total employment, 9 percent to the GDP and also exerts an increasing influence on coastal landscape, ecosystem and cultural heritage.

(a) Tourist Attractions in Kilifi County

There are numerous tourist attraction sites in Kilifi County; they include Forests, National Heritage Sites, Coastal and Marine resources and a number of potential tourist attraction sites. Map 24 shows the various tourist attraction sites in Kilifi County.

1. Forests

The tourist attraction forests in Kilifi County include the Arabuko Sokoke Forest and the Sacred Mijikenda 'Kaya' Forests.

i. Arabuko Sokoke Forest

It is one of the largest forest Reserve in Africa covering an area of about 400 sq. Kilometers. It is home to various rare species of animals and birds which include African Elephants,

monkeys, baboons, buffaloes among others.

ii. The Sacred Mijikenda 'Kaya' Forests

The Kaya forests depict the concept of 'cultural landscapes' which were developed as a means of recognizing areas that combine the works of man and nature under the World Heritage Convention.

2. Coastal and Marine Resources

The tourists' attraction coastal and marine resources include the River Rare Eco Centre and Nature Park, the Coastal Beaches and the Mida Creek.

i. River Rare Eco Centre and Nature Park

River Rare Eco Centre and Nature Park is 50Km North of Kilifi town. It is rich in hidden treasure that is yet to be exploited.

ii. Mida Creek

Mida Creek is a tidal inlet that expands across an area of 32sq. Kilometers. It comprises different types of habitats that are influenced by the tide.

iii. Coastal Beaches

Kilifi County has spectacular, magnificent beaches along its coastline. These are great tourist destination sites in the County. The towns with beautiful beaches include Kilifi, Watamu, Kikambala, Mnarani and Bofa.

3. National Heritage Sites

They include the Gede Ruins, Vasco Da Gama Pillar, Mnarani Ruins, Hell's Kitchen and the Jumbo la Mtwana.

4. Potential Tourist Attraction sites

Kilifi County has potential tourist attraction sites that have not been exploited. They include the Watamu Monument and the Kijipwa Mosques and Graves.

3.11.3 Tourist Trends in Kilifi County

Report from the National Bureau of Statistics indicate a decrease in tourism trend as a result of the continuous threat of terrorism.

3.11.4 Position of Kilifi County within the National Tourism Circuit

Kilifi County is also located within the Coastline Tourism Circuit. This circuit has expansive beaches and rich history of tourism which is crucial to the growth of Kenya's tourism industry. Additionally, a historical safari here involves a trip to the Vasco da Gama Pillar, Gede Ruins, Hell's Kitchen and Malindi Museum among other sites.

The coast has luxurious accommodation offered in resorts and lodges along the beaches. The key tourism assets in Kilifi County includes Arabuko Sokoke Forest Reserve, Malindi Marine Park & Reserve and Watamu Marine Park & Reserve.

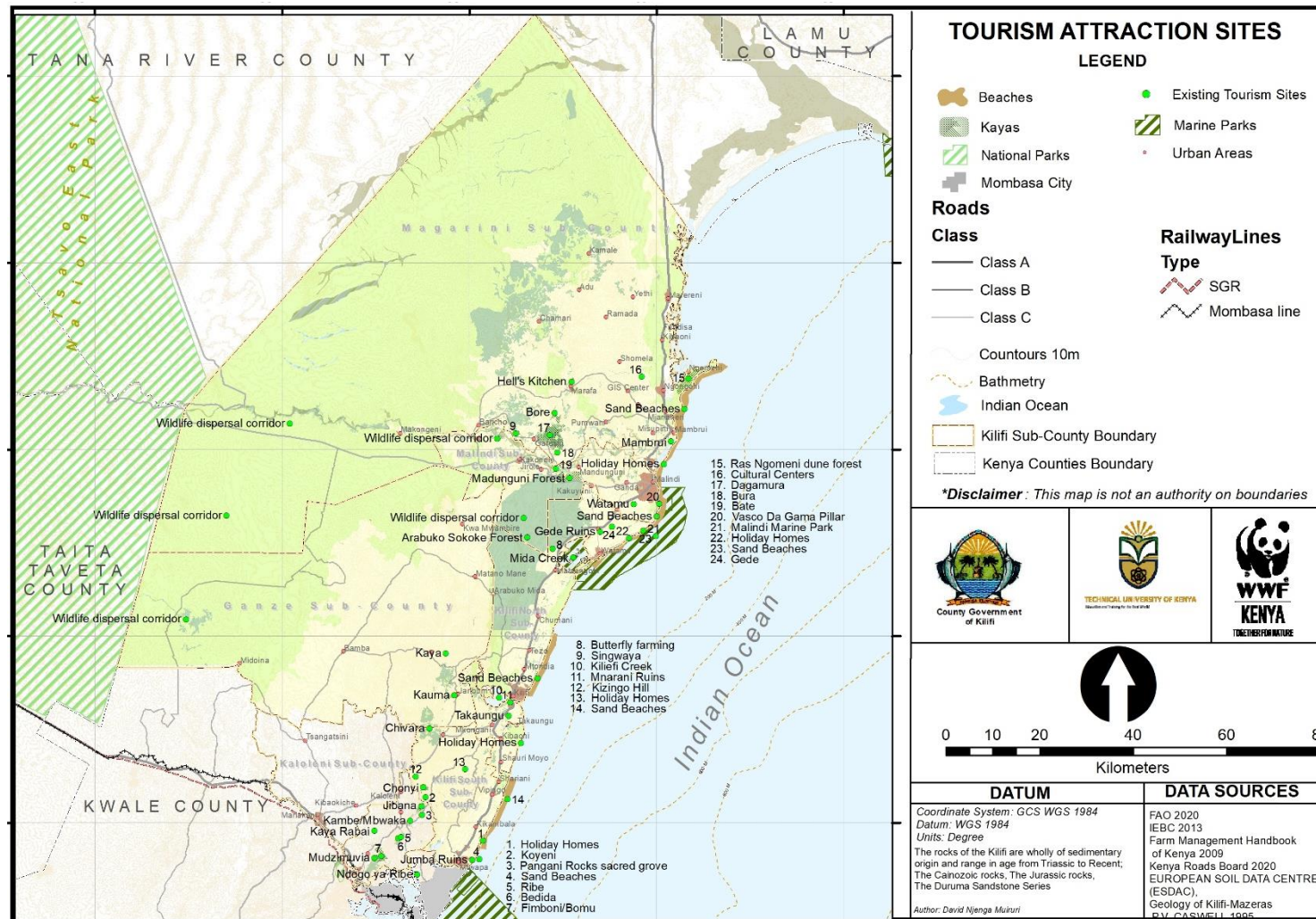
Emerging issues from Tourism Sector

- **The Economic benefits of tourism in Kilifi County:** It relates to foreign exchange

earnings, contributions to the National government revenues, creation of employment and business opportunities to the local communities.

- **Economic Sustainability of Tourism:** There are many hidden costs to conventional tourism in Kilifi County that have unfavorable economic effects on the community as discussed below.
- ✓ **Leakage:** This is the amount of money that is drained out due to tax payments, profits and wages paid outside the County and expenditure for imports. Tourists remain at the same cruise ship or resort for their entire stay, which provides everything they need and where they will make all their expenditures. This means that there is not much opportunity left for the local people to profit from tourism.
- ✓ **Increase in prices:** Increasing demand for basic services and goods from tourists often cause raised prices that negatively affect local residents.
- ✓ **Economic dependence on tourism:** Kilifi County remains vulnerable if it depends on tourism as one of its economic backbones especially if there is an external impact to local tourism industry such as terrorist scares.
- ✓ **Seasonal character of jobs:** The seasonal character of the tourism industry creates economic problems for destinations such as Kilifi County that are heavily dependent on it.

Map 24: Tourist attraction sites in Kilifi County



Source: Author 2021.

3.11.5 The Blue Economy

Blue Economy is the sustainable use and economic development of both aquatic and marine spaces including oceans, seas, coasts, lakes, rivers, and underground water. It encompasses a range of productive sectors including: fishing, aquaculture, tourism, transport, shipbuilding, energy, bio prospecting, underwater mining and related activities. If Blue economy is tapped into, opportunities such as employment creation shall be realized. Map 25 and 26 shows the various activities of the Blue Economy in Kilifi County. Map 27 also shows the marine territorial extents of the Kenyan Coast illustrating the limits of marine spatial planning. Below are some of the sectors of blue economy in Kilifi County.

Agriculture: Blue agriculture involves fish farming, rearing of aquatic species such as lobsters and shrimps and sea weed farming.

Fishing: Kilifi County has over 7,000 fishermen distributed in different fish landing sites along the coastline with an annual catch of about 443,689 tonnes.

Tourism: Tourism is the leading economic mainstay in the county with activities happening mainly along the Coastal line where Malindi, Watamu, Kilifi, Mtwapa, Mamburi, Vipingo and other small tourism towns are located.

Trade: Blue trade flourishes as a result of products harnessed from the ocean. These products include fish and fish products, sea foods, other aquatic organisms, minerals etc.

Industries: A number of processing and manufacturing industries have emerged due to the emergence of Blue Economy. Among these are the fish processing industries and also the processing of other sea foods in general. Industries manufacturing fertilizers, soap, hair products and medicine from sea weed are growing gradually.

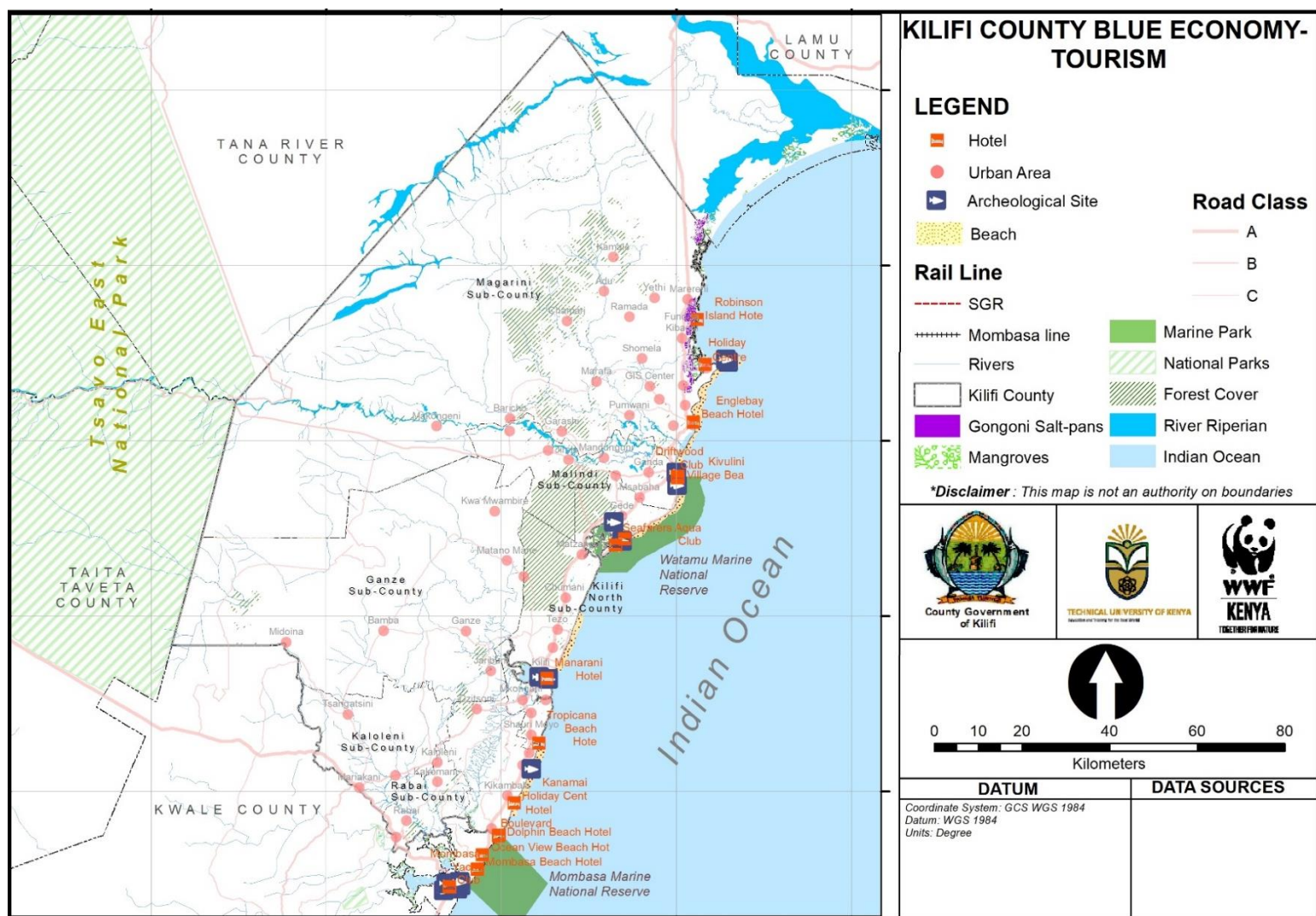
Maritime Transport: Kilifi County has the potential for the establishment of an elaborate water transport route, together with terminal facilities at strategic locations. This could provide opportunity for the earning of revenues for the County Government.

Water Supply: Kilifi County Government stands to benefit from the desalination of sea water to enhance water supply for its residents. In its early stages, desalination was considered a quite expensive endeavor, however with vast advancements in technology, cheaper methods have been developed to enable this.

Energy: Kilifi County has the potential for the exploitation of tidal and other marine forms of renewable energy which will be added to the National power grid. A 36MW wind farm tapping on the conventional winds from the ocean currents was recently completed at nearby Vipingo, to power the local operations of Bamburi Cement Company and immediate neighboring settlements. More sites that could tap on these winds have to be explored and their viability established for power generation.

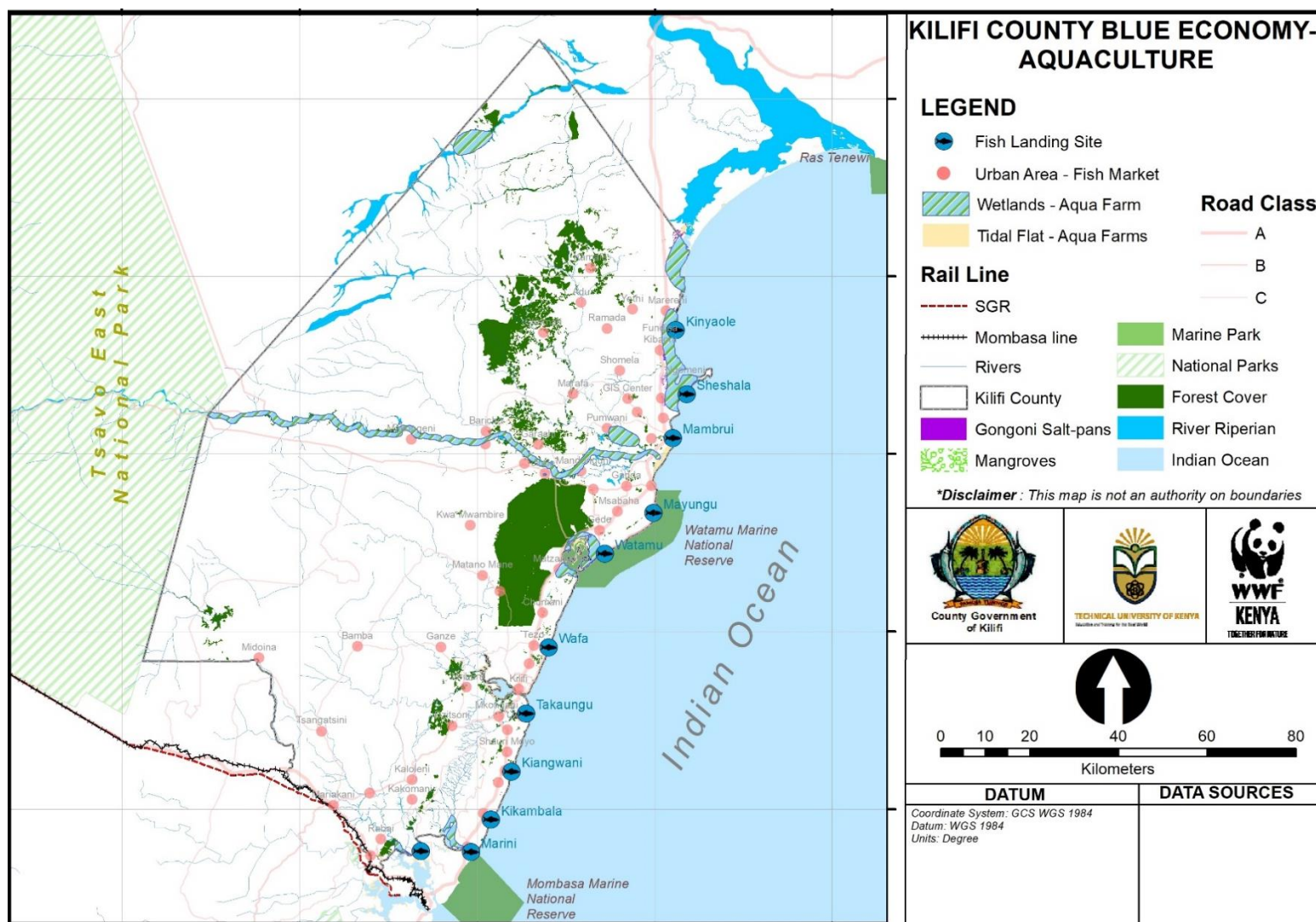
Mining: Aside from the dead coral reef, there exists the mining of sand, along the Coast of Malindi. Studies are however yet to be undertaken to establish the mineral potentials along the coastline although there has been an allusion to mercury, gypsum and iron ore, there is also lead deposits along Kilifi Creek, where small scale mining of lead occurs.

Map 25: Distribution of blue economy projects in the tourism sector within Kilifi County



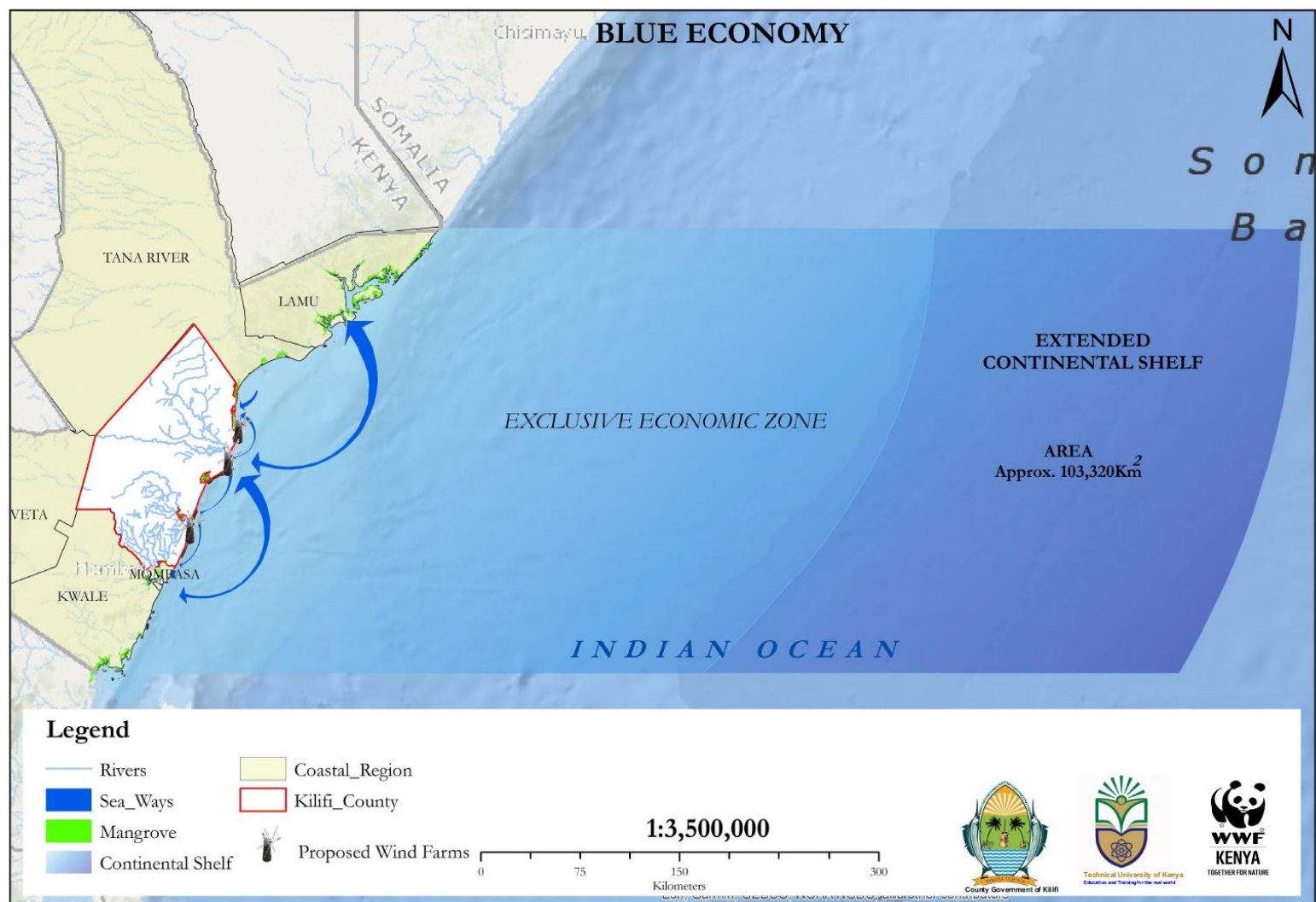
Source: Author 2021.

Map 26: Distribution of blue economy projects in the tourism sector within Kilifi County



Source: Author 2021.

Map 27: Marine Territorial extent of Kenya



Source: Author 2022

3.11.6 Hospitality Industry

The hospitality industry in Kilifi County is one of the leading business activities and employer that is also related to tourism. Nearly all major towns and small towns along the County's Coastline are lined with five-star hotels. According to the Provincial Tourism office in Mombasa, in the year 2010 Kilifi County had a total of 100 hotels, 6,102 bed capacities and 420 villas. The table below shows the status and classification of hotels in the county.

Table 20: The status and classification of hotels in the County

Level of hotel	No	Bed capacity	Highest no of employees	Annual levies to the county
5 stars	2	270	300	84,000
4 stars	4	470	600	168,000
3 stars	4	753	700	168,000
2 stars	4	421	550	168,000
Others	602	2475	30,100	24,948,000
Totals	616	4,189	32,250	25,536,000

Source: Directorate Data 2020.

Figure 15: Tourism and hospitality within Kilifi County



Source: field survey 2015

3.11.7 Trade

Trade in Kilifi County can be classified as either *local or international trade*.

Local Trade: This is contributed majorly by the production of agricultural products; dairy products, crops and commercial crafts that lead to communities in the County trading the products in the local markets informally within the 7 sub- counties.

Local Trade Marketing trends: Kilifi County has open air markets centrally located within the 7 sub-counties that help consumers get their goods either through retail or wholesale. Some agro- based products like raw cashew nuts and mature coconuts are

bought by processors for value addition before export.

International Trade: This is characterized by export of sisal, cashew nuts, coconuts, bird eye chilies, ornamental fish such as the sea horse and natural juices from processed fruits. There is also presence of existing Export Processing Zones (EPZs) in the County which export textiles to the United States under the African Growth and Opportunity Act (AGOA).

International Trade Marketing Trends: Export Processing Council (EPC) has been working closely with one of the growing textile enterprises in building their capacity in ethical trade awareness for competitiveness in the export market. The Council is also working closely with two companies in the County which are in the Coconut sub- sector.

3.11.8 Commerce

Commercial activities in the County have been categorized as Formal and Informal.

(a) Formal Commercial Activities

They include the Banking system and the corporative sector.

Banking Sector: Banking activities have been growing in Kilifi County with about 7 banks (Kenya Commercial Bank, Barclays, Postbank, Imperial, Equity, Co-operative, Diamond Trust Bank and most recently National Bank) as well as 17 micro finance institutions (Kenya Women Finance Trust, Faulu, Platinum credit) among others.

Co-operative Sector: Within the County, cooperatives are grouped into two; they include service and credit cooperatives (Sacco's) which are mostly employer societies

Commerce and Urbanization: Vibrancy of commercial activities has led to urbanization of previously considered rural areas and centers. This has led to the economy in Kilifi County purely being driven by commerce.

Distribution of Commercial Activities

Commercial activities are majorly located in the larger urban centers of the County like Malindi, Mtwapa and Kilifi among others. They have a linear development along the major roads linking larger commercial centers together.

(b) Informal Commercial Activities

Small scale businesses; JuaKali, handicrafts making, furniture, wooden carvings, tailoring and other small retail business are wide spread throughout the County.

(c) Industries

Industrial activities are among the leading contributors of the County's economy. There are a number of industrial activities across Kilifi County with mainly manufacturing and extracting activities located along major transportation routes and the Coastline to ease transportation as illustrated in Map 28.

Types of industries and their Location

Manufacturing: This involves heavy industrial activities such as Cement and iron sheet manufacturing. Limestone is deposited along the Coastline where they are extensively extracted to manufacture cement. Cement factories are found in Kaloleni (Bondora) and Takaungu.

Processing: This mainly comprise of agro-based produce grown in Kilifi such as sisal, cashew nuts and coconuts. Sisal is processed in Kikambala and Vipingo areas while cashew nuts are processed in Kilifi.

Extractive

Mining: There are several mining activities that are taking place within Kilifi County with other potential mining areas in existence. There are also oil exploration blocks within the County. Some of the minerals that exist in the County are, Titanium, Manganese, Barytes, Gypsum and Gemstones.

Salt extraction: Extensive salt works have been established at the Gongoni-Fundisa area and Kurawa. The total area dedicated to salt production is over 5,000 hectares that yield an average of over 170,000 tonnes of salt annually.

Building materials

i. Sand

There exist a multi-million sand harvesting industry in Kilifi County. More than 90 per cent of the building sand for the entire Coast region is harvested in Mjanaheri area which is managed by the Magarini Sand Harvesters Association.

ii. Building stones

Coral stone for building is mined in Tezo and Kilifi. Coral block cutting for building stones takes place at Soyo and in Magorani. Generally, all along the coastline, limestone is being exploited for building stones.

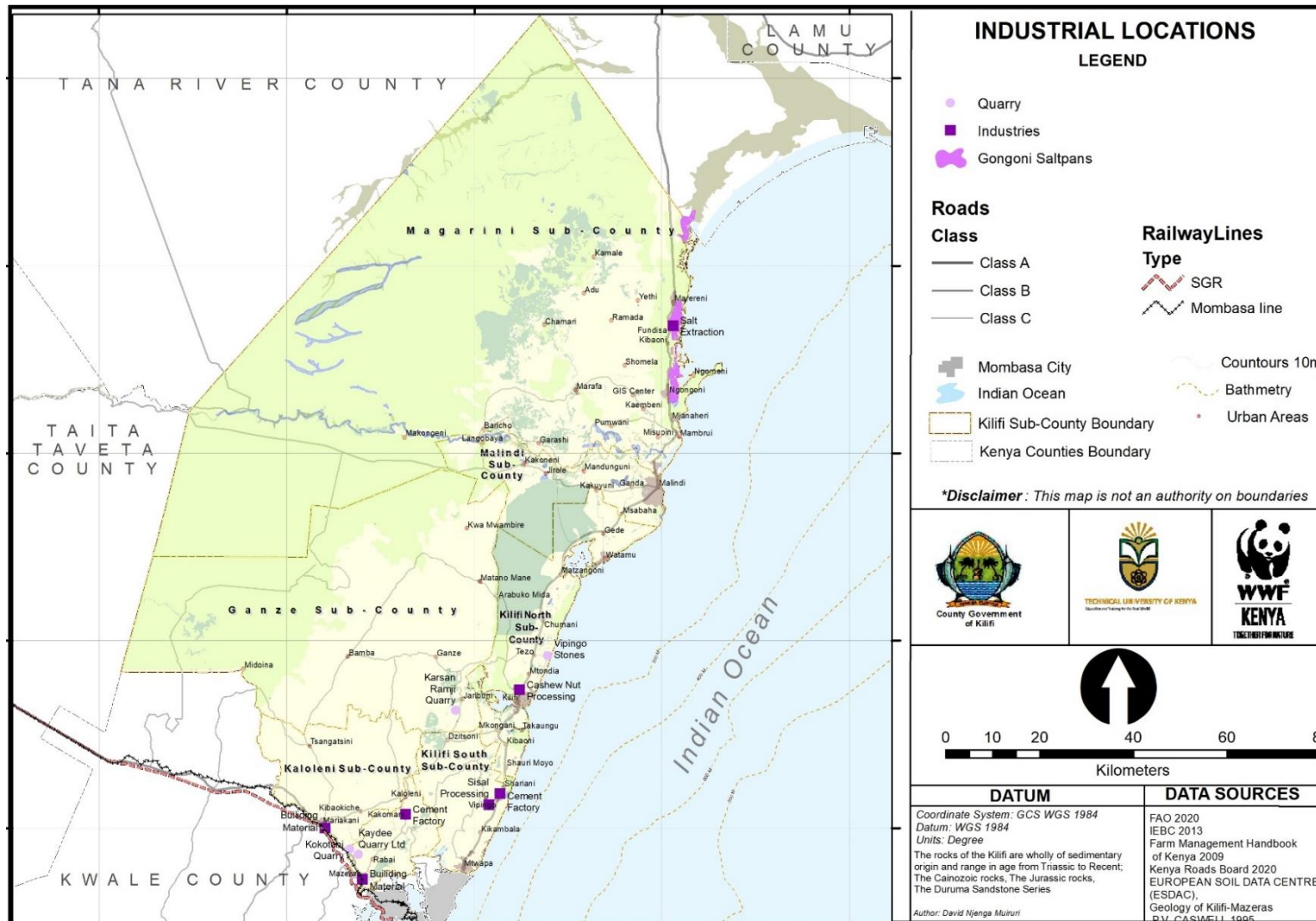
iii. Cement

Limestone deposits are extensive along the coastal zone within Kilifi County. The resource is very abundant, forming a 4-8km wide band, some 70m thick, running parallel to the Coastline. North of Malindi, older limestone units occur further inland. Only a few exposures of isolated limestone occur on the coastline between Malindi and Lamu area. **Error! Reference source not found.** shows the distribution of various industries in Kilifi County.

Quarrying: It is carried out extensively to produce building stones and ballast in Mazeras and Mariakani.

Sand harvesting: Extensive sand harvesting is carried out by Magarini Sand Harvesters Association in Mjanaheri. Sand is also harvested in Ngomeni, Gongoni and Fundisa to Marereni.

Map 28: Location of industries within Kilifi County



Source: Author 2021.

3.11.9 Fishing

Just like agriculture, fishing is another important economic activity in the County with fishing done at the coastline and at the creeks. It provides employment to the coastline communities and at the creeks where more than 500 families depend on fishing for survival.

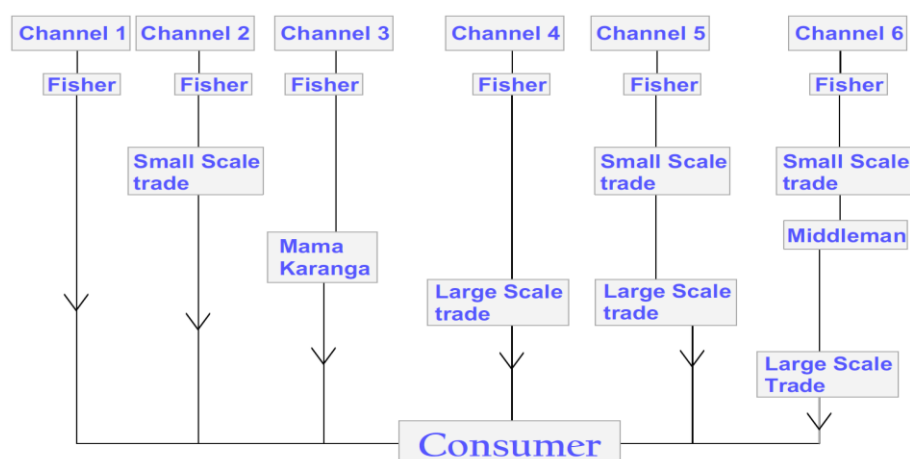
3.11.10 Boat Making:

Takes place in Malindi, Watamu and Kilifi. The locals get income through construction and sale of the boats and other sea equipments

The fish market

Marine fish marketing starts at the point where fish is landed. 95 percent of the fishing boats and gears are mostly owned by boat owners who in most cases are fish dealers who undertake the functions of wholesaling, retailing or both. The figure below shows the main fish marketing channels within Kilifi County.

Figure 16: Main fish marketing channels in Kilifi County



Source: Author 2022

3.11.11 Employment (Formal and Informal Employment)

In Kilifi County, 16 percent of the residents have no formal education, 23 percent of those with primary education and 39 percent of those with secondary education and above are working for pay (Field Survey, 2015).

3.11.12 Trade and Infrastructure

Trading is majorly done in the urban centers in the County. The major urban centers are; Kilifi, Malindi, Mtwapa, Mariakani, Mazeras and Kaloleni which are aligned along major transport corridors which enhance transportation of goods and services hence boosting trade. There are other small urban centers in the interior part of the County which include; Marafa, Adu, Ganze, Garashi among others. The urban centers are sparse in the northern part of the County due to poor road connectivity. The proposed Lamu Port Southern Sudan-Ethiopia Transport (LAPSSET) Corridor project aka the Lamu corridor and the Standard gauge railway (SGR) will create a trickledown effect when it comes to development in Kilifi County.

Table 21: Synthesis of the economic sector

Summary of planning issues/challenges on the Economy	Development Perspectives
Agriculture	
Drought	Promote the application of irrigated agriculture
Poor linkage between farms and markets due to poor roads condition	Upgrade the access roads
Lack of value addition in agricultural outputs	Establish value addition industries for the cash crop growing areas
Poverty-lack of skills and knowledge	Establish regular farmers training programs
Declining industries and cooperatives due to low produce	Reestablish the declining industries and cooperatives
Exploitation by middlemen	Establish a fair and effective marketing systems
Inadequate drinking water for cattle	Build water pans at specific points within the drought prominent areas
Occasional surplus produce for certain cash crop products	Establish processing companies for cash crop products
Fishing	
Generally unexploited fishing industry	Develop fish landing sites
Degraded environments leading to fish migration	Protect the marine and coastal environment
Narrow fishing shelf within Kilifi County which limits the fishing Zone.	Promote deep sea fishing to target the international waters
Invasion of the fishing grounds by neighboring countries	Impose heavy taxes on foreign fishing vessels
Overfishing	Ensure the regulations against unsustainable fishing are fully implemented.
Inadequate fish landing sites	Expand the capacity of the existing fish landing sites
Lack of cooperatives that can offer credit facilities	Promote the existing cooperative societies to give them a lending ability.
The existence of middlemen who exploit the fishermen	Establish a fair and effective marketing system
Tourism	
Threat of terrorism within the County	Putting measures to ensure safety and security of the tourist and the public and reassuring the major tourism sources of security during their stay within the county.

Degradation of the culture of the local community	Conserve and manage tourism cultural and heritage sites by involving local communities in identifying and protecting Coastal heritage and managing significant regional tourism and heritage sites
Issue /Challenge	Development perspectives
Unsustainability of the tourism industry	Diversification of tourism products
The existence of potential but unexploited tourist sites	Promoting and developing new potential sites
Increased prices for local goods and services	Putting measures to harmonize the prices for goods and services
Inadequate accommodation facilities within some of the tourist attraction sites	Investing in hospitality sector through the establishment of support facilities and infrastructure-
Human-wildlife conflict and Encroachment to tourist reserves	Mitigate the human wildlife conflict through community-based natural resource management, raising community awareness on building local capacity for conflict prevention and resolution and increasing public understanding of human-wildlife conflict.
Pollution of the ocean	Environmental conservation
Poor infrastructure	Investment in tourism-based infrastructure such as construction of airstrips, hotels, villas etc.
Mining	
Pollution of the environment, destruction of vegetation by the cement dust	Enforce the environmental measures to ensure mitigation of the effect on the environment.
Consolidation of vast grazing land for the salt ponds	Form an agreement with the community oh how they would benefit from the projects and how they would be able to get alternative grazing land
Exploitation of local communities by the Mining and oil exploration companies	Reassess the licenses issued to the mining and oil exploration companies and ensure that only companies that follow the mining rules and regulations are allowed to operate within Kilifi County.
Threat of home owners near the sand mines of being displaced and the Mjanaheri water wells	Compensate and relocate home owners located near the sand mines for their own safety. Also control by restricting the mining activities to an agreed area.

Source: Author 2022

3.12 Urbanization and Human Settlements

Human settlements in Kilifi County are categorized into Rural and Urban settlements. In Kilifi County, rural settlements are found beyond designated urban centers. These are the settlement schemes that are predominantly agricultural. These settlements are in rural, market and local centers. Urban settlements are predominantly within the principal towns and main urban areas and sub-County headquarters.

3.12.1 Typology of settlements

The main categories under typologies of settlements are the Urban and Rural settlements.

a)Urban Settlements

As at 2019 population census, the total urban population of Kilifi County accounted for 3 percent of the total population. Housing is a major issue in Kilifi County illustrated within the urban and service centers. This is because of urbanization and rural –urban migration which have resulted into rapid population growth increasing the demand for housing and the pressure to provide the same.

b)Rural Settlements

The last population census placed 74 percent of the population in Kilifi County as rural population. Traditionally, the houses are constructed of palm fronds (makuti) for roofing, mud-plastered walls of mangrove poles and are characterized by a verandah at the frontage. This house design is suitable in this County where the climate is rather hot and humid. House provision is majorly by individual effort.

Other house types found within the rural areas are those built around service institutions like health centers, schools and churches. These are conventional permanent structures constructed of stone blocks, iron and asbestos sheet roofing and glass windows. Most houses are substandard and are prone to disasters such as floods, fires and infiltration by pests and snakes. The number of people per house depends on the family size, but over-crowding is common. Rural housing is also hampered by the unavailability of building materials. New ideas are shunned at times out of fear of witchcraft and due to the strong cultural bonds, which still dictate daily life.

c)Sparse and Scattered

At the North and North-west, the County is barely settled. The unsettled areas are the rangelands of Bamba, and almost two thirds of Magarini sub-County. These areas are drier and the harsh climatic conditions have rendered these areas not suitable for settlement compared to the other parts of the County. Further, land tenure ship could also be a factor to explain this scenario at Bamba rangelands, it is mostly used for ranching which require huge tracts of land for livestock.

The rest of the County is almost divided into two halves geographically by the river Sabaki. The distribution of settlement indicates that almost two thirds of them are towards the Southern side of the river. The distribution of the settlement can directly be attributed to potentiality of the regions. The high potential zones are found at the southern side of the river compared to the Northern side which is drier with harsh climate.

Figure 17: Urban, rural, market and informal settlements within Kilifi County



Source: Field survey, 2015

3.12.2 Settlement Patterns

a. Linear Settlements

Settlements in Kilifi County are structured around the infrastructural corridors. The two major corridors are Mombasa-Nairobi Highway and Mombasa-Lamu Highway. Of the two, a concentration of settlements is aligned on the Mombasa-Lamu Road where we have the County principal urban areas located such as Mtwapa, Kilifi, Malindi and Marereni.

b. Clustered Settlements

Clustered settlements are found further away from the coastline into the interior. The pattern is influenced by resource potential whereby high potential zones are dense compared to those of less potential. Dense settlement clusters are found in Chonyi division and some parts of Kaloleni division where there are high potentials for agricultural production. Sparse settlement patterns are in the areas of Ganze, Vitengeni, Bamba and some parts of Kaloleni division.

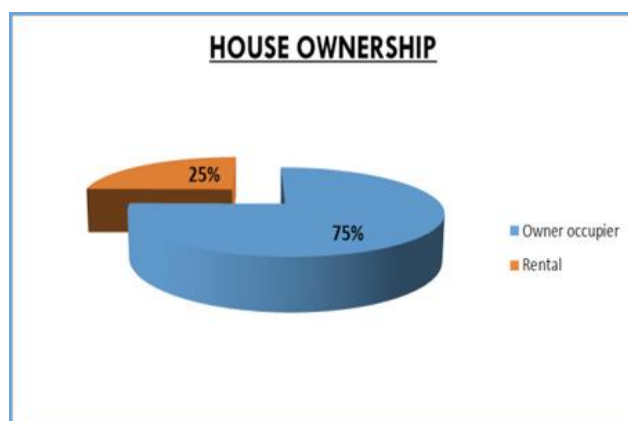
c. Urban Nucleated Settlements

All the principal towns such as Malindi, Kilifi, Mtwapa and Mariakani are found on the Southern side of the river.

3.12.3 Housing ownership

Housing in Kilifi County is majorly private (by individual effort). 75 percent of the population own houses while 25 percent live in rented homes. The government has also contributed to the provision of housing in the County as seen in the major towns such as Kilifi, Malindi, Marafa, Mariakani, and Kaloleni. The figure below shows house ownership in Kilifi County.

