

World Maritime University

The Maritime Commons: Digital Repository of the World Maritime University

World Maritime University Dissertations

Dissertations

11-3-2019

Harnessing the potentials of the blue economy for Kenya's sustainable development

Enock Mong'are Okemwa

Follow this and additional works at: https://commons.wmu.se/all_dissertations



Part of the [Economics Commons](#), and the [Sustainability Commons](#)

Recommended Citation

Okemwa, Enock Mong'are, "Harnessing the potentials of the blue economy for Kenya's sustainable development" (2019). *World Maritime University Dissertations*. 1145.
https://commons.wmu.se/all_dissertations/1145

This Dissertation is brought to you courtesy of Maritime Commons. Open Access items may be downloaded for non-commercial, fair use academic purposes. No items may be hosted on another server or web site without express written permission from the World Maritime University. For more information, please contact library@wmu.se.

WORLD MARITIME UNIVERSITY

Malmö, Sweden

**HARNESSING THE POTENTIALS OF THE
BLUE ECONOMY FOR KENYA'S
SUSTAINABLE DEVELOPMENT**

By

OKEMWA ENOCK MONG'ARE

Kenya

A dissertation submitted to the World Maritime University in partial,
fulfilment of the requirement for the award of the degree of

MASTER OF SCIENCE

In

MARITIME AFFAIRS

MARITIME EDUCATION AND TRAINING

2019

Declaration

I Enock Mong'are Okemwa certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.



Signature:

Date: **September, 2019**.....

Supervised by:**Assoc. Prof. Dr. Momoko KITADA**

Supervisor's affiliation:**World Maritime University**

Acknowledgements

First and foremost, I am grateful to the almighty God who has been my source of strength and inspiration throughout my life. Without His grace, this work could not be accomplished. Many people have encouraged and supported me throughout the writing of this dissertation. I would wish to acknowledge their contribution by mentioning their names; My Supervisor, Assoc. Prof, Momoko Kitada for her time and patience in offering me insightful guidance towards shaping this dissertation, The Head MET Specialization, Prof. Michael Manuel for his advice and encouragement, The MET teaching faculty and other specializations for guidance during the writing of this dissertation, my MET classmates for their time to time encouragement towards finalization of the research, the World Maritime University fraternity under the Headship of the President for offering us a conducive environment for studying. Last but not least, great appreciation goes to the Ministry of Transport, Federal Government of Germany for offering me sponsorship to undertake the Masters Degree, May God bless your Government. Also, the Principal Secretary, at the State Department of Shipping and Maritime Affairs, Kenya for offering me an opportunity to come and study. Lastly, I would wish to acknowledge my wife, Phanis and my children, Humphrey, Tabitha and Michelle for allowing me to study in their absence as well as my parents and siblings, Josephat and Clive just to mention a few. May God bless you all.

Abstract

Title of Dissertation: **Harnessing the Potentials of the Blue Economy
For Kenya’s Sustainable Development**

Degree: **Master of Science**

In the recent past, Kenya had taken steps to diversify the country’s Blue Economy resources for creation of jobs and enhance food security as well as spur economic growth. However, full potential exploitation of these resources had not been realized, due to lack of coherence in policy framework, legislation and resource management between State Departments and Agencies responsible for Blue Economy. This was further exacerbated by having traditional and non-traditional blue economy sectors without better alignment. Also, there was no clear balance between ocean resources exploitation and sustainability which is one of the United Nations Sustainable Goals, namely, Goal 14 which informs Vision 2030 blueprint for protecting living and non-living resources. The objectives of the study were to establish why Integrated National Maritime Policy (INMP) had never been jumpstarted in the maritime sector, identify levels of success as well as challenges facing the maritime sector and best practices undertaken in successful maritime nations. Google Forms was used to administer the questionnaire with open and closed ended questions. Simple random sampling was used to select respondents from State Departments and Agencies responsible for blue Economy. While a target of 35 respondents was set, 32 responded. Qualitative data and quantitative data were analyzed using thematic content analysis and descriptive statistics respectively. Microsoft Excel was used for data analysis and presentation through the use of tables, bar charts, pie charts, percentages and frequencies. The study established that for Kenya to achieve full potential and sustainable exploitation of the blue economy resources to spur economic growth and development, the INMP should be implemented to bring coherence within State Departments and Agencies mandated to execute the blue economy agenda. Kenya should also adopt international best practices on legislation and policies to ensure the growth of the blue economy.

KEYWORDS: Blue Economy, Sustainability, Exploitation, Integrated Maritime Policy

Table of Contents

Declaration	ii
Acknowledgements	iii
Abstract.....	iv
Table of Contents	v
List of Tables	viii
List of Figures.....	ix
List of Abbreviations	x
CHAPTER ONE	1
1.0 Introduction.....	1
1.1 Background	2
1.1.1 Global perspective.....	2
1.1.2 African Perspective	3
1.1.3 Local Perspective in Kenya	4
1.2 Problem Statement	6
1.3.1 Purpose.....	7
1.3.2 Significance	8
1.3.3 Implication	8
1.3.4 Research Questions	8
CHAPTER TWO	10
LITERATURE REVIEW	10
2.1 Introduction.....	10
2.2 Theoretical Framework.....	10
2.2.1 Institutional Theory	10
2.2.2 Governance	11
2.2.3 Coastal Maritime Tourism	11
2.2.4 Maritime Transport and Ports	12
2.2.5 Fisheries and Aquaculture.....	13
2.2.6 Marine Biotechnology and Bio-prospecting	13
2.2.7 Ecosystem Based Management.....	14
2.3 Case Review.....	14
2.3.1 Sustainable Blue Economy	14
2.3.2 Economic development and Strategic planning	15
2.3.3 European Union’s Integrated Maritime Policy	16
2.4 Research Gap	18
CHAPTER THREE.....	20
RESEARCH METHODOLOGY	20
3.1 Introduction.....	20

3.2	Research Design	20
3.3	Conceptual Framework.....	20
3.4	Study Area	21
3.5	Research Instruments.....	21
3.6	Population and Sample Size of the Study	22
3.7	Demographic Information	23
3.7.1	Gender and age of respondents	23
3.7.2	Academic qualifications	23
3.7.3	Distribution of Respondents per the Ministry	23
3.7.4	Distribution of Respondents as per the State Agencies.....	24
3.7.5	Number of years worked in State Departments by respondents	24
3.8	Validity and Reliability of Research Instruments	25
3.9	Data Analysis.....	25
3.10	Ethical Issues	26
	CHAPTER FOUR.....	27
	DATA COLLECTION, ANALYSIS AND PRESENTATION.....	27
4.1	Introduction.....	27
4.2	Response Rate	27
4.3	Analysis of the Research Findings.....	27
4.3.1	Prioritization of the IMP	27
4.3.2	Government Initiatives in Policy Making and Resource Allocation.....	28
4.3.3	Progress made in the Blue Economy.....	29
4.3.4	Challenges in the Blue Economy Sector	30
4.3.5	Sustainable Exploitation of Ocean Resources.....	31
4.3.6	Blue Economy Best Practices	34
4.3.7	Capacity of the blue economy to build livelihoods.....	36
4.3.8	Government Initiatives and Collaborations on the Blue Economy.....	36
4.3.9	Opinions regarding Legal framework in the Agency.....	37
4.3.10	Details on Budgetary allocation by Agencies	38
4.3.11	Challenges to commencement of the Integrated Maritime Policy	39
4.3.12	Practices that would sustain the maritime sector in Kenya	39
4.3.13	Extent of awareness by citizen to exploit blue economy resources	41
	CHAPTER FIVE	42
	SUMMARY OF FINDINGS	42
5.1	Introduction.....	42
5.2	Prioritization of the Integrated Maritime Policy	42
5.3	Challenges due to lack of an IMP in the maritime sector	43
5.4	Best Blue Economy Practices.....	44

CHAPTER SIX	46
CONCLUSION & RECOMMENDATIONS	46
6.1 Conclusions.....	46
6.2 Recommendations	47
6.3 Limitation of the Research.....	48
6.4 Areas for further Research	48
References.....	49
Appendix 1.....	54
Appendix 2.....	55