Figure 18: Percentage of house ownership within Kilifi County



Source: Field survey 2015

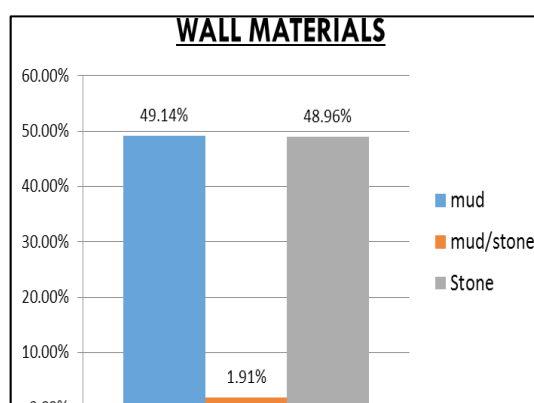
3.12.4 Housing typologies and characteristics

Kilifi County is one of the counties where Swahili culture is predominantly practiced.

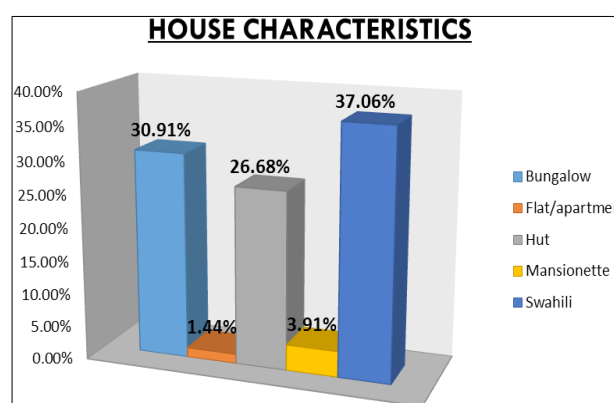
(a) Building Materials

The choice of building materials in the County is affected by two major issues; the climate of the region and the culture of the people. Other factors include poverty and availability of building materials. The figures below show different types of materials used for different parts of the house.

Figure 19: Wall construction materials



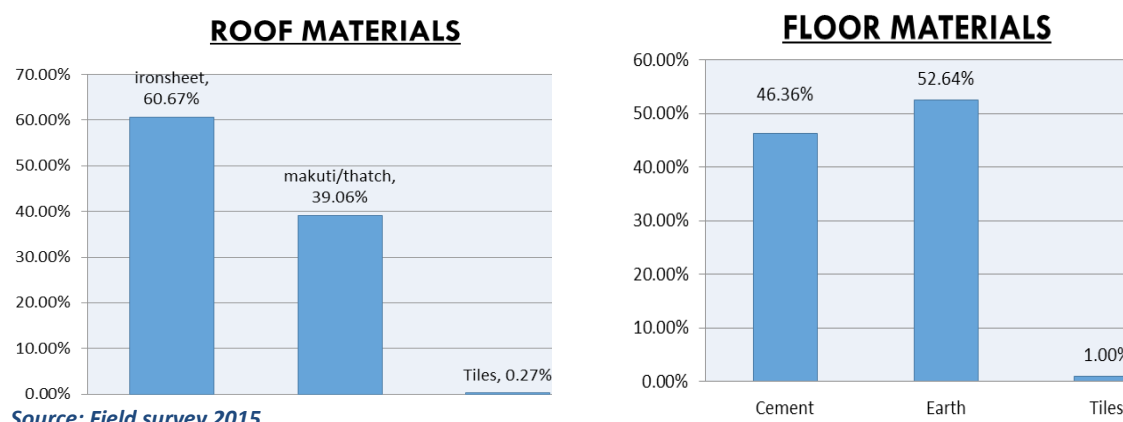
Source: field survey 2015



According to the graph, 49.14 percent of the population use mud on walls, 48.96 percent stone and 1.91 percent mud and stone. This is because coral stones are readily available and mud is relatively cheap and affordable to majority of the people. Roofs are made of locally

available materials such as mangrove poles with palm fronds (grass/makuti) or galvanized iron sheets, with only a few using tiles and other materials.

Figure 20: Roofing Materials in Kilifi County



(b) Floor Construction Materials

Malindi Sub County has the highest share of corrugated iron sheet roofs. Ganze Sub County, which has the lowest share of corrugated iron and the predominant roofing material, is palm fronds. 6.36 percent of the population use cement for the floors, 52.64 percent earth and 1 percent tiles. Malindi Sub County has the highest share of cement floors while Ganze sub-County has the lowest share of cement floors.

3.12.5 Urbanization

Rural-urban migration, urban-urban migration trends have been on the rise in Kilifi. Urbanization and natural growth of urban settlements have seen growth and expansion of urban areas in the County. Pull and push factors such as job-hunting, rural poverty, better services, economic opportunities, new governance structures etc. have continued to shape rate and direction of urbanization in Kilifi County. Consequently, a hierarchy of urban settlement emerged.

Table 22: The role of urban and rural centers

Municipalities	Urban Centres	Market Centres	
Malindi	Mtwapa	Tsangasini	Lango Baya
Kilifi	Mariakani	Ganda	Ramada
	Gongoni	Chakama	Ngomevi
	Watamu	Adu	Shakahola
	Ganze	Kakayuni	
	Rabai	Kakuneni	
	Gede		
	Bamba		

Source: Author 2021

(a) Hierarchy of Urban Settlements in Kilifi

The new governance structures of devolved system have brought an impact on urban development. Administration functions of towns such as Kilifi as a County headquarter, has resulted in a sudden growth of the town. The growth is a result of many people either working or providing various services and products. The second-tier towns which have been impacted by devolution are sub county headquarters – Marafa, Ganze, Kaloleni, and Mtwapa. Malindi has been a principal town because of its tourism and historical development.

The next emerging important towns which fall outside the administrative functions are key market towns. These towns gained reputation as markets for a particular region or for a particular product for instance: Bamba, Tsangasini, Ganda, Chakama, Mariakani and Adu. Bamba and Mariakani have created a niche as livestock markets for the County. Their growth has been sustained by the livestock market. The local centers perform basic functions such as sell of basic commodities but barely have any residential functions. Administrative services at the lower level such as chiefs' offices are found at these centers.

Rural-Urban, urban-urban linkages

There is a strong rural-urban linkage in the County facilitated by infrastructural connection. The direction of the linkages from interior is first towards local centers, then to market, urban and finally to principal towns. The rural communities around this area get goods and services not available in their centers. In Ganze, rural–urban linkage is found between rural communities in Bamba and Ganze towns. In Kilifi South, it is between the interaction of Mtwapa hinterlands and the town. In Magarini, Marafa is the focal point for rural communities in that sub-County.

There is also a strong urban-urban linkage established between urban areas in the County. These linkages are functional based at the major part. In Kaloleni for instance, Mariakani town has more services and products compared to Kaloleni town, however, Kaloleni is the administrative center hence the strong link between the two towns. The urban centers at the interior and the towns at the coastline have established strong linkages. Kaloleni, Ganze, Watamu and Malindi town show strong linkages. The principal towns of Mtwapa, Kilifi, watamu, Malindi and Marereni by the linkage of the corridor, have maintained strong urban-urban linkages.

Table 23: Opportunities and challenges in the settlement sector

Opportunities and Constraints in the Settlement Sector.

Settlement	Opportunities	Constraints
Malindi	<ul style="list-style-type: none"> - Established as a tourist destination - Situated along the Mombasa Lamu corridor - A sub-County headquarters - Cosmopolitan population - Has a rich agricultural hinterland - Most urban services and facilities are available - Detail planning on course - Well connected by land, water and air - Beaches and marine resources 	<ul style="list-style-type: none"> - Heavy reliance on tourism sector - Unplanned growth - Establishment of other sub county headquarters chips away its primacy - Land tenure issues
Kilifi	<ul style="list-style-type: none"> - A County headquarters - Situated along the Mombasa-Lamu corridor - Well connected by land, water and air - Services availability - High growth in real estate - Expanded hinterland - Rich agricultural hinterland 	<ul style="list-style-type: none"> - Lack of growth strategy - Inadequate urban services - Physical constraints- creek
Mtwapa	<ul style="list-style-type: none"> - Proximity to Mombasa - Situated along the Mombasa Lamu corridor - Established as a hospitality industry - Cosmopolitan - Rich agricultural hinterland 	<ul style="list-style-type: none"> - Urban sprawl - Inadequate urban services - Land tenure issues

	<ul style="list-style-type: none"> - Sub County headquarter - Detailed urban plan 	
Mariakani	<ul style="list-style-type: none"> - Located along Mombasa-Nairobi corridor - Well established industries - Transport hub - Market for wide hinterland - Availability of most facilities and services - Rich hinterland Cosmopolitan 	<ul style="list-style-type: none"> - Unplanned growth - Dependent on transportation sector - At the fringe of the county
Mazeras	<ul style="list-style-type: none"> - Its location on the Mombasa-Nairobi corridor - Established industries - Proximity to Mombasa - Sub county headquarters 	<ul style="list-style-type: none"> - Lack of detailed plans - Urban sprawl - Proximity to bigger towns
Kaloleni	<ul style="list-style-type: none"> - Sub county headquarters - Rich agricultural hinterland 	<ul style="list-style-type: none"> - Land tenure issues - Established informality
Watamu	<ul style="list-style-type: none"> - Located along the main corridor - Established as historical site\ - Good beaches 	<ul style="list-style-type: none"> - Lack of urban plan
Ganze	<ul style="list-style-type: none"> - Sub county headquarters 	<ul style="list-style-type: none"> - Pure urban-rural linkages
Rabai	<ul style="list-style-type: none"> - Sub county headquarters - Rich agricultural hinterland 	<ul style="list-style-type: none"> - Proximity to Mazeras
Gede	<ul style="list-style-type: none"> - Historical significance - Junction to watamu 	<ul style="list-style-type: none"> - Unestablished urban infrastructure
Mambrui	<ul style="list-style-type: none"> - Historical significance - Good beaches 	<ul style="list-style-type: none"> - Only dependent on its historical significance
Gongoni	<ul style="list-style-type: none"> - Established as a salt mining industry 	<ul style="list-style-type: none"> - Lack of urban services

	<ul style="list-style-type: none"> - Located on a main transportation corridor 	<ul style="list-style-type: none"> - Harsh climatic condition
Marereni	<ul style="list-style-type: none"> - Gateway to county from Tana River - Along Mombasa Lamu corridor 	<ul style="list-style-type: none"> - Harsh climatic conditions - Lack of urban services
Marafa	<ul style="list-style-type: none"> - Sub county headquarters - Centrally located - Rich agricultural hinterland 	<ul style="list-style-type: none"> - Inadequate urban services

Source: Author, 2015

Issues and prospects in Settlements Sector

Table 24: Issues and prospects in the settlement sector

Issue	Prospects
Urbanization	<ul style="list-style-type: none"> - Urbanization rates in the County are high. Strategies to positively tap urbanization should be outlined clearly in the plan. - Redirecting and appropriately distributing urbanization should be key to avoid concentrating problems at one locality.
Settlement schemes/ Land ownership	<ul style="list-style-type: none"> - Land ownership has disenfranchised the majority of local residents creating unnecessary informal settlements. - Review of land system is key to addressing these problems. - The plan to give direction on the issues.
Spatially unbalanced urban growth	<ul style="list-style-type: none"> - South of river Sabaki and East of the County carries all settlements in the County. The plan to give strategy to develop and distribute growth Countywide.
Inadequate urban Services	<ul style="list-style-type: none"> - Lack of basic services in all settlements including principal towns is a challenge the plan should address. - The plan to propose mechanism to enhance settlements as engines of growth of economies
Rural-urban Migration	<ul style="list-style-type: none"> - Strategies to identify and enhance positive ties while at the same time reducing/minimizing negative links. - Create and revive rural communities' development to curb huge rural- urban migration. - Rural planning should as strategy talk of issues pushing communities to urban areas.
Culture, Architecture, Urban planning	<ul style="list-style-type: none"> - Need to plan all settlements to reduce planning related issues. - Planning of the settlements to integrate and embrace the rich culture of the communities especially ancient architecture. - Conservation of historical cultural sites within settlements.

Source: Author, 2015

3.13 Governance and Institutional Framework

This section delves into various aspects of governance within the confines of this spatial plan and the operations of the County Governments, particularly the County Government of Kilifi.

3.14 Climate Change

The main governance issues facing climate in Kilifi County concerning climate change includes low level of awareness on climate change and limited information on the County's vulnerability to its impact.

3.14.1 Youth and Gender Issues

Youth and gender issues are an integral subject in analyzing societal matters. Women and young people have the potential to play an important role in the future of the society. Although women rarely control decision-making on matters of governance, they constitute over 50 percent of the County's population. The youth on the other hand constitute about 35 percent of the society. Studies however show that the youth and women have always been sidelined on governance issues in the County.

- (a) **Youth Issues:** One in every three people in a population is a youth. Youth play a critical role in the political, social and economic discourse of not only Kenya as a country but much more at the county level.
- (b) **Gender Issues:** According to a United Nations study on violence against children, many girls and boys in Sub-Saharan Africa experience violence on a regular basis in their homes, schools and communities.

3.14.2 Policy and Planning

Spatial Planning in Kilifi County is currently guided by various policies and plans both at the National and County level. The major plan guiding preparation of County plans in Kenya is the National Spatial Plan which provides a framework for Spatial Planning and Management.

3.14.3 County Institutions

The County Government of Kilifi consist of a County Assembly and County Executive. The County is made up of other institutions as discussed below.

a) Kilifi County Government Structure

Kilifi County is represented in the Senate by a Senator. There are 7 Constituencies, namely Kilifi North, Kaloleni, Kilifi South, Rabai, Ganze, Malindi and Magarini, each represented by a Member of Parliament.

The Kilifi County Government is managed at different levels, including:

- i. The Executive;
- ii. The County Public Service Board;
- iii. The County Assembly.

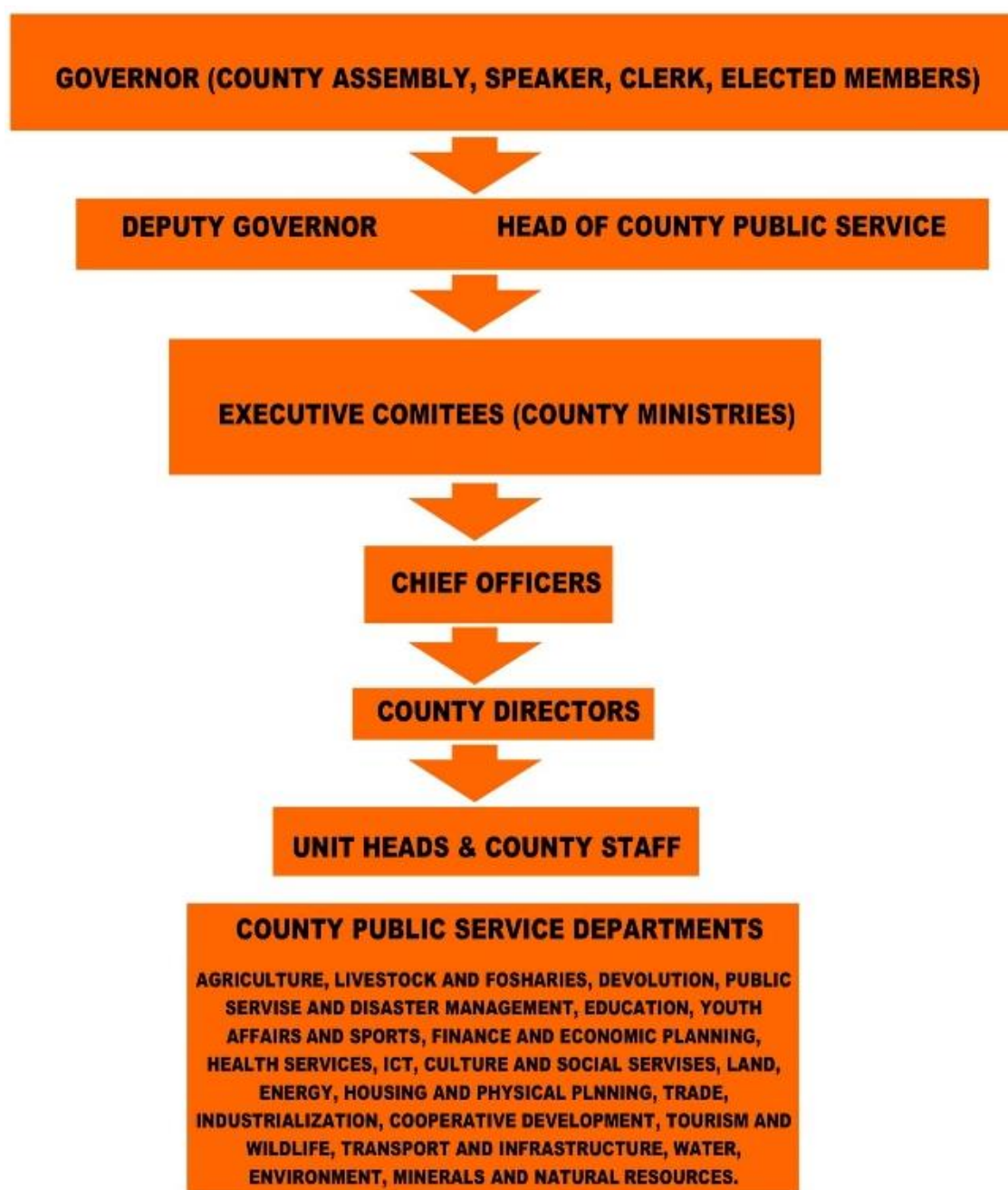
The Executive

The County Government is headed by the Governor. It consists of the Governor, Deputy Governor, the County Executive Members and the County Secretary. The Governor guides the management team through setting of and overseeing the strategic direction of the organization.

The County Assembly

The Kilifi County Assembly consists of elected Members of County Assembly (MCAs) from each ward and others are nominated. The figure below describes the Structure of Governance of Kilifi County.

Figure 21: Governance structure of Kilifi County



Source: Author, 2021

b) State Agencies

Key parastatals in Kilifi County include: KFS, KALRO, KEFRI, KMFRI, KPLC, KIMAWASCO, National Drought Management Authority (NDMA), KeRRA, KeNHA, KURA, KMA.

c) Non-Governmental Organizations in Kilifi County

Categories on NGOs in Kilifi include Religious groups, Civil Society, Community-Based Groups and International Community.

3.14.4 Public Participation

Stakeholder participation is a critical, integral element of spatial planning process. The Constitution of Kenya (GoK, 2010) provides a crucial basis for public participation in Spatial Planning in Kenya. Articles 184(1)(c) and 196 provides for participation of stakeholders in the running of the affairs of their urban areas and in various legislative processes. This provides stakeholders a fair and equal access to the public processes. The aim of this legal requirement is to enhance, promote and facilitate public facilitation in governance processes.

3.14.5 Intercountry Shared Resources

There are issues and challenges in the management of cross border resources. These are related to grazing lands, the Galana Irrigation Scheme, Mzima Springs Water System, fishing areas, Turtle breeding grounds, Tourism circuits, River Galana and the Rare Irrigation Scheme between Kilifi and Kwale.

3.14.6 Marginalization and Poverty

Marginalization and poverty are governance issues that are closely related though varying in various aspects. This is because marginalized and poor people in the society do not have the privilege to fully participate in and influence the affairs of the County. They are therefore prevented from access to resources, assets, services and have restrained freedom of choice.

(a) Marginalization

The vulnerable members of the society in Kilifi County who are most likely to be marginalized include the elderly people and people with disabilities. The challenges faced by this group of people include increased poverty and increased rates of abandonment of elderly persons, inadequate shelter and health for the elderly. Other vulnerable people include women and children.

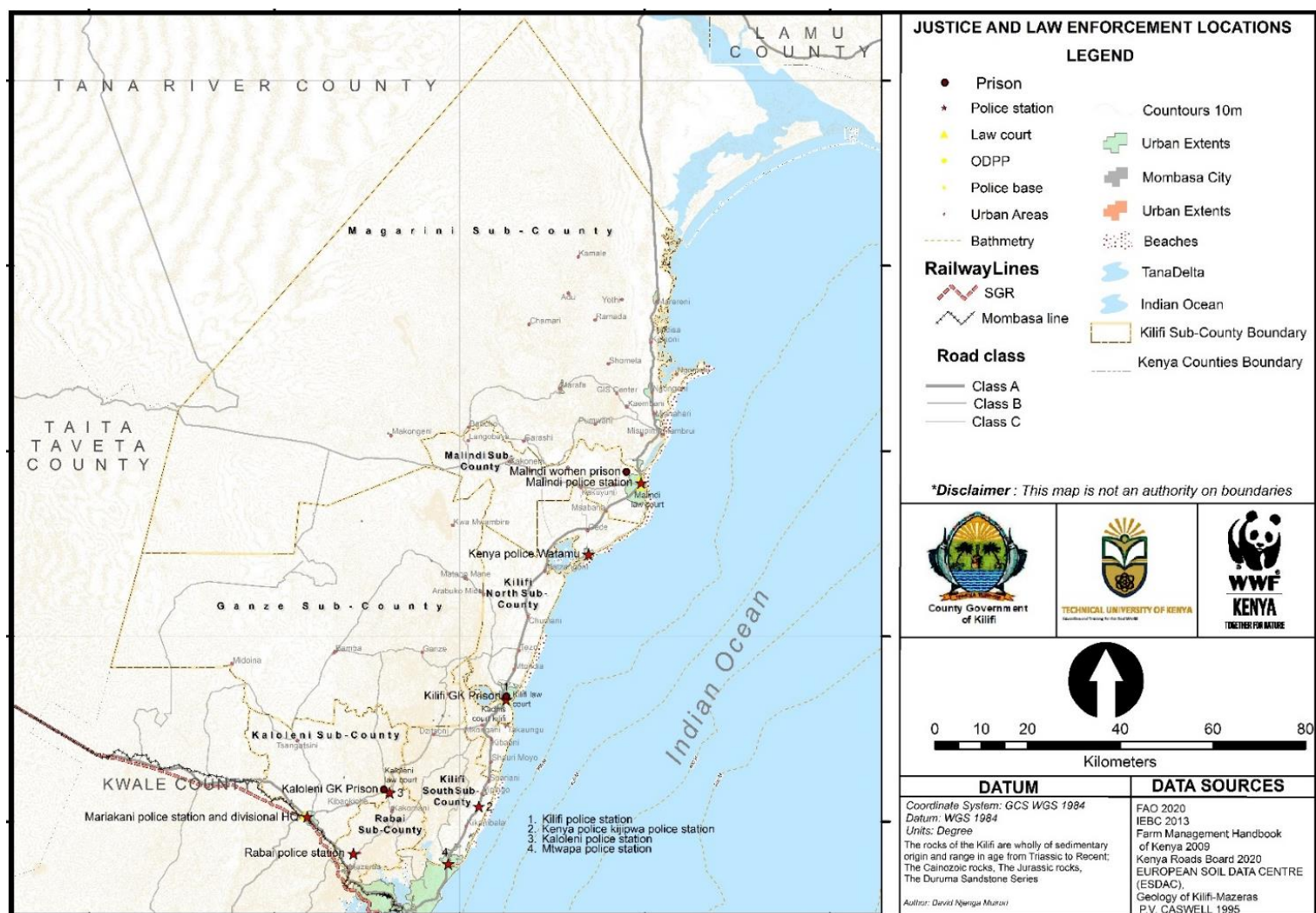
(b) Poverty in Kilifi County

According to the Ministry of Agriculture, Livestock and Fisheries (MOALF) 2016, Kilifi County is characterized by high poverty estimated at 71.7 percent and widespread food security affecting approximately 67 percent of households.

3.14.7 Justice and Law Enforcement:

The Justice and Law enforcement facilities includes prisons, police stations or base and the law courts. Map 29 shows the location of these facilities within Kilifi County. The facilities are located within the main urban centers such as Kilifi, Malindi, Mariakani, Rabai and Kaloleni.

Map 29: Justice and law enforcement locations



Source: Author 2021

Table 25: Challenges and opportunities in the Governance and Institutional Framework sector

Challenges and Opportunities in The Governance and Institutional Framework Sector

Challenges	Opportunities
<ul style="list-style-type: none"> • Kilifi County currently lacks a Spatial Plan or framework to guide spatial development • The only existing plan guiding development currently in Kilifi County is the Kilifi County Integrated Development Plan (CIDP 2018-2022). 	<ul style="list-style-type: none"> • The County Government of Kilifi should facilitate and hasten the preparation of other Spatial Plans to enhance development
<ul style="list-style-type: none"> • Risks of forced child marriages, teenage and child pregnancies, child labour, child sexual exploitation and transactional sex especially within the tourism industry. • Girls in Kilifi face double discrimination due to their gender and age. • Gender mainstreaming is not embedded in many public institutions in the County; and • There is a low level of awareness of the gender-equitable development challenge. 	<ul style="list-style-type: none"> • Fasten laws against gender-based violence • Promote girl child education • Enhance gender balance • Create awareness on gender issues.
<ul style="list-style-type: none"> • Many urban youths lack adequate education and training to acquire life skills; • Urban youth are vulnerable to crime and delinquency; • Inadequate representation of the youth • Urban youth suffer very high levels of unemployment; and • They are a disproportionately high level of the population – a potential bonus in future economic development. 	<ul style="list-style-type: none"> • Maximize on the potential of the energy that is possessed by the youth in Kilifi County
<ul style="list-style-type: none"> • Lack of a fully operational legal framework • Unclear role of the urban leadership • Limited autonomy of the Governance therefore inability to exploit potential 	<ul style="list-style-type: none"> • Establish an institutional framework • Maximize on the responsibilities given to the County Government.
<ul style="list-style-type: none"> • Residents have no opportunity to participate in urban governance. • Ineffective public participation. • Lack of clear guidelines for public participation. • Limited information sharing on the subject. • Not supported by appropriate legislation. 	<ul style="list-style-type: none"> • Promote participation in development issues especially urban governance • Develop Clear guidelines on public participation
<ul style="list-style-type: none"> • Lack of implementation of policies targeting marginalized/vulnerable groups; and • Lack of targeted and specific policies and intervention for marginalized groups 	<ul style="list-style-type: none"> • Enhance the implementation of policies targeting marginalized/vulnerable groups.

Source: Author, 2021

3.15 Synthesis of the Situational Analysis

This section gives broad overview deductions from the Situational Analysis. It also introduces the Plan, Formulation of Strategies and Plan implementation criteria. The table below is a summary of all the challenges,

Table 26: Synthesis of the situational analysis

Summary area	Challenges/Issues and Gaps	Opportunities	Potentials
Laws and Regulations	<ul style="list-style-type: none"> The Constitution has separated the roles of National governments from those of County. The NLC has been given the mandate of oversight responsibility over land use planning. It's not however clear where that role begins, and where it ends, and what is the input of the said commission, towards county spatial planning. The PLUPA as a basis for Physical Planning in Kenya. It's not however clear that the county plan falls under the traditional regional physical plans, as provided for by the PLUPA. The County Government act of 2012 solely places the formulation of County Spatial Plan, as a responsibility of the county. 	<ul style="list-style-type: none"> Implementation of more integrated policy framework. Putting in place clear roles and responsibilities for each 	<ul style="list-style-type: none"> The policies would aid county spatial planning. The roles and responsibilities will minimize duplication of duties.
Public Engagement	<ul style="list-style-type: none"> Representation of the general public to the consultation forums was not adequate. The cost of hosting consultation forums 	<ul style="list-style-type: none"> Promote participation in development issues. More diverse groups should be added to 	<ul style="list-style-type: none"> Incorporation of stakeholder views both in plan making and in the plan.

	<p>is a hindrance to more effective and efficient discussions</p> <ul style="list-style-type: none"> Stakeholder consultation awareness was limited to print and audio media, which is not the most common tool of communication on the ground. Stakeholder views should be incorporated into plan formulation. Other constraints such as unfavorable weather, distance to be covered to consultation venues, poor road conditions and diversions from road constructions 	<p>include youth and disabled</p> <ul style="list-style-type: none"> Use of appropriate methods of stakeholder awareness to inform the locals on the intent to plan. Develop clear guidelines on public participation 	<ul style="list-style-type: none"> Reduced external interferences as a result of effective planning by the project managers. Efficient stakeholder visioning if project managers avail adequate resources.
The People	<ul style="list-style-type: none"> High poverty rates especially in rural areas Illiteracy and low level of education amongst the majority of population Transition from lower institutions of learning to higher institutions is very low resulting to untrained population Retrogressive cultural practices such as early marriages, witchcraft etc. Population is skewed towards the coastline and the major highways Inadequate social infrastructures 	<ul style="list-style-type: none"> Enhance settlements in the county interior as engines of growth of economies Improve social infrastructure Communities should maintain the cultural identity while at the same time get rid of some practices. 	<ul style="list-style-type: none"> Growth will improve economic activities in the areas, opening up the interiors and limit skewed settlements along the coastline. Accessibility and adequacy of educational and health facilities. Eradication of practices which limit growth and development

	such as schools, health facilities and recreation centers		
Physical Setting	<ul style="list-style-type: none"> • Climate change and variability which has resulted to prolonged drought and food insecurity and huge losses in livestock sector • Environmental degradation especially at the quarry sites • Deforestation and conversion of forest land to other uses such as settlements and agriculture • Scarcity of portable water for domestic uses. • Deep water tables make it difficult for water drilling especially in the hinterlands. • Lack of optimal utilization of natural resources especially in fishing, agriculture and mining sector. • Loss of biodiversity such as medicinal plants and wildlife. • Most land falls under ASALS which makes agricultural activities less economically viable 	<ul style="list-style-type: none"> • Introduce measures to combat climate change and its effects. • Availability of environmental conservation measures • Implement strict measures to limit illegal logging and curb poaching. • Introduce modern agricultural and fishing practices 	<ul style="list-style-type: none"> • Embracing environmental conservation and management especially in excavation sites and along the beaches. • Encourage reforestation and afforestation. • Water infrastructure should be extended to hinterlands to provide portable water to the communities. • Modern practices will boost agricultural outputs and also in the fishing sector.
Land	<ul style="list-style-type: none"> • High dependency on rain fed agriculture • Poor plant selection for different parts of the county 	<ul style="list-style-type: none"> • Address issues of unresolved land problem in Kilifi County to pave way 	<ul style="list-style-type: none"> • Use innovative current food production technologies such as irrigation and greenhouse farming

	<ul style="list-style-type: none"> • Rural urban migration which contributes to informality and high poverty levels in urban centers • Land conflicts and disputes which hinders land developments in the county • Squatter settlements which also hinder effective and economic land developments 	<ul style="list-style-type: none"> • for economic development projects. • Upgrade Existing irrigation schemes • Review of land system to address squatter settlements • Offer training and extension services to the residents 	<ul style="list-style-type: none"> • Trainings will enable residents to select proper plant and animal breeds as per prevailing climatic conditions. • Effective economic land development
Infrastructures and utilities	<ul style="list-style-type: none"> • Road network is inadequate. Connectivity between rural centers is not adequate. • Rail network is very limited to the towns along Mombasa Nairobi Highway. • Air transport is hindered by congestion at Malindi Airport. • There is no well-constructed sea port to enhance movement of goods in and out of Kilifi County. • Water lines is not adequate which leaves most areas especially in rural areas not covered leading to acute water scarcity. • Most urban areas lack sewerage services. • ICT infrastructures are mainly available only in Principle towns such as Mtwapa, 	<ul style="list-style-type: none"> • Improve road network. • Construction of sewerage treatment plants • Expansion of railway to connect more towns and rural areas to rail transport 	<ul style="list-style-type: none"> • High connectivity opens up rural towns. • Expansion of the current airport should be done, as well as constructing another airport at a suitable location to improve accessibility. • cheaper movement of products and raw materials • Expansion of other utilities such as water, electricity and ICT will serve the entire population within the county

	<p>Kilifi, and Malindi.</p> <ul style="list-style-type: none"> • Rural electrification is still minimal with more rural settlements lacking electricity. 		
Economy	<ul style="list-style-type: none"> • The markets for livestock are not adequate and not accessible due to poor roads • Lack of value addition on most agricultural and livestock products which leads to minimal earnings from the produce • Low level of industrialization limits economic growth in the county and also limits productivity of the raw materials • Fishing remains underutilized with fishing being done at small scale • Mining sector has not been well established and regulated. • Lack of credit facilities to farmers also has led to low agricultural output. • There is also Underutilization of tourism sector. 	<ul style="list-style-type: none"> • Expansion of markets in different produce areas. • Construction of Agro-based industries. • Protection of marine environment • Establish effective modern marketing systems • Embrace modern fishing techniques and other support facilities E.g., fish landing sites, storage facilities and markets. • Value addition should be done at the source to add value to the products. • Enforce the environmental measures to ensure mitigation of the effect on the environment. 	<ul style="list-style-type: none"> • Utilization of the already available raw materials. • Improved quantity and quality of produce due to investments in fishing sector. • Market the county as tourist destination. At the same time, add to the list of tourist activities already existing in the county. • Investment in the tourist sector to cater for externalities such as terrorism. • Value addition will create more jobs and increase the market catchment
Urbanization	<ul style="list-style-type: none"> • Inadequacy in urban service provision 	<ul style="list-style-type: none"> • Invest in service 	<ul style="list-style-type: none"> • Encourage development in rural

	<p>in areas such as water provision, sewerage, recreation, solid waste collection, among others</p> <ul style="list-style-type: none"> • Unplanned urban growth • Urban sprawl as residents search for affordable urban housing • The County is characterized by linear settlements along the main highways, roads and coastline, which hinders provision of social services 	<p>provision in urban areas</p> <ul style="list-style-type: none"> • Plan for urban growth and development 	<p>areas to counter urban rural migration, to distribute population appropriately in the county.</p> <ul style="list-style-type: none"> • Countywide growth distribution.
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Source: Author, 2021

4 Chapter Four: The Spatial Development Framework

4.1 The County Framing Structure

There are the Natural and Man-made spatial assets and challenges that affected planning of Kilifi County. Map 30 shows the structuring elements of Kilifi County.

The key elements of the Spatial Structure.

4.1.1 Landforms

Kilifi County is a morphologically diverse spatial entity that features a wide range of terrestrial, riverine, estuarine and marine ecosystems that support a wide range of plant, animal life and human activities. Rising from an altitude of between 0 and 100m above sea level, the County presents wide ranging potentials and constraints rising from the spatial structure. This natural structure has for centuries organized human activities into economic, cultural and religious activities, conservation and agriculture. Notable landforms of Kilifi County include the Nyika Plateau, the Coastal ranges, the Foot plateau, the Tana River basin, the Coastal plains and the Beaches. These landforms have different characteristics, including potentials and constraints.

4.1.2 Resources

Kilifi County is endowed with a number of key resources that can generally be categorized as environmental, land, marine, riverine, estuarine, socio cultural and heritage. All these resources are the basis upon which development is currently based, and form the foundation of efficient development of Kilifi County.

4.1.3 Human Practices

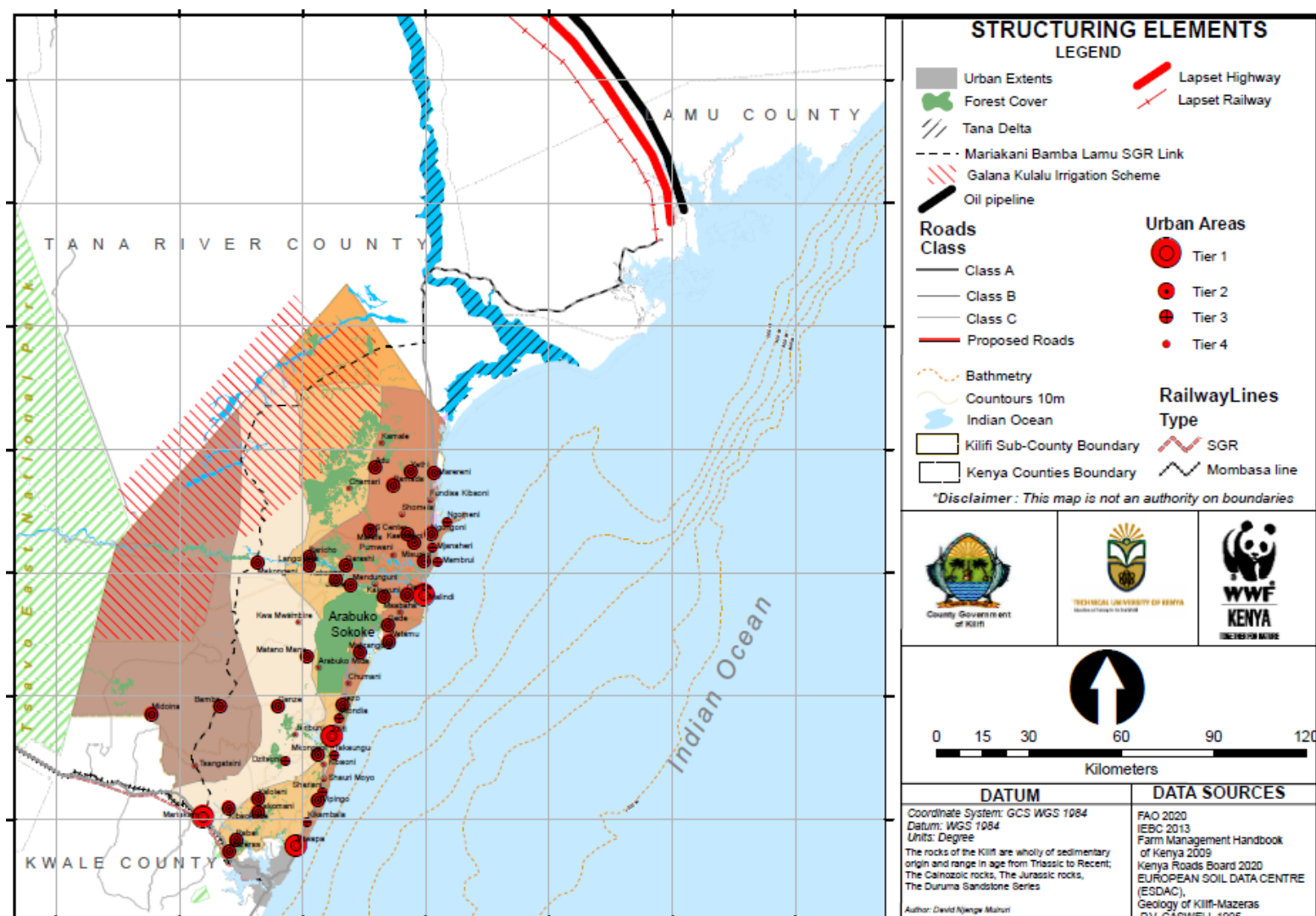
A number of human practices have helped shape Kilifi County over time. In line with the settlement requirements, there have been cultural, economic, environmental and social human practices that have shaped the structure of Kilifi County. One important human activity that has shaped the structure of Kilifi were the earliest human settlements that were located close to the sea-front. Settlements such as Gede, Mambrui and Jumba la Mtwana are some of the earlier human settlements that are still exist under conservation. Based on this, the main urban centers have mainly concentrated close to the sea in places like Mtwapa, Kilifi, Watamu and Malindi.

One important environmental practice that has influenced development in Kilifi is in the area of land adjudication and registration. For a long time, much of the land in Kilifi County has remained un-adjudicated and unregistered. This has led the residents of the county, especially in the more rural hinterlands to lead low investment lifestyles because of the fear of displacement.

4.1.4 Transportation

Transportation has helped to structure the County's development for a long time. In the past when long distance transportation was mainly by sea that brought the arrival of Arabs and Portuguese to the Kenyan Coast, most of the human settlements like Mambrui, Gede and Takaungu were located close to the sea, probably for the suitability of the sites, but also to enhance interaction with the outside world by sea. This was followed by the development of the current urban centers along the ancient trade route. This route ran almost parallel to the coastline and it later led to the development of the B8 road. The B8 is the current Lamu – Dar-es-salam road. Settlements like Mtwapa, Kilifi, Watamu and Malindi among others would develop along the same route.

Map 30: The structuring elements of Kilifi County



Source: Author 2021

4.2 Scenario Building

This section focuses on the alternatives for development of Kilifi County Spatial plan. The following Spatial overlays have been used to identify key scenarios to facilitate the key sectors and drivers of the economy.

4.3 Potential Gateways

This section discusses the potential entry and exit points into Kilifi County that shall be the sources of economic development.

4.3.1 Sea Based Gateways

There are four main gateways into Kilifi County through the sea. They include Malindi, Kilifi, Mtwapa and Mariakani. These gateways provide Kilifi County with the potential of exploring sea route transportation. The sea-based gateways also act as fish landing sites. They therefore provide an opportunity for parts of Kilifi hinterland to benefit from the business that are associated with them such as tourism and fish related trade.

4.3.2 Land Based Gateways

The main land-based gateways into Kilifi County are Mariakani, Mazaras and Mtwapa. They provide entry points into Kilifi County from the southern side. They are a source of several business opportunities derived from the intense industrial activities taking place between Mombasa and Mariakani. Mtwapa also acts as a dormitory town for Mombasa City.

The main land-based gateway to the North is Malindi. This gateway is the main stop over point for the Lamu Dar-es-salaam corridor. It therefore has the benefit of being a sea and land route transportation node.

4.4 Potential Strategic Linkages

For Kilifi County to develop, there is need to connect the various parts of the County to resources for development and to connect the various resource locations to the industries. This therefore necessitates the development of Strategic Linkages.