List of Tables

Table 3.1 Target population and Sample Size	23
Table 3.2 Distribution of the respondents by their age.....	23
Table 3.3 Distribution of Respondents as per the State Departments	24
Table 3.4 Respondents from State Agencies	24
Table 3.5 Number of Respondents showing number of years Worked	25
Table 4.1 Return Rate	27
Table 4.2 Prioritization of IMP	28
Table 4.3 Government Sponsorship of Bills for IMP	28
Table 4.4 Response on Budget	29
Table 4.5 Training Institutions of Maritime and Fisheries	31
Table 4.6 Development of Infrastructure for the BE	31
Table 4.7 Maritime Economy as component of economic development	32
Table 4.8 Connection between maritime resource exploitation and policies	32
Table 4.9 Harnessing the Maritime Resource as a Current Concern.....	33
Table 4.10 Relationship between maritime legal policies and sustainability policies.....	33
Table 4.11 True Worthiness of Blue Economy	33
Table 4.12 State Department/Agency Interest to BE.....	33
Table 4.13 Benchmarking by Ministry/Agency	33
Table 4.14 Representation of Private Sector in BE	34
Table 4.15 Sustainable Exploitation of Resource to Influence Development	34
Table 4.16 Government Collaboration with stakeholders	37
Table 4.17 Awareness on Exploitation of BE by use of Government Initiatives	41

List of Figures

Figure 1.1 Kenyan coastline and major inland lakes.....	5
Figure 3.1 Conceptual Framework.....	21
Figure 3.2 Gender of Respondents.....	55
Figure 3.3 Highest Academic level of Respondents.....	55
Figure 3.4 Age and Gender.....	56
Figure 3.5 Affiliated state Agencies.....	57
Figure 3.6 Years worked by Respondents.....	58
Figure 4.1 Prioritization of IMP.....	59
Figure 4.2 Government Sponsorship of Bills for IMP.....	59
Figure 4.3 Budget Views.....	60
Figure 4.4 Training Institutions of Maritime and Fisheries.....	61
Figure 4.5 Development of Infrastructure for BE.....	62
Figure 4.6 Maritime Economy.....	63
Figure 4.7 Maritime resource Exploitation connection with policies.....	63
Figure 4.8 Maritime as a current concern.....	64
Figure 4.9. Maritime legal policies and sustainability.....	65
Figure 4.10 Blue Economy Worthiness.....	65
Figure 4.11 Interest in BE.....	66
Figure 4.12 Benchmarking by Ministry/or Agency.....	67
Figure 4.13 Private sector representation.....	68
Figure 4.14 Influence of Development.....	69
Figure 4.15 Government Collaboration.....	70
Figure 4.16 Exploitation of BE Initiatives.....	71

List of Abbreviations

EU	:	European Union
EIU	:	Economist Intelligence Unit
EBM	:	Ecosystem Based Management
FAO	:	Food and Agricultural Organization
GDP	:	Gross Domestic Product
GSBEC	:	Global Sustainable Blue Economy Conference
IFF	:	International Fishing Fleet
ICZM	:	Integrated Coastal Zone Management
IUU	:	Illegal, Unregulated and Unreported Fishing
IMP	:	Integrated Maritime Policy
KMA	:	Kenya Maritime Authority
KPA	:	Kenya Ports Authority
KFS	:	Kenya Fisheries Service
KEMFRI	:	Kenya Marine Fisheries & Research Institute
MARPOL	:	International Convention for Prevention of Marine Pollution from Ships
MTP	:	Medium Term Planning
MSP	:	Marine Spatial Plan
MSFD	:	Marine Strategy Framework Directive
NEMO	:	National Environment Management of the Ocean
NGOs	:	Non-Governmental Organizations
REC	:	Research Ethics Committee
SDGs	:	Sustainable Development Goals
SDS	:	Small Developing States
SIS	:	Small Island States
TICAD	:	Tokyo International Cooperation on African Development
UN	:	United Nations
UNECA	:	United Nations Economic Commission for Africa
UNDP	:	United Nations Development Programme
UNCTAD	:	United Nations Conference on Trade and Development
UNGA	:	United Nations General Assembly
USA	:	United States of America
USD	:	United States Dollar
WB	:	World Bank

CHAPTER ONE

1.0 Introduction

The chapter discusses the harnessing of the blue economy which encompasses the sustainable use of the sea and its resources while promoting the preservation of the ocean ecosystem for Kenya's economic development. Further, the chapter appreciates what other countries have done at the global and regional level on the subject under scrutiny. It was organized under the following sub headings namely; the global perspective, the African perspective, Kenyan perspective, problem statement, aims and objectives, purpose of the study, significance of the study, implication of the study and research questions.

Blue Economy was an evolving concept that calls for better stewardship of our oceanic resources. It includes a range of economic sectors and related policies that together determine whether the use of marine resources was sustainable. Whilst majority sees as a market opportunity, blue economy was beyond the close linkages between the climate, ocean and the welfare of the people in acknowledging the nation's values, in an equitable way when making decisions on marine resources. On the other hand, the majority of the nations see the blue economy as reservoir for exploitation of economic resources through large scale sophisticated exploitation of the water resources such as commercial fishing, oil and gas exploration as well as minerals with a blind eye on the negative effects left behind for future productivity of the same resources as they were driven to fulfil their needs boosting such as tackling unemployment, food security and poverty.

Worldwide ocean economy was valued at around US\$1.5 trillion per year of which 8% of global trade by volume was carried by sea. Further, 350 million jobs created worldwide was linked to fisheries also, aquaculture was the fastest growing food sector accounting for about 50% of fish for human consumption and it was estimated that by 2025, 34% of crude oil production would come from offshore fields.

1.1 Background

The United Nations Sustainable Development Goal (UNSDG) 14 informs conservation and sustainable use of the oceans, seas and marine resources for sustainable development, which is reflected in the Kenyan Vision 2030 Blueprint on protection. The blue economy is the next economic frontier for maritime nations, thus, there is increased exploitation of the ocean resources. There is need for sustainable exploitation of ocean resources and protection of marine biodiversity. In the recent past, sustainable blue economy has been the subject of discussion at International, Regional and Local forums. A number of developed and developing countries are coming to full realization in achieving sustainability. UNCTAD (2016) asserts that many policies had been ratified to see how blue economy could be harnessed sustainably since over two-thirds of the earth's surface significantly contribute to poverty abolition in generating sustainable livelihoods. There is need to come up with legal and regulatory frameworks through an integrated policy framework to guide the future of the maritime sector.

1.1.1 Global perspective

United Nations Conference on Sustainable Development held in Rio de Janeiro in 2012, blue economy was regarded as ocean economy that aims at improving the human welfare and social equity with reducing environmental risks and ecological scarcities (UNCTAD 2016). During the United Nations Sustainable Development Summit held on 25th September, 2015, world leaders drawn from 150 countries adopted new 2030 Agenda for Sustainable Development which included the Sustainable Development Goals (SDGs), also the UN General Assembly held on 22nd December, 2015 adopted resolution 70/226 to lobby and support of the implementation of Sustainable Development Goal as well as conservation and sustainability use of marine resources was affirmed.

European Union Blue Growth Strategy 2012 recognized that European Seas and Oceans were central to the European economy with great potential for innovation, economic growth and job creation hence the integration of maritime policies contributed to the achievement of goals for the Europe 2020 strategy for smart,

sustainable and inclusive growth. According to Biliiana et al., (2015) on National and Regional Policies Handbook, the author gives an account of the European Union maritime affairs becoming paradoxical in 2000s as Europe was geographically and economically located as a maritime continent whereas surface of marine waters under the jurisdiction of EU Member States remained to be the world's most important far larger than the total land area of the Union with an estimated blue economy estimated to be \$ 500 billion yearly generated by marine based industries and services. In 2006, a green paper on a future Maritime Policy for the Union highlighted the links between EU maritime-related activities and raised questions for public participation which were for the basis for the establishment of the Integrated Maritime Policy for European Union (IMP) in October, 2007.

To address multiple-use conflicts in preserving ecosystems as well as taking advantage of new economic opportunities in the ocean, NGOs and the academic groups in the United States had articulated the need to go beyond sector by sector approach in ocean policy. The US Commission on ocean policy set a Cabinet Level Committee on Ocean Policy under the Council of Environment Quality, to advise on the establishment and implementation of policies regarding ocean-related matters aimed at reduction of harmful land-based impacts on the oceans. Canada's Ocean Strategy, 2002 in collaboration with federal agencies, provincial and territorial governments, aboriginal organizations, coastal communities and other persons and bodies developed ocean framework for modern oceans management which had served as the guidance for the development and updating of the sector-based policies and processes. As a result, in 2014, the National Conservation Plan injected CAN\$ 252 million over five years for conservation initiatives, including CAN\$ 37 million to marine and coastal conservation to support progress towards the 2020 target for protecting 10 percent for marine and coastal areas under the convention on Biological Diversity among other related goals.

1.1.2 African Perspective

In December, 2013, South Africa's White Paper on National Environment Management of the Ocean (NEMO) was signed and approved by Cabinet. Its major

aim was to protect and conserve South Africa's Ocean Environment as well as spur sustainable development for present and future generations geared towards enhancing ocean environmental management, improving ocean environment knowledge, improving ocean environment management and enhancing ocean environment integrity by means of cooperating at the national, regional and global level.

1.1.3 Local Perspective in Kenya

Maritime sector had long played an important role in the Kenyan economy. Kenya like any other emerging maritime nation had put concerted efforts to ensure success of the blue economy through Vision 2030. *Whilst the government had aligned the big four agenda for economic development*, blue economy was a new frontier for development as it presented immense opportunities for the growth of the Kenyan economy especially through sectors such as fisheries, tourism, maritime transport and off-shore mining.

According to the United Nations Economic Commission of Africa's report of 2016, Eastern Africa had failed to achieve growth with sustainable and inclusive development which was compounded by traditional and non-traditional blue economy sectors. It further asserts, that there is need for better alignment between different Blue Economy sectors and greater coherence between government schemes and initiatives. Kenya is a member of the Eastern African States and has held various high-profile conferences in Nairobi out of which, the country's potential has been significantly highlighted. The notable one was Tokyo International Cooperation on Africa Development (TICAD VI) Global Conference held in 2016, among the resolutions, Kenya was to take centre stage in championing the blue economy concept in Africa leading to Kenya hosting of the just concluded Sustainable Blue Economy Conference held on 26-11-2018 whereby, Head of Commercial Shipping, Kenya Maritime Authority highlighted that 39 out of 55 African countries (70%) have a coastline and some are Island Nations with Kenya having a 640 kilometres coastline along the Indian Ocean and a number of inland lakes. Trade amongst African countries accounts for 11% of the total trade volume (lowest compared to ASEAN, Europe and Americas). Coastline of 31,000 km African-owned ships account for less than 1.2% of the world's

shipping and only 9% by gross tonnage and Inland waterways of 300,000 square kilometres. The map below presents the Kenyan coastline and the inland water ways and other neighbouring states.



Figure 1.1 Kenyan coastline and major inland lakes

Source: <https://www.worldatlas.com/>

It was against this backdrop that there was need to provide and protect development of more blue economy resources. Further, there is need for Integrated National

Maritime Policy to ensure coherence and seamlessness in the sector. The integration of agencies mandated to ensure growth of the blue economy is essential moving forward through amalgamation of policies and regulatory frameworks for effective implementation of the blue economy agenda. A gap still exists in the policy making process as the key sectors of the blue economy are highly fragmented in terms of structure and composition thus affecting effective delivery of their mandates hence the need for the research.

1.2 Problem Statement

The United Nations Sustainable Development Goal (UNSDG),¹⁴ informs Conservation and Sustainable use of oceans, seas and marine resources for sustainable development which is reflected in the Kenyan Vision 2030 Blueprint on the protection to achieve a balance between ocean exploitation and sustainability which has remained elusive for the maritime nations. A number of developed and developing maritime nations have realized that to achieve ocean sustainability, there is need for legal and regulatory frameworks with effective implementation.

Research has been conducted touching on various aspects of marine and maritime sectors in Kenya but little research has been done on challenges during implementation of the strategic blue print on the Blue Economy and the gaps that exist on the legal and regulatory frameworks which affect governance, finance and sustainable exploitation of the ocean resources hence need for this research with a view to find the solution for the effective implementation of the regulatory framework thus impact positively strategic planning, policy making and implementation.

The Economist Intelligence Unit report (EIU, 2015), stated that oceans resources were driving and spurring economic growth and sustainable development both nationally and internationally. This was because, the blue economy had for a long period of time contributed in the global economic growth in the reduction of unemployment, food insecurity and poverty.

Taking into cognizant of its importance to the economy, the government of Kenya through the Executive Order No.1 /2016, made clear strategic commitments in approaching the blue economy through increasingly prioritizing it as a potential source

of employment and economic growth. As a result, a number of sectoral initiatives had been launched, also new institutional structures for the integrated governance of the blue economy had been made including creation of the State Department for Fisheries and the Blue Economy for addressing these issues. Further, efforts such as requisition of aid from the world bank to support the Kenya Marine Fisheries and Socio-Economic Development Project have been initiated. Despite the initiatives, exploitation of the oceanic resources has not been potentially harnessed. For instance, 2015, tourism generated USD 6.7 billion, while fisheries contributed USD 520 million of the GDP. This is lower than the actual potential of the oceanic capacity. In the 21st Century, blue economy is the new frontier in diversification of economies hence the subject of discussion in International, Regional and Local forums owing to over exploitation of land resources.

It was against this backdrop that there was need to find out solution for effective collaboration between Government Ministries and its State Agencies that work in implementation of blue economy policies towards harnessing the potentials of the blue economy for Kenya's sustainable development as well as determining how constraints affecting full exploitation of resources can be tackled. This study was therefore carried out to inform the need for an Integrated National Maritime Policy (INMP) for Kenya.

1.3 Aims and Objectives

1.3.1 Purpose

The general objective of the study was to analyse the policy framework in harnessing the potentials of the blue economy for Kenya's sustainable development through an Integrated National Maritime Policy for Kenya. Specific objectives of this research are to: -

1. Examine why the Integrated National Maritime Policy had not been jumpstarted in the maritime sector;
2. Investigate the level of the success achieved for the pertinent sector of the blue economy and the challenges facing them;
3. Identify best practices undertaken in successful maritime nations to guide the blue economy sustainability and cross-cutting issues.

1.3.2 Significance

The success and future of the blue economy sustainability lies in proper policy making and effective implementation by ensuring continuous monitoring and evaluation with a view to address the emerging challenges in the maritime sector in the awake of the recent technological changes in the maritime sector. Countries that have implemented the Integrated Maritime Policy in their jurisdictions have increased synergy due to efficient coherence in the maritime sector thus translating to improved gross domestic product (GDP) as depicted by economic growth indicators; per capita income, employment opportunities and food security while ensuring sustainability of the resources for future generations. This research study is fundamental since it informs policy making that will ensure sustainability of the blue economy so as to unlock full potential of the maritime sector in Kenya.

1.3.3 Implication

Successful maritime nations, for instance, the USA, Canada, Sweden, Norway, Spain, Japan, China and Singapore developed the Integrated Maritime Policy to guide the blue economy sectoral policies to enhance coordination in policy formulation for ocean related policies to avoid overlaps and unnecessary competition between sectors related to blue economy hence coherence in policy making within the sector. The INMP would be one of the legal and regulatory documents that would be guiding the sector hence the Kenyan Government should prioritize it in its national agenda through legislation and implementation.

1.3.4 Research Questions

The research was guided by the following questions: -

- 1.) Why the Integrated National Maritime Policy had not been jumpstarted in the maritime sector?
- 2.) What levels of the success that had been achieved for the pertinent sector of the blue economy and the challenge facing it?
- 3.) What best practices that have been undertaken in successful maritime nations to guide the blue economy sustainability and cross-cutting issue?

The chapter following would be presenting the literature review from different scholars who have researched on the subject under study. It would focus on the theoretical framework, conceptual framework and relevant case studies to appreciate the previous studies that have been undertaken on the subject under study and finally the research gap.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviewed the theoretical framework and case review on publications by scholars and researchers on topics related to the research questions to bring general understanding of the research topic. Finally, it covered identification of research gaps.

2.2 Theoretical Framework

The research focused on the theory that was relevant in harnessing the exploitation of the blue economy. The institutional theory which primarily focuses on policy making was considered. The theory places emphasis on formal and legal aspects of government structures.

2.2.1 Institutional Theory

This theory focuses on the importance of policies. The theory stipulates that in order for an institution to succeed, there was need for policies and regulations. According to Delmas and Toffel (2005), institutional theory is concerned with external forces on the organizational process of decision-making with emphasis on the role of socio-cultural practices that are imposed on the organizations that influence on the practices and structures. The institutional theory as a policy, emphasize on the formal and legal government structure, as such, government agencies can directly or indirectly make some organizations to change their strategy. The theory explains why some aspects of practices can be chosen without necessarily bringing an economic value (Kraft and Scott, 2017 and Krell, Matook and Rodhe, 2016). The institutional theory notes that some practices can be adopted. The blue economy should be guided by the institutional theory in the implementation of the INMP and for it to be a success, certain institutional frameworks must be in place to aid the penetration of the benefits of the blue economy including maritime policies and regulations.

Kenya can harness the potential of the blue economy by ensuring formulation and implementation of a policy framework that provides for sustainable exploitation of resources and integration of mandates that are currently executed by multiple government agencies.

Blue economy activities are controlled by various laws and regulations; international laws/treaties, regional regulations and national laws. Government Departments and agencies have been given different mandates resulting to conflict of interest and poor governance due to lack of cooperation between the oversight agencies, compartmentalization and silo management. This leads to duplication of resources without clear goals of achieving a sustainable blue economy. To achieve integrated approach and improved governance, the use of Integrated National Maritime Policy as tool would offer solutions to oversee overarching issues that arose in the institutional, legal and regulatory regimes with a view of providing amicable solutions for the successive implementation of sustainable blue economy.