4.4.1 North South Linkages

The first and most important North South linkage is the Lamu, Dar-es-salaam corridor running along the Coast. This linkage is to take advantage of the already existing human settlements along the Coast of Kilifi County. The Plan therefore proposes to promote the connectivity and the development of settlements along a 20km wide development corridor.

The second North South linkage is the Lamu – Mariakani corridor. This linkage provides for an opportunity for the growth and development of the Hinterland parts of Kilifi County and the urban and rural centers found within them.

4.4.2 Lateral Linkages

Other strategic linkages connect the two main development corridors laterally. The potential lateral linkages are listed below.

- Mazaras-Mariakani
- Kilifi-Ganze-Bamba-Midoina
- Bamba-Matano Manne
- Malindi-Kakuyuni-Kakoneni

- Mambui-GIS center-Marafa-Baricho.

If these lateral linkages are well developed, they have the potential of triggering growth and development of Kilifi County hinterland and the centers within them.

4.5 Spatial Concepts

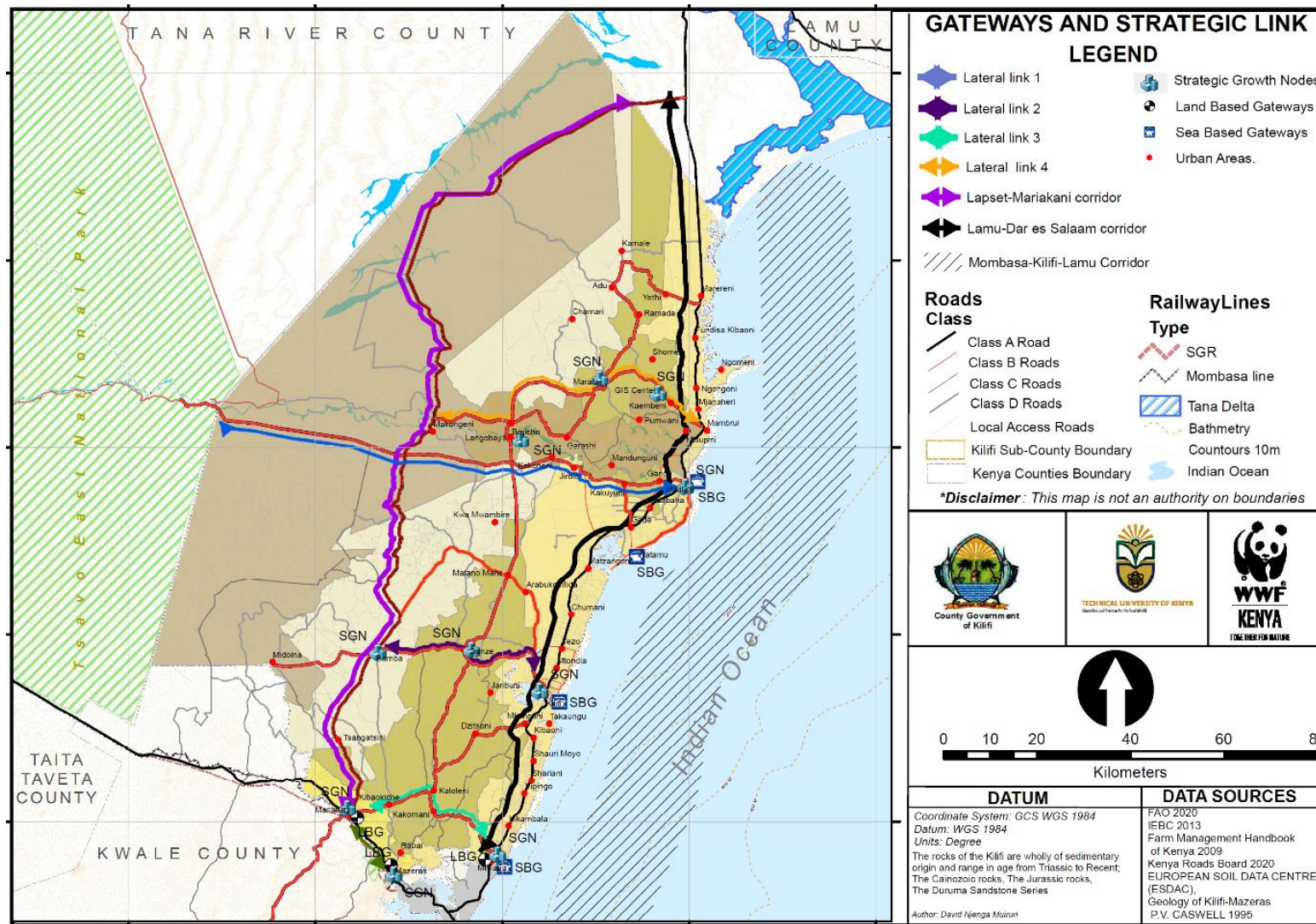
From the spatial organization of the land use and networks, six broad corridors have been identified across the County. These corridors link potential service centers in need of connectivity, movement of goods, services, knowledge and skills freely. This is a prerequisite for development.

Future investment shall not just be concentrated in these corridors, but where the greatest growth opportunities exist. The plan therefore proposes for an organization of the county in a manner it shall exploit the potential growth corridors, the unexploited North South and lateral linkages, the potential sea and land-based gates and potential growth nodes. It is therefore possible to exploit six broad development corridors.

- (A) The Agro - Industrial Corridor
- (B) The Green Belt Corridor
- (C) The Urban – Industrial Corridor
- (D) The Blue Economy Corridor
- (E) The Extractive Block
- (F) The great southern corridor

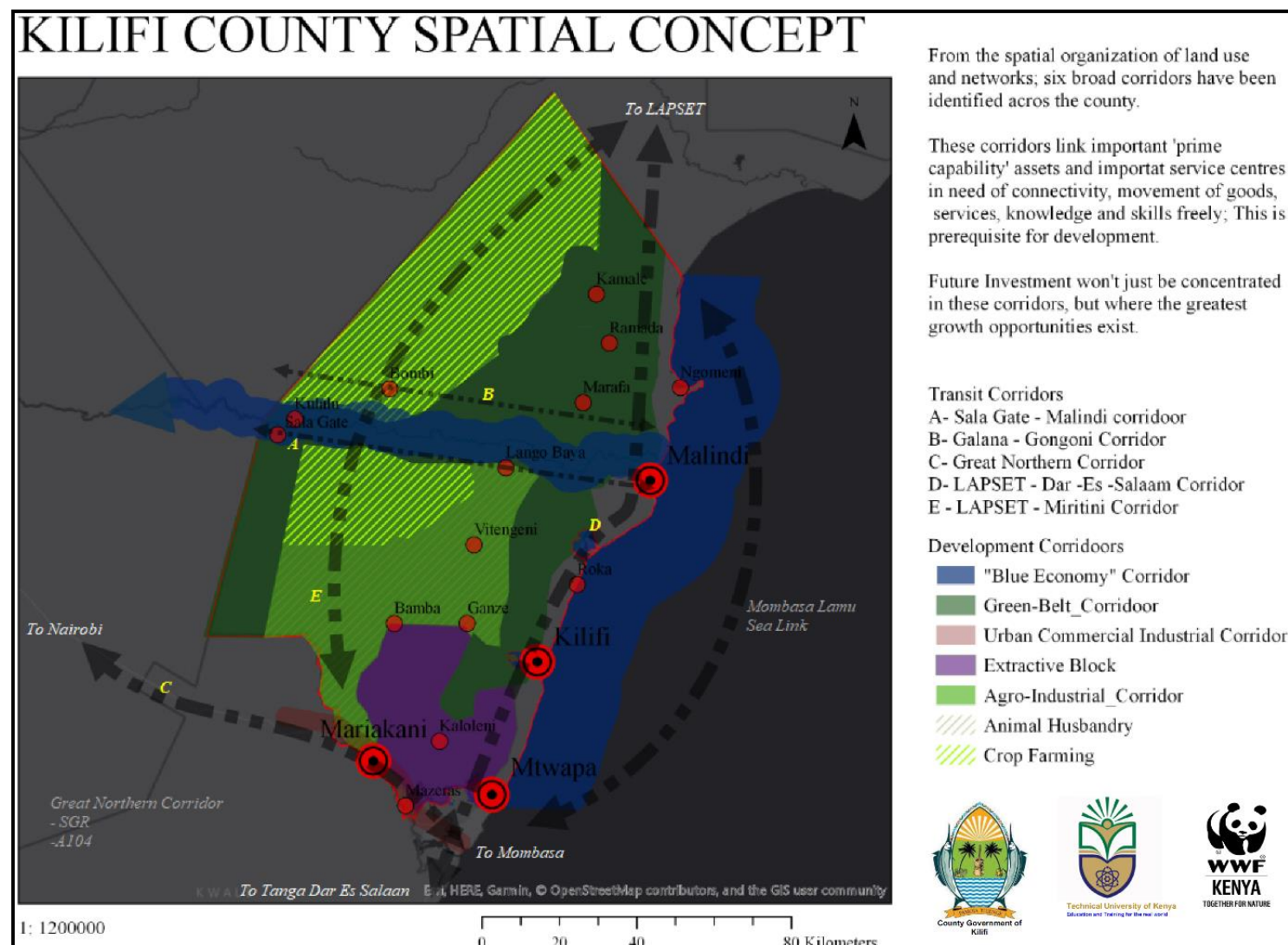
Map 31, 32, 33 and 34 illustrates the Development Concept of the Kilifi County Spatial Plan.

Map 31: Potential gateways and Linkages



Source: Author 2021.

Map 32: Kilifi County spatial concept



Source: Author 2022

SPATIAL CONCEPT, STRATEGIC LINKAGES & GATEWAYS

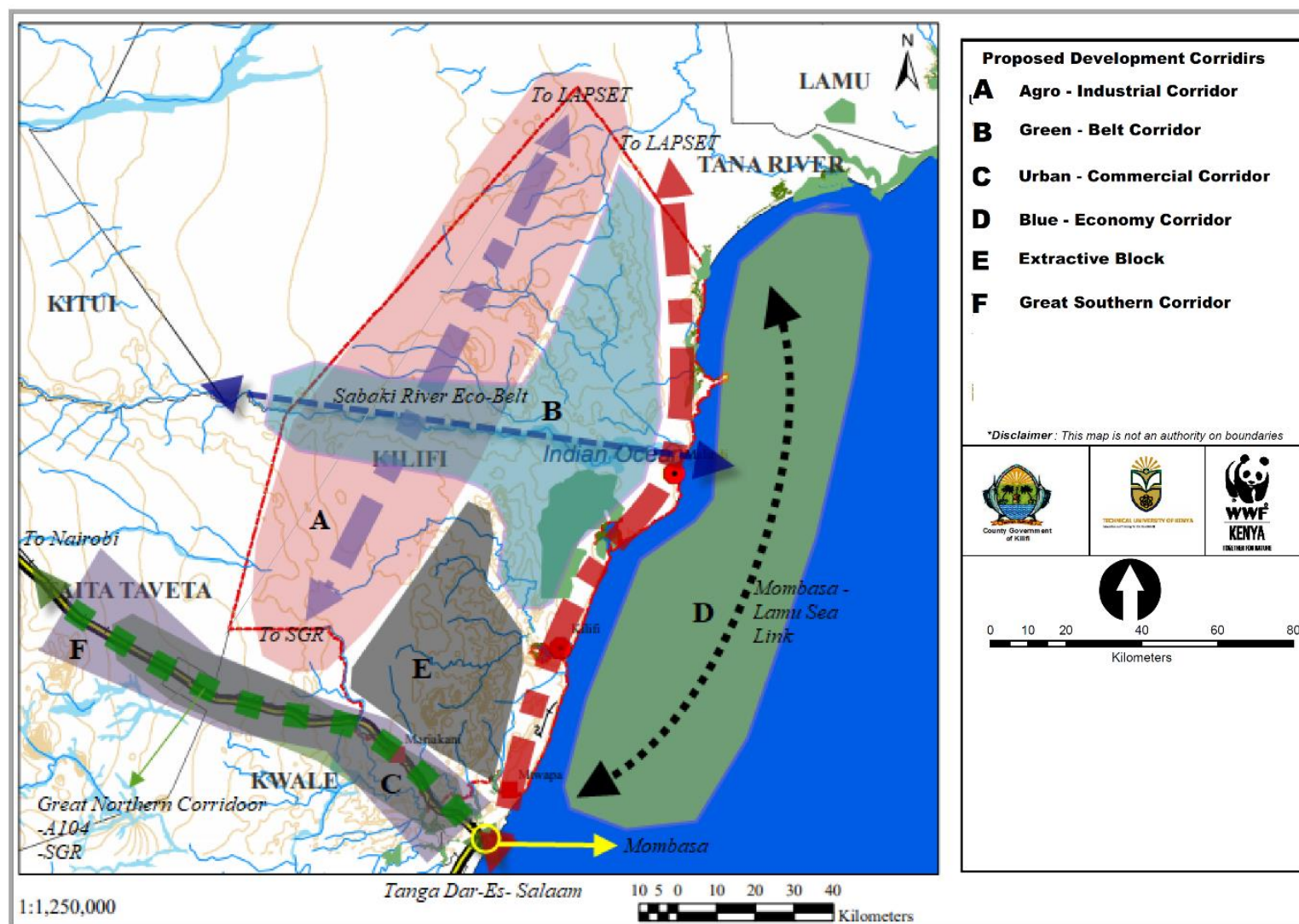
LEGEND

- Major_Gateway
- Minor_Gateway
- Gate
- Strategic Linkages
- Loop I
- Loop II
- Kilifi County Boundary
- Exclusion Economic Zone
- Territorial Sea
- Development Corridors
- Agro - Industrial Corridor
- Crop Farming
- Animal Husbandry
- Extractive Block
- Green - Belt Corridor
- Blue - Economy Corridor
- Urban - Commercial Corridor
- Transit Corridors
- A - Malindi - Sala Gate Corridor
- B - Sabaki - Motelani Corridor
- C - Great Northern Corridor
- D - LAPSET Dar-Es-Salaam Corridor
- E - Mariakani LAPSET Corridor
- F - Sabaki River Corridor
- G - Mombasa - Lamu Corridor
- Proposed Linkages
- I - Proposed Link by KWS
- II - Proposed Bridge

Scale: 0 20 40 80 Kilometers

Logos: County Government of Kilifi, Ministry of Lands and Urban Planning, WWF-Kenya

Map 34: Spatial concept to inform the County Spatial Plan



Source: Author 2022

4.6 Development and Evaluation of the Alternative Scenarios

The structural organization of Kilifi County should be informed by human settlements, landforms and the existence of strategic projects in the neighboring Counties which are also of National interest. Such projects include the Standard Gauge railway, Lamu Port, the LAPSSSET and Mombasa Port. Three alternative scenarios have therefore been developed to guide the development of the County.

Scenario 1: The Lamu Dar-es-salaam corridor.

Benefits: This alternative is suitable and promotes the development of the immediate Coastline and the urban and rural centers along the Coast. It also promotes the development of the sea route transportation system.

Limitations: It limits the development of deep hinterland settlements areas. It also limits the lateral linkages of Kilifi County.

Scenario 2: The Combined Lamu Dar-es-salaam corridor and the LAPSET-Mariakani Corridor

Benefits: This alternative is suitable and promotes the development of urban and rural centers along the Coast and the deep hinterland areas. It mainly opens up the interior parts of Kilifi County to the various trade opportunities.

Limitations: This alternative limit the lateral linkages between the main proposed development corridors.

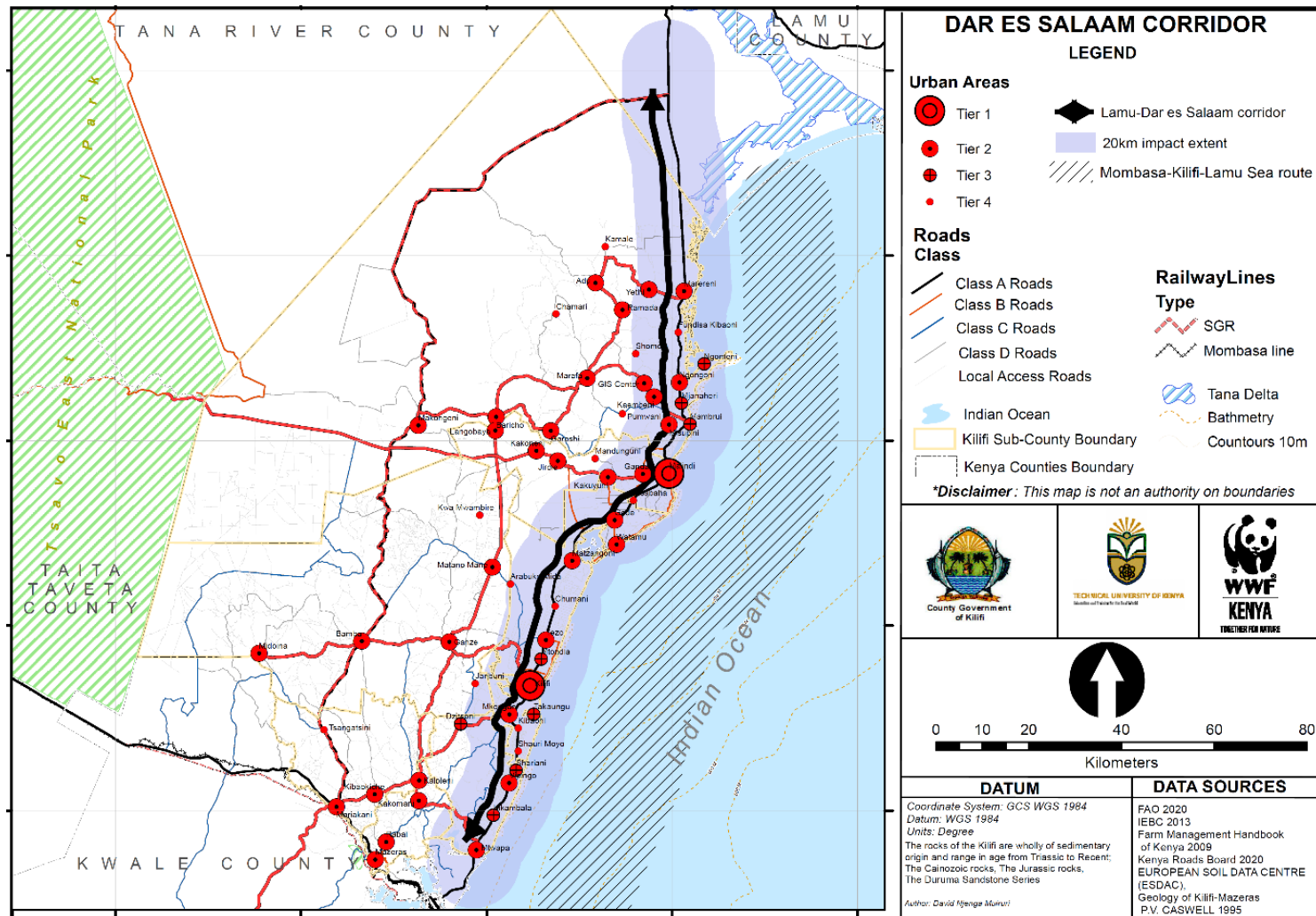
Scenario 3. The combined Lamu Dar-es-salaam corridor, LAPSET Mariakani Corridor and the Lateral East West linkages.

Benefits: This alternative is suitable and promotes the development of urban and rural centers along the Coast and the deep hinterland areas. It also opens up the sea routes for transportation. It also opens up the interior parts Kilifi County to the various trade opportunities. This scenario also promotes the lateral linkages between the two main proposed development corridors.

Limitations: This alternative has the least limitations and is the preferred alternative for Kilifi County Spatial Plan.

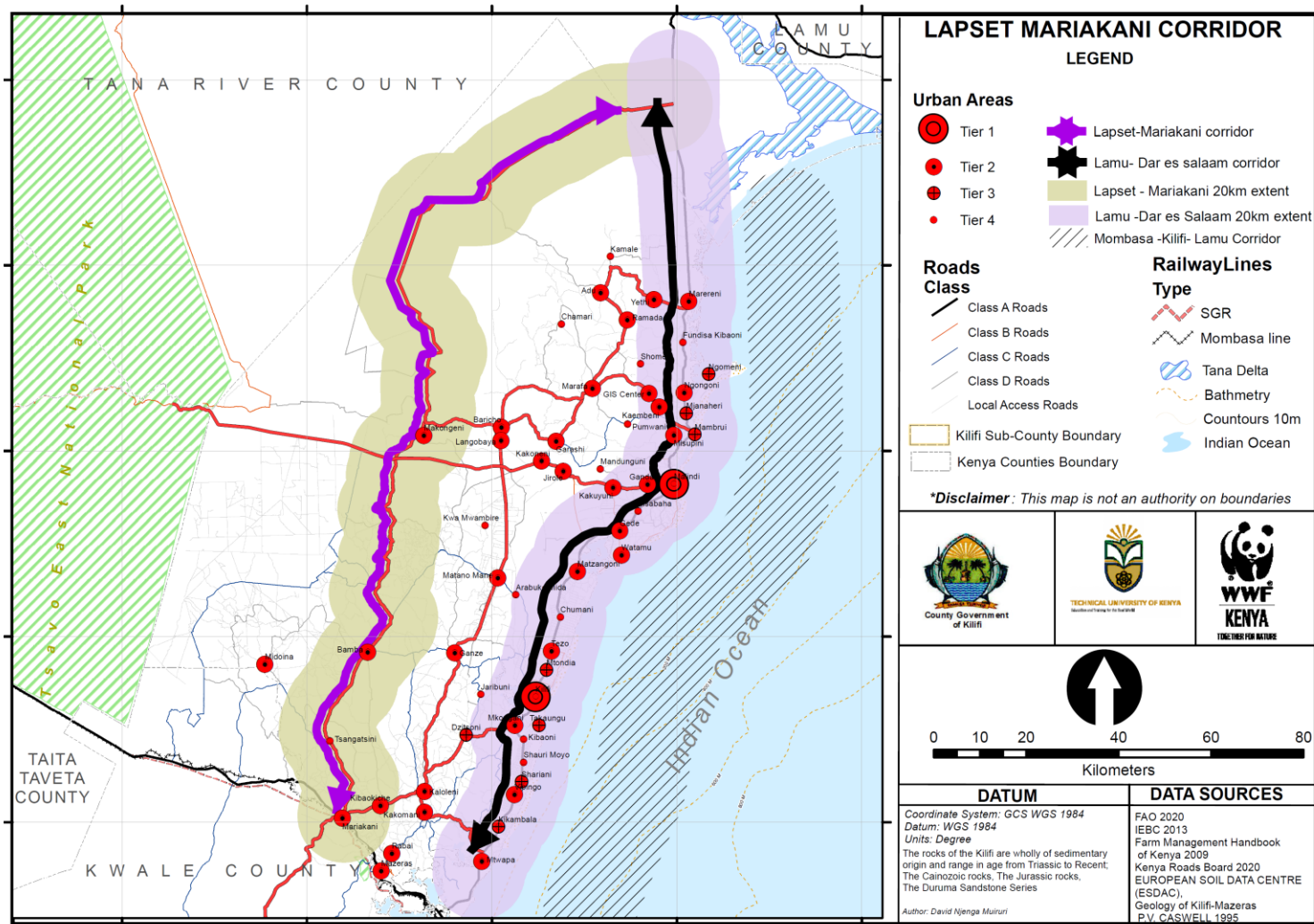
Map 35 and 36 shows the various development scenarios for Kilifi County.

Map 35: Scenario one: Dar Es Salaam Lamu Corridor



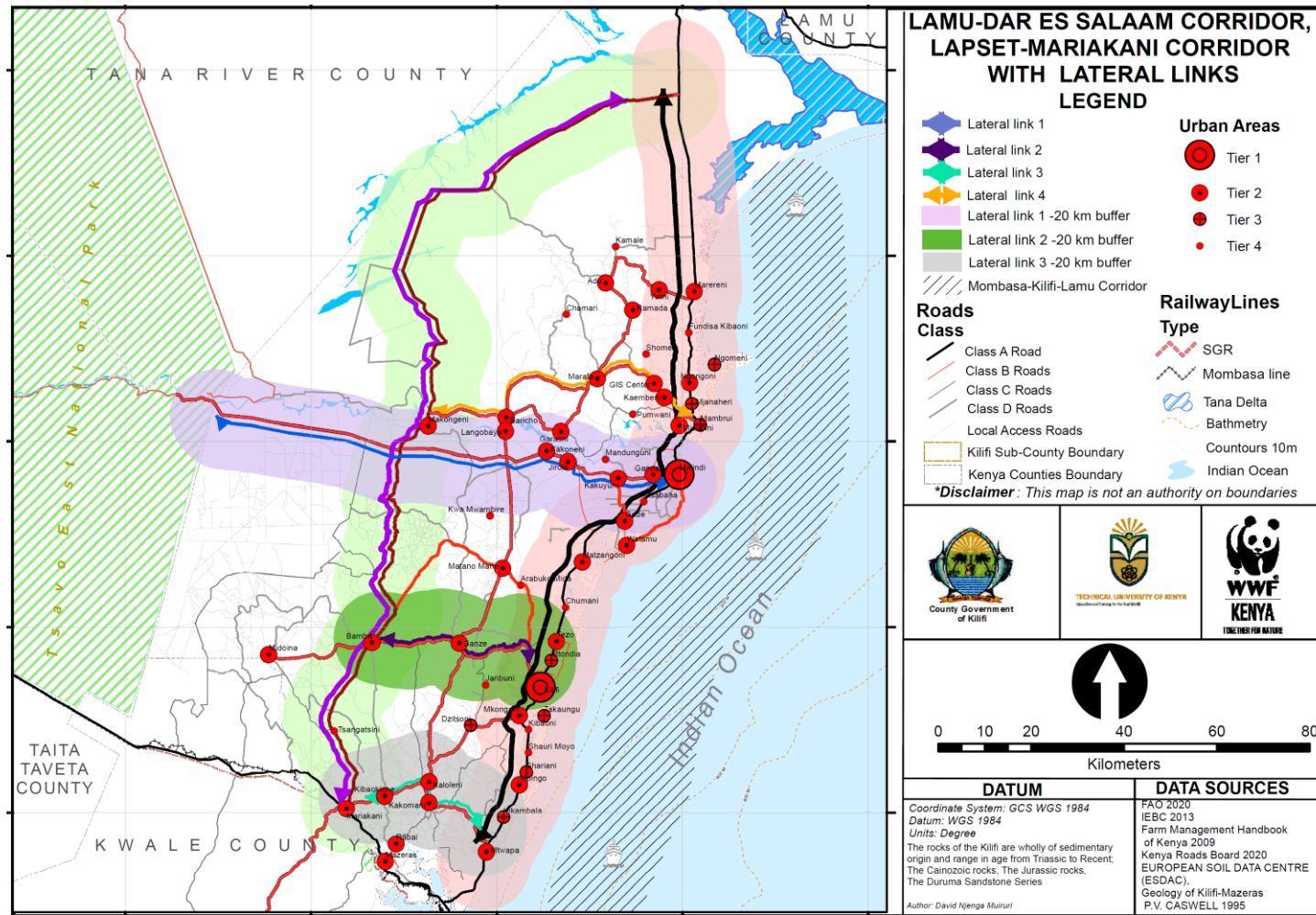
Source: Author 2021

Map 36: Scenario two: All the vertical linkages



Source: Author 2021

Map 37: Scenario three: All lateral and vertical linkage with strategic nodes. Also, the Preferred alternative

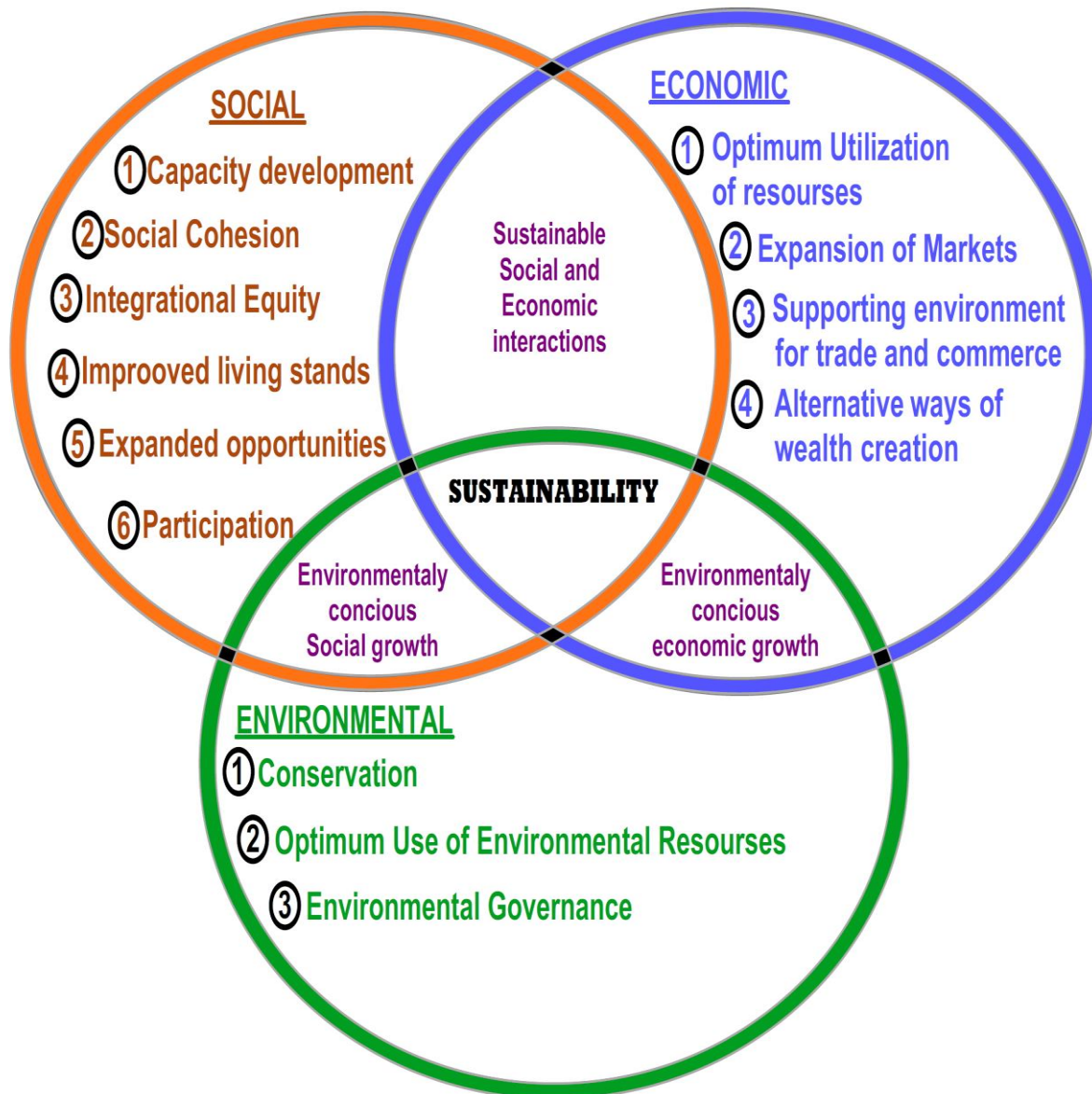


Source: Author 2022

4.7 The Plan

This section focuses on the most important part of the Kilifi County Spatial Plan. The preparation of Kilifi County Spatial Plan is based on the three pillars of sustainability as illustrated in the diagram below.

Figure 22: Pillars of sustainability that guided the preparation of Kilifi County Spatial Plan

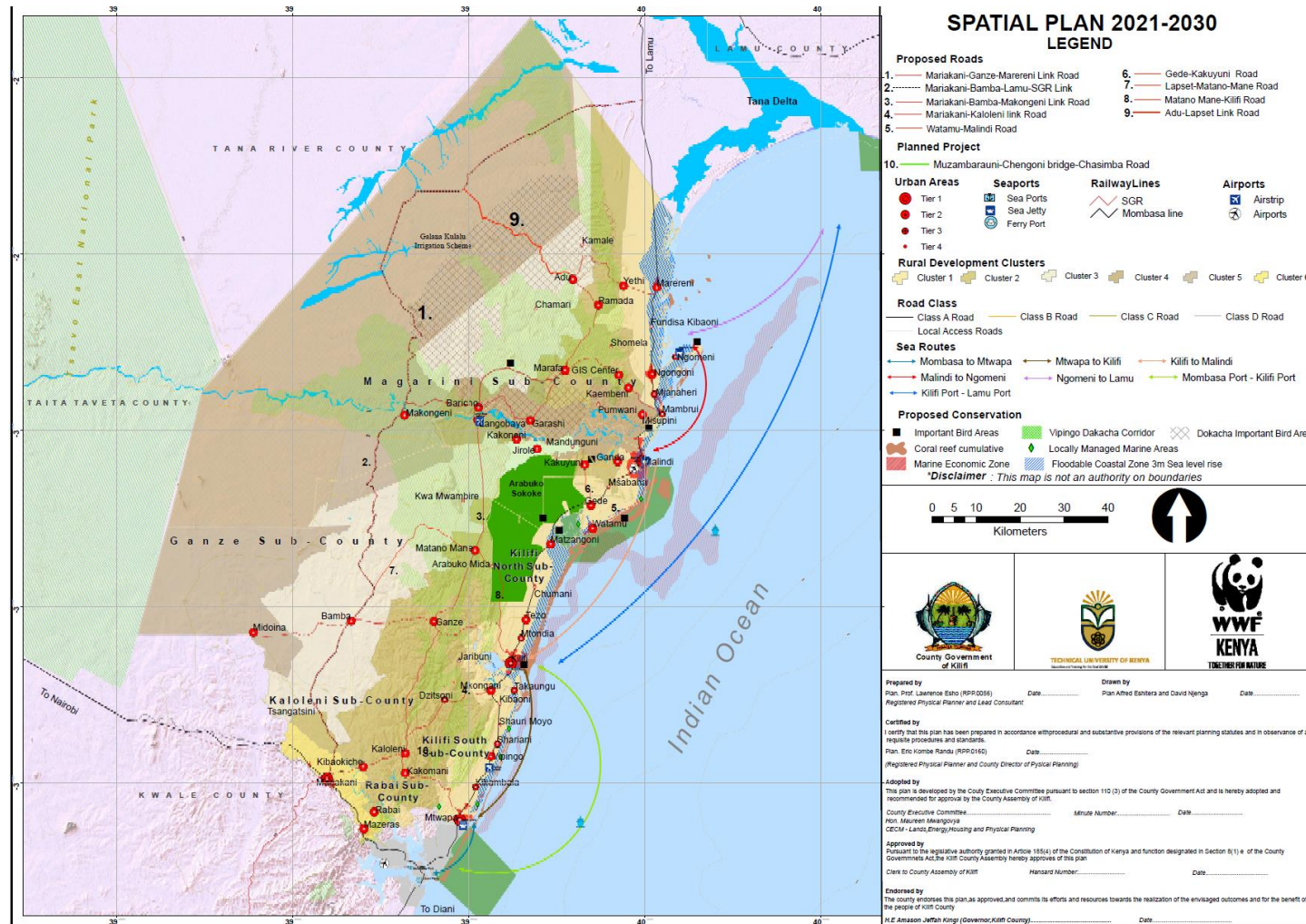


Source: Author 2021.

Map 38 illustrates the Spatial Development Framework of Kilifi County. At the background is a layer of the rural development clusters, the agricultural and livestock production areas and the conservation areas. Then there is the layer of the proposed transport and communication network. This is followed by a layer of the proposed role or functions of urban and rural centres within Kilifi County. Due to the need to represent a several layers of information, the Spatial Development Framework has further been deconstructed into various strategies.

4.7.1 The plan

Map 38: The plan



Source: Author 2021.

4.8 Land Use Management Policies of the County Spatial Plan

The land Use Management Policies for Kilifi County have been developed to guide the land practices within both urban and rural areas. The main land use areas are borrowed from the proposed Rural development clusters. Land use practices have also been proposed with reference to the proposed hierarchy of settlements based on the Urban Development Strategy. Considerations have also been made on Demography, Economic, Social and Cultural context of the area. The table below shows the proposed hinterland land use management policies of different proposed clusters of rural development.

4.8.1 Hinterland land use policies

Table 27: Proposed hinterland land use management policies

CLUSTER	RESOURCE	SUBLOCATION	Proposed Land Management Policies
Cluster 1	Arable land, Marine resources, Favorable climatic conditions, Access to piped water, good road network, good electricity, Insecure land tenure, Informal settlements, inadequacy in extension services, exposure to pollution, lack of financial capital	Central, Kibarani, Mwamutsunga, Barani, Bwagamoyo, Dabaso, Junju, Marereni, Zowerani, Watamu, Sokoni, Shella	<ul style="list-style-type: none"> • Manage for sustainable resource use • Sustainable resource use including extensive grazing of livestock on open grasslands. • Consolidation of land parcels to achieve productive sizes • Practice controlled fishing • Initiate housing and informal settlement upgrading projects.
Cluster 2	Arable land, Minerals, Large land holding size, Average rainfall, moderate low level social services, favorable topography, well drained soils, medium population density, Secure land tenure, Low level physical infrastructure, Water scarcity, Low level of tertiary institutions	Ramada, Mbalamweni, Chivara, Birini/Mwamuleka, Buni/Chisimani, Chala/Mihingoni, Chasimba, Chauringo, Chilulu, Jimba, Kaliangombe/Jimba, Kaloleni/Vish/Tsaka, Kawala/Kadzonzo	<ul style="list-style-type: none"> • Sustainable resource use, including extensive grazing of livestock on open grasslands • Sustainable utilization of indigenous forests • Controlled fishing • Land consolidation to achieve productive sizes.
Cluster 3	Potential for drought resistance, Potential for ranching (goats, sheep, meat), large land holding sizes,	Kamale, Dzikunze, Miyani, Viragoni, Tasngatsini, Mwakala, Paziani, Dangarini, Mtasara-	<ul style="list-style-type: none"> • Practice irrigated farming where possible. • Minimize the number of cattle to prevent overgrazing.

	secure land tenure, potential for agro forestry. Below average rainfall, Insufficient social and physical infrastructure, scarce population, low-income levels, shortage of domestic and agricultural support water	wa-tsatsu, Mitsemerini, Mikamini, Adu, Mombasa, Dungicha/Muhoni, Kidemu, Mihirini, Mnagoni	<ul style="list-style-type: none"> • Practice agroforestry to enhance drought management. • Encourage clustered settlements.
Cluster 4	Galana/Sabaki river, Arable land, potential for ecotourism, good terrain, well drained soils, proximity to urban areas (Markets), Skilled labor, Good physical infrastructure, aquaculture, Flood potential, Water borne diseases, shortage of capital	Baricho, Singwaya, Kakoneni, Gandini, Mkondoni, Longobaya, Masindeni	<ul style="list-style-type: none"> • Supervised and controlled irrigated farming along Sabaki river to prevent overexploitation • Practice the growth of industrial crops such as coconuts. • Expand on fish farming practices • Create drainage channel to prevent flooding • Supervised and controlled cattle numbers to prevent overgrazing.
Cluster 5	Wildlife, large land holding sizes, existing safari camps, potential for community reserves	Matolani, Kisikil cha wangiria, Makongeni, Midoina, Gede	<ul style="list-style-type: none"> • Initiate human wildlife coexistence programs. • Explore Eco tourism activities. • Encourage clustered settlements.
Cluster 6	Good infrastructure, High population density, existing industries, good climatic conditions, urban nodes, Loose soils, small land holding sizes, Urban sprawl, Informal settlements, Pollution from industries	Buni/Chisimani, Mazeras/Mugumo, Kaliangombe/Jimba, Kawala/Kadzongo, Mariakani/Mitangoni	<ul style="list-style-type: none"> • Establish industrial parks and provide adequate industrial buffer zones. • Minimize land subdivision to half acre. • Initiate informal settlements upgrading and housing projects. • Encourage housing consolidation to discourage urban sprawl

Source: Author, 2021

4.8.2 Land Use Policies for Urban and Rural Centers

The table below summarizes the Land management policies for urban and rural centers.

Table 28: Proposed land use policies for Urban and Rural Centres

Tier	Centres	Proposed Land Use Management Strategies
1	Malindi, Kilifi, Mtwapa, Mariakani	<ul style="list-style-type: none"> • Limit the land subdivision to the municipal boundary to prevent urban sprawl • Allow land subdivision of commercial land use zones to 0.5 acre. • Allow change of use from agricultural to residential or to commercial. • Create buffer zones between industrial and other land uses. • Allow the change of use to industrial where the land use is compatible.
2	Rabai, Kaloleni, Matzangoni Gongoni Tezo, Marafa, Watamu, Mazeras Bamba, Kakuyuni, Langobaya, Mkongani, Chumani, Gede, Marereni	<ul style="list-style-type: none"> • Establish a boundary to limit land development activities and to prevent urban sprawl. • Allow land subdivision of commercial land use zones to 0.5 acre. • Allow change of use to residential and commercial. • Promote the development of industries. • Create buffer zones between residential and other land use zones.
3	Ganze, Kakomani, Kikambala, Mambrui Mtondia, Takaungu, Dzitsoni, Kakoneni, Shariani, Mjanaheri, and Ngomeni	<ul style="list-style-type: none"> • Minimize land subdivision of commercial and residential land uses. Instead promote the development of rural markets. • Minimize change of use from agriculture to residential or commercial.
4	Midoina, Yethi GIS Center, Adu, Arabuko, Mida, Ganda, Garashi, Kaembeni, Vipingo, Fundisa, Kibaoni, Mwambire, Mandunguni, Matano Mane, Ramada, Msabaha, Baricho, Chamari, Jaribuni, Jirole, Kamale Kibaokiche, Misupini, Kibaoni	<ul style="list-style-type: none"> • Establish a boundary to limit land subdivision and prevent sprawl • Minimize land subdivisions • Minimize change of use from agricultural land use. • Discourage heavy industrial land use.