2.2.2 Governance

Governance relates to decision-making processes among the actors involved in a common goal to create and reinforce rules, laws and regulations. Brian (2018) argues that stakeholders were critical and had a role to play in the development of the blue economy. He also proposed possibility of stakeholders having a big stake in ensuring effectiveness of policies aimed at supporting maritime innovation, development of coastal regions and economic development.

Duru Okan (2014) argued that the concept of maritime governance without a government could be thought as a driving force for the future. It further adds that, deregulation and hollow-out framework governance for developed and developing countries should focus on soft power administration and the role of expert power as well as referent power to mainstream the maritime industry.

The INMP shall regulate the decision making process and bring coherence in matters governance in various pertinent sectors of the Blue Economy. These sectors include, Coastal Maritime Tourism, Maritime Transport and Ports, Fisheries and Aquaculture, Marine Biotechnology and Bio-prospecting and Ecosystem Based Management.

2.2.3 Coastal Maritime Tourism

The World Bank Report regarding the Blue Economy status (2017) in Small Island States (SIS) and Small Developing States (SDS) highlighted that, tourism was becoming the largest global business which employed one person out of eleven

according to World Travel & Tourism Council (2016). Tourism immensely contributes to the GDP. It further stated that it was a source of foreign exchange earnings, social and economic well-being of many countries. Also mentioned that it was part of promoting proper use of marine environments and species, generation of incomes for local communities, maintaining of local cultures, traditional and heritage. According to Mwangi (2014) Tourism contributes 10% of the GDP in Kenya making it the largest contributor to the economy after agriculture and manufacturing, and the 3rd largest foreign exchange earner after tea and horticulture. It asserts that the sector employed 219,000 people which represented 11% of the total workforce in the country and it was a major source of government revenue arising from dues, taxes, licences fees and entry fees. Challenges in the sector are as a result of insufficient implementation of laws and regulations and unimplemented standardised guidelines for tourist facilities.

2.2.4 Maritime Transport and Ports

According to UNCTAD (2016) over 80% of the volume of international trade goods was transported by sea. Globally shipping provide the principal mode of transport for the supply of raw materials, consumer goods, essential food stuff and energy. This contributes to economic growth and forms a major source of employment. The report of World Bank 2017 identified impacts associated with maritime transport such as; marine and atmospheric pollution, marine litter, under water noise and introduction and spread of invasive species. To mitigate this, a new requirement for shipping to invest in new environment technologies to cover emissions, ballast water treatment by MARPOL and London Convention on Prevention of Marine Pollution by Dumping of Wastes and other matter was enacted as a protocol. Some of the obstacles associated with this component of blue economy include poor port infrastructure, maintenance issues and vulnerable weather conditions. The report by UNECA (2016) highlighted that the blue economy infrastructure such as the Port of Mombasa was important for many aspects of the tourism sector. However, the port was struggling with capacity constraints due to lack of enough berths and terminals hence required institutional reforms. It acknowledged the expansion plans being undertaken by the Chinese

Government of building a new port in Lamu with 32 berths to a tune of USD 478.9 million as well as development of the Transport Corridor Project at a cost of USD 24 Billion as noted by Briceno-Garmendia & Shkaratan (2012). Sustainable sea transport through the use of low carbon emission technologies in marine transportation is part of the blue economy and should be prioritized in the IMP.

2.2.5 Fisheries and Aquaculture

The World Bank 2017 report affirms that sustainable fisheries could be an essential component of the blue economy. It stated that marine fish was contributing US\$ 270 billion to global GDP as well as attributed to food security, provision of livelihoods of 300 million involved in the sector as well as meeting their nutritional requirements as a source of protein, micro nutrients and Omega-3 fatty acids as mentioned in FAO report, (2016).

IUU accounts for 11- 26% billion tons of fish catch or US\$ 10-22 billion undocumented revenue due to persistent problems associated with post-harvest losses which account for 25% of developing countries (FAO, 2016). The report recommended that for sustainability to be achieved, over-exploitation of living marine resources, land-based pollution and inadequate fisheries monitoring control should be minimized with enhanced surveillance both for national and regional levels.

Aquaculture supplies 58% of fish to global markets and if well-maintained could be a source of livelihood, food and creation of employment and meeting nutritional needs. The study by Bell et al., (2015) recommended the improvement of policies regarding fisheries.

2.2.6 Marine Biotechnology and Bio-prospecting

According to Appeltans et al., (2012) the ocean diversity was estimated to have about 700,000 to 1 million eukaryotic species. Suttle (2013) stated that, marine life was an important source of novel genes and natural products, with wide array applications in medicine, food industry, energy and bio-based industries. Novel genes and biological compounds could lead to pharmaceuticals, enzymes and cosmetics.

Arnaud-Haond, Arrieta and Duarte (2011) mentioned that there was growing commercial interest in marine genetic resources with increased patent applications at

11% per year. 5000 genes were already patented by 2010, driven by marine organisms as mentioned in the World Bank report of 2017.

Some of the problems associated with this industry as mentioned in the report include lack of expertise in marine science due to difficulties in attracting and retaining qualified marine scientists, limited research facilities, financial resources, information sharing, capacity building, transfer of technology due to little to lack of participation of small island and developing states in research activities and lack of marine knowledge on genetic resources in developing countries. Sometimes, despite having skills transfer from developed countries, it had been adhoc with limited scope.

2.2.7 Ecosystem Based Management

Integrated marine coastal area management, spatial planning, and mapping of marine protected areas would achieve sustainable use of blue economy resources and enhance biodiversity conservation in oceans and coastal areas (World Bank, 2012).

The challenges identified were; integration of various sectors into a comprehensive and cohesive plan with ecosystem as a central framework. This was attributed to competing interests for oceans and coastal resources from different Ministries and other stakeholders. Therefore, developing framework that integrates regulatory, governance, legislative aspects enhances effective ocean governance policies which guides ocean sustainability thereby positively impacting the blue economy.

2.3 Case Review

2.3.1 Sustainable Blue Economy

The study by Sarker et al., (2018) in Bangladesh established the economic value and potential of the blue economy. Also, it identified the challenges hindering blue economy growth including lack of a management framework. Data was collected from review of policy documents, newspapers, reports and articles. The findings were that coastal and marine resources were identified as resources of the blue economy in Bangladesh. The challenges that were identified include sea level rise, climate driven extreme events, pollution, human interface and lack of enforcement. For Bangladesh to achieve sustainable growth, the literature suggested a strategic planning for sectors related to blue economy, research and Governance. The study concluded that to

enhance blue growth and achieve sustainable development goals, there must be a balance between exploitation and environmental sustainability this concurs with the study carried out by Rahman (2017).

The study by Bennett, N. J. (2018) mentioned that oceans were the next frontier for many conservation and development activities. Growing of marine protected areas, fish management, should be a priority regarding blue economy policies in national jurisdictions. The concern had been sustainability and ocean governance. This had been as a result of exclusion in decision making process and social injustices which had led to little attention to social justice and inclusivity in social justice. The need to learn from past mistakes and navigating towards sustainability remains the viable and feasible option for marine policy. The research further supported that sustainability of the ocean resources depended on policy and funding from foundations, governments and multi-lateral funding agencies.

2.3.2 Economic development and Strategic planning

Doloreux and Richard (2018) reviewed Canada's ocean super cluster strategy launched by the Federal Government in 2018, they explained what was Canada's ocean strategy and why it mattered for innovation and economic development. The aim was to improve the effectiveness of policies aimed at supporting maritime innovation and economic development of coastal regions.

The importance of blue economy development in China had been used not only as the alternative economic model but also as a tool for sustainability. According to R. Zhao et al., (2014), China embarked on a five-year strategic plan between 2011 to 2015 for national and social development of the ocean economy as a national strategy for the country. The objective was to determine the value of major ocean industries in China for the mentioned period. The findings revealed that China contributed \$239 billion USD and created employment opportunities of 9 million individuals, also this was affirmed by the study by C.S. Colgan (2007). For instance, in 2000 and 2011, X.-Z. Jiang et al. (2014) asserts that Chinese marine economy increased from 6.46% to 13.83%. According to X. Wang et al. (2016), the study shows water foot print policies between 1997 to 2007 in China decreased and this was attributed to decomposition of

sectoral connection, technology, gross economic scale, economic structure, and population.

Rahman (2017) asserts that the government in Bangladesh lacked strategic planning to aid the sustainable exploitation of blue economy resources.

2.3.3 European Union's Integrated Maritime Policy

Queffelec et al., (2009) asserts that the EU had been very active in enhancing the integrated coastal zone management and in developing the framework for an integrated maritime policy. The research further found that reviews of status of marine biodiversity in the policy and legal framework had been a challenging issue to both the objectives of conservation and the concept of integration.