Source: Author, 2021

4.8.3 The Land Budget for Major Urban Areas

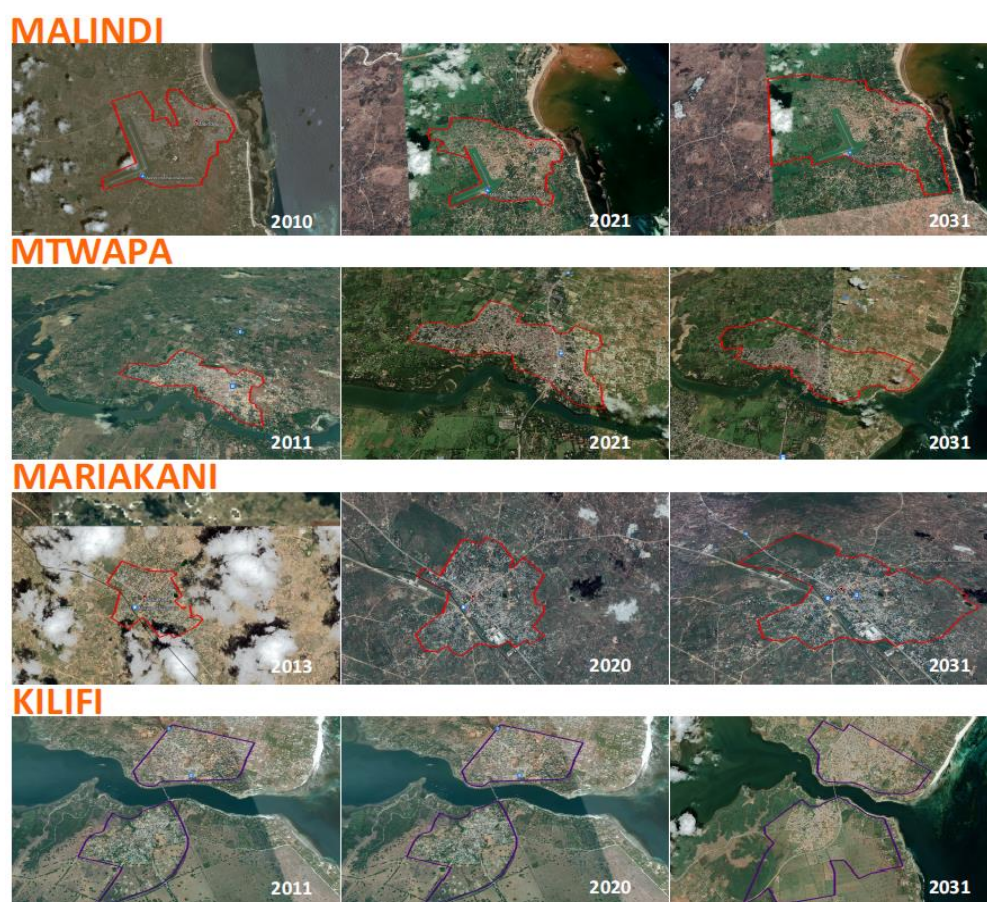
This section seeks to illustrate the projected land requirements for the major Urban areas within Kilifi County based on the projected population. Figure 23 illustrates an estimation of how key urban areas are expected to grow within the planning period. It is therefore projected that there shall be a higher land demand for urban areas. The table below shows the projected population of various urban areas in Kilifi County by the year 2030.

Table 29: Projected Urban population of Kilifi County by 2030

Urban areas	2019 Population	2019 Area Urban Extent (km ²)	of 2019 Population Density per square km	2030 Population
Malindi	166,357	90.7	1834	206,798
Kilifi	75,434	68.0	1,110	93,772
Shimo la Tewa (Mtwapa)	70,990	18.9	3,752	88,248
Kaloleni	21,000	25.3	828	26,105
Rabai	57,973	59.8	969	72,066
Mariakani	39,120	73.8	530	48,630
Magarini	53,029	223.2	238	65,920

Source: Adopted from 2019 census data

Figure 23: Projected extents for key centres in Kilifi County



Source: Author 2022

Table 30 show the projected land budget for Malindi, Kilifi, Mtwapa, Kaloleni, Rabai, Mariakani and Magarini for the year 2030 based on the Physical Planning Handbook of 2007.

Table 30: Land budget for Malindi For the year 2030

Malindi 206,798 Persons				
Category	Standard	No. of Facilities Required	Area Required	Total Area of Land Required
Education				
1. Primary Schools	1:3500 persons	59	0.25 Ha	14.75 Ha
2. Secondary Schools	1:8000 persons	26	4.5 Ha	117 Ha
Safety	-	-	-	-
1. Police Station	1:2000 persons	103	3Ha	309 Ha
Community				
1. Social halls and Community centers	1:20000 persons	10	0.25 Ha	2.5 Ha
Recreation				
1. Parks	1:10000 persons	21	2 Ha	42 Ha
Commercial				
1. Market Category A	1:2000 low-income population	103	0.2 Ha	20.6 Ha

Source: Author, 2021

Table 31: Land budget for Kilifi and Mtwapa for the year 2030.

Kilifi 93,772 Persons				
Category	Standard	No. of Facilities Required	Area Required	Total Area of Land Required
Education				
1. Primary Schools	1:3500 persons	27	0.25 Ha	6.75 Ha
2. Secondary Schools	1:8000 persons	12	4.5 Ha	54 Ha
Safety	-	-	-	-
1. Police Station	1:2000 persons	47	3 Ha	141 Ha
Community				
1. Social Halls and Community Centers	1:20000 persons	5	0.25 Ha	1.25 Ha
Recreation				
1. Parks	1:10000 persons	9	2 Ha	18 Ha
Commercial				
1. Market Category A	1:2000 low-income population	47	0.2 Ha	9.4 Ha

Shimo la Tewa (Mtwapa)				
88,248 Persons				
Category	Standard	No. of Required Facilities	Area Required	Total Area of Land Required
Education				
1. Primary Schools	1:3500 persons	25	0.25 Ha	6.25 Ha
2. Secondary Schools	1:8000 persons	11	4.5 Ha	49.5 Ha
Health	-	-	-	-
Safety	-	-	-	-
1. Police Station	1:2000 persons	44	3 Ha	132 Ha
Community				
1. Social Halls and Community centers	1:20000 persons	4	0.25 Ha	1 Ha
Recreation				
1. Parks	1:10000 persons	9	2 Ha	18 Ha
Commercial				
1. Market Category A	1:2000 low-income population	44	0.2 Ha	8.8 Ha

Source: Author 2021

Table 32: Land budget of Kaloleni and Rabai for the year 2030

Kaloleni				
26,105 Persons				
Category	Standard	No. of Facilities Required	Area Required	Total Area Required
Education				
1. Primary Schools	1:3500 persons	7	0.25 Ha	1.75 Ha
2. Secondary Schools	1:8000 persons	3	4.5 Ha	13.5 Ha
Safety	-	-	-	-
1. Police Station	1:2000 persons	13	3 Ha	36 Ha
Community				
1. Social Halls and Community centers	1:20000 persons	1	0.25 Ha	0.25 Ha
Recreation				
1. Parks	1:10000 persons	3	2 Ha	6 Ha
Commercial				

1. Market Category A	1:2000 low-income population	13	0.2 Ha	2.6 Ha
Rabai				
76,066 Persons				
Category	Standard	No. of Facilities Required	Area Required	Total Area Required
Education				
1. Primary Schools	1:3500 persons	22	0.25 Ha	5.5 Ha
2. Secondary Schools	1:8000 persons	10	4.5 Ha	45 Ha
Safety	-	-	-	-
1. Police Station	1:2000	38	3 Ha	114 Ha
Community				
1. Social Halls and Community centers	1:20000 persons	4	0.25 Ha	1 Ha
Recreation				
1. Parks	1:10000 persons	8	2 Ha	16 Ha
Commercial				
1. Market Category A	1:2000 low-income population	38	0.2 Ha	7.6 Ha

Source: Author, 2021

Table 33: Land budget for Mariakani and Magarini for the year 2030

Mariakani				
48,630 Persons				
Category	Standard	No. of Facilities Required	Area Required	Total Area Required
Education				
1. Primary Schools	1:3500 persons	14	0.25 Ha	3.5 Ha
2. Secondary Schools	1:8000 persons	6	4.5 Ha	27 Ha
Safety	-	-	-	-
1. Police Station	1:2000 persons	24	3 Ha	72 Ha
Community				
1. Social Halls and Community centers	1:20000 persons	2	0.25 Ha	0.5 Ha
Recreation				
1. Parks	1:10000 persons	5	2 Ha	10 Ha
Commercial				

1. Market Category A	1:2000 low-income population	24	0.2 Ha	4.8 Ha
Magarini				
65,920 Persons				
Category	Standard	No.	Area Required	Total Area Required
Education				
1. Primary Schools	1:3500 persons	19	0.25 Ha	4.75 Ha
2. Secondary Schools	1:8000 persons	8	4.5 Ha	36 Ha
Safety	-	-	-	-
1. Police Station	1:2000 persons	33	3 Ha	99 Ha
Community				
1. Social Halls and Community centers	1:20000 persons	3	0.25 Ha	0.75 Ha
Recreation				
1. Parks	1:10000 persons	7	2 Ha	14 Ha
Commercial				
1. Market Category A	1:2000 low-income population	33	0.2 Ha	6.6 Ha

Source: Author, 2021

5 Chapter Five: Development Strategies

In order for the Kilifi County Spatial Plan to be understood better, Sector-Based Development Strategies have been developed. They are aimed at initiating social and economic development in Kilifi County.

5.1 Human Settlements Strategy

The development strategies for human settlements are discussed in two categories. The Rural Development and the Urban Development Strategies.

5.1.1 Rural Development Strategy

The development strategies for rural settlements are divided into six main clusters as shown in Map 39. The clusters are further discussed below.

a) Cluster 1

Cluster 1 development zone runs parallel to the Ocean front and is made up of more arable land, favorable climatic conditions, endowed with Marine resources, Research institutions i.e., KALRO Mtwapa, Msabaha, Pwani and Farmers Training Mtwapa. The area has good access to piped water, good road network, electricity and mobile phone network. The cluster is also served by good educational facilities, health services and proximity to urban related services. The cluster covers the following sub locations: Central, Kibarani, Mwamutsunga, Barani, Bwagamoyo, Dabaso, Junju, Marereni, Zowerani, Watamu, Sokoni, Shella, Shimo La Tewa, Sabaki, Ngomeni, Mnarani, Matsangoni, Mambrui, Kijiwetanga, Kijiwa, Fundisha, Gongoni and Jilore/Ziani. Despite being well endowed the development of this cluster is being hampered by insecure land tenure, informal settlements, inadequacy in extension services, exposure to pollution and lack of affordable financial capital.

Development Proposals for Cluster 1

Promotion of tourism, dissemination of research information, improve dairy livestock breeds, value addition and extraction industry, improve water connection for irrigation, cooperative movement, extension services and investment in fish industry value addition.

b) Cluster 2

Cluster 2 Development zone is made up of ridges and has arable land, minerals, large land holding sizes, average rainfall and moderate to low level social services. The cluster also has favorable topography, well drained soils, medium population density and secure land tenure. The cluster faces low level physical infrastructure, water scarcity and low level of tertiary institutions. It is covered by the following wards: Ramada, Mbalamweni, Chivara, Birini/Mwamuleka, Buni/Chisimani, Chala/Mihingoni, Chasimba, Chauringo, Chilulu, Jimba, Kaliangombe/Jimba, Kaloleni/Vish/Tsaka, Kawala/Kadzongo, Magogoni, Kibwabwani, Kinagoni, Kisurutini/Mwele/Sim, Kithengwani/Mazia and Kwale.

Development Proposals for Cluster 2

Addition of more vocational institutions, value addition to Agro products and the promotion of the extractive industry (Ballast, Manganese, Mazeras stones)

c) Cluster 3

The cluster receives below average rainfall, has insufficient social and physical infrastructure such as water supply, roads and electricity, sparse population, low-income levels, shortage of water for domestic use and agricultural support. It is characterized by large land holding sizes

and secure land tenure. It is made up of the following wards: Kamale, Dzikunze, Miyani, Viragoni, Tsangatsini, Mwakala, Paziani, Dangarini, Mtsara-Wa-Tsatsu, Mitsemerini, Mikamini, Adu, Mombasa, Dungicha/Muhoni, Kidemu, Maharini, Mnagoni, Mitsedzini, Vitengeni, Mwambani, Dulukiza, Murima Wa Ngege and Ndigiria/Mapotea.

Development Proposals for Cluster 3

Promotion of drought resistance crops, ranching supporting goats, sheep and beef, potential for Agroforestry.

Cluster 4

This development cluster is located along Galana/Sabaki river towards the estuarine. The development cluster has arable land, good terrain, well drained soils, proximity to urban areas(market), skilled labor, good physical infrastructure. The cluster is made of the following wards: Baricho, Singwaya, Kakoneni, Gandini, Mkondoni, Langobaya and Masindeni. The area is prone to flooding, water borne diseases and shortage of capital.

Development proposals for cluster 4

Value addition for Agro-products and supporting cooperatives movement. It also has high potential for ecotourism, aqua culture and dairy farming which need to be harnessed.

Cluster 5

Cluster 5 development zone is adjacent to Tsavo East National Park and Galana/Kulalu Irrigation Scheme. Due to its proximity to Tsavo, it acts as animal dispersal zone. Available resources include wildlife, large land holding sizes and existing safari camps. The major challenge is water, below average rainfall and low level physical and social infrastructure. The wards within this cluster includes Matolani, Kisiki Cha Wangiria, Makongeni and Midoina.

Development Proposals for Cluster 5

The areas should be used as community reserves.

Cluster 6

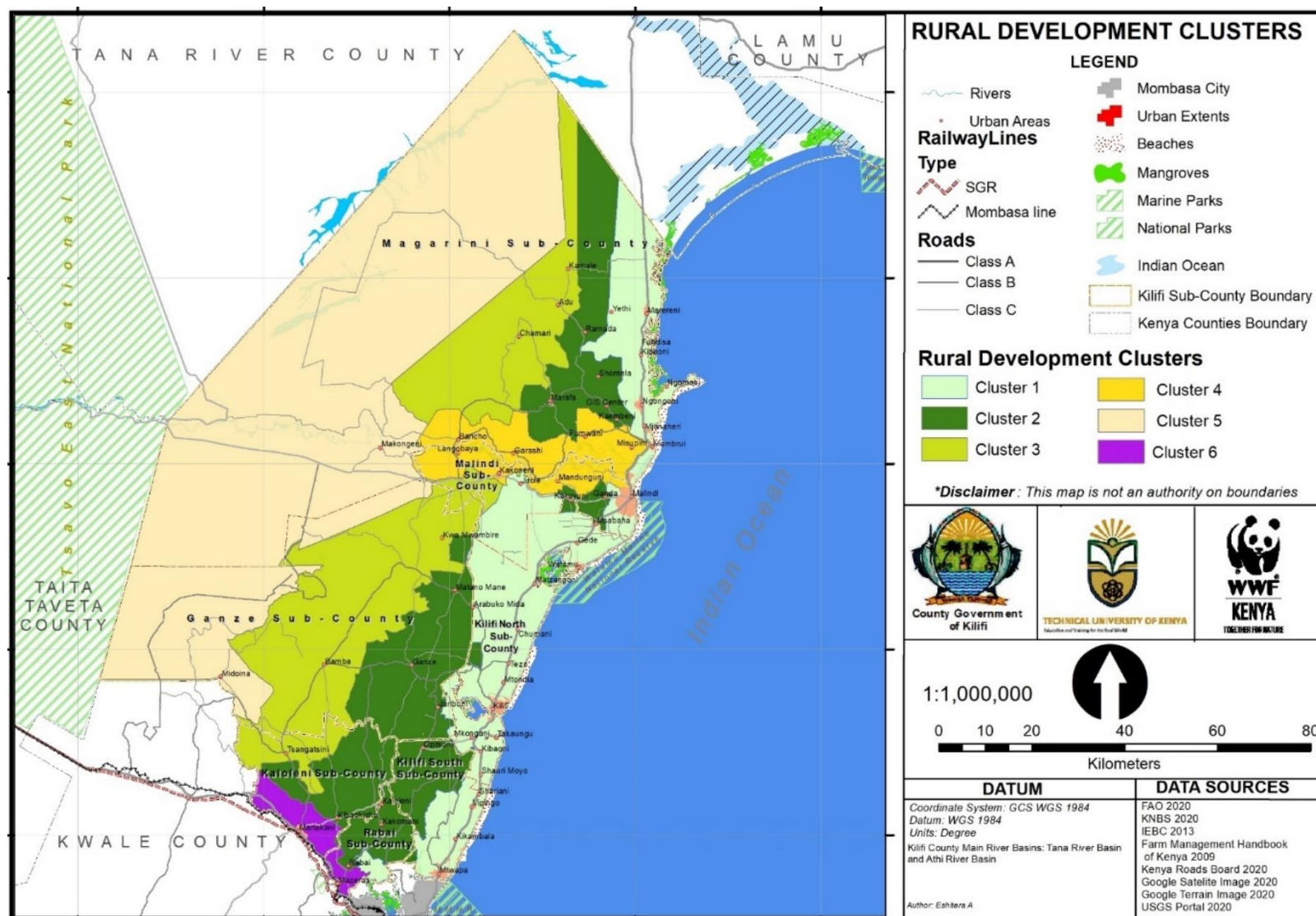
This development cluster runs along the main communication line linking the Kenyan Coast to Main Land. It is made up of the following wards: Buni/Chisimani, Mazeras/Mugumo Patsa, Kaliangombe/Jimba, Kawala/Kadzongo and Mariakani/Mitangoni. It has very good infrastructure i.e., road, electricity, railway line and mobile coverage. It also has high population density, existing industries, good climatic conditions, natural resources including building stones and active urban nodes.

The area is challenged by loose soils, small land holding sizes, urban sprawl, informal settlements and pollution from industries.

Development proposals for cluster 6

Intensification of industries, urban planning of urban nodes, extension of water coverage at household level and affordable housing.

Map 39: Proposed rural development clusters



Source: Author 2021.

5.1.2 Urban and Rural Centres Development Strategy

The Urban Development Strategy is put in place to bring a balance in the economic and social environment so as to improve the quality of life of the people living in urban areas of Kilifi County. In order to adequately develop the urban and rural centers, there is also need to promote trade and commercial activities in these centres. Table 34 shows the proposed hierarchy of urban and rural centres in Kilifi County.

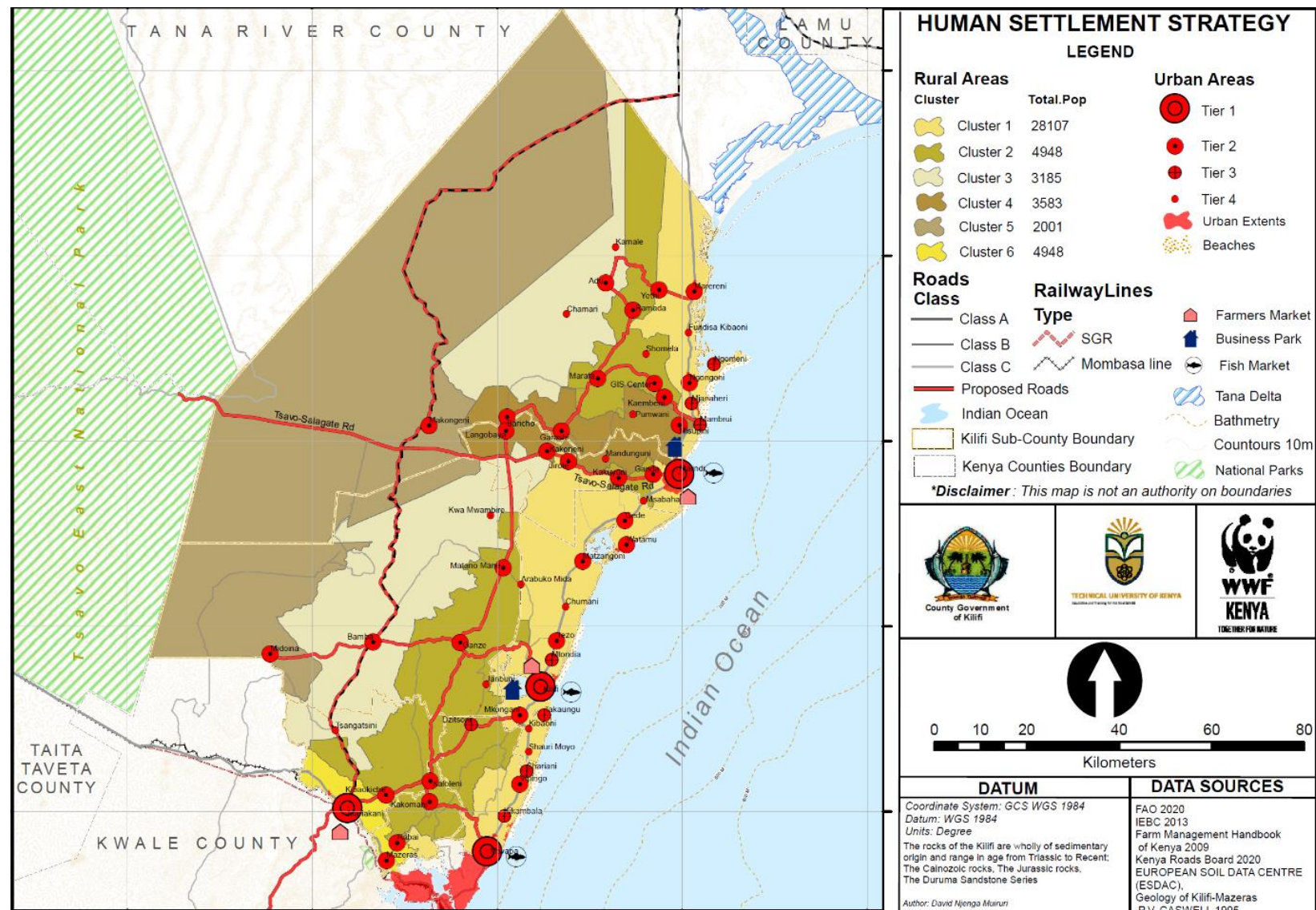
Table 34: Proposed hierarchy of centers within Kilifi County and their strategies

Proposed Tier	Name of centers	Proposed strategies
1	Malindi, Kilifi, Mariakani, Mtwapa	<ul style="list-style-type: none"> • An airstrip in Kilifi and Mtwapa. • An airport at Langobaya • Addition of education facilities • Promoting tourism and commercial sectors • Establishment of an elaborate sewer system • Establishment of business parks • Establishment of farmer's markets • Establishment of fish markets • Establishment of sports Complex • Establishment of level V hospitals • Transport and Commercial hub. • Establishment of waste recycling plants. • Establishment of industrial parks • Transport and logistics hub (Mariakani) • Potential upgrading to a municipal status for Mariakani and Mtwapa
2	Mazeras, Rabai, Kaloleni, Mkongani, Tezo Matzangoni, Gede, Langobaya, Kakuyuni, Marafa, Ngongoni, Marereni, Ganze, Kakoneni, Kibaokiche, Vipingo, Midoina, Matano, Mane, Baricho, Garashi, Jirole, GIS Center, Kaembeni, Misusini, Adu, Ramada, Yethi, Watamu, Bamba, Chumani.	<ul style="list-style-type: none"> • Potential upgrading to town status • Development of Kaloleni – Mariakani industrial development corridor • Establishment of industrial parks • Connection of centers with piped clean water. • Upgrading of roads within and connecting centers. • Establishment of a farmer market • Establishment of a local market
3	Ngomeni, Mambrui, Takaungu, Dzitsoni,	<ul style="list-style-type: none"> • Potential upgrading to urban centers • Promotion of Health and education facilities.

Proposed Tier	Name of centers	Proposed strategies
	Shariani, Kikambala, Mjanaheri, Mtondia.	<ul style="list-style-type: none"> • Development of local markets • Connection of centers with piped clean water • Promotion of local industries • Establishment of a local market
4	Kibaoni, Jaribuni, Chumani, Arabuko Mida, Kamale, Mwambire, Msabaha, Fundisa, Mandunguni, Shauri Moyo Ganda, Kibaoni, Kwa Pumwani, Mandunguni.	<ul style="list-style-type: none"> • Potential upgrading to trading centers • Promotion of Health and education facilities. • Development of local markets • Connection of centers with piped clean water • Establishment of a local market

Source: Author, 2021

Map 40: Proposed hierarchy of Urban and Rural centers.



Source: Author 2022.

5.2 Trade and Commerce Strategy

The economic development of Kilifi County is steered by Trade and Commerce. Due to widespread urbanization in Kilifi County, the existing urban areas are growing in size while new urban areas are growing in number. People are attracted to the social services that are offered in the urban areas hence giving rise to population in urban centers. Formal commercial activities in the commerce sector such as Banking, Insurance, Cooperative and Microfinance institutions increase each day to support the trading activities. The Trade and Commerce Strategy is therefore highly connected to the Human Settlements Strategy. Kilifi has a potential of more trading activities that would help improve the economy of the county. Some of the Strategies that can help boost the Trade and Commerce sector include.

- Establishment of more urban centers.
- Establishment of formal markets to give farmers a platform for their market produce.
- Encouraging joining of Saccos and cooperatives.
- Creation of job opportunities and employment, More industries for export produce.
- Link between various transport networks to facilitate movement of goods and services and Optimization of the available resources.
- Encourage the setting up of industries for export production.

Other strategies are concerned with the improvement of small-scale business sector and they include

- a) Solicit for the entry and formation of organization which provide affordable credit.
- b) Provision of appropriate and legal mechanisms to ensure fair business practices and level playing ground for the business actors.
- c) Encourage more players in the provision of training and business skills.
- d) Promote aggressive marketing strategies by all the stake holders.
- e) Capacity builds small-scale businesses to manage their businesses professionally.
- f) Establish a one stop center for trade and investment information in the County.
- g) Develop quality products for export.
- h) Improve infrastructure for easier movement of goods and services from manufacturers to the market and users.

5.3 Improving and Managing Physical Infrastructure.

The strategies here focus on ensuring Infrastructure-Based Services are well distributed within the County for access to all.

5.3.1 Water Sector Development strategy

Kilifi County, which is considered a water scarce region, has a large percentage of its land area characterized by arid and semi-arid conditions. The County has unevenly distributed rainfall throughout the year. A large percentage of its population therefore relies on boreholes, shallow wells, water pans, seasonal streams and rivers, and piped water.

The Department of Water has undertaken many water projects that are geared towards increasing water production in the County. This includes sinking of boreholes and equipping them with solar pumps. In this regard, a drilling machine was purchased to fast track the drilling and equipping of boreholes. Several water pans and dams have been constructed especially in the arid areas of Kaloleni, Ganze, Rabai and Magarini Sub Counties. Extension of pipelines has been implemented in almost all the Sub Counties and this has boosted water coverage to the community.

The Water Department has worked closely with Development Partners including the World Bank, Coast Water Works Development Agency, Water Sector Trust Fund, National Drought Management Authority (NDMA), Kenya Red Cross and many others to increase connectivity to piped water in Kilifi County and facilitate distribution of water to the larger population.

The Department of Water has worked closely with its Water Service Providers (Kilifi and Mariakani Water and Sewerage Company and Malindi Water and Sewerage Company) in the provision of water services to the people of Kilifi County.

This strategy therefore focuses on improving access to clean and safe drinking water. The main area of focus is Malindi Sub county which has major urban nodes such as Malindi and Gede. The area also has the highest coverage of piped water. Based on 2019 population census report 22.2 percent of Malindi Sub county population were connected to MAWASCO water system. Magarini Sub county residents have the lowest coverage in terms of piped water. Only 1.1 percent of Magarini residents access piped water indicating a bias of service provision towards the urbanized areas. To improve accessibility to safe water the following policy actions have been recommended:

a) Improve Access to Basic Water Supply

The main high-volume pipes serving the Kilifi County run along the main transport corridor targeting big urban nodes such as Kilifi, Malindi, Mtwapa and Mariakani. To improve the coverage of water provision, the County Government and the two service providers should expand the water distribution network to cover rural areas of Rabai, Malindi, Kilifi North, Kilifi South, Kaloleni, Ganze and Magarini Sub Counties. This will be attained by ensuring the storage capacity on the existing network is fully used.

b) Initiate Rural Water Supply Projects

There is a need to improve water provision in Magarini and Ganze sub counties. These two Sub counties are sparsely populated and the water service providers should work together with other stakeholders to initiate community-based water projects including boreholes and water pans. More studies should be done to ensure that boreholes drilled have safe drinking water. Solar pumps should be used in such areas since there is high potential for solar energy.

c) Strengthen the Capacity of Institution in Water Supply Sector

To enhance the water sector and enhance water service provision there is a need to enhance the capacity of service providers. More staff need to be hired and trained to get skills in handling the emergency issues in the water sector. The linkage between the Community, the County Water Department and service providers should be strengthened. All new development applications passing through the County Planning Unit should have water harvesting proposals in order to tap rain water to complement provisions from MAWASCO and KIMAWASCO. This will only be possible if the County Government works hand in hand with the community and the water service providers.

5.3.2 Energy Development Strategy

The key strategies and recommendation outlined to ensure that energy access is improved in Kilifi County are.

- Expansion of existing power connections and grid connection by using both the electricity mains.
- Promote the uptake and adoption of renewable energy technologies such as solar, briquettes, biogas, efficient cook stoves and wind mills.
- Establish energy centres in youth polytechnics to offer technical training on energy technologies such as solar, biogas and briquetting technologies.
- Construct energy mini-grids in existing islands in the county and villages such as Kadima and Kirekwe in order to increase the power supply in the county.
- Improvement of energy infrastructure through installation of solar streetlights and high mast in market centres and trading centres to improve security and enhance economic growth.
- Construct solar home systems and supply solar lanterns to increase access of clean energy in the hinterland.
- Promote energy efficiency by promoting the use of clean cook stoves and energy saving jikos in institutions and at household level.
- Promote the use of renewable energy technologies such as solar water pumps and wind mills in pumping water and installation of solar PV systems in public offices.
- Promote the use of renewable energy hybrid system (solar and wind, solar powered high mast) for lighting of roads and market Centres.
- Develop and operationalize policy and legal framework on energy subsector in the county.
- Offer incentives on renewable technologies.
- Establish an energy revolving fund with an aim of partnering with investors on energy investments in the County.

The strategy for Energy Sector Development is summarized in the table below

Table 35: Summary of the energy development strategy

Strategy	Policy Issues	Interventions
Wind Power Development	<ul style="list-style-type: none"> • Wind energy potential largely lays unexploited • Inadequate skilled human resource to develop wind energy technologies • Limited data on wind regimes • Limited Research on Wind energy technologies 	<ul style="list-style-type: none"> • To develop wind energy as an alternative renewable energy resource • Promoting collaboration and partnerships with learning institutions for sharing of quality data on wind energy technologies • Providing appropriate incentives to producers, developers and consumers of wind power systems • Kilifi County to have a 3MW windpower project at Ngomeni.
Solar Energy Development	<ul style="list-style-type: none"> • High upfront cost for solar installation • Lack of public awareness on solar technologies. • Lack of training and manpower. • Lack of markets for solar energy technologies. 	<ul style="list-style-type: none"> • To develop and implement a public awareness creation campaign on the opportunities and benefit of solar technologies. • Promote training and manpower development • Promote collaboration, partnerships and linkages, research and learning institutions. • County to vigorously pursue capabilities to utilize solar energy technologies • To promote the use of solar energy as an alternative energy resource in rural and urban areas. • To develop markets for solar energy technologies

		<ul style="list-style-type: none"> • To develop solar conversion technologies locally
Oil Exploration Project	<ul style="list-style-type: none"> • Lack of collaboration with the National Government on matters of oil exploration. 	<ul style="list-style-type: none"> • To work closely with the National Government to remove the existing VAT remission regime that is available to oil and gas. • Need to work with speed to withhold tax on the gross proceeds on the assignment of rights and sale of assets by oil and gas companies and other companies in the solid mineral sector. • To draft mineral resource policy that includes tax measures has been done with stakeholders input ongoing.
Biomass Resource Projects	<ul style="list-style-type: none"> • Overreliance of forests for fuel wood by rural communities. • Inadequate energy efficiency and conservation technologies. • Low awareness of impacts of forests depletions. • Inadequate knowledge of fast maturing tree species. 	<ul style="list-style-type: none"> • Promote cultivation of fast-growing trees species in order to regeneration of forests. • Promote the development of efficient wood stoves. • Promote educational campaigns to enlighten the public on the problems of desertification and soil erosion resulting from deforestation. • Ensure enforcement of forestry laws. • The county to promote alternative energy resources to fuel wood • The county to promote improved efficiency in the use of fuel wood

		<ul style="list-style-type: none"> • The county to intensify its effort to increase the production of land under forest cover
Biogas Production Proposals	<ul style="list-style-type: none"> • Under exploitation of biogas technologies as an alternative energy source for rural communities. • Lack of access to biogas technologies to rural communities. • Lack of feasibility study for all sub counties on the possible households which qualify for biogas digesters. 	<ul style="list-style-type: none"> • Develop and implement a public awareness creation strategy on the benefits and potential of biogas technologies. • Work with local and national learning institutions to support RD&D on biogas energy technologies. • Rollout biogas initiative to support biogas to public institutions • Establish and operationalize biogas demonstration centers in village polytechnic

Source: Author, 2021

5.3.3 Industrial Development Strategy

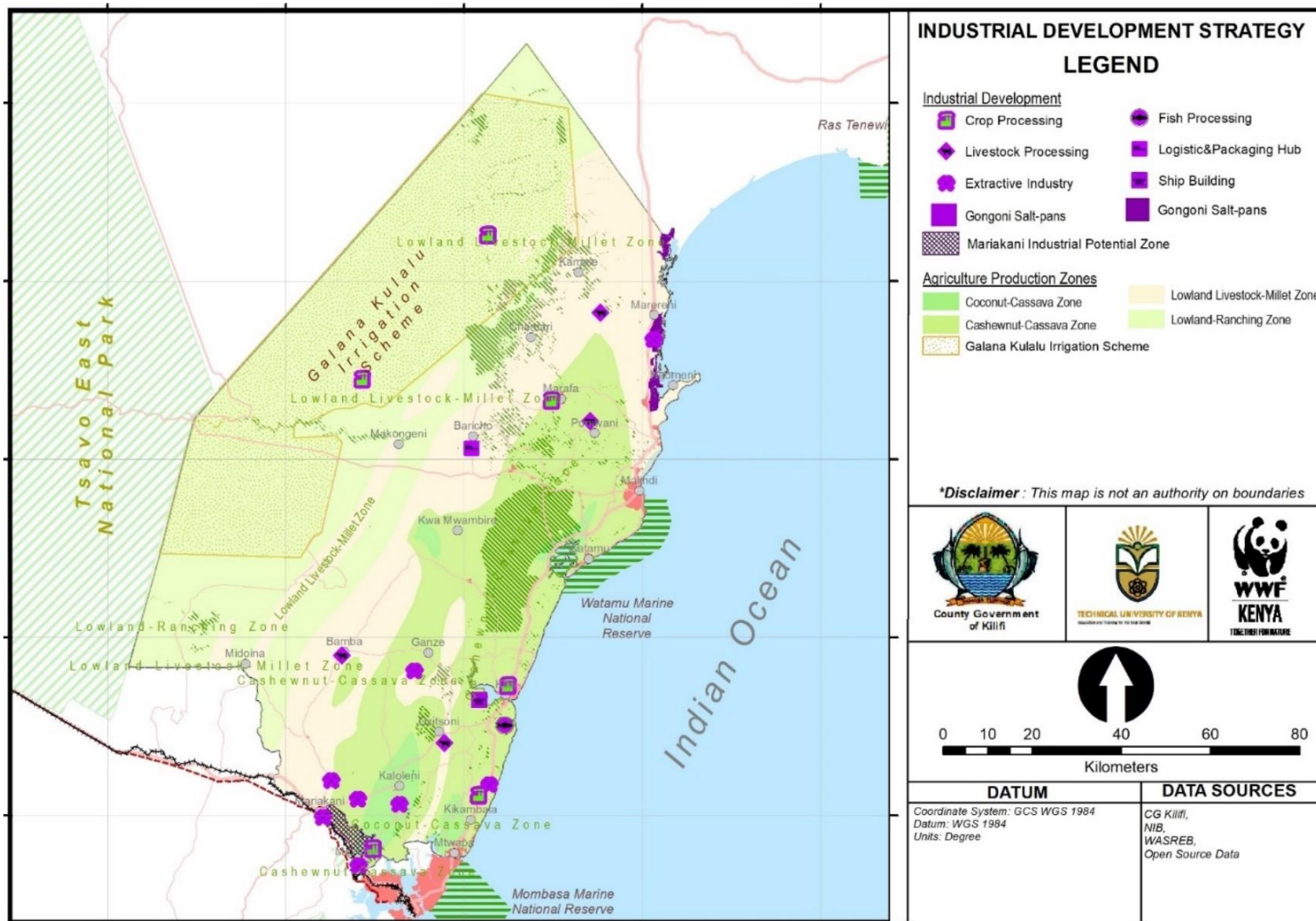
1. Modernization of agricultural, livestock and fish production as sources of raw material for industrial development.
 - a. Promoting large scale farming in different zones in the County.
 - b. Promoting intensive agriculture and livestock husbandry
 - c. Promote mechanized farming technologies.
 - d. Promoting irrigated agriculture to supplement rain-fed agriculture.
2. Optimization of land resources to enhance industrial development
 - a. Land banking and land pooling for industrial development.
 - b. Adjudication and registration of land to enhance tenure security of the locals.
 - c. Resolving existing land conflicts in Kilifi County.
 - d. Zoning of land for various uses according to their potential.
 - e. Locating suitable industries within production areas.
3. Developing transport and infrastructural services to support industrialization
 - a. Connecting production areas to potential markets.
 - b. Upgrading existing road networks to enhance accessibility.
 - c. Construction of new transportation corridors to open County hinterland.
 - d. Construction of a new international airport.
 - e. Increase and expand existing infrastructural services such as water supply.
4. Promoting urbanization and human settlement as a key sector in promoting industrial development
 - a. Earmarking growth centers around industries.
 - b. Creating new urban centers in areas with proposed industrial developments.
 - c. Promote clustered settlements in rural areas.
 - d. Promote good access to basic infrastructures, utilities and services.
5. Promoting and enhancing capacity building to support industrialization
 - a. Specific training for improving skilled labor for specialized industrialization
 - b. Establishment of mid-level institutions for training to support industrial development.
 - c. Promote public private partnerships in sourcing for capital.
 - d. Yearly budget allocation by County Government of Kilifi to support industrial growth.

ICT and telecommunications Development Strategy

Kilifi County is connected to key mobile service providers. There is a fibre optic network running along Mombasa – Garsen highway. The National Optic Fibre Backbone Infrastructure (NOFBI) links Kilifi to the rest of the Country.