Wakefield (2010) undertook a research on the integrated maritime policy in the EU. The Integrated Maritime Policy was to coordinate sectoral policies, to achieve joined up thinking and overcome inconsistency between policy approaches that had led to degradation of European seas. The greater impediment found was subjection of fisheries policies to the objectives of the Integrated Maritime Policy. This research concluded that acquiring shared values was necessary to concur with objectives of the Integrated Maritime Policy.

Fritz et al., (2015) on their study for the European's integrated maritime policy for the next five years found out that since the launch of IMP for the last seven years, it was just work in progress. They further supported that two weaknesses related to impaired sectoral nature priority setting and strategy making and concluded their study that a tool had to be found and be implemented to achieve the aim of the integrated maritime strategy.

The research by Pinto et al., (2015) advocates that the European Policy emphasis on blue economy and its relevance was going beyond the traditional economic sectors, hence, the new and developing sector had exhibited rapid growth. It further indicated that focus had been on emergence and consolidation of maritime clusters. Analysis through survey on blue economy organizations in Portugal, Spain, Ireland and Scotland used the variables of innovation, human capital and social capital to form a basis for clustering maritime. The findings revealed that participation in innovation

activities and absorptive capacity were critical for increasing cooperation. However, discrepancies in participation of sectors were revealed and the research recommended focus on core activities.

The ocean plays a fundamental role in the wake of increased demand for renewable energy resources from waves, heat, tides and currents as mentioned by Young (2015). The study further revealed that offshore energy was still at its infancy stages and proposed that with right conditions, the contribution to global energy mix would be great. The paper further highlighted that barriers such as resource and user conflict, regulatory complexity, limited understanding of environment impact, ocean governance challenges had hampered development. The research recommended marine spatial plan as a practical tool for rational use of oceans.

Banousis et al., (2016) asserts that Greece's blue economy was aligning to EU concept both as a tool for development and economic transformation with focus on EU's strategy to enhance EU blue economy growth. Survey was conducted to determine contribution of Greek private and public economic sectors. The findings revealed the level of engagement with social cooperatives and current scepticism towards blue economy growth.

Navies et al., (2017) focused on Mediterranean Sea importance on maritime transport for economic development. The study further focused on assessment of legal and policy framework, how it is developed and regulated. The paper reviewed existing policies. The effectiveness of the policy was analysed regarding maritime transport through combination of social, economic and environment analysis. The contribution of the research contributed to more integration of strategic planning and broader EU initiative to maritime transport and assisted to establishing framework for blue economy.

Also, Dorota et al., (2018), argues that marine spatial plan (MSP) was a fundamental tool for sustainable management of human activities in the marine environment. It reports that, a correlation exists between MSP and the development of offshore renewable energy in countries like Germany, the Netherlands and United Kingdom.

The study by Anton and Gasparotti (2018) on Romanian nearshore on Blue Economy Concept focused on identification of economic pressures on environmental factors in Romania Coastal Zone. The emphasis on Integrated Coastal Zone Management (ICZM) and Marine Spatial Planning (MSP) were significantly highlighted as tools for sustainable conservation and efficient use of resources. It also focused on an integrative approach for traditional, non-traditional and emerging economic sectors to ensure sustainable development. The study used “Black Sea” as case study and presented concepts for sustainable development.

2.4 Research Gap

The literature reviewed had shown that blue economy had significant impact on the economy additionally it had focused on the challenges facing the sector. The literature had emphasized the need to have a well-planned policies and good governance in order to support the sustainability of the blue economy. The roles of stakeholders in supporting the development of the coastal and economic development through participation and involvement had been emphasized as well as recommendations aimed at increasing cooperation between the state agencies.

Whilst several research had been conducted in various aspects to do with blue economy as empirically supported by the aforementioned discussions on case studies focusing on various pertinent issues; such as coastal zone management, marine spatial planning, Ocean Governance, Maritime Transport, maritime clustering, renewable energy, role of stakeholders in blue economy growth, sustainability, strategic planning, innovation and blue economic growth, the Integrated National Maritime Policy cannot be under estimated since overlaps exist in the policy framework both legal and regulatory in bringing general coherence in sectoral policies for the sector of the blue economy. The European Union launched their Integrated Maritime Policy strategy in 2007 to assist in bringing coherence in the blue economy sector for the last 12 years and challenges still exist as some of the countries in the Union were trying to embrace IMP with an aim to achieve the EU 2020 Strategy.

According to the United Nations Economic Commission of Africa’s report of 2016, Eastern Africa had failed to achieve growth with sustainable and inclusive

development which was compounded by traditional and non-traditional blue economy sectors. It further asserts, that there needs to be better alignment between different blue economy sectors for greater coherence between schemes and initiatives, these findings align with Wakefield (2010) research on IMP for the European Union.

Several studies have been conducted touching on various aspects of the blue economy in Kenya but no research had been conducted touching on the role of Integrated National Maritime Policy in bringing coherence in the blue economy especially on legal and regulatory frameworks, governance, financial and sustainable exploitation to enhance development of Kenya's blue economy sectors; Coastal Maritime Tourism, Maritime Transport and Ports, Fisheries and Aquaculture, Marine Biotechnology and Bio-prospecting and Ecosystem Based Management thus, the gap for the research.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology that was adopted by the researcher while undertaking the research study. It covered the following distinct areas; research design, conceptual framework, study area, research instruments, population of the study, demographic information, validity and reliability, data analysis, ethical issues and research limitations.

3.2 Research Design

The researcher employed both qualitative and quantitative methods for analysing the problem under investigation. For qualitative analysis the researcher used thematic content analysis to analyse the data whereas the quantitative data was analysed using descriptive statistics. According to Yilmaz (2013) the choice for quantitative data analysis allows the researcher to use pre-constructed standardised instrument or pre-determined response categories into which participants give varying perspectives and experiences. Qualitative data analysis allows participants to communicate their experiences of a phenomenon in their own words. The two design methods were chosen because they were considered more appropriate.

3.3 Conceptual Framework

Guba and Lincoln (1989) asserts that a conceptual framework is a research tool that is intended to assist a researcher to develop awareness and understanding of the situation under scrutiny and communicates it. Mugenda and Mugenda (2003) further explains that a variable is a measurable characteristic that assumes different values among the subject. A dependable variable is a variable of primary interest to the researcher. An independent variable is the one that influences the dependent variable either a positive or negative way. The Independent variable of this study was Integrated National Maritime Policy for Sustainable Blue Economy and dependent variables being:- Coastal Maritime Tourism, Maritime Transport, Ports and related services, Fisheries and Aquaculture, Marine biotechnology/bioprospecting and Ecosystem Based Management as shown in figure 3.1.

Independent Variable

Dependent Variable

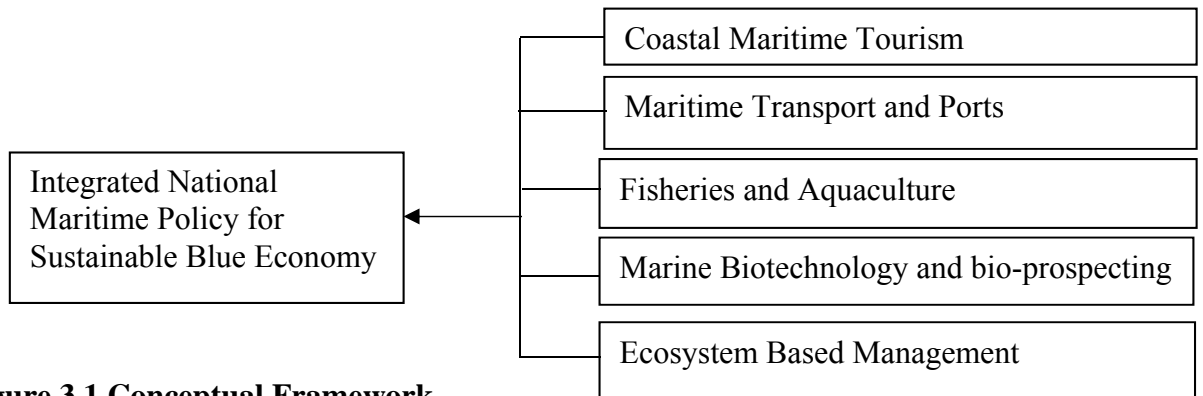


Figure 3.1 Conceptual Framework

Source: Author

3.4 Study Area

The researcher undertook the study in the pertinent State Departments and Agencies in Kenya which were responsible for the implementation of the Blue Economy activities. They were the following; the State Department of Shipping and Maritime, State Department for Transport, State Department for Fisheries and Blue Economy and their State Agencies namely; Kenya Ports Authority (KPA), Kenya Maritime Authority (KMA), Kenya Ferry Services (KFS), and Kenya Marine and Fisheries Research Institute. They were chosen as every policy change affect their operations and thus their participation in this survey was critical to give an in-depth study that would give reputable findings.