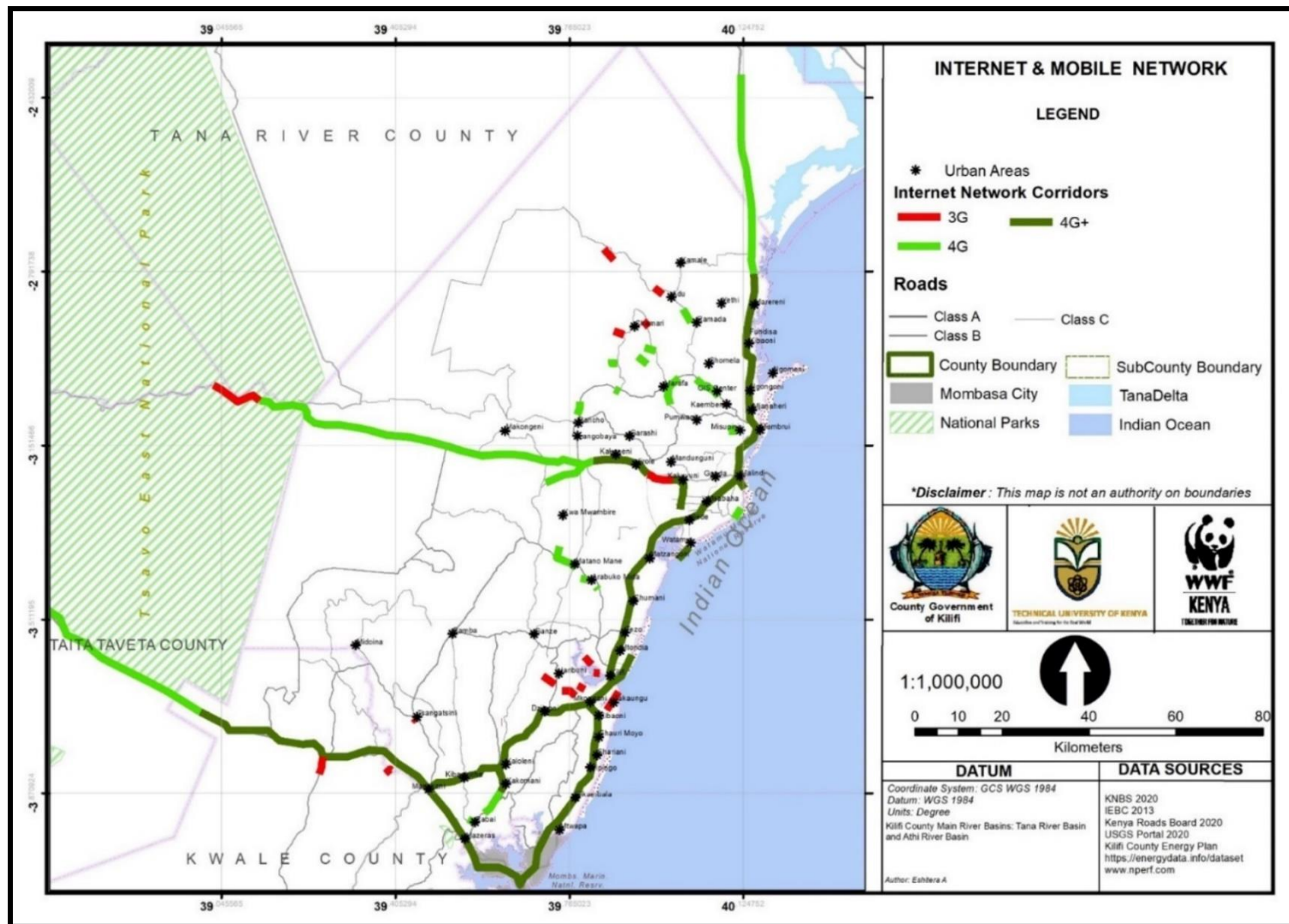
The strategy is to connect all urban centers within Kilifi County to the backbone Fibre Optic infrastructure.

Map 41: Industrial development strategy



Source: Author 2021

Map 42: Internet and mobile network in Kilifi County



Source: Author 2021.

5.4 Improving and Managing Social Services

5.4.1 Education Sector Development Strategy

The goal of the Education Sector Strategy is to be a leading responsive facilitator in improving the quality of Early Childhood Education, Vocational Training and Information Communication and Technology Services through capacity building and responsiveness to societal needs.

The mission is to provide and coordinate quality Education, training and enhance on integration of Information Technology Systems for Sustainable Development. The table below summarizes some of the objectives and Strategies in the Education Sector.

Table 36: Strategies in the education sector

EARLY CHILDHOOD EDUCATION	OBJECTIVES	• STRATEGIES
Early Childhood Education	Improve infrastructure	• Construction of ECD Centers
Ensure Equity in Early Childhood Education	Even distribution of learning centers	• Construction of learning centers in all wards
VOCATIONAL TRAINING		
To promote access and participation in vocational training	To improve enrolment	<ul style="list-style-type: none"> • Infrastructure development and equipping VTCs • Rebranding and repositioning vocational training
To promote access and participation in vocational training	To improve enrolment	<ul style="list-style-type: none"> • Infrastructure development and equipping VTCs • Rebranding and repositioning vocational training
To strengthen strategic partnerships and linkages in promotion of Vocational training	To strengthen institution collaboration in the management of vocational training	Improve vocational training industry linkage

Source: Author 2016

Table 37: Main activities in the education sector development strategy

School Retention Strategy	Strategy for Improving the quality of education.
School feeding programme	Hire more qualified staff
Poverty reduction campaign	Development more physical infrastructure
Expansion of physical infrastructure of higher levels of education	Target action on remote areas within the County
Sustained awareness campaign	
Increase budget allocation by County	

Source: Author, 2021

5.4.2 Health Sector Development Strategy

The Health Services Proposals aim at enhancing ease of access to health facilities by the residents of Kilifi County. The County is endowed with health services from level II to level VI as discussed below.

- (a) **Level II:** Kilifi County is well covered with health facilities. Based on the 3km radius service area, there are some sections which are not covered adequately. These areas have less population but based on the principle of equity, new facilities have to be constructed, equipped and staffed in accordance with the Ministry of Health guidelines and standards. Extra 57 facilities are required to ensure the coverage of 1 facility for a population of 10,000 persons. To bring service close to people a total of 27 new dispensaries have been proposed in areas which do not meet the minimum population threshold of 10,000 persons per facility as per Ministry of Health Standards. Alternatively, the County can hire and train Community Health Workers with ambulances services being availed for referral services.

Table 38: : Proposed dispensaries within Kilifi County

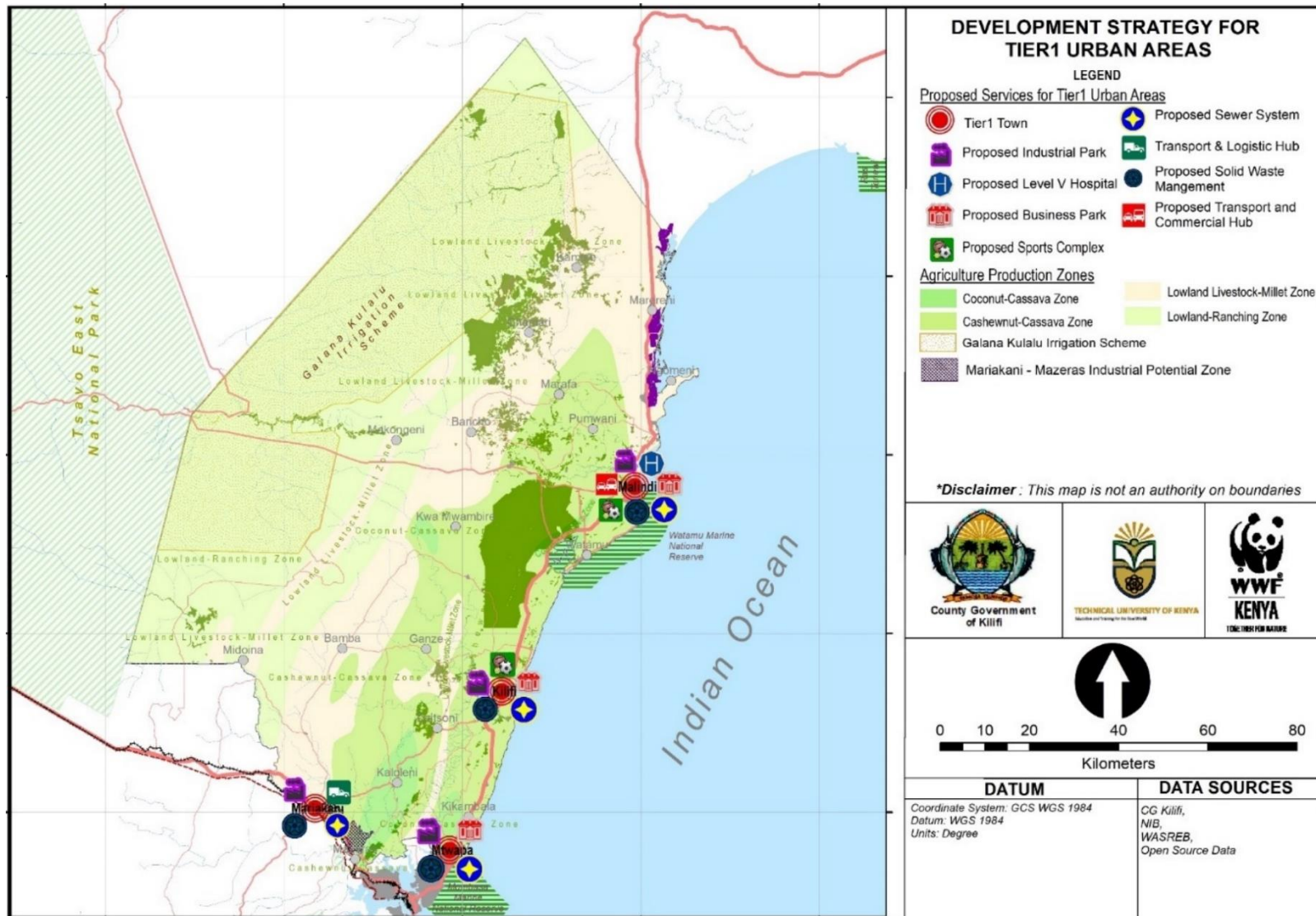
Sublocation	Population	Demand	Existing	Deficit	Comment
1. Kakuyuni	8316	1	3	-2	Add two
2. Mtsara-Wa-Tsatsu	19649	2	0	2	Add two
3. Milore	4334	0	1	-1	Add one
4. Mwambani	4686	0	1	-1	Add one
5. Mikuyuni	3406	0	1	-1	Add one
6. Makobeni	3619	0	1	-1	Add one
7. Ganze/Tsangalaweni	16038	2	1	1	Add one
8. Mitsadzoni	1726	0	0	0	Add one for equity
9. Mnagoni	1497	0	0	0	Add one for equity
10. Kidemu	3352	0	0	0	Add one for equity

Sublocation	Population	Demand	Existing	Deficit	Comment
11. Mweza/Migodmani	2772	0	0	0	Add one for equity
12. Mikamini	1689	0	0	0	Add one for equity
13. Rare	1833	0	0	0	Add one for equity
14. Mitsemerini	3626	0	0	0	Add one for equity
15. Magogoni	7007	1	1	0	Add one for equity
16. Dangarini	3197	0	0	0	Add one for equity
17. Mwapula	2915	0	0	0	Add one for equity
18. Marere	2905	0	0	0	Add one for equity
19. Viragoni	11978	1	1	0	Add one for equity
20. Vyambani	3832	0	0	0	Add one for equity
21. Kibwabwani	6228	1	1	0	Add one for equity
22. Chasimba	8830	1	1	0	Add one for equity
23. Chala/Mihingoni	11009	1	1	0	Add one for equity
24. Mbwa/Kikkomani	10938	1	1	0	Add one for equity
25. Mleji	14195	1	1	0	Add one for equity
26. Pangangani/Maereni	6374	1	1	0	Add one for equity
27. Miyuki	7707	1	1	0	Add one for equity

Source: Author, 2021

- (b) **Level III:** They include all health centers within Kilifi County.
- (c) **Level IV:** There are three Sub County Hospitals in Kilifi located at Mariakani, Malindi and Bamba. Other newly upgraded Level four hospital include Gede, Mtwapa, Marafa and Rabai. For effective operation of the health system within the County, each sub county should have level IV health facility. This will reduce referral time and also congestion at County Referral Hospitals.
- (d) **Level V:** There is only one level V Teaching and Referral Hospital in Kilifi County. This is the Kilifi County Teaching and Referral hospital. The facilities are linked to Kenya Medical Training Institute. Apart from offering medical services, the health facilities are also used as teaching and research centers.
- (e) **Level VI:** This specialized National facility; the whole of the North Coast region does not have one. In case of specialized treatment, patients have to be referred to Agakhan Which is in Mombasa with some cases being referred to Nairobi and outside the country. Kilifi County being strategically located within the expansive North Coast region needs one of this facility to serve Tana River County, Lamu County and Kilifi County itself. Based on the analysis, Malindi is ideal since it is located on the main spine road that connects the whole region.

Map 43: Proposed services for tier one centres



Source: Author 2022

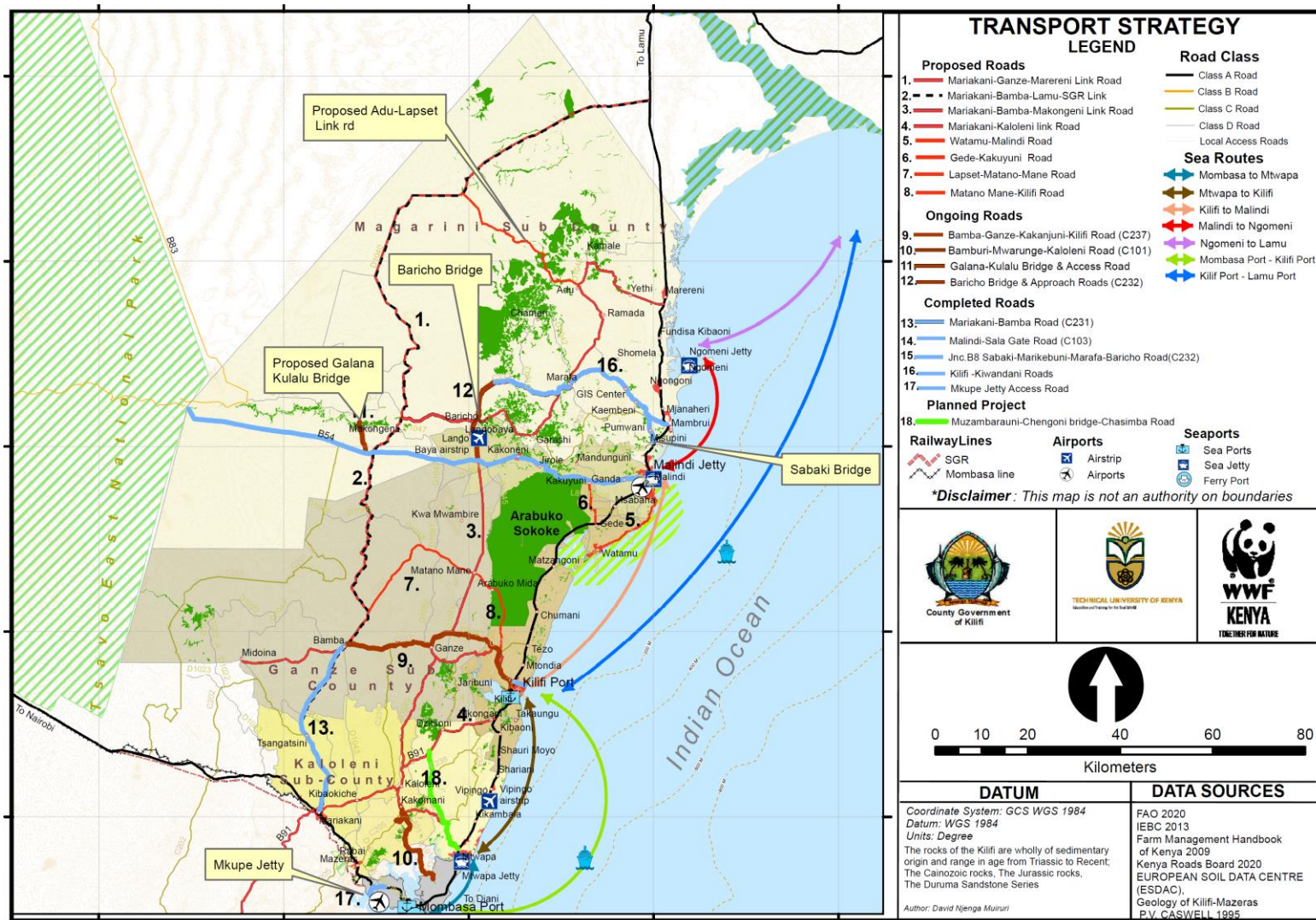
5.5 Provision of Quality and Reliable Transport and Communication Network

This strategy focuses on developing transport infrastructural services. It also focuses on opening up the interior part of Kilifi, to decongest Mombasa-Lamu corridor and to open up more industrial, tourism and agricultural activities in the County. The specific objectives of the transportation strategy are as follows.

- a) Connecting production areas to potential markets.
- b) Upgrading existing road networks to enhance accessibility.
- c) Construction of new transportation corridors to open the County hinterland.
- d) Construction of a new international airport.
- e) Increase and expand existing infrastructural services such as water supply, power supply and sanitation services.

Map 44 Shows the distribution of strategies in the transport sector.

Map 44: Strategies for the transport sector



Source: Author 2021.

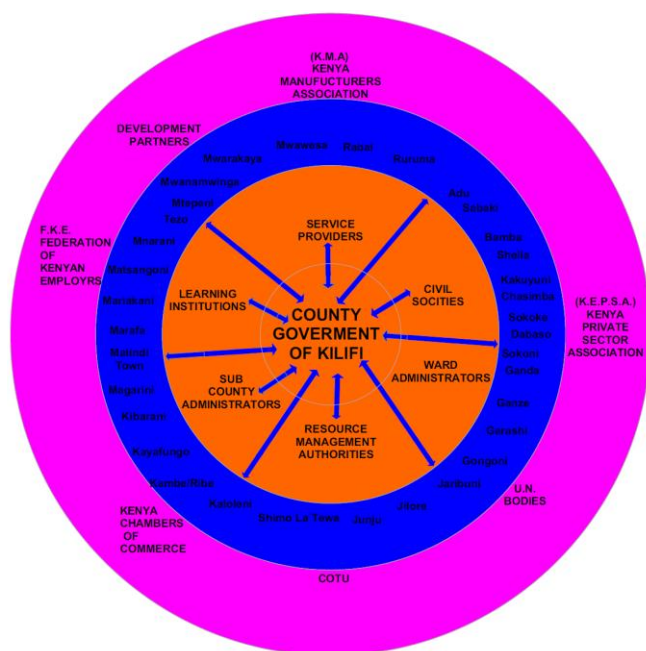
5.6 Governance Strategy

The objective of the governance strategy is to realize effective planning and sustainable implementation of the Kilifi County Spatial Plan to enhance service delivery. The proposed institutional structure is a three bundles non- hierarchical wheel that facilitates collaboration of various actors in the implementation process namely:

- Orange ring
- Blue ring
- Purple ring

The actors (composition), functions and structure of each bundle is described in details as indicated below.

Figure 24: Governance structure of Kilifi County



Source: Author, 2021

(a) The Orange Inner Ring (County Government of Kilifi)

This represents the central coordinating body for the plan implementation process. The main functions of the institution at this level include:

Liaison office – The actors in this ring will be responsible for promoting dialogue and facilitating negotiation between key stakeholder groups and collaborators, different sub- regional areas.

A lobby –the inner ring will also be responsible for advocacy/outsourcing for resources necessary to achieve the project’s programme implementation.

A Clearinghouse -Cordinating all projects emanating at the Sub-County level.

Supervision—The inner ring will be responsible for overseeing the plan implementation process

by implementing the monitoring and evaluation regime and ensuring a balanced implementation of plan programmes across the County.

Composition

This inner ring consists of actors who will be involved in the day-today implementation process. They include:

- i. The County Executive, the County Assembly and the County Public Service Board.
- ii. **County** level representatives of key stakeholder interests. These include representatives of women, youth, traders, sub-County resource regions.
- iii. **Key Collaborators** – these are the major collaborators in project implementation such as NGO's, CBO's, Utility providers.

(b) The Green Middle Ring Function

This ring represents decision-making bodies at the Sub- County level (resource-delineated). It brings together key stakeholder interests at the grassroots for purposes of,

- a) **Vision building** – This ring is responsible for brainstorming, negotiating and shaping a distinct vision for respective sub-regional jurisdictions.
- b) **Local plan formulation**- The ring will be responsible for formulating the necessary agenda of action for all the sub- counties.
- c) **Lobbying** – The ring lobbies for inclusion and prioritization of local programs and projects. Secondly, the middle ring also lobbies for inclusion of the identified projects in the wider framework of the Kilifi County Spatial Plan and the Vision 2030.
- d) **Promotion of the plan at the local level** - the middle ring promotes the plan among the local residents. This is important despite the fact that the proposals came from the people, there might be changes which come with time that need to be addressed for acceptance and ownership of the projects by the local community at large. The actors in this ring also identify investors at the local level and encouraging them to adopt specific programmes in the plan for implementation.
- e) **Liaison** – Promoting dialogue, facilitating Negotiation, and Fire-fighting among various stakeholders at the sub- County level.
- f) **Oversight** – Supervising the programme of implementation at the local level. The ring supervises implementation of projects cleared by middle ring at the grassroots.

Composition

- a) **The local Sub-County and Ward offices** – which will serve as programme overseer at the sub- County level.
- b) **Regional Representatives** of key stakeholder interests in the sub-region such as Pastoralists, Women, Youth, Traders among others.
- c) **Key Collaborators** in the sub- counties e.g. NGO's, CBO's, Utility providers, CDF among others. This will provide a forum for the actors to lobby for the inclusion of the projects in

the programs of such collaborators.

(c) The Purple Outer Ring

The sphere represents external forces who do not feature in day-to-day plan implementation processes but who have a determinative influence with regard to planned outcomes such as:

- i. **Funders of Mega Projects.** These actors may fund projects with huge financial requirements such as Infrastructure Developments. For instance, construction of port at Kilifi, ship building yard at Kilifi among others. The actors can be involved in project implementation either through multilateral or bi-lateral agreements or National tax revenues. The latter is where a project is implemented through the Governments budget while the former is where various actors fund the same project.
- ii. **In charge of Formulating Policy Frameworks and Legislative Measures** at the supra-regional level which allow for the realization of planned actions. At this level, the Central Government bodies and Ministries spearhead formulation of various regional development policies and institutionalization of legislation.
- iii. **Promotion of the Plan Projects at the International Level.** This ring is responsible for promoting the County as a preferred investment area. In addition, the actors in this ring also identify investors at the international level and encourage them to adopt specific regional programmes. For instance, Ministry of Fisheries may look for investors to put up fish processing plants in the County.
- iv. **Oversight** - ensuring that the programme of implementation complies with the National Goals i.e.
 - o Vision 2030
 - o Sectorial Strategy Papers
 - o National Spatial Plan

Composition

This ring does not constitute an institutionalized entity but rather caucus of interested parties and include but is not limited to;

- i. Kilifi County Government
- ii. The Central Government-Government Ministries and Parastatals
- iii. Political Parties
- iv. Development Partners
- v. International Organizations
- vi. National lobbies (FKE, KEPSA, KMA, COTU, etc.)

Administrative and Security Development Strategy

This strategy seeks to devolve leadership and County Administrative offices to the lowest administrative units in the society i.e., Village. The Kenyan Constitution 2010 provides for the

restructuring of the Provincial Administration which was initially made up of Provincial Commissioners, District Commissioners, District officers and Chiefs into National Government Administrative Office to coordinate security at grassroots levels. In addition, the position of the County Commissioners has been created to oversee coordination in the Counties. To achieve full access to administrative and security services, the plan proposes the establishment of a police base and a ward administrator office within every ward of Kilifi County.

Community Empowerment Strategy

Community empowerment strategy seeks to find ways of enabling marginal communities to increase control over their lives hence experience social, cultural and economic advancement. These are communities and areas which access little resources compared to other communities. These communities also lack the technical know-how of exploiting resources existing around them. This plan proposes that the County Government of Kilifi in partnership with the various stakeholders to provide technical support to the local community. The support shall aim at providing training sessions, designing sustainable projects, promoting innovations and fostering competitions in the National and International realms. The empowerment strategies can be configured to suite sub locations in Kilifi County as enumerated in the table below.

Table 39: Proposed community empowerment strategies within Kilifi County

SUB-LOCATION	POTENTIAL	EMPOWERMENT STRATEGY	BENEFITS
Kamale, Dzikunze, Miyani, Viragoni, Tasngatsini, Mwakala, Paziani, Dangarini, Mtasara-wa-tsatsu, Mitsemerini, Mikamini, Adu, Mombasa, Dungicha/Muhoni	Potential for drought resistance crops i.e., sorghum, millet, green gram	<ul style="list-style-type: none"> • Providing the communities with high quality drought tolerant seeds. • Training on effective post harvesting techniques i.e., mechanized threshing, safe storage using hermetically sealed bags 	<ul style="list-style-type: none"> -Increased food security -Increase in Incomes -Access to quality seeds -Increase in crop yield

Source: Source: Author, 2021

5.7 Environment and Disaster Management

The objective of this strategy is to enhance the capacity for disaster risk preparedness and response. This also goes hand in hand with Environmental management.

5.7.1 Disaster and Risk Management Strategy

The Disaster Management Strategy for Kilifi County shall focus on Flooding, Drought and any other land related disaster. The strategy is to establish a vibrant County Disaster Management and Response Unit shows the most affected areas within Kilifi County.

Table 40: Areas affected by disasters in Kilifi County

Flooding	Drought	Environmental degradation
<ul style="list-style-type: none"> - Sabaki Flood Plain - Kwa Kadzonzo in Kikambala - Mtondia - Vitengeni - Along River Mbogolo in Mavueni. 	<ul style="list-style-type: none"> - Bofu in Adu Ward in Magarini Sub-County. - Ndatani, Midoina, Migujini in Bamba ward of Ganze Sub-County. - Tsangatsini in Kaloleni Sub-County. - Mikuyuni, Masindeni and Singwaya in Garashi Ward. 	<ul style="list-style-type: none"> - Dakatcha, Galana Ranch, Mwangea Hills, Jorore, Fungo, Rabai, Tsolokero kayas. - Arid and Semi-Arid Areas of Ganze and Magarini Sub Counties. - Kilifi South (Majengo), Kilifi North (Tezo, Roka, Kakunjuni, Nzovuni), Ganze (Kadzandani and Jaribuni) and Rabai (Kokotoni) Magarini (Gongoni). - Kadzandani, Bale, Chivara in Ganze sub county. - Magarini (Gongoni, Marereni, Fundisa, Kurawa). - Cement Manufacturing-Athi River Mining (Rabai) & Mombasa Cement (Kilifi South) - Major urban centers-Mariakani, Gongoni, Malindi, Kilifi, Mtwapa, & Marereni.

Source: Author, 2021

The disaster-prone areas also have an impact over the Blue economy. Map 45 shows the spatial distribution of Blue Economy and their relationship with disaster prone areas. The Strategy for Disaster Management also focuses on proposing for management responses and the responsible institutions. The table below summarizes the causes of disasters, the proposed management responses and the responsible institutions.

Table 41: Proposed management strategies for disaster prone areas

Flooding

Causes	Management Response	Responsible Institutions
<ul style="list-style-type: none"> • Excessive Rainfall leading to flash floods. • Encroachment on Riparian reserves. • Unplanned human occupation on lowland areas. • Poor Land management practices in upper catchment areas. • Conservative attitudes towards risks. 	<ul style="list-style-type: none"> • Introduce Early warning systems to reduce fatalities and property loss as a result of disasters • Gazette flood basins. • Develop and implement Integrated River Basin Flood Management Plans. • Enforce river bank management regulations. • Ensure proper physical planning of rural and urban settlements. • Establish Evacuations/Resettlement programmes. • Enhance capacity to disaster recovery. 	<ul style="list-style-type: none"> • Department of Devolution, Public Service and Disaster Management (County Lead). • Ministry of Devolution and ASALS (National Government) • Various ministries within Kilifi County Government such as Land, Energy, Housing, Physical Planning and Urban Development, Health, Roads, Water and Sanitation. • Community and Private Sector. • Kenya Meteorological Department • Kenya Red Cross Society. • UN Agencies and INGOs.
Drought		
Causes	Management Response	Responsible Institutions
<ul style="list-style-type: none"> • Inadequate surface water (rivers, streams, ponds, dams, springs). • Unreliable rainfall. • High evaporation and evapotranspiration rates due to global warming. • Saline ground water surfaces. 	<ul style="list-style-type: none"> • Activate Drought Contingency Plans. • Drought rapid assessment. • Formation of community disaster management committee. • Establish county Data base on drought information. • Establish proper mechanisms for weather data collection, prediction to inform early warning and information dissemination to all stakeholders. 	<ul style="list-style-type: none"> • Various ministries within Kilifi County Government such as Land, Energy, Housing, Physical Planning and Urban Development, Health, Roads, Water and Sanitation, Environment and Natural Resources. • Department of Devolution, Public Service and Disaster Management (County Lead).

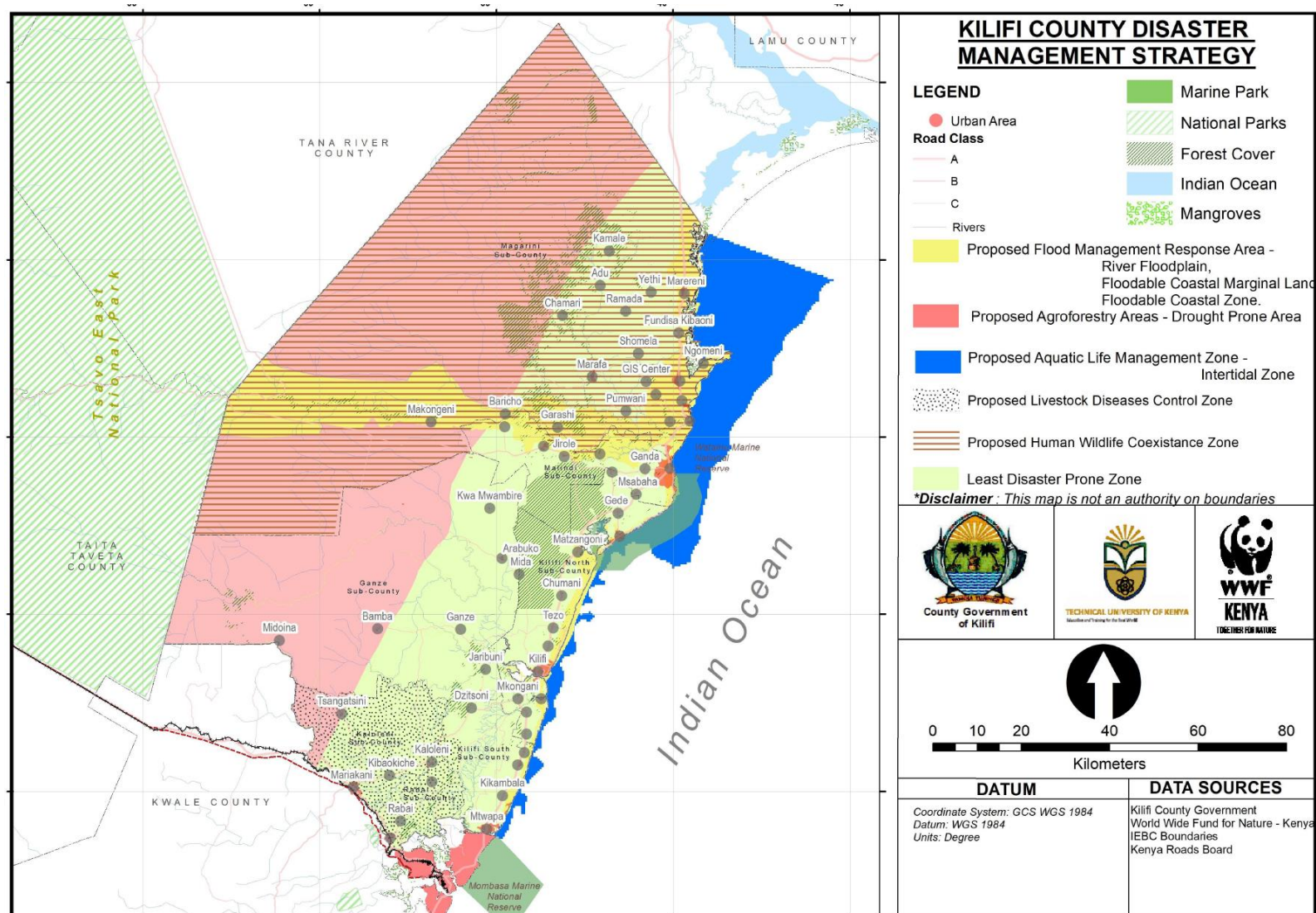
<ul style="list-style-type: none"> Increased water/ land demand due to population increase. 	<ul style="list-style-type: none"> Strengthen research institutions for development and improvement of drought tolerant crops. Incorporate drought management programmes into the county integrated development plan and all sector plans in the county e.g. Water tracking points in affected areas, extension of water pipelines to affected areas, construction of boreholes and dams among others. Enforce implementation and compliance to Environmental regulations and laws-including customary laws. Improve land use/rangeland management practices in the county. Increased capacity of the communities to overcome shocks occasioned by droughts, floods, fires and conflicts Enhanced capacity for disaster recovery 	<ul style="list-style-type: none"> Ministry of Devolution and ASALS (National Government) Community and Private Sector and Civil Society groups. Kenya Meteorological Department/Services. Kenya Red Cross Society. UN Agencies, and INGOs. Faith based organizations Research institutions UN agencies and INGO, CBOs.
Environmental Degradation		
Causes	Management Response	Responsible Institutions
<ul style="list-style-type: none"> Deforestation due to human activities such as charcoal production for commercial purposes and human settlements. Quarrying (limestone, coral blocks, ballast, sand). Mining (Manganese) 	<ul style="list-style-type: none"> Formulate and implement strict laws against environmental degradation causes. Educate the communities on the nature and causes of environmental degradation. Conduct environmental impact assessment and audits. Organize campaigns on the importance of environmental conservation. Establish a county Policy on Liquid and solid waste disposal. 	<ul style="list-style-type: none"> Various ministries within Kilifi County Government such as Land, Energy, Housing, Physical Planning and Urban Development, Health, Roads, Water and Sanitation, Environment and Natural Resources and Finance. Kenya Forest Service (KFS). Research Institutions. UN agencies and INGO, CBOs.

<ul style="list-style-type: none"> • Salt Mining/ Harvesting. • Air pollution from Industrial activities. • Poor waste managing. 		<ul style="list-style-type: none"> • Department of Devolution, Public Service and Disaster Management.
Pests and Diseases		
Causes	Management Response	Responsible Institutions
Livestock		
<ul style="list-style-type: none"> • Ticks • Direct contact with infected animals. • Biting insects. 	<ul style="list-style-type: none"> • Control is through quarantine to restrict movement. • Control of vector (mosquitoes and other biting flies) and quarantine of infected animals. • Vaccinations 	<ul style="list-style-type: none"> • Kenya Agricultural Research Institute, • Ministry of Environment • Ministry of Agriculture, KEMRI, KEFRI. • County Government of Kilifi department of Livestock and Fisheries.
Crops		
<ul style="list-style-type: none"> • Use of infected seeds. • Fungus 	<ul style="list-style-type: none"> • Education of farmers on control and prevention. • Communities should do proper check of the seeds they use as well as dispose infected planting material in a safe way to prevent spread of the disease. • Early detection may save the trees of better value ensuring proper drainage, good spacing and immediately cutting down infected trees. 	<ul style="list-style-type: none"> • Kenya Agricultural Research Institute, • Ministry of Environment • Ministry of Agriculture, KEMRI, KEFRI • County Government of Kilifi department of Agriculture.
Human Wildlife conflict		
Causes	Management Response	Responsible Institutions
<ul style="list-style-type: none"> • The needs of wildlife verses Human needs. • Human population growth and expansion of agricultural fields, 	<ul style="list-style-type: none"> • Prevention strategies to avoid the occurrence of the conflict. • Prevention strategies where the conflict is certain to happen or Damage control where it has already occurred. • Community awareness and compensation. 	<ul style="list-style-type: none"> • World Wildlife Fund (WWF) • Kenya Wildlife Service (KWS) • County Government of Kilifi, department of Tourism.

<p>urbanization and industrialization.</p> <ul style="list-style-type: none"> • Encroachment into areas that were originally wildlife migratory routes or habitats. • Climate change which has caused scarcity of resources. 	<ul style="list-style-type: none"> • Voluntary relocation. 	
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Source: Author, 2021

Map 45: Disaster Management strategy



Source: Author 2021.

5.7.2 Environment Management Strategy

This strategy focuses on the conservation of ecologically important features within Kilifi. The strategy shows the combined set of special areas which need to be appropriately managed (included into conservation-focused zones) in the County Spatial Plan to secure the County's key Natural Capital Assets for the future.

Mapping and Categorization of Critical Ecologically Significant Areas (CESA).

This section outlines the methodology and data input that went into the development of the county ecological zonation (CESA) map to inform the inclusion of 'Ecological' component in the development of county spatial plans. Map illustrates the Critical Ecologically Significant Areas (CESA) and Ecological Support Areas (ESA). This map 47 provides a single summary of all the ecologically important features. The "CESA map" is used as shorthand for "map of Critical Ecologically Significant Areas and Ecological Support Areas". The map shows the combined set of areas which need to be appropriately managed (included into conservation-focused zones in the CSP to secure the County's key Natural Capital assets for the future.

Methods

(a) CESA Categorization

Features in the CESA map are prioritized and placed into 5 broad categories as outlined below:

- Protected Areas (PA): Are legally protected areas such as nature reserves and gazetted forests. Ecotourism is appropriate in these areas, along with limited facilities and infrastructure to support it. Sustainable resource use is acceptable if it is within management plans, is strictly controlled and subject to appropriate monitoring and evaluation.
- Critical Ecologically Significant Areas One (CESA1): Are the most important ecological features outside of PAs such as wetlands, *sacred forests* and conservancies. These areas need to be kept in a natural or semi-natural condition, and only appropriate activities such as ecotourism and sustainable resource use (including grazing) should be allowed.
- Critical Ecologically Significant Areas Two (CESA2): Are other important ecological features such as the remaining forests. Similar to the previous category, these areas also need to be kept in a natural or semi-natural condition, and only appropriate activities such as ecotourism and sustainable resource use (including grazing) should be allowed.
- Ecological Support Areas One (ESA1): Are the key intact supporting areas, or areas important for services or ecological infrastructure. The areas include aquifers and river buffers. These need to be kept in a functional state. Urban, industrial, mining, large scale arable agriculture and large-scale infrastructure, as well as impacting activities such as dredging should be avoided in these areas.
- Ecological Support Areas Two (ESA2): are additional supporting areas, or areas important for services or ecological infrastructure, but which have been already significantly impacted. These include river or wetland buffers which have been converted to agricultural fields. These areas need to be managed to maintain their remaining ecological functioning and avoid further loss. Existing land use (e.g., fields) needs to be kept stable, intensification should be avoided, and where possible areas should be rehabilitated.

(b) Classification Scheme

The table below shows the CESA Classification Scheme

Table 42: CESA Classification Scheme

Category	Protected Area	Critical Ecologically Significant Areas		Ecological Support Areas	
Specific Category	Protected Area:	Critical Ecologically Significant Areas 1:	Critical Ecologically Significant Areas 2:	Ecological Support Area 1:	Ecological Support Area 2:
	PA	CESA 1	CESA 2	ESA 1	ESA 2
Description	Legally protected areas	Critical natural and semi-natural areas with limited choice.	Critical natural and semi-natural areas with some choice.	Natural and semi-natural supporting areas, areas important for services or ecological infrastructure.	Impacted supporting areas, areas important for services or ecological infrastructure.
Management Objective	Keep in a natural state	Keep landscape broadly natural.	Keep landscape broadly natural.	Keep landscape Ecologically functional.	Maintain remaining ecological functioning and avoid further loss.
	Sustainable resource use and ecotourism within strict management plans	Manage for sustainable resource use.	Manage for sustainable resource use.	Manage to avoid significant impact on ecological functioning. Avoid incompatible land uses.	Keep land use stable, avoid intensification, rehabilitate where possible.
Examples of compatible land uses and activities	Ecotourism, limited facilities and infrastructure to support ecotourism. Sustainable resource use if within management	Ecotourism and associated facilities. Sustainable resource use, including extensive grazing of livestock on	Ecotourism and associated facilities. Sustainable resource use, including extensive grazing of livestock on	Extensive grazing, ecotourism, sustainable resource use.	Existing agriculture. Other current/existing land uses where they are carefully managed to avoid impacts

Category	Protected Area	Critical Ecologically Significant Areas		Ecological Support Areas	
	plan, strictly controlled and subject to appropriate monitoring and evaluation.	open grasslands (especially by traditional pastoralists), sustainable utilization of indigenous forests, controlled fishing (especially small scale) and other sustainable resource use.	open grasslands (especially by traditional pastoralists), sustainable utilization of indigenous forests, controlled fishing (especially small scale) and other resource use.		on ecological functioning.
Examples of incompatible land uses and activities	Urban, industrial, mining, agriculture, livestock grazing, large scale infrastructure .	Urban, industrial, mining, arable agriculture (large and small scale), exotic plantations, large scale infrastructure . Fencing and subdivision.	Urban, industrial, mining, arable agriculture (large and small scale), exotic plantations, large scale infrastructure . Fencing and subdivision.	Urban, industrial, mining, arable agriculture (large scale), exotic plantations, large scale infrastructure .	Urban, mining, large scale new arable agriculture, expanded sugar cane, expanded exotic plantations.

Source: WWF 2022

Table 43: GIS layers aggregated into the Kilifi CESA.

Terrestrial	CESA DATA SETS				
Marine					
Thematic focus	Feature	Significance	Status	CESA Category	Management Guide
PA -Forests	Arabuko Sokoke FR	PA, IBA		PA	Non-extractive use, research, PFM, NTFP, Ecosystem services, Ecotourism
PA -Forests	Kaya Forest			PA	Cultural events, Research, NTFP, Education, Ecosystem services, Rehabilitation,
Historical Sites	Gede Ruins, Jumba Ruins, Mnarani Ruins, Kirepwe Islands, Temple Point, Roka Salt Lake	IBA (Gede Ruins)		PA	Education, Ecotourism, Education, Research, NTFP,
County Forests	Nzovuni, Kizungu, Kachororoni Gorge, Dakacha	County Forest		CESA1	Gazettment, PFM, Ecosystem services, non-extractive use, Rehabilitation
Riverine	Gallery forests			CESA1	Conservation, Rehabilitation, NTFP, Ecotourism,

Important Bird and Biodiversity Areas (IBAs).	Arabuko Sokoke, Sabaki River Estuary, Dakacha Woodlands, Gede Ruins, Mida Creek			CESA1	Gazettment, PFM, Ecosystem services, non-extractive use, Rehabilitation, Ecotourism,
Lakes/wetlands	Jilore, Chemchem, Dera, Sameta			CESA1	Sustainable water abstraction, Tourism, Conservation, Watering livestock, Legal fisheries, Grass harvesting, Conservation
Floodplain	Flood Plain			CESA2	Conservation, Rehabilitation, NTFP, Ecotourism,
Wildlife Habitats /Dispersal	Kilifi Ranch, ADC Kulalu Ranch, Marafa Group Ranch	Ranches that play as Dispersal Zones		CESA2	Ranching, Afforestation,
Forest Connectivity	Forest connectivity			CESA2	
Water Towers/Catchments	Mwangea Hills	Water Tower	Highly impacted by Agriculture	CESA2	Gazettment, PFM, Ecosystem services, non-extractive use, Rehabilitation
Rivers	Galana/Sabaki, Mbogolo, Kombeni, Nzovuni, Koromi, Bore etc.			ESA1	Sustainable water abstraction, Tourism, Conservation,

Riparian	30m from the river high watermark			ESA1	Recreation, Rehabilitation,
	60m from the Sea High-water Mark			ESA1	Recreation, Rehabilitation,
Fragile Land - Vipingo Ridge	Vipingo Ridge	Marginal Lands		ESA2	Sustainable Use, Hazard Sensitivity (Prevention and Mitigation plans) to be incubated in developments
Floodable Coastal Zone 3m Above Sea Level	Coastal Flood Susceptible Zone	Marginal Lands		ESA2	Sustainable Use, Hazard Sensitivity (Prevention and Mitigation plans) to be incubated in developments
Marine Protected Areas	Malindi NP, Watamu NR	Marine biodiversity hot point	Has legal frameworks governing use	PA	Fully protected by KWS and is a no take zone/s. Tourism allowed, Includes specific marked areas for boat anchoring
Locally Managed Marine Areas (LMMA).	Mida creek Mangrove Board Walk (MBW), Dabaso MBW, Majaoni Youth MBW	Marine biodiversity hotspot-provides direct ecosystem services directly to local communities in terms of food	Not yet gazetted	CESA1	Conservation of Mangrove, and eco-tourism activities

		and levies paid by tourists i.e., mangrove board walks etc			
Locally Managed Marine Areas	Kuruwitu, Bureni, Kanamai Mradi	Marine biodiversity hotspot-provides direct ecosystem services directly to local communities in terms of food and levies paid by tourist-snookering etc	Not yet gazetted	CESA1	Conservation of all marine resources (coral reef, fish seagrass) , sustainable fishing and some section delineated as no take zones. Eco tourism also permitted
Coral Reef (Reef at risk 2011)	Coral Reef	First line of natural defense against sea storms, foraging sites, fish spawning sites- (high biodiversity areas)-Scenic beauty	52% of the reefs are under high risk and are within Watamu marine reserve, only 47% of the reef in Kilifi is fully protected within the Malindi national park and are under	CESA1	Low risk areas should be conserved to enhance coral recovery/reduce fishing pressure. High risk areas should be fully protected to avoid further degradation.

			low risk, elsewhere, 0.5% of the total reefs in Kilifi are under medium threats and are not protected at all. These reefs are found north of Malindi National Park		
Mangroves	Mangroves	Fish breeding sites, filtration of storm water, Natural defense against sea storms/tsunamis , key habitats and foraging grounds, potential sites for blue carbon, carbon sequestration	Consider calculating cover change per county then comment on status	CESA1	Fully gazetted. Mangrove inside MPA zones is protected under the wildlife act, those falling outside MPA are under forest Act/management by Kenya Forest Service/Community Forest Associations
Sea Grass	Seagrass	Foraging sites for marine mammals	Consider calculating cover change	CESA1	Sustainable fishing using legal

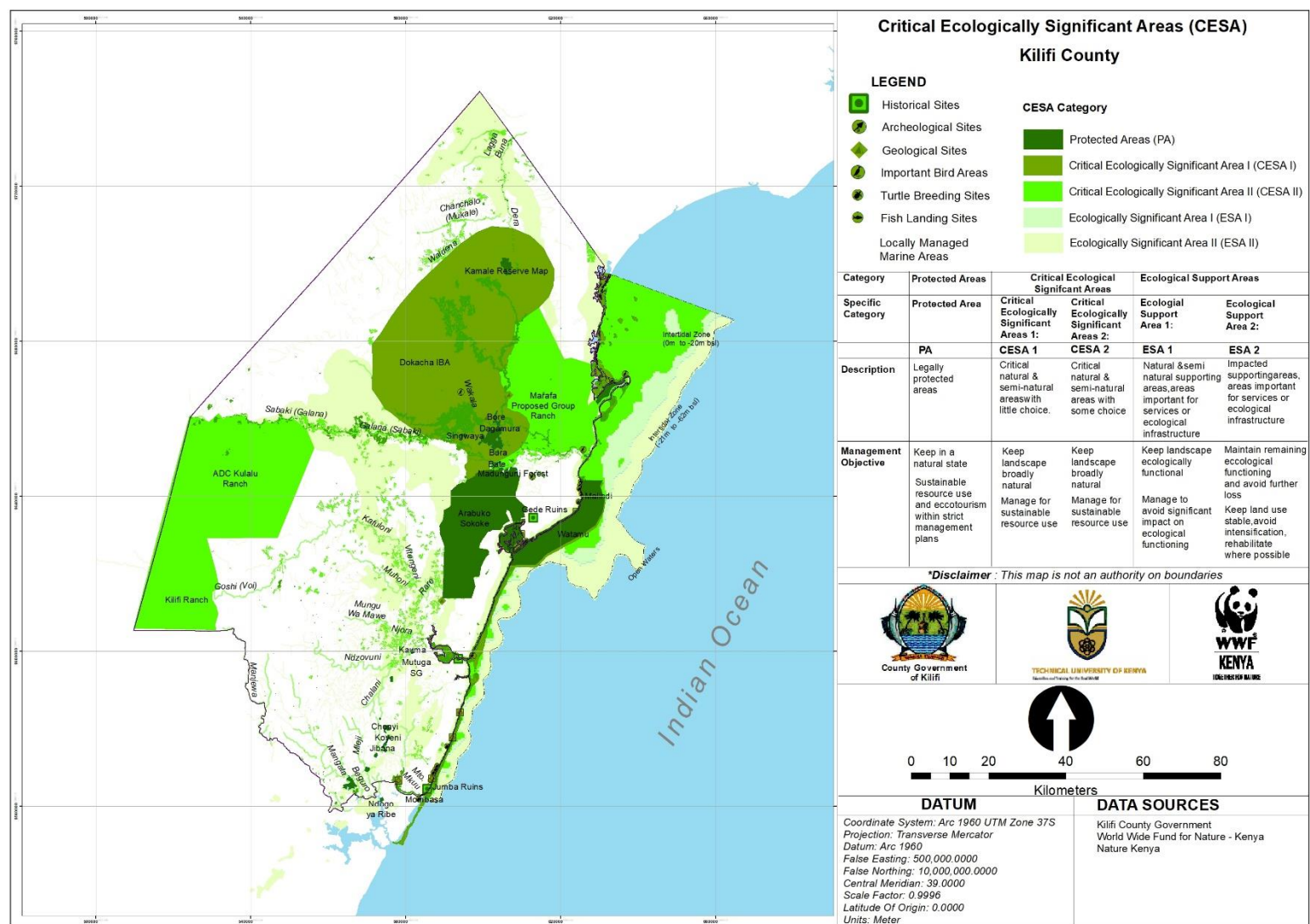
		(Dugongs) and fish, turtles etc.	within and without MPA/LMM A then comment on status/decide		methods, no anchoring
Sandy Beaches	Sandy Beaches	Recreational sites and nesting sites for turtles	Threatened by sea level rise, pollution and waste management issues	CESA1	Sustainable use, limitation of artificial lighting (disrupts turtle movement during hatching period), restriction of canines and other pets that can prey on turtle nests etc.
Dolphin sighting	Dolphin sighting sites	Tourism hotspots Dolphins feeding site, breeding sites.	Threatened by conflicting uses including boating and fishing	CESA1	Sites should be clearly mapped to avoid resource use conflicts
Turtle Nesting Sites	Turtle Nesting Sites	Nesting areas for turtles	Threat from stray dogs and humans, artificial lighting (Light pollution)	CESA1	Full protection of nesting sites.
Fish Landing Sites	Fish Landing Sites	Important resource	Threatened-land	CESA1	Should be left accessible to public

		exploitation routes	grabbing, pollution		and managed by Beach Management Units (BMU) based on the BMU constitution.
Intertidal zone (=> -20m bsl)	Intertidal Zone	Intertidal zone High Biodiversity Zone, Livelihoods, Tourism	Threatened from multiple use opportunities	CESA2	Sustainable tourism, Maintain natural state on key habitats, Sustainable artisanal fishing, No bottom trawling, Prohibit random anchoring of marine vessels/boats, Enforce pollution prevention and mitigation plans (e.g Oil spills etc.), Sustainable bottom trawling
Inter Tidal Zone Buffer (-21m to -60m bsl)	Inter Tidal Zone Buffer	Protection of the intertidal zone, Marine biodiversity		ESA1	Sustainable right of passage for heavy marine vessels/boats, Sustainable Sport fishing
60-meter buffer zone	60-meter land buffer zone on the zone the terrestrial side	Buffer area for marine environment.		ESA1	Gazetted under the survey Act CAP 299

		Reduces chances of marine encroachment, limits development that would otherwise interfere with natural cycles including nesting for turtles, diversion of sea waves etc			
Open Waters Zone (<=60m bsl)	Open Waters	Potential for Commercial fishing, commercial shipping, wind harvesting, Oil and gas explorations and Mining, whale migration corridors		ESA2	Sustainable Commercial fishing and Shipping, Sustainable Mining

Source: WWF 2022

Map 46: Critical Ecologically Significant Areas (CESA) and Ecological Support Areas (ESA)



Source: Author 2022

5.8 Waste Management Strategy

The Kilifi County Spatial Plan envisions a clean and healthy environment where its residents can live, work comfortably and conveniently. Achievement of the vision requires development of an outstanding solid waste management system and infusion of significant change in the culture of handling waste.

5.8.1 Solid Waste Management Strategy

The Kilifi County Spatial plan proposes major Towns Solid Waste Management Programme towards achieving zero waste disposals through separation at source, collection, recycling and materials processing.

The main components of the proposed Kilifi County Solid Waste Management Programme are:

- i. Installation of adequate number of street litter bins on the streets of major towns and other major market centers;
- ii. Installation of containers for refuse storage at points of generation.
- iii. Investment in modern solid waste management plants that incorporate sorting, recycling, composting and bio-digestion.
- iv. Enhancement of capacity of staff for effective solid waste management in Kilifi County.
- v. Enhancement of community awareness on a clean environment through effective solid waste management at household level.
- vi. Development of a Solid Waste Management Policy for Kilifi County that addresses all the waste generated by the County including industrial waste.

For effective realization of the Programme, the scope is divided into five key elements as described in the table below.

Table 44: Elements of waste management in Kilifi County.

Element	Policies
Waste Separation at Source, Collection and Community Mobilization	<ul style="list-style-type: none">• Recyclables to be delivered to a recyclables station for sale to recyclers.• The organic and mixed waste to be sorted at a materials processing plant.• Organic components to be composted and bio-digested to produce manure and generate biogas.• Residue materials to be disposed off in a sanitary landfill• Training of residents of Major towns on management of solid waste.• Community mobilization through awareness programs on need for solid waste management and the separation of waste at source.
Materials Processing Facilities	<ul style="list-style-type: none">• Setting aside large sections of prime urban and land for landfilling or transporting of waste to distance disposal sites.

Element	Policies
	<ul style="list-style-type: none"> • Recovery of value in waste through recycling, processing to usable products and energy recovery. • The provision of stations for recyclables and for materials processing facilities for sorting composting, bio-digestion and landfilling of residue materials.

Source: Author 2022

5.8.2 Management of Industrial Waste

The objective of this strategy is the protection of human health and the environment. The plan proposes for the tailoring of industrial waste management practices to the risk associated with them. It advocates for the application of pollution prevention options when designing a Waste Management System. Pollution prevention will reduce waste disposal needs and can minimize impacts across all environmental media. Pollution prevention can also reduce the volume and toxicity of waste. Lastly, pollution prevention can ease some of the burdens, risks, and liabilities of waste management.

Where pollution prevention is not applicable the following Waste Management Strategies can be applied.

- Source Reduction of water.
- Setting up of Liquid Waste Management Systems.
- Setting up of Solid Waste Management System.
- Management of Liquid Waste through Sewage Treatment.

5.9 Tourism, Conservation and Recreational Strategy

The goal of this strategy is to make Kilifi County a preferred tourist destination for a globally competitive and innovative trade and investment sector. Its mission is to provide an enabling environment that facilitates investments and development of tourism for wealth creation and sustainable growth.

1. Optimization of existing tourist attraction sites for maximum benefits
 - a) Carry out an audit of all existing tourist attraction sites.
 - b) Value addition to the existing sites by diversification of activities and provision of supporting services.
2. Preserving and conservation of historic and cultural tourist attraction sites
 - a) Identification of all historic and cultural tourist attraction sites.
 - b) Set up a strong historical, cultural sites management unit.
 - c) Allocating enough financial resources towards preservation and conservation of such sites.
3. Exploring new tourist attraction sites
 - a) Identify new areas with tourist attraction potentials.
 - b) Developing these areas to meet the requirements as tourist sites.
 - c) Introduction, development and enhancement of tourism activities.
4. Promoting production of basic requirement in hospitality sector
 - a) Encourage adequate food production in the County to meet hospitality sector needs.
 - b) Training and skill development for labor within hospitality sector.
 - c) Development and upgrading of County infrastructure to support tourism and hospitality sector.
5. Aggressive branding and marketing of Kilifi County as a preferred tourist destination
 - a) Establish a committee at the County level in charge of branding and marketing tourist sites.
 - b) Set aside yearly budgetary allocation towards branding and marketing strategies
 - c) Periodic benchmarking of tourist activities.
6. Creating and enhancing capacity building institutions as a way of creating an enabling environment for tourism and hospitality sector.
 - a) Establish training institutions to train locals in hospitality sector.
 - b) Harmonize and coordinate various actors in this sector to ensure efficient running of tourism sector
 - c) Integrating local participation in decision making and implementation of relevant tourism activities and initiative including sharing the benefits accrued from the tourism sector.

Table 45 shows selected Tourism Strategies and how they shall be achieved.

Table 45: Selected tourism strategies and how to achieve them

STRATEGIES	KEY ACTIVITIES	EXPECTED OUTPUT	KEY PERFORMANCE INDICATORS
Promote and Market Kilifi County as an ideal Tourist Destination	Re-brand and re-package tourism products	<ul style="list-style-type: none"> • Branding plans and strategy laid • Packaged products and services • Enhanced value 	<ul style="list-style-type: none"> • Robust business • More revenue • Increase no. visitors • One stop shop/ decision
	Develop and Operationalize Tourism Circuit	Clear route maps for visitors Tourist circuits Developed tourism products and services	Established tour routes Satisfied clientele Improved products and services
	Improve Auxiliary and Beautification Program on cities, Building and Facilities.	Clear branding and identity Destination Identity	Improved quality of produce and services Improved hygiene and attractiveness
	Develop Online Tourism Marketing Platforms	Access to online markets both local and international Information sharing platforms	Improved inbound tourism Improved service offering. Improved incomes to the County
Design and Implement a County Tourism Master Plan.	Carry out Investment Portfolio	Identify Products and services worthy investing	More investments More product and service offering
	Propose outdoor recreational activities investment	Interactive product mix Improved local tourist uptake	Increase no. of local Tourists High satisfaction index
Develop an Overall Policy Framework for a Sustainable Tourism Agenda in the County	Develop Favorable Legislations and Policies	Investment policies Tourism Code of conduct for unethical behaviors	High net worth investors in the county, Reduction on sex tourism Reduction of drug and subsistence abuse among other unethical behaviors

	Institutionalize Beach Safety Units	Improved safety and security	Increased safety Satisfied visitors
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Source: Author 2022

5.10 Agricultural Development Strategy

This section focuses on two main areas. The Crops Development Strategy and the Livestock Development Strategy.

5.10.1 Crops Development Strategy

The objective of this strategy is to increase agricultural productivity and outputs and to promote market access and product development. This section begins by an assessment of the suitability of different parts of Kilifi County for crop productivity. Below is a description of the capabilities of different parts of Kilifi County.

Highly Capable

Landform is highly capable to support plant life and requires no intervention to do so. This may however change if the environment is degraded. The suitable crops here include Coconut, maize, mangoes, Cashew nuts, banana, paw paw, sugarcane, pineapple, cowpeas, horticultural crops, fodder crops and sisal.

Moderate to Highly Capable

Landform requires minimum immediate minimum inputs or technological interventions that would improve the natural environment affecting micro-climate and soil health positively. Crops suitable for this region are coconut, maize, cassava, sisal, cowpeas, banana, pawpaw, cotton, mangoes and green grams.

Moderately Capable

Landform requires immediate moderate inputs or technological interventions that would improve the natural environment affecting micro climate and soil health positively. The cost implications may be high and should be weighted carefully against expected environmental sustainability and fiscal gains. Crops suitable here includes Coconut, Maize and Cassava.

Marginally Capable

Landform requires significant immediate or technological interventions that would improve the natural environment affecting micro-climate and soil health positively. The cost implications would be significant for any change to occur. The option of utilizing the land for other purposes can also be explored. Building development can also be a better option. Crops suitable here includes, coconut, maize, cow peas and banana.

This Strategy also aims at increasing the land under Irrigation to booster food security and local employment.

To improve productivity of areas with low rainfall and improve food security within the County, three major irrigation schemes have been proposed. These projects are also covered in Kenya National Water Master Plans. There are other small scale irrigation projects at various riverine ecosystems but these three should be given high priority. The projects are within the zone covered in rural development cluster 3 and 4. Small scale irrigation should also be encouraged in Magarini and Ganze where the County should invest in drip irrigation system

and green houses. These efforts will improve food security and they have to be implemented in harmony with the Water Sector Strategy. This sector has to be implemented by both Department of Water, Agriculture and Cooperative Movement at both National and County level with local farmers playing a key role. The table below shows the proposed irrigation schemes in Kilifi County

Table 46: Proposed Irrigation schemes

Project	Location	Areas	Type	Status	Facility	Agency
Burangi Irrigation Scheme	30 ⁰⁹ '19''S, 40 ⁰⁴ '50'' Near Burangi Primary	1,200 Ha	New	Proposed	Weir	CDA
Kavunyalalo Irrigation	-3.180298° 39.978986° Near Kavunyalalo Primary	8,240Ha	New	F/S ongoing	Weir	NIB
Sabaki Irrigation	-3.147196°, 40.122348° Near Sabaki Bridge	3,000Ha	Extension	F/S ongoing	Weir	NIB

Source: Author 2021

The table below shows the other strategies for Agricultural Development.

Table 47: Strategies of agricultural development

Strategy	Interventions
Modernizing of Agricultural and Livestock Production.	<ul style="list-style-type: none"> a) Horticultural development. b) Appropriate modern technologies in land preparation. c) Encouraging proper storage and timely harvesting. d) The use of disease resistant crop varieties. e) Facilitate access of clean and disease-free planting materials by encouraging farmers to form marketing groups. f) Encouraging small farm on value addition.
Promoting and enhancing capacity building to support agricultural activities.	<ul style="list-style-type: none"> a) Intensification of extension services. b) Agricultural training institutes.
Improving production in all sub sectors to achieve food sufficiency and income generation.	<ul style="list-style-type: none"> a) Improve on land ownership to allow owners develop their land for optimal utilization. b) Increased output to stomp out food deficiency and improve the socio- economic status of the community.

Strategy	Interventions
	<ul style="list-style-type: none"> c) The cooperative sub-sector will be strengthened through revival of cooperative societies to offer farmers a channel for marketing of the County products. d) special programmes will be put in place to improve farming methods. e) Rehabilitation of tree crops. f) Education and training of committee members, society members and staff.
Improving livelihoods of the people through promotion of competitive agriculture.	<ul style="list-style-type: none"> a) Formation of new and revival of cooperative societies. b) Growth of a viable cooperatives sub sector. c) Equitable distribution of farm inputs. d) Promptness in service delivery and application of modern marketing techniques.
Promotion of dairy and beef farming.	<ul style="list-style-type: none"> a) Intensification of veterinary services. b) Development of Poultry farming. c) Strengthening the institutional framework for effective disease control. d) Creation of infrastructure to effectively support disease and pest control services delivery. e) Provision of water facilities for livestock keeping. f) Promotion of quality service and facilitate trade. g) Increased funding for livestock programmes. h) Value addition and creation of markets to support livestock sector.
Research and Development.	<ul style="list-style-type: none"> a) Development of drought and disease resistant crop and livestock varieties. b) Establish sustainable funding initiatives. c) Organizing more farmer field days in the County. d) Disseminating and educating farmers to adopt and grow researched crops.
Improve fish production and marketing;	<ul style="list-style-type: none"> a) Ensure sustainable exploitation of fisheries resources. b) Gazette new fish landing beaches. c) Carry out surveys to identify suitable areas for aquaculture. d) Provision of storage facilities.

Strategy	Interventions
	e) Increase funding for extension services. f) Venturing into commercial fishing to increase their production to satisfy the local demand.
Land Regularization	a) Perform land audit in the County. b) Settle the landless and formalize land ownership. c) Ensure proper planning and utilization of land. d) Sustainable management of land resources.

Source: Author, 2021

The table below shows the roadmap for implementing various projects in the agriculture sector.

Table 48: Roadmap for implementing bankable Agriculture based projects

Project Name	Project Term	Project Location	Recommended Implementation Plans	Possible Funding Plans
Agriculture Technology Centers	Short	Each Sub-County	<ul style="list-style-type: none"> Land acquisition Technology Transfer Infrastructure Development 	PPP
Intensive dairy and cooling	Short	Kilifi South , Kilifi North and Malindi Sub-Counties	<ul style="list-style-type: none"> Land acquisition Technology Transfer Infrastructure Development 	Private Investment
Sheep/Goat Farming	Short	Magarini and Ganze Sub-Counties	<ul style="list-style-type: none"> Technology Transfer Infrastructure Development 	Private Investment
Fruit Production	Medium	Magarini, Kilifi North, Kilifi South and Malindi Sub-Counties	<ul style="list-style-type: none"> Land acquisition Technology Transfer Infrastructure Development 	Private Investment
Coconut Farming	Long	Kaloleni, Kilifi North, Kilifi	<ul style="list-style-type: none"> Land acquisition/concession 	PPP

		South and Rabai Sub-Counties	<ul style="list-style-type: none"> • Technology Transfer • Infrastructure Development 	
Cashew Nut Farming	Long	Kilifi North Sub-County	<ul style="list-style-type: none"> • Land acquisition/concession • Technology Transfer • Infrastructure Development 	PPP

Source: Author

5.10.2 Livestock Development Strategy

The objective of the Livestock Development Strategy is to improve livestock production for wellbeing and wealth creation. This shall be achieved through improving the access to milk market and income to farmers. Other Livestock Development Strategies includes:

- a) Improvement of livestock production through the provision of veterinary services.
- b) Facilitation of Marketing of Livestock and Livestock Products.
- c) Promotion, regulation and facilitation of livestock production for social economic development and industrialization.

The table below summarizes some of the proposed projects for Livestock Development and their proposed locations.

Table 49: Proposed livestock development projects and their location

Project	Location
Construction of water pans for Livestock use	Bamba
Development of the Kavunyalalo Livestock farm	Kakuyuni
Dairy Goats Development	Kilifi North, Kilifi South, Kaloleni, Malindi, Rabai Sub-counties.
Promotion of Rabbits Production	Kilifi North, Kilifi South, Kaloleni, Magarini, Malindi, Rabai, and Ganze.
Up scaling of Beekeeping	Kilifi South, Magarini, Kilifi North, Ganze, Malindi, Rabai, Kaloleni.
Meat Goats (Galla) Development	Kaloleni, Ganze, Malindi, Magarini Sub Counties.
Local Poultry Development	Rabai, Kaloleni, Ganze, Malindi, Magarini, Kilifi South, Kilifi North Sub Counties.
Improvement of local Zebu cattle	Malindi, Ganze, Magarini and, Kaloleni Sub Counties.
Honey Extractors	Ganze, Magarini, Malindi.
Construction of New Milk, collection and Cooling center.	Manyeso, Mwarakaya, and, Gongoni
Complete construction of milkcooling centres.	Bamba, Marafa and Ganze.
Completion of a Modern slaughter facility.	Marafa.
Construction of Modern slaughter facility	Bamba.

Source: Author 2021

5.10.3 Fisheries Development Strategy

The main objective of this strategy is to maximize contribution of fisheries to poverty reduction, food security and creation of wealth. Other objectives include:

- a) Enhance fisheries production.
- b) Promote the utilization of appropriate technologies in fisheries.
- c) Facilitate marketing of fisheries.
- d) Strengthen departmental systems and processes.

- e) Develop appropriate infrastructure.
- f) Strengthen human resource capacity.
- g) Building of fish cooling plants within the proposed fish landing sites.
- h) Promote and Modernize Aquaculture and Mari culture Production and Management for increased productivity.
- i) Management and sustainable development of fisheries

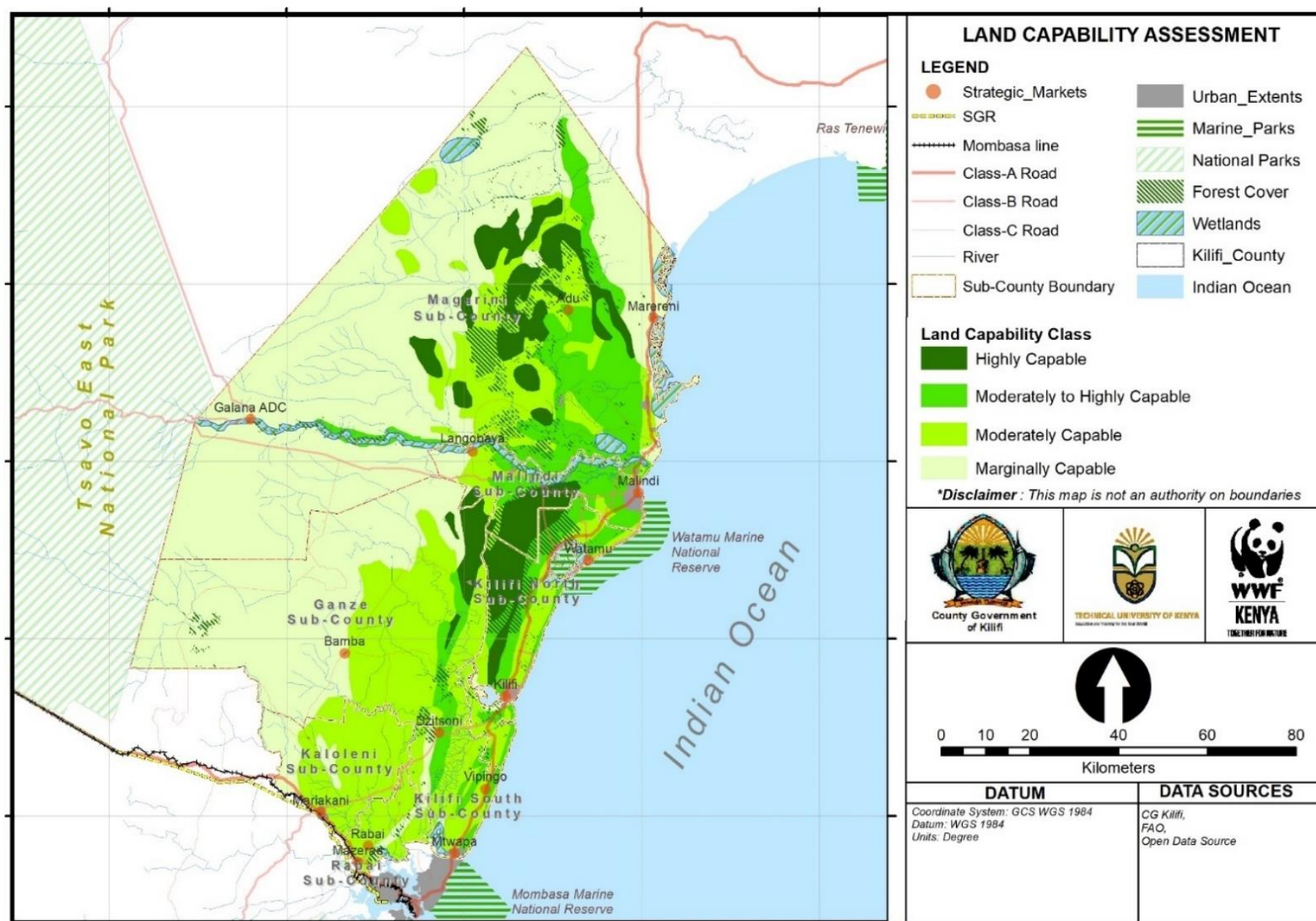
Source: Author summarizes some of the proposed projects for fisheries development and their proposed locations.

Table 50: Proposed fisheries development projects and their location

Project	Location
Purchase of deep freezers and cool boxes.	All BMUs.
Construction and revitalization of jetties.	Kilifi, Ngomeni, Takaungu, Mtwapa and Malindi.
Zonation of artisanal and ring net fishing grounds.	All, riparian, wards, fishing, grounds.
Construction of Sea Wall – Ngomeni fisheries landing site.	Gongoni.
Construction of Boat Building Workshop.	Shella.
Construction and equipping institutional integrated fish farming.	All BMUs.
Construction of fish landing facilities	Mtwapa, Watamu, Kilifi Central.
Construction fish landing Facilities (depots).	Tezo, Kanamai, Roka, Wesa.
Construction of fish markets.	Mtwapa, Kilifi, Watamu, Mayungu.
Training of fish farmers on general fish farming practices (mariculture and fresh water).	All wards.
Capacity building on post-harvest management in capture and recapture fisheries.	All BMUS.
Establishment of Fisheries, monitoring, control and surveillance units.	Shella and Sokoni, (Malindi, and Kilifi fisheries office).
Purchase of fishing boats.	All riparian wards.

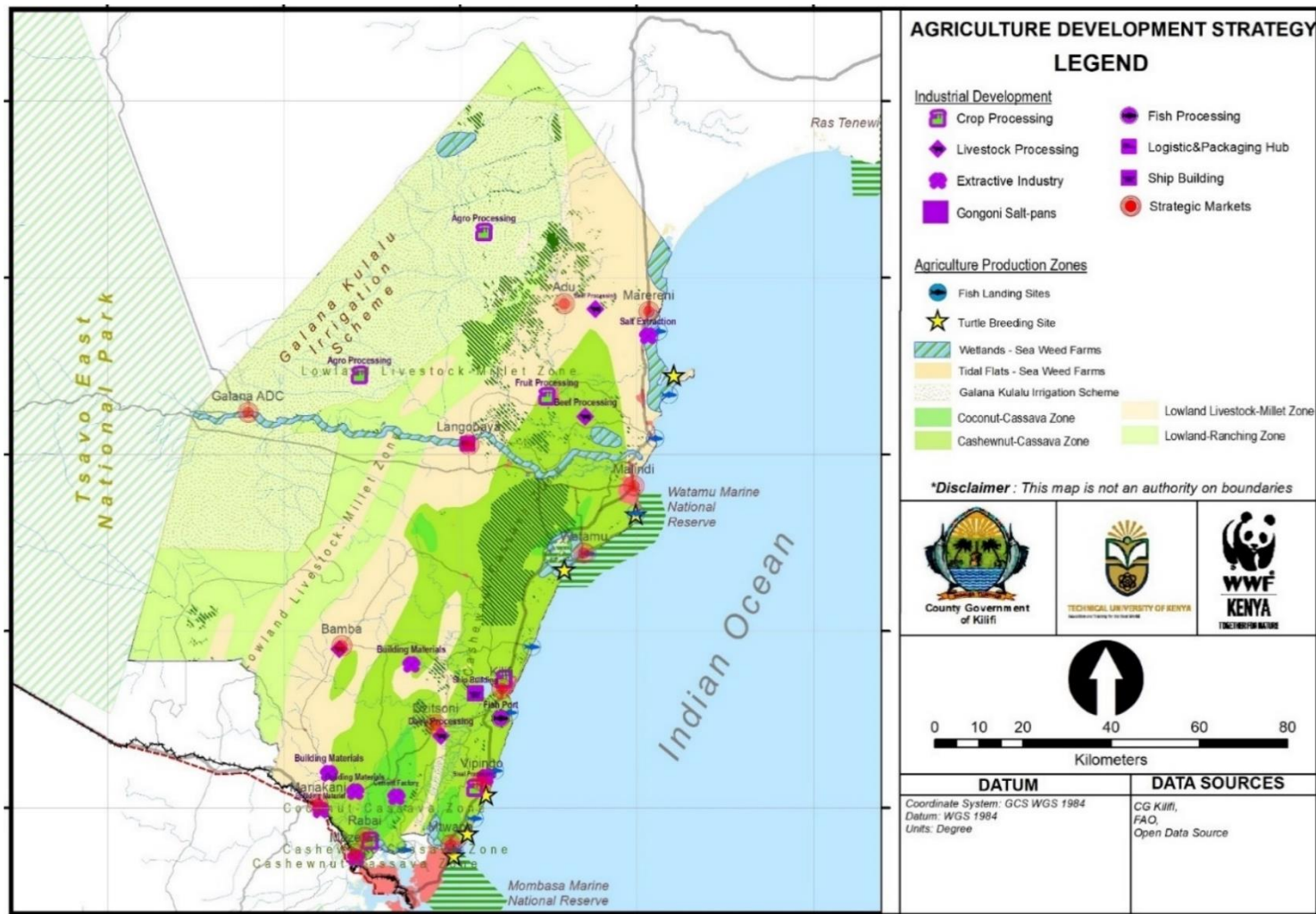
Source: Author

Map 47: Assessment of agricultural capability



Source: Author 2022

Map 48: Agriculture development strategy



Source: Author 2022

6 Chapter Six: Action Area Plan

This section focuses on specific areas of interest within Kilifi County and highlights in detail the project proposals in these areas.

6.1 Management of Cross Border Resources

These strategies focus on achieving efficient and effective management of Cross Border Resources of Kilifi County. Such resources include Kulalu-Galana Irrigation Scheme, the Mombasa - Mariakani Railroad and Industrial Corridor, the proposed Mariakani-LAPSET Railroad Corridor and all the resources within the Indian Ocean.

6.2 Management of the Coastal Strip

The Coastal Strip is a very sensitive part of the County and therefore needs special attention. This is because of the challenges associated with it such as high concentration of settlements, historical land injustices, land grabbing including beach plots, and fish landing sites, lack of public access to the beaches and lack of established sewerage systems.

Table 51: Key action area strategies and project proposals.

Action Area	Strategies	Projects
The Blue Economy and the Coastal Strip	<ul style="list-style-type: none"> Promote the coastal strip as a development corridor Enhance Blue Economy activities within Kilifi County 	<ul style="list-style-type: none"> Upgrading and strengthening of the existing Malindi Marine Park Fully establish and operationalize all the fish landing sites within Kilifi County in the order of priority Establishment of sewerage infrastructure within the four major urban centers within the county Conservation and protection of tourist sites within the Coastal strip. Establishment of a buffer or riparian reserve from the highest tide of the coastline to allow for public access, conservation of the coastal resources and the management of flood-based disasters. Integration of solar energy solutions into urban housing projects and development control.
Cross Border	<ul style="list-style-type: none"> Enhance smooth exploitation of cross border shared resources. 	<ul style="list-style-type: none"> Delineate a wildlife dispersal corridor from Tsavo East National park into Kilifi County. Establish and delineate shared ranching grounds between Kilifi County and Tana River County.

		<ul style="list-style-type: none"> • Establish and delineate shared fishing grounds between Kilifi County and the neighboring counties. • Develop land use management and irrigation guidelines along River Galana with the neighboring Kitui and Tana-River Counties. • Develop land use management policies for all the shared resources. • Establish a well-connected and serviced railroad corridor for Mariakani-LAPSET and Mombasa-Mariakani.
Sabaki Estuarine	<ul style="list-style-type: none"> • Improve the condition of existing wetland vegetation including dune vegetation. 	<ul style="list-style-type: none"> • Encourage animal keepers to manage livestock to minimize damage to riparian and wetland vegetation. • Identify appropriate buffer zone widths and building setbacks. • Work with farmers and land care groups to develop on-farm vegetated buffer strips. • Support local community initiatives in the revegetation and restoration of degraded areas.
	<ul style="list-style-type: none"> • Provide undisturbed vegetated Corridors/reserve and protect native fauna and migratory birds from predation by introduced domestic and feral animals and other threats 	<ul style="list-style-type: none"> • Encourage landowners to participate in land care to improve /regenerate bushland for wildlife
Mariakani Rabai Industrial Development Corridor	<ul style="list-style-type: none"> • Promote as a hub of economic growth • Unlock growth through identification of opportunities • Take advantage of the existing infrastructure to tap from the national economy 	<ul style="list-style-type: none"> • Construction of wastewater and waste management infrastructure. • The establishment of Industrial parks. • Establishment of proper marketing channels of this industrial corridor. • Connect with rail Mariakani to the rest of Kilifi County

Source: Author, 2021

The action areas have further been discussed under different sectors of development as shown in Table 52.