3.5 Research Instruments

The researcher chose open ended questions, this allowed respondents to give their detailed explanations on issues in which opinions were sought, this allowed people to show how they make sense of the world around them and their experiences according to Yilmaz (2013). Further the researcher, chose closed ended questions and this assisted the researcher to identify a general pattern of participant's reactions to a treatment or a programme. The choice of both close and open-ended questionnaire was

effective as it would enable the researcher to receive feedback in a more detailed manner for the generalisation of the findings.

3.6 Population and Sample Size of the Study

According to Robinson (2014) a researcher should have a tentative number in mind prior to the study. The researcher targeted all State entities from the blue economy sector. The study concentrated on State Department of Shipping and Maritime/Transport, State Department of Fisheries and Blue Economy focusing on four agencies under them which play a direct or indirect role in the development of the blue economy namely; Kenya Ferry Services, Kenya Marine and Fisheries Research Institute, Kenya Ports Authority and Kenya Maritime Authority. Senior management officers who comprised of management and supervisory were identified through simple random sampling, since it was expected that the players had relevant and accurate information needed in this study. This ensured that they provided detailed information to assist the development of the research since they were well aware of the issue under investigation towards the sustainability of the blue economy.

With a study population of 39 officers and a confidence interval of 95%, a sample size of 35 respondents was calculated from the formula below as suggested by (Saunders, Lewis, & Thornhill, 2007). The distribution of questionnaires from each of the agencies were sent via the google form.

$$n = \frac{N}{1 + N(\alpha)^2}$$

Where n= the sample size

α =margin error (0.05%)

N=sample frame

A sample size of 35 was arrived as follows

$$n = \frac{39}{1 + 39(0.05)^2}$$
$$= 35$$

With a sample of 35 respondents, the respondents were apportioned on the four agencies. Mugenda (2008) notes that for a sample to be a good representative of the population it should be at least 10 percent of the target population. Table 3.1 below shows the target population and sample size.

Table 3.1 Target population and Sample Size

Category	Target Population	Calculation	Sample Size
KFS	7	$35/39*7$	6
KEMFRI	11	$35/39*11$	10
KMA	13	$35/39*13$	12
KPA	8	$35/39*8$	7

3.7 Demographic Information

3.7.1 Gender and age of respondents

The study targeted 35 respondents, however, those that responded were 32 as shown in Appendix 2 Fig. 3.2 which was represented by 19 males and 12 females both representing 61.3% and 38.7% respectively and only one person did not indicate his/her gender. Majority of this respondents were in age bracket of 46 years and above representing 40.63% and age 36 – 45 representing 37.50% while age 26 – 35 was represented by 21.78% as shown in the tabulation below

Table 3.2 Distribution of the respondents by their age

Age	Frequency	Percentage
26 – 35	7	21.87%
36 – 45	12	37.50%
46 Years and above	13	40.63%
TOTAL	32	100%

3.7.2 Academic qualifications

Figure 3.3 on appendix 2 represented the academic qualifications of the respondents for the study, where master had the highest number of 23 respondents represented by 72%, followed by bachelors with 8 respondents representing 25% while PhD had one respondent representing 3% respectively.

3.7.3 Distribution of Respondents per the Ministry

The respondents indicated the Ministry they work in as per table 3.3 below. Majority of the respondents were drawn from State Department of Maritime and Shipping

Affairs and Transport as compared to State Department of Fisheries and Blue Economy.

Table 3.3 Distribution of Respondents as per the State Departments

Name of the State Department	Number of Staff
State Department of Shipping and Maritime/Transport	23
State Department of Fisheries and Blue Economy	4
Did not indicate the department	5
Total	32

3.7.4 Distribution of Respondents as per the State Agencies

n=32,

The table below indicates the number of respondents as targeted from the State Agencies as shown in table 3.4 below

Table 3.4 Respondents from State Agencies

Agency	Frequency	Percentage
Kenya Ferry Services Limited (KFS)	5	15
Kenya Marine Fisheries and Research Institute	9	27
Kenya Maritime Authority (KMA)	11	37
Kenya Ports Authority (KPA)	7	21

3.7.5 Number of years worked in State Departments by respondents

Figure 3.6 in Appendix 2 showed that majority of respondents had worked in the State Departments and agencies more than 5 years and above. This implied that majority had spent considerable period in these organizations and therefore well versed regarding the area of research.

Table 3.5 Number of Respondents showing number of years Worked

Number of Years Worked	Number of Staff
Ten years and above	12
7 years	6
5 years	1
Below Five years	13

3.8 Validity and Reliability of Research Instruments

Prior to final issuance of the research questionnaire to the respondents, a pilot test was carried out where ten people were issued with the questionnaire to test its validity and reliability. This ensured that errors, misunderstanding and ambiguity had been removed to ensure consistency in results of the questionnaire Jonsen & John (2009). However, these 10 respondents were not included in the final survey.

3.9 Data Analysis

The researcher collected the data and edited it to check for errors, omissions or any other inconsistencies before analysis. This ensured completeness and accuracy of information filled in the questionnaires. The information was uploaded on excel sheet, this ensured that information that was collected was to be analysed simultaneously as alluded by (Vaismoradi, Trumen & Bandas, 2013) also, Stockdale (2002) and Watkins, (2012) support that excel is affordable and user friendly as compared to other alternatives that are equally expensive, Stockdale further argues that a researcher may use a variety of specialized data collection software to organize and a separate programme to analyse the data. Kupzyk and Kohen, (2015) alludes that a researcher using excel is able to manipulate the format of each document to produce a design conducive to research requirements. Ryan and Benard (2003) highlights that a researcher can create themes, codes and meaning with research by identifying single words and phrases colour to correlate similar information in the literature and conceptual framework. Yilmaz (2013) asserts that the researcher should avoid opinions and conclusions and data driven themes that might resonate in getting biased conclusions or personalized opinions as per the researcher's point of view.

3.10 Ethical Issues

The researcher ensured that ethics had been strictly adhered to particularly when dealing with respondents. The researcher obtained ethical clearance to undertake the research from World Maritime University's Research Ethics Committee. The researcher, obtained a written consent from respondents by filling the WMU Research Ethics Committee Consent Form attached herein as appendix 1. The respondents were assured of anonymity and confidentiality of the information disclosed since it was strictly meant for purposes of research only. Koskei and Simiyu (2015) identified in their literature that more often researchers abuse this consent by exposing the respondent's privacy and further recommended that consent should be maintained throughout the research process.

CHAPTER FOUR

DATA COLLECTION, ANALYSIS AND PRESENTATION

4.1 Introduction

The chapter discussed the analysis, interpretation and presentation of findings obtained from online questionnaires from State Departments and Agencies in Kenya. The analysis of the data obtained was based on the objectives of the study. Qualitative data was analysed using content analysis whereas quantitative data was discussed using descriptive statistics where frequencies, percentages guided the researcher to interpret the data.

4.2 Response Rate

The study targeted a sample size of 35 respondents; however, 32 respondents returned the online filled questionnaire making a response rate of 91 % percent as shown in table 4.1. This response rate was satisfactory and representative to make conclusions for the study. According to Mugenda and Mugenda (1999), a response rate of 50% is adequate for analysis and reporting; rate of 60% is good and a response of 70% and above is excellent. Based on the assertion, the response rate was considered excellent.

Table 4.1 Return Rate

	Frequency	Percentage
Total no of questionnaires Returned	32	91%
Total no of questionnaires not returned	3	9%
TOTAL	35	100%

4.3 Analysis of the Research Findings

4.3.1 Prioritization of the IMP

The Integrated Maritime Policy (IMP) was identified as an overarching tool that would bring coherence in policy making in the maritime sector by the fact that many institutional, legal and regulatory frameworks regulate the sector and many departments and agencies have an oversight role hence conflicts arise often while discharging their mandates; these findings were corroborated with Wakefield (2010) on European Union's maritime sector. Fifty-six percent as shown in table 4.2 of

respondents agreed that while developing policies impacting maritime, there was need to prioritize the IMP as it would ensure coherence and drastically reduce conflicts that would arise between departments and agencies. Further, the conceptual framework underscores that to have a sustainable blue economy, the sectors of the blue economy on the Legal, Regulatory and Institutional frameworks must be centrally coordinated by Integrated National Maritime Policy to avoid competing factors between State Departments and Agencies responsible for blue economy which corroborates the institutional theory that suggests of external factors that affect organizations must be taken care of by entrenching the policies and regulations to guide government structures in achieving sustainable blue economy.