Table 52: Action areas under different sectors of development

Infrastructure	Project	Location	Objective
Roads	Construction of a railroad ribbon	<ul style="list-style-type: none"> Connecting Mariakani-Bamba- Kulalu to LAPPSET 	<ul style="list-style-type: none"> To open up Kilifi interior Decongest the existing Mombasa-Lamu Corridor To support proposed industrial strategy
	Malindi-Tsavo road C103	<ul style="list-style-type: none"> Kilifi-Sokoke-Ganze-Bamba Vitengeni-matanomanne-lango Baya and Baricho Kibaoni-Fundi-Issa-Ramada and Kulalu Kibokoni-Marafa-Baricho and Galana 	<ul style="list-style-type: none"> Improve connectivity within the County Promote conservation, tourism and industrialization County strategy Promote growth and development of human settlements – new and existing
	Tarmac Adu – LAPSET link road	<ul style="list-style-type: none"> Adu, Marafa and Magarini wards. 	<ul style="list-style-type: none"> Improve Connectivity of the Northern parts of Kilifi County
	Tarmac Watamu – Malindi road through Jacaranda and Mayungu areas	<ul style="list-style-type: none"> Malindi town, sheella, and Watamu wards 	<ul style="list-style-type: none"> Improve connectivity of Malindi town to Watamu through jacaranda and Mayungu areas and thus improve on tourist and settlement activities
	Gede - Kakuyuni	<ul style="list-style-type: none"> Dabaso and Kakuyuni wards. 	<ul style="list-style-type: none"> Improve on connectivity of Gede to the Malindi Sala gate wildlife corridor and tourism attraction.
	Mombasa-Malindi-Tana River	<ul style="list-style-type: none"> Mombasa, Kilifi and Tana River Counties 	<ul style="list-style-type: none"> Expand to dual carriage the road corridor connecting the three counties for ease of transportation of goods and services
Airport	Construction of an International Airport	Lango Baya in Jilore ward	<ul style="list-style-type: none"> For mainly export and imports of produce to and from markets Boost tourist activities in the interior
Port	Construction of New Port	Takaungu, Ngomeni	<ul style="list-style-type: none"> Fish landing sites

			<ul style="list-style-type: none"> • Job creation • Enhance trade and commerce within and without the County
Bridges	Construction of two major bridges	Across river Galana/ sabaki at Baricho and Shakahola	<ul style="list-style-type: none"> • To connect both sides of County at interior • Open up interaction with Galana Kulalu irrigation scheme • Facilitate movement of people, goods and services
Utilities	Project	Location	Objective
Water	Expansion of Baricho waterworks explore solar energy power for pumping	Baricho	<ul style="list-style-type: none"> • Increase capacity of clean water supply
	Rehabilitation and expansion of water reticulation networks	Entire County especially on the major human settlement areas and industrial areas	<ul style="list-style-type: none"> • To improve access and availability of water for both domestic and industrial uses
Sewer	Construction of wastewater and waste management infrastructure in major towns	Malindi Kilifi Mtwapa Mariakani Kaloleni Mazeras Watamu	<ul style="list-style-type: none"> • To improve access to sanitation services • To avoid pollution of water resources and environment
Electricity	Expansion of electricity supply by exploring wind and solar energies	County wide Solar-Magarini region Wind-Vipingo area	<ul style="list-style-type: none"> • To improve access • To promote human settlements
	Construction of power sub station	Bamba Lango-Baya & Ramada	<ul style="list-style-type: none"> • To support industrialization, tourism and conservation strategy
New industries	Ship building	Kilifi town	<ul style="list-style-type: none"> • Job creation • Improve of Jua-kali sector • Tap existing gap • Promote supporting sectors
	Livestock processing industries	Bamba, Adu	<ul style="list-style-type: none"> • Promote value-addition

			<ul style="list-style-type: none"> • Provide market to livestock farmers • To spur growth of supportive sectors • Promote livestock keeping • To increase employment and job creation
	Livestock feed industries	Bamba	<ul style="list-style-type: none"> • To support livestock farming • Promote sustainable livestock production • To support the livestock processing industries • Create economic opportunities
	Agro based industries	Kulalu A	<ul style="list-style-type: none"> • Value addition • Promote a balance settlement strategy • Enhance food security • Job creation • To promote optimal resource use
	Warehousing	Marereni & Mazeras	<ul style="list-style-type: none"> • Create storage facilities for produced goods • Diversification of economic activities • Job creation
	Fruit processing plant	Marafa	<ul style="list-style-type: none"> • To support value addition • Promote horticulture produce • Tap into available local resources
	Sea food processing	Takaungu	<ul style="list-style-type: none"> • To promote a vibrant fishing industry • Value addition • Job creation • Optimal use of available marine resources
	Transport logistic and packing industries	Lango Baya	<ul style="list-style-type: none"> • Promote fresh agricultural produce export • To support proposed airport • Improve on travel

			<ul style="list-style-type: none"> • To create job opportunities and economic advancement
	Coconut processing plant	Rabai	<ul style="list-style-type: none"> • Value addition • Create market for available produce • Job creation • Optimal use of available resource
	Cashew nuts processing plant	Vitengeni	<ul style="list-style-type: none"> • Value addition • Create market for available produce • Job creation • Optimal use of available resource
	Dairy processing plant	Mavueni	<ul style="list-style-type: none"> • Value addition • Create market for available produce • Job creation • Optimal use of available resource • To encourage dairy farming
	Industrial parks	Kilifi Plantation area and Kilifi-Mtwapa corridor	<ul style="list-style-type: none"> • Value addition • Create market for available produce • Job creation • Optimal use of available resource •
Upgrade of existing Industries	Extractive industries	Kaloleni Rea Vipingo	<ul style="list-style-type: none"> • To increase their production capacities • Increase employment and job opportunities • Promote optimal use of resources
	Salt processing	Marereni and Gongoni	<ul style="list-style-type: none"> • To increase their production capacities • Increase employment and job opportunities • Promote optimal use of resources
	Building materials	Mazeras and Jaribuni	<ul style="list-style-type: none"> • To increase their production capacities

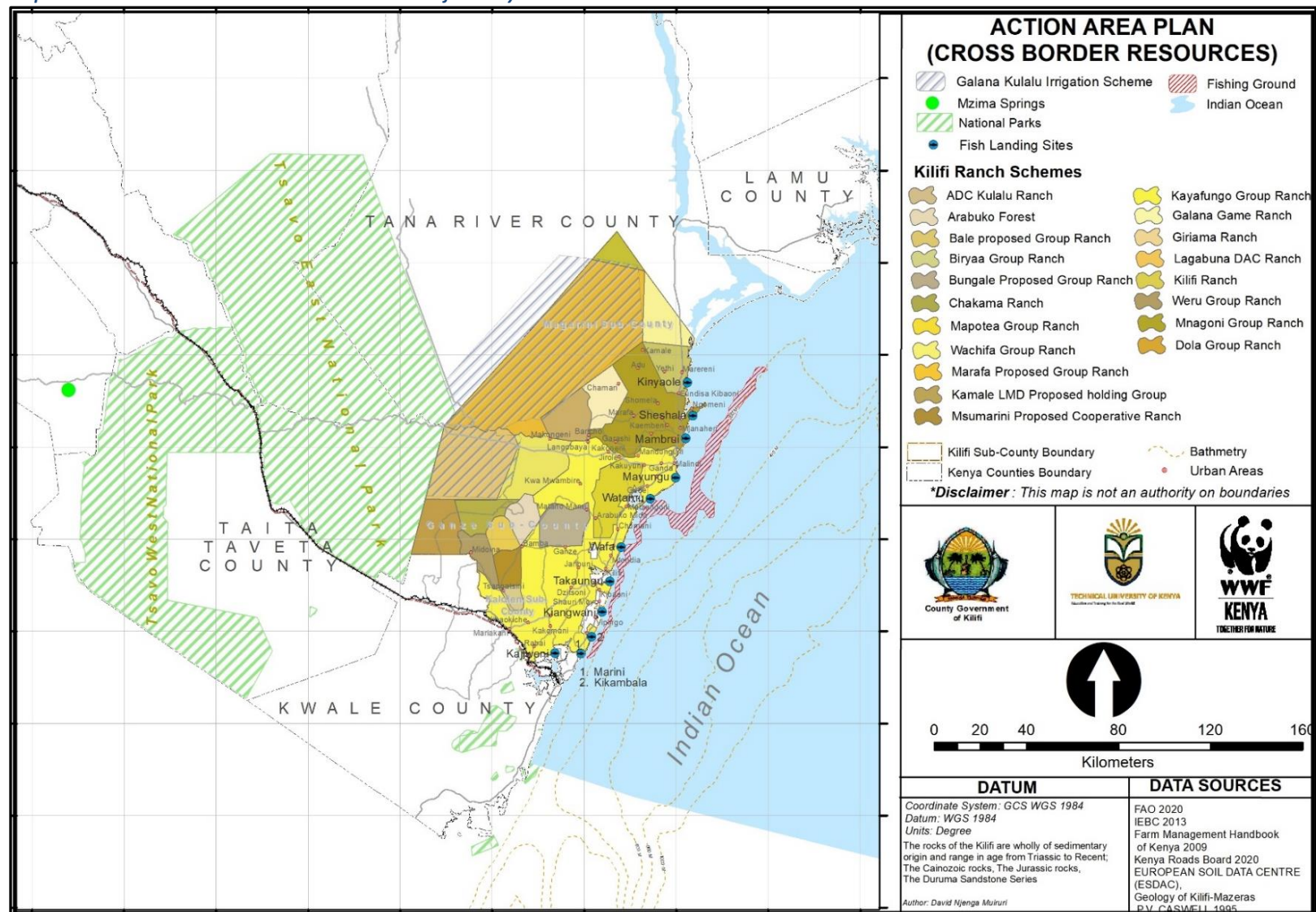
			<ul style="list-style-type: none"> • Increase employment and job opportunities • Promote optimal use of resources
Environment Conservation and tourism	Project	Location	Objective
Protection Of Historical and tourist attraction sites	Dr. Kraft church	Rabai	<ul style="list-style-type: none"> • To sustain tourism potential • Protection of historical sites
	Gede ruins	Gede/Watamu	
	Vasco da Gama pillar	Malindi	
	The house of pillar	Mambrui Takaungu Kilifi town Marafa	
	Mambrui, Hell's kitchen and Takaungu settlements		
Establishing new tourist attraction sites	Wildlife Conservancy	Bamba border with Tsavo	<ul style="list-style-type: none"> • Optimal use of available resources • Increase economic opportunities and job creation • Promote environmental conservation and protection
	Watersports	At Kilifi, Watamu and Malindi water sport Beaches	<ul style="list-style-type: none"> • Increase tourism potential • Creation of economic opportunities • Diversification of tourist options from coastline
	Sabaki Marathon	Along proposed river Sabaki nature trails	<ul style="list-style-type: none"> • Conservation • Diversification of tourists options
	Gondolas	Along the ridges	<ul style="list-style-type: none"> • Creation of economic opportunities

	Beach rugby	Malindi	<ul style="list-style-type: none"> • Increase tourism potential
	Conference tourism	Kulalu A, B Kilifi Malindi Mtwapa	<ul style="list-style-type: none"> • Increase tourism potential • Creation of economic opportunities
	Cultural festival activities	In all the seven sub counties	<ul style="list-style-type: none"> • Promote and preserve cultural practices • Increase tourism potential
Agriculture	Project	Location	Objective
Livestock production Intensive dairy farming	Large-scale ranching	Bamba, Adu and Ganze areas	<ul style="list-style-type: none"> • To support proposed beef industries • Promote optimal use of resources • Economies of scale
		Kilifi south	<ul style="list-style-type: none"> • To support propose dairy processing industries • Increase economic opportunities
Crop production	Intensive crop farming	Kilifi south (Chonyi and Mtwapa areas)	<ul style="list-style-type: none"> • To support propose agro base processing industries • Increase economic opportunities
Fish production	Fish landing port	Takaungu, Mtwapa, Kilifi	<ul style="list-style-type: none"> • Optimal resource use • Increase economic opportunities • Support fish industries
Human settlement	Project	Location	Objective
Urban development Growth centers	New settlement/towns	ADC town and Kulalu B	<ul style="list-style-type: none"> • Promote balance distribution of urban settlement • To promote industrial strategy • To spur economic growth
	Ramada, GIS station, Vitengeni, Takaungu, Marereni, Bamba, Lango Baya, & Ganze		
Education			

Higher education	Built 4 more mid-level colleges	Bamba, Kilifi south, Marafa and Galana kulalu	<ul style="list-style-type: none"> • Capacity building to support related sectors
Health	Project	Location	Objective
Health quality	Maternity wing	In all level 4 and 3 health facilities within the county	<ul style="list-style-type: none"> • Improve maternal healthcare • Reduce infant mortality rate
Environment	Project	Location	Objective
Environmental protection	Rehabilitation	Mining pits Quarry sites at Tezo, Roka and Jaribuni Wards	<ul style="list-style-type: none"> • Restore environmental integrity • Ensure safety • Ensure optimal use of land
	Fencing of forested areas	Arabuko Sokoke	<ul style="list-style-type: none"> - Minimize human wildlife conflict

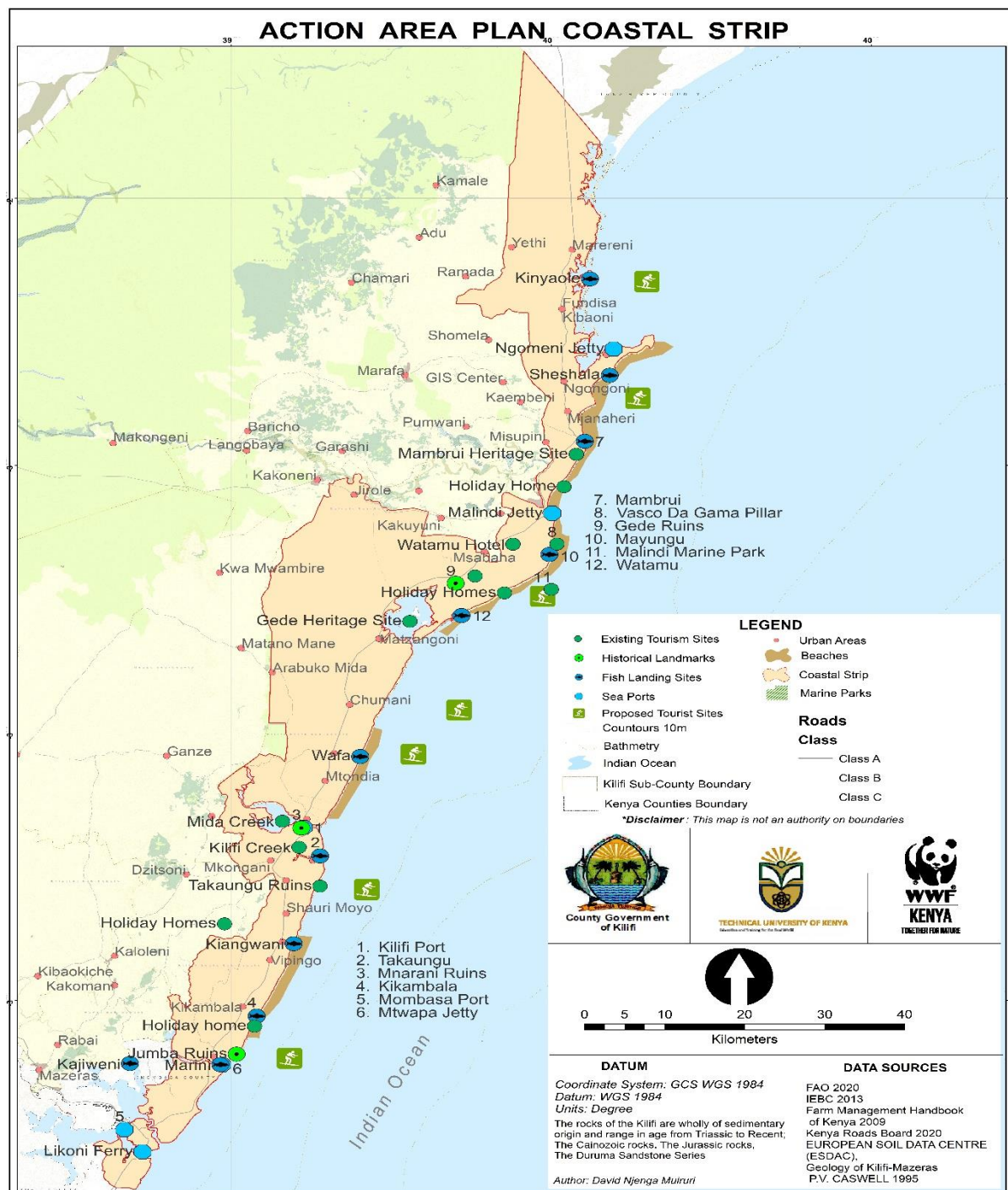
Source: Author, 2021

Map 49: Cross border resources within and around Kilifi County



Source: Author 2022

Map 50: Proposed projects within the coastal strip of Kilifi County.



Source: Author 2021

7 Chapter Seven: Implementation Mechanism/ Framework

The Kilifi County Spatial plan proposals outlined in the previous chapters of the plan bear significant cost implications in terms of their implementation and require a targeted approach in implementation by various actors. The implementation framework is a blue print or guide to the implementation and delivery of the plan proposals. The first step before implementation was the approval of the County Spatial Plan through the laid-out procedures by the County Assembly as prescribed by the County Governments Act No.17 of 2012. Once the plan is approved, concerted effort and action is required under the auspices of Kilifi County Government.

The implementation framework contains an indication of the various actors and the various timelines and phasing of proposals including projects and programmes from different sectors, which have been prioritized based on impact on community development and the overall vision of the county spatial plan. This will include details on where specific projects are to be implemented and their expanse. This will however not just be focused on prioritized projects but on all the projects and programmes proposed under the Kilifi County Spatial Plan.

The key objective of the Monitoring and Evaluation Framework is to tie the plan projects to specific actions, and assigning them to various actors and to provide specific timelines and a phasing of projects and programmes for their implementation, according to various timelines as follows:

- Frame the implementation of the projects through phasing within a given time-frame according to priority of projects and capital intensity.
- Indicates the specific location of projects to be implemented and their expanse, where appropriate.
- Provide the roles and functions of the various actors in implementing the outlined projects.

Guidelines for Plan Proposal Implementation

The table below outlines various prioritized projects for implementation as proposed by the Kilifi County Spatial Plan. It indicates the various projects and the components and steps of implementation and the most probable actors (sources of funding) for each project.

The County Government should coordinate public investments, donor interventions and supporting and guiding private investments. Table 53 shows priority projects implementation implications and possible funding arrangements.

Table 53: Priority projects implementation implications and possible funding arrangements.

Priority Projects and Funding Arrangement

Project name	Location	Recommended Implementation Actions	Possible Funding Arrangements
Construction of a railroad ribbon	Connecting Mariakani-Bamba-Kulalu to LAPPSET (195km)	<ul style="list-style-type: none"> • Feasibility study • Land acquisition • Build Operate Transfer (B.O.T) 	Public funding Private investment
Road upgrade	Malindi-Tsavo Road C103 (105km)	<ul style="list-style-type: none"> • Liaison with other public institution (KeRRA, KuRA) 	Public funding
Construction of an International Airport	Lango Baya	<ul style="list-style-type: none"> • Land acquisition • Liaison with Kenya Airport Authority (KAA) 	Public funding KAA
Construction of two major bridges	Across river Galana/sabaki at Baricho and Shakahola	<ul style="list-style-type: none"> • Feasibility studies (KeRRA) • Design and Construction (KeRRA) 	Public funding
Expansion of Baricho waterworks and the Rehabilitation and expansion of water reticulation networks	Baricho and the Entire County		Public funding TARDA Donor funding/grant

Construction of wastewater and waste management infrastructure in major towns	Malindi, Kilifi, Mtwapa, Mariakani, Kaloleni, Mazeras and Watamu	• Sanitation and sewerage plan	Public funding, Donor funding, Possible Public Private Partnership
Construction of substation and Expansion of electricity supply	Bamba, Lango Baya and Ramada and the entire County wide	Acquisition of wayleave	KenGen KPLC
Ship building and port construction	Kilifi town and Takaungu	Marketing	Public Private Partnership, Private investment
Livestock processing industries	Bamba and Adu	Land acquisition	Public funding, Public Private Partnership, Private investment
Livestock feed industries	Bamba	Land acquisition	Private investment
Agro based industries	Kulalu A	Land acquisition	Public Private Partnership, Private investments
Warehousing	Marereni and Mazeras	Land acquisition	Public Private Partnership, Private investment
Fruit processing plant	Marafa	Land acquisition	Public Private Partnership, Private investment
Sea food processing	Takaungu	Concession	Private investment
Transport logistic and packing industries	Lango Baya	Land acquisition	Public funding, Public Private Partnership
Coconut processing plant	Rabai	Land acquisition	Public Private Partnership

Cashew-nuts processing plant	Vitengeni	Land acquisition	Public Private Partnership
Dairy processing plant	Mavueni	Land acquisition	Public Private Partnership
Extractive industries	Kaloleni and Rea vipingo	Concession	Private investment
Salt processing	Marereni	Concession	Private investment
Building materials	Mazeras	Concession	Private investment
Project name	Location	Recommended implementation arrangement	Possible funding arrangements
Dr. Kraft church	Rabai	Conservation	Public funding
Gede ruins	Gede/watamu	Conservation	Public funding
Vasco da Gama pillar	Malindi	Conservation	Public funding
The house of pillar, Mambrui, Hell's kitchen and Takaungu settlements	Mambrui, Takaungu and Kilifi town and Marafa	Conservation	Public funding
Wildlife Conservancy	Bamba border with Tsavo	Liaison with KWS	Public funding KWS
Tented camps and nature trails	Suitable areas of R. Sabaki		Public funding Private investment
Wildlife reserve	Suitable areas along river sabaki	Liaison with KWS	Public funding KWS

Riparian conservation strip	Along river banks		Public funding
Forest ecological zones	Running along the ridge from north to south		Public funding
Introduction of cultural Bomas	At current kaya villages		Public funding
Introducing themed parks to complement cultural homes	Spread Countywide		Public funding Private investment
Watersports	Beaches		Public Private Partnership, Public funding
Sabaki marathon	Along proposed river sabaki nature trails		Public Private Partnership
Gondolas	Along the ridges		Public Private Partnership
Beach rugby	Malindi		Public Private Partnership
Conference tourism	Kulalu A, B , Kilifi, Malindi, Mtwapa	Land acquisition	Public Private Partnership
Cultural festival activities	County wide		Public funding
Large-scale ranching	Bamba, Adu, Ganze		Private investment
Intensive dairy farming	Kilifi south		Public funding Private investment
Intensive crop farming	Kilifi south		Public funding Private investment
Fish landing port	Takaungu		Public funding
New settlement/towns	ADC town, Kulalu B	Land acquisition	Public funding Private investment

Growth centers	Ramada, GIS station, Vitengeni, Takaungu, Marereni, Bamba, Lango Baya and Ganze		Private investment public funding
Built 3 more mid-level colleges	Bamba, Kilifi south, Marafa, Galena kulalu	Land acquisition	Public funding
Maternity wing	Every Sub-County		Public funding Donor funding
Rehabilitation	Mining pits and Quarry sites		Public funding
Fencing of forested areas	Arabuko Sokoke		Public funding

Source: Author, 2021

Matching Projects to Available Funds

The three main sources of funds shall include Government funding, Donor Funding and the Private Sector.

(a) Government Funding

Both the National Government of Kenya and the County Government of Kilifi shall be involved in the funding of Continental/ National level projects and Local level projects prioritized above.

Continental/ National Level Projects

These are projects of Continental/ National influence. Such projects have huge financial requirements due to their magnitude such projects include but not limited to new port and major infrastructures such as the airports, value addition industry for various crops, Fish rail-road ribbon connecting Mariakani to LAPSSET, Construction of an International Airport at Lango Baya, Construction of two bridges across river Galana-Sabaki at Baricho and Shakahola, Expansion of electricity supply Countywide, Construction of power substations at Bamba, Lango-baya and Ramada, Establish a ship building industry at Kilifi town, construction of a Port in Takaungu. The main financier of these projects shall be the Central Government.

The above-mentioned projects might require collaborative financing by various agencies/organizations due to huge construction costs and technology requirements. The funding arrangement is through collaboration and partnership between the two levels of government.

Local Level Projects

These are projects, whose capital requirements can be relatively financed by the County Government. Such projects have relatively lower costs compared to the above hence can be funded through County Government development budgetary allocation. Some of proposed projects, which fall within this category, include tree planting, beef and dairy goat keeping etc.

Development Partners

Various development partners shall be involved as the alternative sources of funds. They shall act as possible funding sources for the plan proposals. They shall be involved in the funding of the plan projects through the mentioned strategies but not limited to the same.

- i. International Financial Markets- Funding by Development Partners through funding grants, loans etc.
- ii. Partnerships (public/private, civil society collaborations)- funding of projects through collaboration of various actors.
- iii. Concessional funding-B.O.T. this is where an investor can implement project operates the facility for a given period then transfer the facility to the concerned organization. e.g. the ship building yard at Kilifi can be funded through this arrangement.
- iv. Domestic funding/capital markets- this is where funds can be sourced through IPOs, rights

issue, equity finance, micro-finance, etc.

- v. Foreign Direct Investments- this is where a foreign investor / company invests directly in a project e.g., Rail, industries, services etc.
- vi. Domestic Private Sector- Private companies in the country invest in a project e.g. housing, education, health, fishery facilities, industrial innovation etc.
- vii. Collective savings institutions funding by collective investment schemes, pension funds and insurance

(b) Private Sector Funding

The private sector shall also be involved in the funding of specific project within Kilifi County Spatial Plan. Such projects shall be of financial gain to the private sector through long term profits and to the County Government of Kilifi through business permits. Such projects shall include the building of hospitality facilities, promoting the tourism industry, intensive dairy farming, construction of fruit processing in Marafa, construction of warehousing facilities in Marereni and Mazeras, construction of coconut plant in Rabai, construction of cashew nut processing plant in Vitengeni.

Co-ordination Framework

The coordination framework identifies the various organizations/ agencies to be involved in the implementation of the plan. It gives the principles under which the actors will be involved, the statutory provisions forming such institutions giving them the legal mandate to be involved in the plan implementation, the collaborative framework and finally, the proposed institutional structure.

Fundamental Principles

As part of the strategy, the plan recognizes the fact that planning is a continuous and dynamic process of developing visions, policies and solutions for dealing with day- to- day challenges, a process that constitute participation of many actors. The realization of the vision hence requires participation and collaboration of several stakeholders. It also recognizes that long term solutions are to be implemented within a dynamic and rapidly changing society, subject to high degree of uncertainty hence, mechanisms and details of the plan implementation may vary from time to time and place. It is in the view of these considerations that the coordination framework embraces continuous process and proposes the following principles to ensure realization of the plan's desired outcome.

i. Co-production

Co-production principle applies joint action in realizing plan projects through a variety of collaborative arrangements.

ii. Subsidiarity

Subsidiarity is the principle that ties implementation processes to levels of competence.

iii. Integration

The integration principle advocates for Concurrent implementation of complementary projects. It allows for implementation of more than a project while bringing together various actors.

iv. Collaborative Frameworks

These are the various arrangements under which the actors can come together to implement the proposed projects.

8 Chapter Eight: The Capital Investment Plan

The Capital Investment is a blue print or guide to support the implementation and delivery of the plan proposals. The plan proposals include projects from different sectors, which have been prioritized based on impact on community development and overall vision of the Kilifi County Spatial Plan.

The key objective of the Capital Investment Plan is to tie the plan projects to funding and allocate responsibilities for their implementation, creating a coordination framework as follows.

- Provide a list of projects as prioritized by the County Spatial Plan proposals
- Providing a resource mobilization and coordination tool

The Capital Investment Plan for Kilifi County focuses on ways of funding key and strategic projects proposed in the plan. The table below summarizes the various funding strategies for key projects in key sectors.

Table 54: Capital investment plan

Project name	Location	Recommended Implementation Arrangement	Possible Funding Arrangements	Total Amount in Billion Kshs	3 years (Billion Kshs)	3 years (Billion Kshs)	3 years (Billion Kshs)
Infrastructure Sector							
Construction of a Railroad Ribbon (Proposed)	Connecting Mariakani-Bamba-Kaloleni to LAPPSET (195km)	Feasibility study Land acquisition built operate transfer (B.O.T)	Public funding Private investment	9.7	4.85	2.91	1.94

Road Upgrade (Ongoing)	Malindi-Tsavo road C103(105km)	Liaison with another public Institutions (KeRRA, KuRA)	Public funding	4.3	2	1.3	1
Construction of an International Airport (Proposed)	Lango Baya	Land acquisition Liaison with Kenya Airport Authority (KAA)	Public funding KAA	3	1.5	0.9	0.06
Construction of two Major Bridges (Ongoing)	Across river Galana/sabaki at Baricho and Shakahola	Liaison with other public institutions	Public funding	6	3	2	1
Construction of Substation and Expansion of Electricity supply (Proposed)	Bamba, Lango Baya, Ramada and the entire County.	Acquisition of wayleave	KPLC	2	1	0.7	0.3
Road Upgrade	Kilifi-Sokoke-Ganza-Bamba(45km)	Liaison with other public institutions	Public funding	2.25	1.125	0.675	0.045

Education Sector

Built 3 more mid-level Colleges (Proposed)	Bamba, Kilifi south, Marafa, Galena Kulalu	Land acquisition	Public funding	0.5	0.25	0.15.	0.01
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Agriculture Sector

Livestock processing industries (Proposed)	Bamba and Adu	Land acquisition	Public funding, Public Partnership investment, Private investment	0.4	0.02	0.012	0.008
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Livestock Feed Industries (Proposed)	Bamba	Land acquisition	Private investment	0.1	0.05	0.003	0.002
Agro-Based Industries (Proposed)	Kulalu A	Land acquisition	Public Partnership, Private investments	0.7	0.35	0.021	0.014
Large-scale Ranching	Bamba, Adu, Ganze		Private investment	0.2	0.1	0.006	0.004
Intensive Dairy Farming	Kilifi North and Kilifi South		Public funding Private investment	0.2	0.01	0.006	0.004
Intensive Crop Farming	Kilifi south		Public funding Private investment	0.4	0.2	0.012	0.008
Industrialization Sector							
Ship Building and Port Construction (Proposed)	Kilifi town and Takaungu	Marketing	Public Partnership, Private investment	4.2	0.21	0.126	0.084
Warehousing (Proposed)	Marereni and Mazeras	Land acquisition	Public Partnership, Private investment	0.2	0.1	0.006	0.004
Fruit Processing Plant (Proposed)	Marafa, Magarini, Malindi	Land acquisition	Public Partnership, Private investment	0.15	0.075	0.0045	0.003
Transport Logistic and Packing Industries (Proposed)	Lango Baya	Land acquisition	Public funding, Public Partnership Private	0.4	0.2	0.012	0.008
Coconut Processing Plant (Proposed)	Rabai, Kaloleni	Land acquisition	Public Partnership Private	0.2	0.1	0.006	0.004

CashewNuts Processing Plant (Proposed)	Vitengeni	Land acquisition	Public Partnership Private	0.15	0.075	0.0045	0.003
Dairy Processing Plant (Proposed)	Mavueni	Land acquisition	Public Partnership Private	0.3	0.15	0.009	0.006
Extractive Industries (Proposed)	Kaloleni and Rea vipingo	Concession	Private investment	0.5	0.25	0.015	0.01
Salt Processing	Marereni	Concession	Private investment	0.3	0.15	0.009	0.006
Building Materials (Ongoing)	Mazeras	Concession	Private investment	0.2	0.1	0.006	0.004
Health	Sector						
Maternity Wing	Every sub-County		Public funding Donor funding	0.3	0.25	0.015	0.01
Human Settlement	Sector						
New Settlement/Towns	ADC town, Kulalu B	Land acquisition	Public funding Private investment	0.3	0.15	0.009	0.006
Growth Centers	Ramada, GIS station, Vitengeni, Takaungu, Marereni, Bamba, Lango Baya and Ganze		Private investment public funding	0.6	0.25	0.018	0.012
Environment	Sector						
Riparian Conservation Strip	Along river banks		Public funding	0.1	0.05	0.003	0.002
Forest Ecological Zones	Running along the ridge from north to south		Public funding	0.2	0.1	0.006	0.004

Rehabilitation of Quarry and Mining Sites	Kilifi North sub county and Kaloleni		Public funding	0.2	.0.1	0.006	0.004
Fencing of Forested Areas	Arabuko Sokoke, Murima Wandegge		Public funding	0.1	0.05	0.003	0.002
Water and Sanitation Sector							
Expansion of Baricho Waterworks and the Rehabilitation and expansion of Water Reticulation Networks (Proposed)	Baricho and the Entire County		Public funding TARDA Donor funding/grant	1.7	0.85	0.51	0.034
Construction of Wastewater and Waste Management Infrastructure in major towns (Proposed)	Malindi, Kilifi, Mtwapa, Mariakani, Kaloleni, Mazeras and Watamu	Sanitation and sewerage plan	Public funding Donor funding Possible, Public Private Partnership	0.38	0.19	0.114	0.0076
Blue economy Sector							
Sea Food Processing (Proposed)	Takaungu	Concession	Private investment	0.25	0.125	0.0075	0.005
Watersports	Beaches		Public Private Partnership, Public funding	0.02	0.01	0.006	0.004
Beach Rugby	Malindi		Public Private Partnership	0.02	0.01	0.006	0.004
Fish Landing Port	Takaungu		Public funding	0.1	0.05	0.003	0.002
Tourism and heritage Sector							
Dr. Kraft Church (Proposed)	Rabai	Conservation	Public funding	0.05	0.025	0.0015	0.001

Gede Ruins (Proposed)	Gede/watamu	Conservation	Public funding	0.05	0.25	0.0015	0.001
Vasco da Gama Pillar (Proposed)	Malindi	Conservation	Public funding	0.05	0.025	0.0015	0.001
The house of Pillar, Mambrui, Hell's Kitchen and Takaungu Settlements (Proposed)	Mambrui, Takaungu and Kilifi town and Marafa	Conservation	Public funding	0.001	0.005	0.0003	0.0002
Wildlife Conservancy (Proposed)	Bamba border with Tsavo	Liaison with KWS	Public funding KWS	0.2	0.1	0.006	0.004
Tented Camps and Nature trails (Proposed)	Suitable areas of R. Sabaki	Liaison with KWS	Public funding Private investment	0.15	0.075	0.0045	0.003
Wildlife Reserve (Proposed)	Suitable areas along river sabaki		Public funding KWS	0.15	0.075	0.0045	0.003
Introduction of cultural Bomas	At current kaya villages		Public funding	0.1	0.05	0.003	0.002
Introducing theme Parks to complement cultural homes	Spread Countywide		Public funding Private investment	0.15	0.075	0.0045	0.003
Sabaki Marathon	Along proposed river sabaki nature trails		Public Private Partnership	0.05	0.025	0.0015	0.001
Gondolas	Along the ridges		Public Private Partnership	0.05	0.025	0.0015	0.001
Conference Tourism	Kulalu A, B, Kilifi, Malindi, Mtwapa	Land acquisition	Public Private Partnership	0.15	1.075	0.0045	0.003
Cultural Festival Activities	County wide		Public funding	0.1	0.05	0.003	0.002

Source: Author, 2021

The capital investment plan

Table 55: Capital investment plan and the respective implementing agencies

SECTOR	ACTIVITY	JUSTIFICATION	COST CONTENTS	IMPLEMENTING AGENCY
Water and Sanitation	Through partnership with the coast water, improve in the efficiency and capacity of the Baricho water works and introduce sewerage systems in major urban areas such as Kilifi, Malindi, Mtwapa and Mariakani.	<ul style="list-style-type: none"> The current water distribution plant is run down and is facing challenges of unpaid water bills and non-paid electricity bills debt The water distribution plant usually faces challenges of flooding during heavy rainfall seasons There is need to improve on the current water distribution network to reach more urban and rural residents. 	Kshs. 1.7 billion	<ul style="list-style-type: none"> Coast Water company Kilifi County Government Kilifi and Mariakani Water and Sewerage Company Malindi Water and Sewerage Company
Transport	Upgrade the road connecting Kaloleni, Ganze, Vitengeni, Lango baya, Marafa, Ramada, Adu and Marereni to tarmac level.	<ul style="list-style-type: none"> The road shall open up the hinterland of the county unlike the current situation where the coastal strip is the most accessible part of the county. 	14.6 billion	<ul style="list-style-type: none"> The National Government Kilifi County Government
	Upgrade the road connecting Gede, Majimboni, to Kakuyuni and the road connecting Watamu to Mayungu to Malindi to Class B Roads	<ul style="list-style-type: none"> The road shall open up heavily relied upon tourist routes. 	Kshs. 10 Billion	<ul style="list-style-type: none"> National Government
	Upgrading of the C21 to class B to cover Bamba,		Kshs. 6 Billion	<ul style="list-style-type: none"> National Government

	Matanomanne, Kakunjuni to Kilifi			
Urban Development	Completion of the Malindi Waterfront renewal project	<ul style="list-style-type: none"> To rejuvenate Malindi as a tourist destination of choice. 	Kshs. 1.2 billion	<ul style="list-style-type: none"> The National Government Kilifi County Government
Health	Upgrading of Marafa health center and Bamba dispensary to level 5 hospitals	<ul style="list-style-type: none"> High pressure on the hospitals at Malindi and Kilifi 	Kshs. 6 Billion	<ul style="list-style-type: none"> The National Government County Government of Kilifi Other development partners
Industrialization	Construct an industrial park at Marafa for fruit processing and warehousing	<ul style="list-style-type: none"> The need to utilize the high production of fruits especially pineapples within the county. The need to set up industrial warehouses manufacturers to hire for their use. Lack of land for setting up industries 	Kshs. 10 Billion	<ul style="list-style-type: none"> The national Government Kilifi County Government Other development partners
Agriculture				
Education	Promote professional development at the county through county undergraduate scholarships for key professions. (Planning, Law, Medicine and Engineering)	<ul style="list-style-type: none"> The lack of local professionals to support county development agenda 	Kshs. 1.0 Billion	County Government of Kilifi

Source: Author, 2021

9 Chapter Nine: Monitoring and Evaluation

This section seeks to provide an overview of the County's Monitoring and Evaluation Framework that will be used to gauge the progress of implementation of the Kilifi County Spatial Plan. Monitoring and Evaluation forms part of a results culture in the public service that is meant to provide value and services for all citizenry. In the planning and implementation of development efforts, Monitoring and Evaluation ensures that intended targets are achieved, remedies are taken when projects are off-track, and that lesson learned are used to promote efficiency and effectiveness.

9.1 National Intergrated Monitoring and Evaluation System

The Monitoring and Evaluation Department (MED) in the National Treasury and Planning, is responsible for coordinating all government monitoring and evaluation (M&E) activities. To do so effectively, MED has developed the National Integrated Monitoring and Evaluation System (NIMES) and has also developed mechanisms and capacity for working with the various entities involved with data collection and analysis.

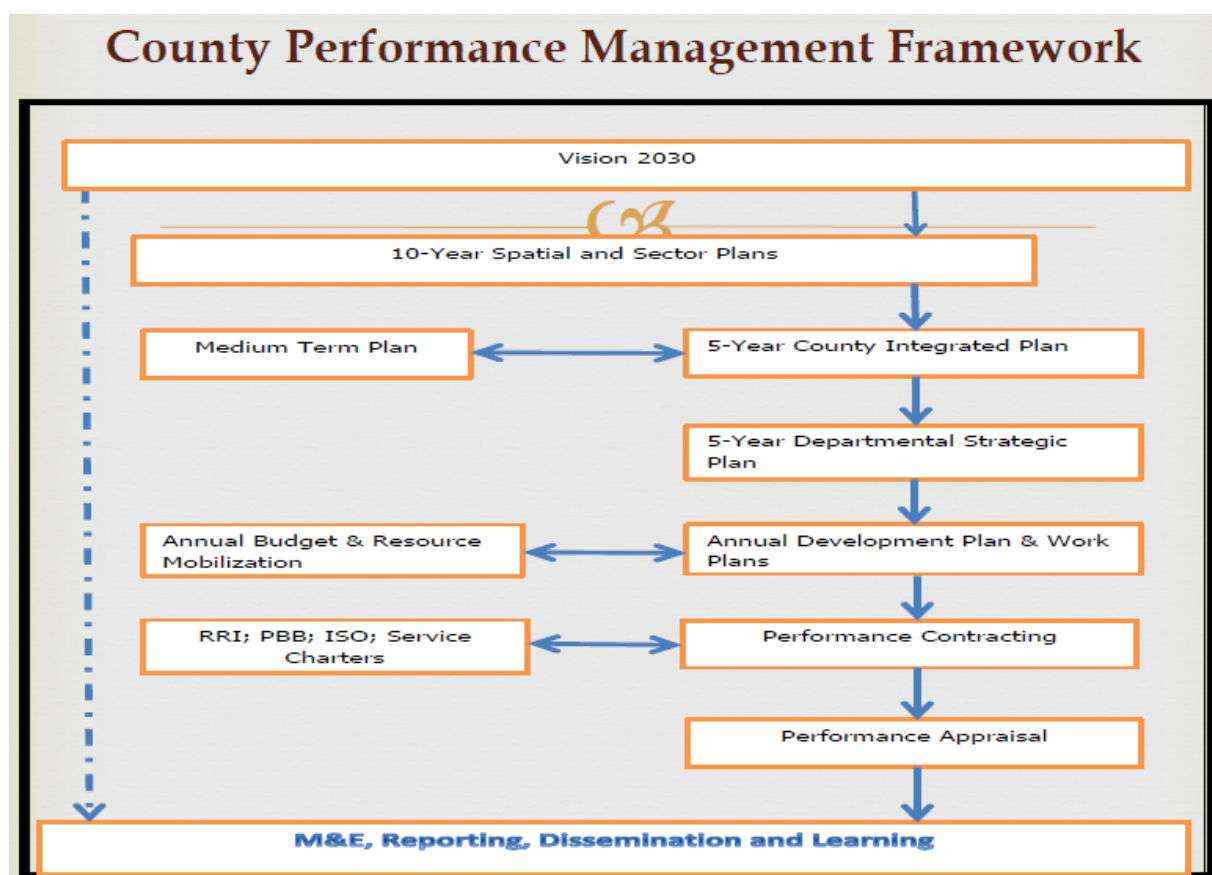
MED provides leadership and coordination of the NIMES by ensuring that two vital sources of M&E information, namely Annual Progress Reports (APR) on the Medium-Term Plan of Vision 2030, and the Annual Public Expenditure Review (PER), are produced satisfactorily and on time. The NIMES has been improved over the years through capacity building and broad consultations.

NIMES is used as a mechanism for tracking implementation progress for projects and programs in the MTP. NIMES provides information that is used to prepare APRs on implementation of MTPs. Each APR evaluates performance against benchmarks and targets that are set for each year for various sectors in the MTP. It provides important feedback to policy makers and the general public on the National Government's performance progress towards achieving various economic and social developmental policies and programs set out in the MTP.

9.2 Institutionalization of CIMES in Kilifi County.

Among the key functions and responsibilities for the County Governor provided for in the Constitution of Kenya is submission of annual reports on the implementation status of the County policies and Integrated Development Plan to the County Assembly and promotion of the competitiveness of the county. These functions are expected to make M&E reports a permanent feature in the Governor's meetings. The Department of Finance and Economic Planning Division of Economic Planning has overseen institutionalization of the M&E through the establishment of the **County Integrated Monitoring and Evaluation System (CIMES)**. CIMES is an institutional setup and processes that track progress and measure impacts of projects, programmes and policies constituting the other six (6) components of the **County Performance Management Framework (CPMF)**, as well as local targets of global performance frameworks, especially Sustainable Development Goals (SDGs).