Table 4.2 Prioritization of IMP

Expression of Opinion	Frequency	Percentage	Cumulative
2 - Agree	18	56.25	56.25
3- Uncertain	4	12.5	68.75
5 - Strongly Agree	10	31.25	100

4.3.2 Government Initiatives in Policy Making and Resource Allocation

Again, respondents challenged that Government should sponsor enough bills where 31.3% observed that the Government did not sponsor bills to make it part of its national agenda as shown in table 4.3 Also, 70% of respondents did not agree that there was a budget for blue economy activities although it is small and does not cover the wide array of many activities within the sector as shown in table 4.4, hence staff within the State Departments and Agencies should be made aware of the existence of this budget allocated for blue economy to enhance their participation and contribution.

Table 4.3 Government Sponsorship of Bills for IMP

Rate	No. of Respondents	Percentage
2 - Agree	12	37.5%
3- Uncertain	10	31.3%
4 - Disagree	7	21,9%
5- Strongly Agree	3	9.4%

Table 4.4 Response on Budget

Rate	No. of Respondents	Percentage
No	21	70%
Yes	9	30%

The other issues were; First, lack of enough resources coupled with lack of personnel with technical knowledge and expertise in the sector has led to delay in setting up of the INMP.

Secondly, there is limited engagement and information sharing among State Departments due to duplication of roles and mandates in the maritime sector. Majority of the respondents, that is, 87.4% agreed that prioritizing the IMP would bring coherence and eliminate overlaps in policy making and execution of mandates.

Thirdly, the Integrated Transport Policy was last reviewed in 2009 and primarily catered for roads, railways, aviation, maritime and pipelines. Owing to the fact that it had many stakeholders and there has been advances in technology, there is need for review to have an independent Integrated National Maritime Policy to address maritime transport and this cannot be over emphasized.

Forth, there is need for an agreement of all stakeholders in the sector to have a meeting that could give strategic direction that the country could follow by creating synergy and support with the private sector, both local and foreign stakeholder and government.

Finally, continuous sensitization and awareness among the stakeholders was necessary on exploitation and sustainability. Stakeholders had a big role when it comes to implementation, therefore involving them in participation of various blue economy activities would make them feel that they are part of the transformative agenda.

4.3.3 Progress made in the Blue Economy

Greater strides had been made by the Government towards the realization of blue economy agenda. To begin with, the Government established the State Department of Fisheries and Blue Economy to drive blue economy initiatives in 2016. In 2017, the Executive Order No.1/2016, Blue Economy Implementation Committee was

established by His Excellence the President of the Republic of Kenya. This Committee was given a mandate to oversee successful implementation of blue economy initiatives. A number of meaningful progress had been realized such as establishment of Kenya Fisheries Advisory Council, Kenya Fisheries Service, Fisheries Marketing Authority, establishment of the Kenya Coast Guard, launching a new Institution for maritime training, Bandari Maritime Academy and re-establishment of Liwatoni Jetty. This had created employment opportunities, stabilized the economy through foreign exchange earnings and led to improvement of livelihood of communities living along the Coastline.

Also in the budget for the financial year 2017/2018, 143 billion was set aside for bankable projects for the blue economy. There was also donor funding through World Bank projects on various aspects of the blue economy being carried out in the Coastal region and the Inland. Again, the Government having realized the immense benefits of the sector, blue economy was made a stand-alone sector under the economic pillar in the Third Medium (MTP III) of the Kenya Vision 2030 which is the country's long term economic blue print. Finally, the State Department for Shipping and Maritime had created vote heads for Shipping and Maritime for supporting blue economy activities.

4.3.4 Challenges in the Blue Economy Sector

Despite these tangible achievements there were challenges to the sector as mentioned by the respondents. Owing to the vastness of the maritime sector which was highly regulated by international regulations/treaties, regional agreements/laws, National Laws, often conflict of interest arise when it comes to oversight roles between departments and agencies which leads to failure in achieving strategic goals set by the Government in harnessing the blue economy resources to spur growth and development. Hurdles stand on implementation because of silo management, compartmentalization, duplication of resources and limited or lack of sharing of information that impacts the sector.

Also on budget allocation, the departments that were dealing with blue economy initiatives were given a meagre budget that would not achieve meaningful

development for the sector. Again, the training institutions for maritime and fisheries are very few and they did not have the necessary facilities to produce the human resource needed for the maritime sector in large numbers. This was supported by the respondent's views on being asked whether the training institutions were adequate whereby 16.1% noted that there were no adequate training institutions as shown in table 4.5 below and represented in Fig 4.4 Appendix 2. Respondents further indicated that the necessary infrastructure required to serve the blue economy sector was still not adequate for the success of the blue economy which serves both sea and land activities which require capital investment as represented by 53.1% of the respondents in table 4.6 and represented in Fig 4.5 Appendix 2. Further, there was lack of synergy, strategy and action plan which should be engraved and reflected in the vision and mission statements for State Agencies currently dealing with harnessing the potentials of the blue economy.

Table 4.5 Training Institutions of Maritime and Fisheries

Opinion	Number of Respondents	Percentage
Yes	26	16.1%
No	5	83.9%

Table 4.6 Development of Infrastructure for the BE

Opinion	Number of Respondents	Percentage
Yes	15	46.9%
No	17	53.1%

4.3.5 Sustainable Exploitation of Ocean Resources

For most developing and developed nations, the policies on exploitation and sustainability were balanced and were deemed to be the best practices, in this regard, the respondents were asked questions on how they viewed blue economy in their own way. Sixty-three percent of respondents concurred that they were very much aware of sustainability and exploitation of blue economy resources, 46.9% of respondents also agreed that maritime was considered as component of economic development, 25.4%

and 54.8% respectively agreed that there was a connection between maritime resource exploitation and sustainability policies, 65.4% of respondents agreed that blue economy was a current concern, 48.4% respondents agreed that there was a connection between maritime legal policies and sustainability, 54.8% respondents expressed little opinion that blue economy did not have its worthiness, 75% respondents agreed that their State Departments and Agencies had direct interest in blue economy, 65.6% observed that their Agency/State Department had never made any benchmarking activity, 93.8% of respondents agreed that private sector was represented in the Blue Economy initiatives through collaboration. 84.4% of respondents agreed that sustainable exploitation was influencing development as supported by opinions from respondents on tables 4.7 to 4.15 in the aforementioned discussion as well as presentation of the same with bar and pie charts from Figure 4.6 to 4.14 on Appendix 2.

Table 4.7 Maritime Economy as component of economic development

Rate	No. of Respondents	Percentage
Very Much	15	46.9%
Moderate	13	40.6%
A little	4	12.5%

Table 4.8 Connection between maritime resource exploitation and policies

Rate	No.of Respondents	Percentage
Very Much	8	25.4%
Moderate	17	54.8%
A little	6	19.4%

Table 4.9 Harnessing the Maritime Resource as a Current Concern

Rate	No. of Respondents	Percentage
Moderate	8	25%
Very Much	21	65.4%
A little	3	9.4%

Table 4.10 Relationship between maritime legal policies and sustainability policies

Rate	No. of Respondents	Percentage
Moderate	12	38.7%
Very Much	15	48.4%
A little	3	9.7%
Very Much	1	3.2%

Table 4.11 True Worthiness of Blue Economy

Rate	No. of Respondents	Percentage
Moderate	10	32.3%
Little	17	54.8%
Very Much	3	9.7%
Not at all	1	3.2%

Table 4.12 State Department/Agency Interest to BE

Rate	No.of Respondents	Percentage
Moderate	7	21.9%
Little	1	3.1%
Very Much	24	75%

Table 4.13 Benchmarking by Ministry/Agency

Opinion	Number of Respondents	Percentage
Yes	11	34.4%
No	21	65.6%

Table 4.14 Representation of Private Sector in BE

Opinion	Number of Respondents	Percentage
Yes	30	93.8%
No	2	6.3%

Table 4.15 Sustainable Exploitation of Resource to Influence Development

Opinion	Number of Respondents	Percentage
Moderate	5	15.5%
Very Much	27	84.4%

From the analysis on percentages, it could be deduced that blue economy issues had been given priority in the Government Departments/Agencies since it was above 50% on average, only that some issues impacting the sector were being given less concern hence need to fast-track them in order to achieve sustainable development in the blue economy sector.

4.3.6 Blue Economy Best Practices

Other best practices highlighted by the respondents included; reviewing of existing transport, maritime and fisheries policies that had remained un reviewed due to rapid changes in the legal, regulatory and institutional frameworks to address the emerging issues and adopt best international standards in eliminating policy overlaps domiciled in different agencies of the blue economy to save on duplication of resources and roles. Also, respondents suggested that during budget making process, there was need to allocate enough resources to develop and expand ports, fish markets, fish auction centres, jetties and landing sites, fish factories, ship building and repair, substructure and superstructure which was critical for the development of a robust maritime and fisheries industry.