Figure 25: County Performance Management Framework

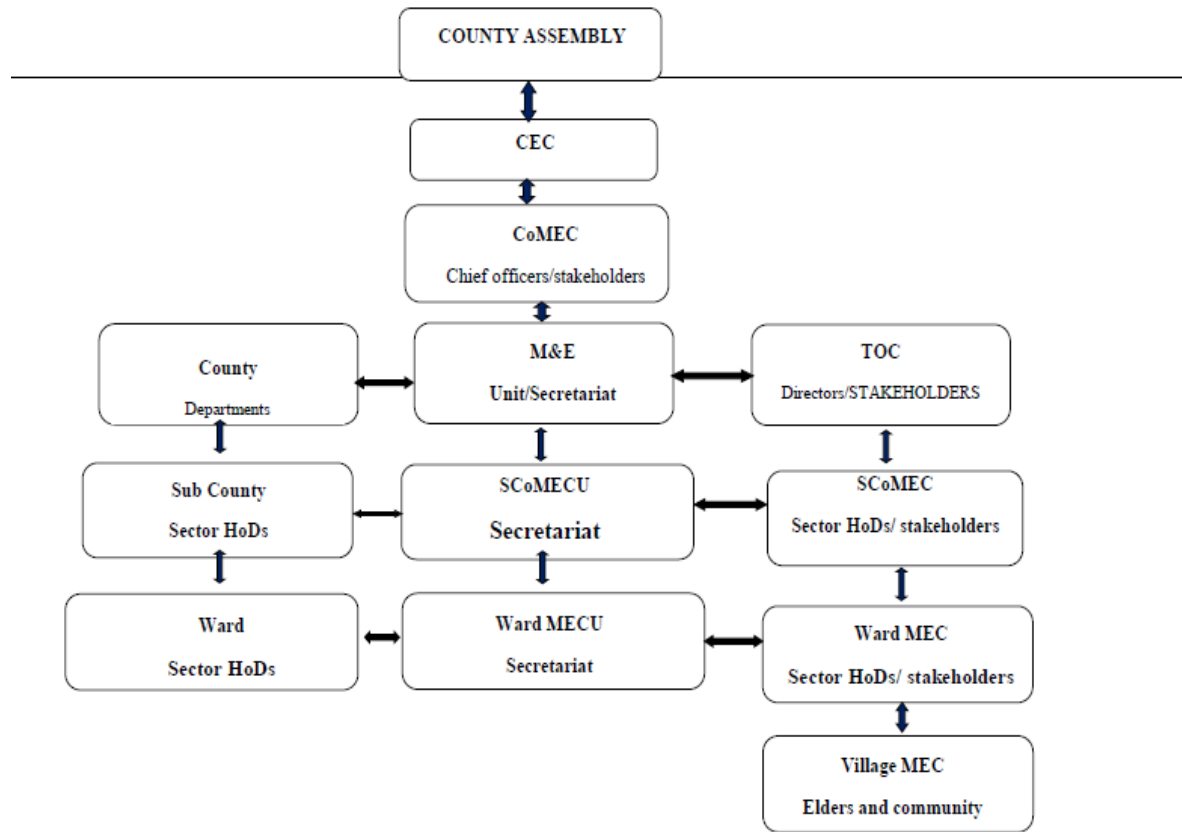


Source: Author

Administration of CIMES includes officials and stakeholders at the County and lower levels, local private sector organizations, Civil Society Organizations and other Non-state actors. They are structured into County Monitoring and Evaluation Committee (CoMEC), Sub-County M&E Committees (SCoMEC) that will be required to follow up on the development progress at their level up to the Village level, carry out routine monitoring, collect and collate data and prepare progress reports that will be submitted to the CoMEC on a quarterly basis. In Kilifi County the CIMES is made up of the County Monitoring and Evaluation Committee and the Technical Committee have been constituted and form the integral part of the monitoring and evaluation in the County. County Monitoring and Evaluation Committee constitutes of the Chief Officers overseeing programme implementation and the Technical Committee constitutes of the Directors nominated by the Chief Officers. Below the Technical Committee are the Sub county administrations and Ward administration structures which facilitate the day-to-day monitoring and evaluation activities.

9.3 Structure of The Kilifi County Intergrated Monitoring and Evaluation System

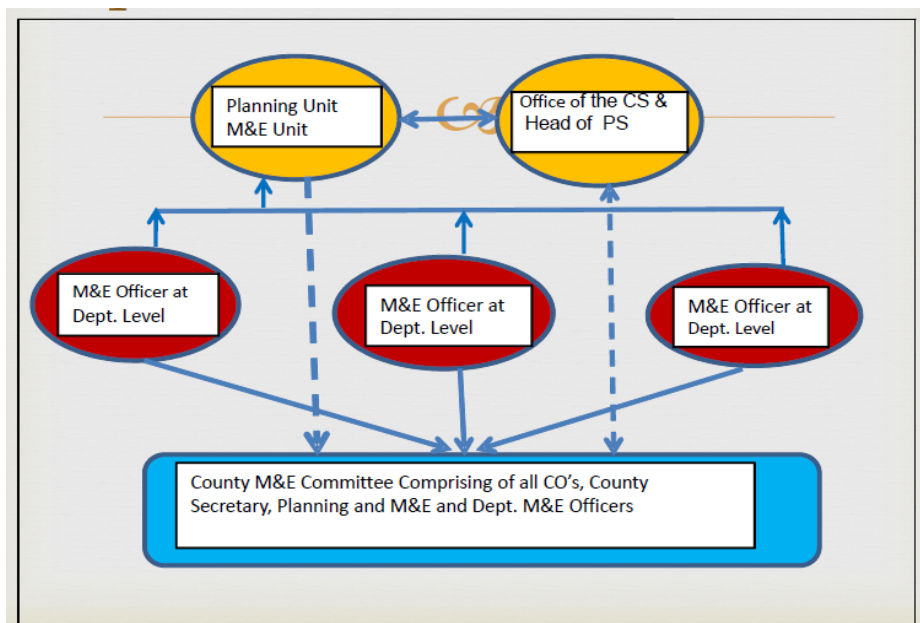
Figure 26: Kilifi County Intergrated Monitoring and Evaluation System



9.3.1 The County Monitoring and Evaluation

The responsibility for coordination and implementation of Monitoring and Evaluation function at the County level will be under the County M&E unit within the Department Finance of Economic Planning division of Economic Planning.

Figure 27: County Monitoring and Evaluation System



9.4 Legal Framework for County Monitoring & Evaluation

The Constitution of Kenya 2010, requires citizens to be supplied with information and to participate in the development decisions. Consultation and dialogue with the public is the responsibility of all actors and it is of specific importance for service delivery institutions to consult with their clients. Citizens will therefore be involved in the design, implementation and use of findings of M&E activities in the County through active participation and provision of useful data and/ or information about different projects, programmes and policies that are carried out in their respective areas.

- The County Government Act of 2012 has established elaborate structures from the grassroots level represented by the Wards, administered by the Ward administrators to the Sub-county administered by the Sub county administrators mainly to ensure that all citizens are provided with an equal chance to take part in governance processes that were devolved with the Constitution of Kenya 2010, through the designated administrators at every level.
- Article 174(c) of the Constitution of Kenya, provides that one object of devolution is: “to give powers of self-governance to the people and enhance their participation in the exercise of the powers of the State and in making decisions affecting them”. The Constitution assigns the responsibility to ensure, facilitate and build capacity of the public to participate in the governance to the county government through function 14 (Schedule 4 Part 2) of the County Government Act 2012. As such the County Government of Kilifi has created mechanisms of engagement by ensuring and coordinating the participation of communities and locations in governance; and built capacity by assisting communities and locations to develop their administrative capacity for the effective exercise of the functions and powers.

- **Section 47 requires the Executive Committee to design a performance management plan to evaluate performance of the county public service and the implementation of the county policies.** The plan should provide among others;(a) Objective measurable and time bound performance indicators (b) linkage to mandates(c) annual performance reports (d) citizen participation in the evaluation of performance of county government, and public sharing of the performance progress reports.
- **Section 54 provides for structures of decentralization and establishes for every county a forum known as the county intergovernmental forum,** chaired by the Governor or in his absence, the Deputy Governor or in the absence of both a Member of the County Executive Committee designated by the Governor to undertake harmonization of services rendered in the county and coordination of development activities.
- **Section 108 (1) states** there shall be a five-year CIDP for each county which shall have (a) clear goals and objectives (b) an implementation plan with clear outcome (c) provisions for monitoring and evaluation and (d) clear reporting mechanisms.
- **The Intergovernmental Relations Act (2012) in Section 7 establishes the National and County Government coordinating summit.** Section 8 details the functions of the summit, including the following functions related to M& E (a) evaluating the performance of national or County Governments and recommending appropriate action (b) receiving progress reports and providing advice as appropriate (c) monitoring the implementation of National and County development plans and recommending appropriate action others include, (d) Coordinating and harmonizing the development of County and National government policies,(e) consideration of reports from other intergovernmental forum and other bodies on matters affecting national interest and (f) consultation and cooperation between the national and county governments.
- **Section 19 of The Intergovernmental Relations Act established a Council of County Governors consisting of the Governors of the 47 counties.** Functions of this council are stipulated in section 20. The council provides a forum for ;(a) Consultation's among County Governments (b) sharing of information on the performance of the counties in the execution of their functions with the objectives of learning and promoting best practice and where necessary initiating preventive or corrective actions. Others are (c) considering matters of common interest to County Government's (d) facilitating capacity building for Governors. (e) receiving reports and monitoring the implementation of inter-county agreements on the inter-county projects, (f) considering reports from other intergovernmental forums on matters affecting national and county interests or relating to the performance of counties.
- **The Public Finance Management Act, 2012 (PFMA) PART IV addresses county government responsibilities with respect to management and control of public finance.** Section 104 states that a County Treasury shall monitor, evaluate and oversee the management of public finances and economic affairs of the County Government. The county government shall plan for the county and no public fund shall be appropriated outside for a planning framework developed by the County Executive Committee and approved by the County

Assembly. Section 125 states out the stages in the county government budget preparation process.

9.5 Evaluation Criteria for Different Programs

The table below summarizes the evaluation mechanisms for different sectors of development in Kilifi County. Monitoring is to be done in the implementation in phases annually. Evaluation is to be done at the planning period of every three years from the completion of the project.

Table 56: Monitoring and evaluation mechanisms

Infrastructure	
Roads	Evaluation criteria
Construction of a Railroad Ribbon Connecting Mariakani-Bamba-Kulalu to LAPPSET	<ul style="list-style-type: none"> • A contractor to be identified by 2023. • Commence construction of railroad by 2024. • To have opened up Kilifi Interior by 2026. • Decongestion of the existing Mombasa-Lamu Corridor by 2026. • Completion of Mariakani to Bamba road by 2026. • Growth of industries by 2028. • Completion of Bamba – Kulalu to LAPPSET by 2030.
Construction of Malindi-Tsavo road C103, Kilifi-Sokoke-Ganze-Bamba, Vitengeni-Matano mane Langobaya and Baricho Kibaoni-fundissa-Ramada and Kulalu-Kibokoni-Marafa-Baricho and Galana.	<ul style="list-style-type: none"> • A contractor to be identified by 2022. • To open up the area for conservation, tourism and industrialization. • Development of more urban and rural centers. • Improving the condition of the existing urban centers. • Construction of Kilifi –Sokoke – Ganza-Baricho Road by 2023. • Completion of Kilifi –Sokoke – Ganza-Baricho Road by 2026. • Construction of Kibaoni-Fundisa-Kulalu-Baricho-Galana by 203.
Airport	Evaluation Criteria
Construction of an International Airport in Langobaya.	<ul style="list-style-type: none"> • Contracting and sourcing of funds for Langobaya airport by 2024. • Commence construction of airport by 2025. • Relocate the existing Malindi airport by 2029 • Transportation of export produce to markets. • More tourist activities in the interior. • Completion of Airport by 2030.
Bridges	Evaluation criteria
Construction of two major bridges Across river Galana/Sabaki at Baricho and Shakahola.	<ul style="list-style-type: none"> • Construction of bridge at Baricho by 2025. • Construction of bridge at Shakahola 2026.

Utilities

Water	Evaluation criteria
Expansion of Baricho Water Works.	<ul style="list-style-type: none">• Increase in capacity of clean water supply by 2026.• Identification of contractor by 2022.• Expansion works to begin by 2023.
Rehabilitation and expansion of water reticulation networks in the entire County.	<ul style="list-style-type: none">• Improved access and availability of water for both domestic and industrial uses by 2027.• More water connection networks put in place by 2026.

Sewer	Evaluation criteria
Construction of waste water and waste management infrastructure in Malindi, Kilifi, Mtwapa, Mariakani, Kaloleni, Mazeras and Watamu.	<ul style="list-style-type: none">• Identification of contractors by 2022.• Commencement of construction by 2023.• Completion of waste water management system by 2025.

Electricity	Evaluation criteria
Expansion of electricity supply Countywide	<ul style="list-style-type: none">• Increase the number of households connected to electricity to 80 % by 2026.• Contracting and funding sources to be identified by 2023.• Completion of electricity supply by 2025.
Construction of sub-station Bamba Langobaya Ramada	<ul style="list-style-type: none">• Contracting and tender process by 2023.• Open up more industrialization, tourism and conservation activities by 2026.• Commence construction of sub-station in Bamba by 2024.• Construction of sub-station in Langobaya and Ramada by 2025 and completion by 2027.

Industrial

New industries	Evaluation criteria
Ship building industry in Kilifi town.	<ul style="list-style-type: none">• Increase in employment opportunities.• Improvement of the juakali sector.• Contractor identification by 2024.• Completion by 2028.• Ship building activities to begin by 2029.
Construction of a Port at Takaungu	<ul style="list-style-type: none">• Construction of more fish landing sites by 2025.• Increase in employment.• Improvement in trade and commerce both within and outside the County.
Livestock processing industries in Bamba and Adu.	<ul style="list-style-type: none">• Identification of contractor by 2024.• Increased income from livestock products.• Increased marketing channels for livestock products.• Growth of supportive sectors such as hay and fodder farming.

	<ul style="list-style-type: none"> • Increased livestock keeping. • Increased employment and job creation. • Construction of livestock processing industry in Bamba and Adu by 2026.
Livestock feed Industries in Bamba	<ul style="list-style-type: none"> • Identification of a contractor by 2024. • Increase in the number of livestock farming facilities. • Reduced overgrazing on the livestock ranches. • Improved livestock processing industries. • Create economic opportunities. • Increased employment opportunities. • Construction of livestock feed production factory in Bamba by 2025 and completion by 2029.
Agro-based industries Kulalu A	<ul style="list-style-type: none"> • Increase in income levels through value addition. • A balanced human settlement. • Enhanced food security. • Increase in employment opportunities. • Optimal resource use. • Contracting and tender process by 2025. • Commence construction of Agro-based industry in Kulalu by 2026. • Improve condition of the existing industries by 2030
Warehousing in Marereni and Mazeras.	<ul style="list-style-type: none"> • Identification of contractor by 2024. • Create storage facilities for produced goods in Marereni and Mazeras by 2025. • Diversification of economic activities. • Creation of employment opportunities. • Completion of storage facilities by 2027.
Fruit processing plant in Marafa.	<ul style="list-style-type: none"> • Contractor identification by 2024. • Increased income levels due to value addition. • Improvement in the quality and quantity of horticulture produces. • Increased use of locally available resources. • Construction of fruit processing plant in Marafa by 2025 and completed by 2029.
Sea food processing in Takaungu.	<ul style="list-style-type: none"> • Identification of contractor by 2024. • Increased Vibrancy in the fishing industry. • Increased income due to Value addition. • Increased employment levels. • Optimal use of available marine resources. • Construction of sea food processing plant by 2027.
Transport logistic and packing industries in Langobaya.	<ul style="list-style-type: none"> • Increased income levels due to exportation of agricultural produce. • Construction of the proposed airport in Langobaya by 2025. • Improved local and international travel. • Increase in job opportunities and economic advancement.

Coconut processing plant in Rabai.	<ul style="list-style-type: none"> • Identification of contractor by 2023. • Increase in income levels due to value addition. • Increase in markets for the coconut products. • Job creation and increase in employment levels. • Optimal use of available resource. • Construction of coconut processing plant by 2026.
Cashew nuts processing plant in Vitengeni.	<ul style="list-style-type: none"> • Tender and Contracting process by 2023. • Increase in demand for cashew nut products due to value addition. • Increase in income levels due to value addition. • Increase in markets for the local products. • Job creation and increase in employment levels. • Optimal use of available resource. • Construction of cashew nuts processing plant by 2026.
Dairy processing plant in Mavueni.	<ul style="list-style-type: none"> • Identification of a contractor by 2023. • Increase in demand for dairy products due to value addition. • Increase in income levels due to value addition. • Increase in market for dairy produce. • Job creation and increase in employment levels. • Optimal use of available resource. • Improvement and increase in dairy farming practices. • Construction of a dairy processing plant by 2027.
Extractive industries in Kaloleni, Rea Vipingo.	<ul style="list-style-type: none"> • Increase in production capacities. • Increased employment and job opportunities. • Optimal use of resources. • Improving condition of extractive industry in Kaloleni by 2026. • Improving condition of extractive industry in Rea and Vipingo by 2030.
Salt processing industry in Marereni.	<ul style="list-style-type: none"> • Identification of contractor by 2025. • Upgrading salt processing plant in Marereni by 2027. • Completion of salt processing plant by 2030.
Building materials industry in Mazeras.	<ul style="list-style-type: none"> • Enhancing the marketing of building materials.

Environment

Preservation of tourist attraction sites	Evaluation criteria
Dr. Kraft Church Rabai.	<ul style="list-style-type: none"> • Rehabilitation and restoration of the church by 2024. • Increase in tourist visits to the church by 2026.
Gede Ruins.	<ul style="list-style-type: none"> • Rehabilitation and restoration by 2024. • Increase in tourist visits by 2026.
Vasco da Gama Pillar Malindi.	<ul style="list-style-type: none"> • Rehabilitation and restoration of the pillar by 2024. • Increase in tourist visits to the pillar by 2026.
The House of Pillar; Mambrui, Takaungu, Kilifi town, Marafa.	<ul style="list-style-type: none"> • Rehabilitation and restoration by 2024. • Increase in tourist visits by 2026.

Mambrui, Hell's Kitchen & Takaungu settlements.	<ul style="list-style-type: none"> • Rehabilitation and restoration by 2024. • Increase in tourist visits by 2026.
Establishing New Tourist Attraction Sites	Evaluation criteria
Wildlife Conservancy Bamba border with Tsavo.	<ul style="list-style-type: none"> • Increase in economic opportunities and job creation. • Completion of Policies on environmental conservation and protection by 2025. • Addition of more tourist attraction sites in Bamba by 2030.
Introduction, Development and Enhancement of Tourist Activities	Evaluation criteria
Water sports Within the Beaches.	<ul style="list-style-type: none"> • Increase in tourist numbers along the coastline. • Creation of economic opportunities.
Sabaki Marathon Along river Sabaki nature trails.	<ul style="list-style-type: none"> • Increase in recreation activities along the nature trails by 2026.
Gondolas along the ridges	<ul style="list-style-type: none"> • Introduction of gondolas along the ridges.
Beach rugby in Malindi	<ul style="list-style-type: none"> • Identification of suitable location of rugby pitches by 2023. • Introduction of beach rugby in Malindi by 2027.
Conference tourism Kulalu A & B, Kilifi Malindi and Mtwapa.	<ul style="list-style-type: none"> • Increase the number of venues for conference tourism. • Improved income and increase in employment levels.
Cultural festival activities Countywide.	<ul style="list-style-type: none"> • Development of policies to guide festival activities. • Identify areas for cultural festival activities by 2027.
Agriculture	
Livestock production Intensive dairy farming	Evaluation criteria
Large-scale ranching Bamba, Adu and Ganze.	<ul style="list-style-type: none"> • Construction of Beef industry in Adu by 2026. • Addition of ranches in Bamba, Adu, Ganze by 2027. • Increase in employment and income levels.
Build a dairy processing industry in Kilifi South.	<ul style="list-style-type: none"> • Identification of a contractor by 2023. • Construction of dairy processing industry in Kilifi south by 2027. • Improved income and increase in employment levels.
Crop production	Evaluation criteria
Intensive crop farming Kilifi south.	<ul style="list-style-type: none"> • More land to be put under cultivation in Kilifi South by 2023. • Intensive cultivation by 2025. • Increased food supply by 2026. • Improved income and increase in employment levels.

Fish production	Evaluation criteria
Fish landing port Takaungu.	<ul style="list-style-type: none"> Improved income and increase in employment levels. Increased access to Takaungu fish landing site.
Human settlement	-
Urban Development Growth centers	Evaluation criteria
New settlement/towns in Adu town and Kulalu B	<ul style="list-style-type: none"> Balance distribution of urban settlement Introduce a new urban center in Adu and Kulalu by 2025. Growth of more industries. Improved income and increase in employment levels.
Ramada GIS station Vitengeni, Takaungu, Marereni, Bamba, Langobaya and Ganze	<ul style="list-style-type: none"> Improve the services in existing growth centers by 2030.
Education	-
Higher education	Evaluation criteria
Built 3 more mid-Level colleges Bamba, Kilifi south, Marafa and Galana Kulalu.	<ul style="list-style-type: none"> Identification of contractor and tender for the first college by 2023. Commence construction of a college in Bamba by 2024. Construction of a college in Kilifi by 2026. Completion of the three colleges by 2030.
Health	-
Health quality	Evaluation criteria
Maternity wing Every sub-County.	<ul style="list-style-type: none"> Contracting and tender process by 2023. Commencement of maternity wing construction by early 2024. Completion of maternities by 2029.
Environmental protection	Evaluation criteria
Rehabilitation Mining pits/Quarry sites	<ul style="list-style-type: none"> Bury old open pits by 2023. Make use of the sites for other purposes such as recreation by 2024.
Fencing of forested areas Arabuko Sokoke.	<ul style="list-style-type: none"> Reduced cases of human wildlife conflict.

Source: Author, 2021

The table below shows the possible mitigation measures for anticipated environmental impacts that might arise from the implementation of selected flagship projects.

Table 57: Mitigation measures for anticipated environmental impact

Flagship projects	Environmental impacts	Mitigation measures
Construction of Railroad Ribbon(195km).	<ul style="list-style-type: none"> Air pollution. Distraction of activities in the ranching zones. 	<ul style="list-style-type: none"> Elevation of the railroad to pave way for animal crossing at the crossing points.


Construction of International Airport in Langobaya.	<ul style="list-style-type: none"> • Damaged ecosystems. • Waste generation. • Disruption of resident's daily activities. • Noise pollution. 	<ul style="list-style-type: none"> • Handling of waste generated at the airport. • Fencing of the airport to reduce human aircraft conflicts.
Construction of Seaport in Kilifi.	<ul style="list-style-type: none"> • Water pollution from oil leakages. • Displacement of fisheries. • Shoreline erosion. • Harm on marine life. 	<ul style="list-style-type: none"> • Ensure that environmental measures that were put in place to protect the marine life are adhered to.
Construction of Wastewater Infrastructure in Major Towns.	<ul style="list-style-type: none"> • Pollution of underground water. • Air pollution. 	<ul style="list-style-type: none"> • Proper lay out of sewer lines and controlling wastes in dumped in designated collection points.
Irrigation Schemes.	<ul style="list-style-type: none"> • Waterlogging. • Water-borne diseases. 	<ul style="list-style-type: none"> • Following the right procedure to avoid water logging in one area. • Encourage workers to put on protective gears while in the farm e.g., safety boots and masks.

Source: Author 2022

Annex 1: Notice of completion (English)


DAILY NATION | Wednesday December 16, 2015

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**KENYA LEATHER
DEVELOPMENT COUNCIL**

P.O. Box 14480-00800, Riverside Drive, Nairobi, Tel: +254 (0) 20 444 2321,
E-mail: idserv@kldc.co.ke, Website: www.leatherdevelopmentcouncil.co.ke



**NATIONAL OPEN TENDER
TENDER NOTICE**

Kenya Leather Development Council (KLDC) is a Government Corporation under the Ministry of Industrialization and Enterprise Development established under State Corporation Act Cap 446 Laws of Kenya by Legal Notice No. 114, of 9th September 2011.

Kenya Leather Development Council now invites application for tenders from interested and eligible firms for supply of footwear and leather goods manufacturing machines/equipment, installation and trainings contained in the tender document posted in the KLDC website and IFMIS suppliers' portal.

Detailed Tender documents are available and can be obtained from Supply Chain Management Office located at KLDC offices situated on Riverside Drive, Nairobi.

Interested and eligible bidders are required to pay a non-refundable fee of Kshs. 1,000.00 for each set of hard copy of tender documents in Bankers Cheque or cash payable at KLDC cash office located at KLDC offices, situated along Riverside Drive Nairobi during working hours (8.00am to 5.00pm local time).

Prospective tenderers may also download the Tender Documents free of charge from our website www.leatherdevelopmentcouncil.co.ke or from the IFMIS supplier portal www.supplier.treasury.go.ke. All eligible tenderers who download the tender documents must forward their firm's details and contacts to KLDC's official email ldkenya@gmail.com.


Completed bid documents in plain sealed envelopes which are clearly marked with the Tender Description and the Tender Number should be addressed to:-

The Chief Executive officer
Kenya Leather Development Council
P.O. Box 14480-00800, Riverside Drive,
NAIROBI

And be deposited in the Tender Box situated at the KLDC offices at the main office entrance veranda in Riverside Drive as to be received on or before **Monday 4th January 2016 at 10.00 A.M local time**. Any late bids will not be accepted. Tender documents will be opened immediately thereafter in the Boardroom of KLDC offices Riverside Drive, Nairobi in the presence of Tenderers or their representatives who wish to attend.

CHIEF EXECUTIVE OFFICER

Leather for Wealth-Ngozini Mali
Our Vision: To be a leading agency in transforming the leather subsector to be globally competitive



THE COUNTY GOVERNMENT OF KILIFI

PUBLIC NOTICE
PHYSICAL PLANNING ACT (CAP. 286)

**NOTICE OF COMPLETION OF
DEVELOPMENT PLAN**

Notice is hereby given that preparation of Local Physical (Land use) Development Plans for the following Towns is complete:

1. Marafa Town
2. Marereni Town
3. Kaloleni Town

The plan relates to areas delimited in the plans and is valid for a period of ten years up to the year 2025.

Copies of the Plans as prepared have been deposited for public inspection at the following offices:


1. County Chief Officer-Land, Energy, Housing and Physical Planning;
2. County Director of Physical Planning and Development Control-Kilifi;
3. County Physical Planning-Malindi; and
4. Sub-County Administrators of Magarini and Kaloleni;
5. Office of the Chief, Marafa, Marereni and Kaloleni

The copies so deposited are available for inspection free of charge by all persons interested at the above named addresses between 08.00 am and 01.00 pm and from 02.00pm to 05.00 pm, Monday to Friday.

Any interested person(s) who wishes to make any representation in connection with or objection to the above named Development Plans may send such representations in writing to be received by the County Chief Officer-Land, Energy, Housing and Physical Planning, P.O. Box 519-80108, Kilifi not later than Sixty days from the date of this notice and such representation or objection shall state the grounds on which it is made.

Date 15th December, 2015.

James, K. Nguzo
County Chief Officer-Land, Energy, Housing and Physical Planning



NATIONAL IRRIGATION BOARD (NIB)
ISO 9001:2008 Certified

ADDENDUM No. 01

**EXTENSION OF SUBMISSION DEADLINE FOR
EXPRESSION OF INTEREST (EOI)**

TENDER NAME: FUNDING, DESIGN, BUILD AND TRANSFER OF THE 400,000 ACRE PILOT FARM IN THE GALANA-KULALU FOOD SECURITY PROJECT, TANA RIVER AND KILIFI COUNTIES, REPUBLIC OF KENYA

TENDER NO: NIB/T/010/2015-2016

1. Further to the publication of Expression of Interest (EOI) for the above tender in the local dailies on Tuesday 3rd November 2015, the Procuring Entity, National Irrigation Board (Board), has extended the submission deadline from 1200 hours local time on Friday 18th December 2015 to a new date of 1200 hours local time on Thursday 18th February 2016.
2. Interested and participating tenderers are advised to take into account the above amendment in the preparation and submission of their Expression of Interest.
3. The other details, terms and conditions for the Expression of Interest remain the same.

Procuring Entity's Address:

**General Manager
National Irrigation Board (NIB)
Unyanyizi House, First Floor, Room 309
Lenana Road, Hurlingham
Nairobi, Kenya
Tel: +254-20-2711360/468
Fax: +254-20-2722821/2711347/2723392
E-mail: enquiries@nib.or.ke, purchasing@nib.or.ke**

**GENERAL MANAGER
NATIONAL IRRIGATION BOARD.**



THE COUNTY GOVERNMENT OF KILIFI

PUBLIC NOTICE
PHYSICAL PLANNING ACT (CAP. 286)

**NOTICE OF COMPLETION OF
DEVELOPMENT PLAN**

COUNTY SPATIAL PLAN

Notice is hereby given that preparation of the above Plan is complete.

The plan relates to land covering the entire Kilifi County and is valid for a period of ten years up to the year 2025.

Copies of the Development Plan as prepared have been deposited for public inspection at the following offices:

1. County Chief Officer-Land, Energy, Housing and Physical Planning;
2. County Director of Physical Planning and Development Control-Kilifi;
3. County Physical Planning-Malindi; and
4. Sub-County Administrators of Kilifi North, Kilifi South, Malindi, Magarini, Ganze, Kaloleni and Rabai;

The copies so deposited are available for inspection free of charge by all persons interested at the above named addresses between 08.00 am and 01.00 pm and from 02.00pm to 05.00 pm, Monday to Friday.

Any interested person(s) who wishes to make any representation in connection with or objection to the above named Development Plan may send such representations in writing to be received by the County Chief Officer-Land, Energy, Housing and Physical Planning, P.O. Box 519-80108, Kilifi not later than Sixty days from the date of this notice and such representation or objection shall state the grounds on which it is made.

Date 15th December, 2015.

James, K. Nguzo
County Chief Officer-Land, Energy, Housing and Physical Planning

HABARI ZA MSETO

Mwanamke Mkenya seli kwa kuhusishwa na ISIS

NAIROBI

Na FRED MUKINDA

DLISI wanamzuilia mwanamke Mkenya anayehusishwa kundi la kigadi la Islamic State baada ya kurudishwa chini kutoka India.

Mwanamke huyu alikuwa kwenye enzi ya mchana wa India na ipokezwa kwa polisi siku ya mhuri.

Bi Amina Mwaiz Muange aliywa kazi katika Muungano wa mirati alikuwa ameanzishana wakati wake India, mbaka alikamatwa.

Afisa wa Kenya aliambaa hii kuu kwa mamaka katika hii saba amekwa zikifuatilia ughuli za mwanamke huyu hila ya kumtorodhesha kuwa seriki kuingi mkono magazi.

"Mapema mwaka huu akawa na Dhambi Amina alianza kugua mitandao ya kijamii yenye hasiani na ISIS katika jarimo la jafuwa nja ya kwenenda Syria.

"Katika harakati hizo za kutafuta, aliwasiliana na watuasi wa ISIS India, Afghanistan, Burundi Kenya na Afrika Kusini na akaendelea kuwasiliana nani, inayema ripoti ya serikali ambayo Taifa Leo iliyata kuona."

Mashirika ya usalama katika nchi hizi yalifahamishwa na kuanza kutumiana habari kuhusu mshukiwa na washirika wake.

"Ushirikiano kati ya mashirika ya usalama ya Kenya na India ulisaidia kukamatwa kwa mwanamke huyu anayeuunga mkono ISIS. Alikamatwa na wakuu wa India na kurudishwa Kenya Desemba 12. Alifikishwa mahakamani Desemba 15 na polisi wakapewa siku 30 wakamilisha uchunguzi wao," itaeleza ripoti hiyo.

Nchini India, Amina alihusishwa na Bi Siraj Mohamed ambaye anashukiwa kuwa na uhusiano wa kimapenzi naye. Mwanamume huyu ni miongoni mwa watu wanaoifuatilia na wakuu wa India na anashukiwa kuwa na uhusiano na kundi hili la kigadi.

"Mafisa wa Kenya wanashiri-

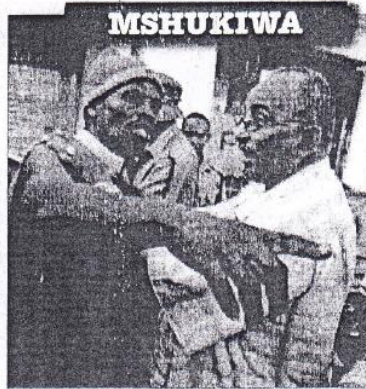
kiana na msaingi wa usalama katika nchi zilizoajwa kutaribu kubatisha mitandao ulipo Kesi hii Inaonyesha jinsi ugadi ulivyoeza na jinsi makundi kama ISIS yanatumia watu wasiozwa kupitoea kuelezea lengu lao," itaeleza ripoti hiyo.

Inaongeza: "Ushirikiano wa karibu baina ya serikali husika unahitajika kuhakikisha watu wasiozwa kupitoea wanaoindwa kutokana na kutumia vibaya na makundi hawa pamoja na kupenyeza kwa mitandao hivyo. Ushirikiano wa mashirika mbalimbali duniani katika vita dhidi ya ugadi ndio ulisaidia kumkamata Amina hata alipokuwa kwa safari na akiwawiliana na watu nje."

Kundi hili la kigadi limekita mizizi Syria na Iraq na linatambuliwa kwa kuteleza sheria kali na wanapoonekana kwenenda kinyume hukatiwa vichwa hadharani.

Majeshi ya mataifa yenye uwezo mkubwa kama Amerika, Ufaransa, Uingereza na Urusi yanapambana na kundi hili ambalo pia limeeleza mshambuliwa ya kigadi katika sehemu nyingine ulimwengu.

MSHUKIWA



MWANAMUME huyu allokolewa na polisi kutoka kwa wananchi waliotaka kumshambulia kwa madai kuwa alitaka kung'oa kioo cha gari katika barabara ya Mombasa, Jena. Picha/KEVIN ODIT

NAKURU

Idadi kubwa ya mahabusu yaleta hofu katika gereza

WASIWASI umetanda katika gereza kuu la serikali, miji Nakuu kutokana na kuongezeka kwa idadi ya wafungwa.

Wasimamizi wakuu wa gereza hili wamesema kwamba idadi ya sasa ya wafungwa imeongezeka kwa kiwango cha kutoweza kushughulikiwa iposavyo.

Wasimamizi wa gereza hili waliaambua Taifa Leo kuwa wengi miongoni mwa wafungwa hao ni waliolishitakiwa kwa makosa madogo madogo.

Kwenye majadiliano, afisa anayeshimama gereza hili Bi James Sawa, alisema kwamba gereza hili ni miongoni mwa yale ambayo yana haliwazi na latizo la kuwa na wafungwa wengi kiasi cha kutoweza kuwaibibi.

Gereza hili sasa lina wafungwa 1,555 na ni 479 pkee ambao wanaohudumiwa vilungu vyao, wengine wako rumande. Wengi wao wanaendelea na kesi zao katika Mola ya Nakuru.

FPC, MATARA NA WANGU NI KAMAU



SERIKALI YA KAUNTI YA KILIFI NOTISI KWA UMMA

SHERIA YA MIPANGILIO YA MATUMIZI YA ARDHI (KIFUNGU 286)

NOTISI YA KUKAMILISHA MPANGO WA MAENDELEO

ANGU WA MATUMIZI YA ARDHI MJINI

Notisi inatolewa kwamba matayarisho ya mpango wa maendeleo katika matumizi ya ardhi kwa mji/taifa yimekamika.

1. Mji wa Marafa
2. Mji wa Marereni
3. Mji wa Kaloleni

Mpango huo unahusu maeneo yaliyoteuliwa na kuorodheshwa na utaendelea kufuatwa kwa miaka 10, hadi mwaka wa 2025.

Nakala za mpango kama ilivyotayarishwa zimetolewa ili ziwaze kukaguliwa na umma na kuwekwa katika maeneo yafuatayo:

1. Afisi ya Afisa Mkuu Msimamizi wa Ardhi, Kawi, Makazi na Mipangilio ya matumizi ya ardhi wa kaunti;
2. Mkurugenzi wa Kaunti wa Mipangilio ya Matumizi ya Ardhi na Kudhibiti Maendeleo - Kilifi;
3. Afisi ya Mipangilio ya Matumizi ya Ardhi - Malindi, na
4. Wasimamizi wa Kaunti Ndogo za Magarini na Kaloleni.
5. Afisi ya Chifu, Marafa Marereni na Kaloleni.

Nakala hizo zimetolewa kukaguliwa na umma bila malipo yoyote na yeyote anayetaka kukagua anaweza kupata katika maeneo yaliyotajwa hapo juu kuanzia saa mbili hadi saa asaba mchana halafu kuanzia saa nane hadi saa kumi na moja jioni kuanzia Jumatatu hadi Jumatano.

Yeyote anayetamani kuwasilisha maoni au malalamishi kuhusiana na mpango wa maendeleo ilipo juu anaweza kuwasilisha kwa kuandika ili yafikie Afisa Mkuu Msimamizi wa Ardhi, Kawi, Makazi na Mipangilio ya Matumizi ya Ardhi wa Kaunti, S.L.P 519-80108, Kilifi kabla ya kukamilika kwa siku 60 kutoka siku ya kuchapishwa kwa notisi hii. Lazima kuwe na sababu za maoni au malalamishi yatakayotolewa.

Tarehe Desemba 15, 2015.

James, K. Nguzo

Afisa Mkuu Msimamizi wa Ardhi, Kawi, Makazi na Mipangilio ya Matumizi ya Ardhi wa Kaunti.



SERIKALI YA KAUNTI YA KILIFI NOTISI KWA UMMA

SHERIA YA MIPANGILIO YA MATUMIZI YA ARDHI (KIFUNGU 286)

NOTISI YA KUKAMILISHA MPANGO WA MAENDELEO

MPANGO WA MATUMIZI YA ARDHI YA KAUNTI

Notisi inatolewa kwamba mpango wa matayarisho ya mpango wa matumizi ya ardhi umekamilika.

Mpango huo unahusu ardhi yote iliyomilikiwa na Kaunti ya Kilifi na itakuwa halali kwa muda wa miaka 10 hadi mwaka wa 2025.

Nakala za mpango huo wa maendeleo kama zilivyotayarishwa zimetolewa kwa ukaguzi wa umma na zimewekwa maeneo yafuatayo:

1. Afisi ya Afisa Mkuu Msimamizi wa Ardhi, Kawi, Makazi na Mipangilio ya matumizi ya ardhi wa kaunti;
2. Mkurugenzi wa Kaunti wa Mipangilio ya Matumizi ya Ardhi na Kudhibiti Maendeleo - Kilifi;
3. Afisi ya Mipangilio ya Matumizi ya Ardhi - Malindi na
4. Wasimamizi wa Kaunti Ndogo za Kilifi Kaskazini, Kilifi Kusini, Malindi, Magarini, Ganzee, Kaloleni na Rabai.

Nakala hizo zimetolewa kukaguliwa na umma bila malipo yoyote na yeyote anayetaka kukagua anaweza kupata katika maeneo yaliyotajwa hapo juu kuanzia saa mbili hadi saa asaba mchana halafu kuanzia saa nane hadi saa kumi na moja jioni kuanzia Jumatatu hadi Jumatano.

Yeyote anayetamani kuwasilisha maoni au malalamishi kuhusiana na mpango wa maendeleo ilipo juu anaweza kuwasilisha kwa kuandika ili yafikie Afisa Mkuu Msimamizi wa Ardhi, Kawi, Makazi na Mipangilio ya Matumizi ya Ardhi wa Kaunti, S.L.P 519-80108, Kilifi kabla ya kukamilika kwa siku 60 kutoka siku ya kuchapishwa kwa notisi hii. Lazima kuwe na sababu za maoni au malalamishi yatakayotolewa.

Tarehe Desemba 15, 2015.

James, K. Nguzo

Afisa Mkuu Msimamizi wa Ardhi, Kawi, Makazi na Mipangilio ya Matumizi ya Ardhi wa Kaunti

Annex 3: Sample stakeholder engagement



THE COUNTY GOVERNMENT OF KILIFI OFFICE OF THE MINISTER FOR LANDS, ENERGY, HOUSING, PHYSICAL PLANNING AND URBAN DEVELOPMENT

MEETING ATTENDANCE FORM

DATE: 21/05/2015

ACTIVITY: PRESENTATION OF KILIFI COUNTY SPATIAL PLAN 2015 - 2025 (ZERO DRAFT) STAKEHOLDERS FORUM HELD AT
JUWABA HALL - KILIFI ON 21/05/2015

S/No.	Name	Organization Represented/Designation	Contact - Phone/Email	Signature
1.	CMAR ABUU	COK - Administration	Driver	[Signature]
2.	MWILIAO M.			
3.	Keaveh-	co-ell and	-	[Signature]
4.	Haji Jha Nari	CEC-LEP and	-	[Signature]
5.	Mahesh Chetley	LEP and	0705441682	[Signature]
6.	Jacinta M. Makau	Physical Planning		[Signature]
7.	Eva Nibeyu	Press - Office of the Governor	0724127026	[Signature]
8.	Kennedy Njima	Press - Office of the Governor	0725651746	[Signature]
9.	Gregory Kithengei	Press - Office of the Governor	0726363533	[Signature]
10.	SAMSON KARIKA THAKA	COV - LEPP and	0724621673 BRIVUR	[Signature]

Annex 4: Stakeholder engagement photographs



Kilifi North Sub-county



Kalolni Sub-county



Kaloleni Sub-county



Malindi Sub-County