Again, seeking global partnerships through Memorandum of Understanding that would see the shipping industry that used to perform in the maiden years, restored

through technology transfer. Also partnering with neighbouring States in combating Illegal, Unregulated and Unreported (I.U.U) fishing, thus boost the fisheries industry by reducing overfishing. This would lead to sustainable fishing activities that would increase revenue for those engaged in sanctioned and legal fishing business. This would translate to job opportunities thus increasing per capital income.

The respondents suggested the involvement of the local stakeholders during the rolling out of the government projects. This ensured that collaboration was enhanced through buy in of ideas and enhances sustainability and continuity. It would as well provide and create a platform that government would engage with stakeholders with a view to exchange ideas and further propose areas for improvement.

The respondents further suggested developing and maintaining functional maritime infrastructure, support and implementing of cross cutting issues, multi-sector and multi-disciplinary research and clear communication networks across the public stakeholders.

Developing of maritime and fisheries training institutions and ensure availability of infrastructure, facilities and qualified and competent teaching staff. This would translate to development of the human resource capacity necessary for the development of the blue economy.

Enhancement of sensitization workshops between the Government and the local communities particularly those that are bordering the waters and encourage them on sustainability issues and the harmful effects of climate change. This would create awareness and assist in mitigating the effects that come as a result of the human economic activities.

Development of maritime museums that coming generations could have opportunity to see and recognize the trends that the maritime and fisheries industry had undergone over decades. This would help people recreate history and also make people associate well with the sector and also act as a source of inspiration for the young growing generation that would wish to pursue fisheries and maritime careers.

4.3.7 Capacity of the blue economy to build livelihoods

32 respondents representing 100% agreed that blue economy had capacity to build livelihoods since they were the immediate beneficiaries of government interventions for people living along the Coastline. The subsequent question was open ended in which the researcher further sought detailed explanation on how. The researcher analysed the feedback using content analysis by developing themes alongside the various responses. The following were the themes from the responses:-

Respondents confirmed that a sustainable blue Economy had the capacity to create employment opportunities both in the fisheries and maritime sectors especially boat and ship building and repair. Through these, there is generation of income and economic growth. This would be enhanced through Government investment in deep sea fishing using modern fishing gear as opposed to traditional means as well as sensitizing the fisheries on sustainability, for instance, by ensuring proper disposal of waste hence protect marine biodiversity.

Fish farmers would immensely benefit from capacity building seminars that will impart skills and knowledge on sustainable practices that will go a long way in preserving ocean resources.

Ports are located along the Coastline which offers immense employment and business opportunities to the people along the Coastline. However, this calls for skilled and semi-skilled labour. The most important of all is the political goodwill and support that would make this happen and this calls for creation of a forum where the Government interacts with local stakeholders in finding solutions to bridge the knowledge gap through creation of specialized institutions.

4.3.8 Government Initiatives and Collaborations on the Blue Economy

The researcher sought from the respondents whether the Government was collaborating with stakeholders on Blue Economy Initiatives.

Table 4.16 Government Collaboration with stakeholders

Views	Number of Respondents	Percentage
2 – Agree	16	51.61%
3 – Uncertain	3	9.68%
5- strongly agree	12	38.71%

Table 4.16 above demonstrates that majority of respondents agreed that the Government was collaborating with stakeholders in championing the blue economy initiatives. Also, stakeholders plays a fundamental role during implementation of the blue economy activities thus Government should foster partnerships that would lead to the success of the Government projects.

4.3.9 Opinions regarding Legal framework in the Agency

The responses were qualitative in nature, the researcher analysed the feedback of answers using content analysis by developing themes alongside the various responses; For the respondents that Strongly agreed and agreed, it is evident that the Kenya Government had recognized blue economy by making it a stand-alone sector under the economic pillar in the Third Medium (MTP III) of the Kenya Vision 2030 which was the country’s long term economic blue print. Also, they indicated that Government had made commitments by appointing the blue economy implementation committee to implement and oversee blue economy initiatives by the Government, out of which many gains had been realized, this starts with the establishment of the Kenya Coast Guard, Kenya Fisheries Advisory Council, Fisheries Marketing Authority, Kenya Fisheries Service, reinstatement of Wanainchi Marine and restructuring of Kenya National Shipping Line.

The respondents that disagreed and uncertain highlighted that the law on blue economy was highly fragmented in various Government State Departments and Agencies therefore, they recommended coming up of a legislation that would address the issue comprehensively and in this case INMP. They indicated that the country lacked the strategy and action plan towards exploitation of the sea resources and the assimilation of the framework had not been reflected within the agencies mission statements.

Again, they highlighted that Integrated National Transport Policy (INTP) required a review as it mentioned sectors of the blue economy but did not provide a strategic action plan for operationalization. The full implementation of the Integrated Transport Policy (ITP) of 2009, would by greater extent address Blue Economy matters that were not adopted. This calls for proper mapping out of functions of institutions and synergy among various institutions that execute roles related to the realization of Blue Economy. Additionally, silo operation of State Departments and Agencies created obstacles for realization of the blue economy framework. Suggestion to bring all parties together to share a common vision was significantly highlighted instead of focusing on fragmented projects which had less economic impact, thus, setting up the INMP was critical.

4.3.10 Details on Budgetary allocation by Agencies

The researcher asked respondents to give further detailed explanations if they responded in the affirmative or contrary. The question was analysed using thematic content analysis and the following were the key findings.

The respondents who responded in the affirmative, indicated that the maritime transport report of 2018 had indicated Kshs. 143 billion for bankable projects in the blue economy sector. State agencies received donor funding from the World Bank which enabled them implement research projects with greater impact on the blue economy initiatives. State Department of Fisheries and Blue Economy had provided in its budget 1 Billion to support activities of the Blue Economy whereas State Department of Shipping and Maritime Affairs had created two Heads on its budget for Shipping and Maritime both which support Blue Economy initiatives.

The respondents who indicated no, reported that IMP had been transferred severally to many State Departments and that limited funding to develop the Integrated National Maritime Policy as well as having the Integrated Maritime Policy being domiciled in different State Departments was a major obstacle. This was also supported by little importance being given to the sector particularly on resource allocation which is less to realize its full potential.

4.3.11 Challenges to commencement of the Integrated National Maritime Policy

The researcher sought from respondents on the challenges to commencement of the Integrated National Maritime Policy. The feedback was analysed qualitatively using content analysis and arranged into themes;

First, lack of resources as well as lack of technical knowledge and expertise in the industry were highlighted as limiting factors in setting up the Integrated National Maritime Policy. Secondly, there were conflicting mandates executed by different government state departments/agencies with oversight role in the maritime sector which often leads to duplication of roles and resources. This puts legal hurdles within agencies, which limit their engagement with other stakeholders in the sector. It was suggested that an enactment of supervening and supportive legal framework to guide the national process of integration should be fast-tracked.

Thirdly, too many stakeholders were involved in the Integrated Transport Policy (ITP) which caters for roads, railways, aviation, maritime and pipelines. The policy remains un reviewed since 2009 further complicating the realization of INMP. Therefore, a stand-alone policy was suggested through INMP which would be drafted and peer reviewed by the interested parties.

Forth, the need for stakeholders to have a forum to set a strategic action plan for the country was crucial. This has to do with involving all stakeholders that the sector impacts to enhance goodwill between the stakeholders and the Government through buy in of ideas.

Fifth, sensitization and awareness for the stakeholders was necessary, as they carry a big role particularly when it comes to real implementation, this makes them feel part of the process hence dedicate their time and energy in realization of the government goals.

4.3.12 Practices that would sustain the maritime sector in Kenya

The researcher sought from respondents to state some of the best practices that would sustain the maritime sector in Kenya. The question was analysed using qualitative thematic content analysis:-

The respondents suggested the reviewing of existing transport, maritime and fisheries policies that remained un reviewed for a very long time, for instance, the Integrated Transport Policy of 2009 which had remained the same for a very long time making some of the provisions obsolete. Due to rapid changes in policy framework, the need for review was in the right direction to address the emerging issues and adopt best international standards in eliminating/reducing policy overlaps domiciled in different sectors of the blue economy to save on duplication of resources.

Also, respondents suggested that during budget making process, there was need to allocate enough resources to develop both sea and land transport infrastructure that are critical for the development of a robust maritime and fisheries industry.

Again, seeking global partnerships through Memorandum of Understanding that would see the shipping Industry which used to perform in the maiden years being revived as well as partnering with neighbour States in combating Illegal, Unregulated and Unreported (I.U.U) fishing. This would boost the fisheries industry by ensuring there was enough catch for those engaged in business. This would translate to improved living standards due to an increase in per capital income through creation of employment opportunities.

Additionally, the respondents suggested the involvement of the local stakeholders during the rolling out of the government projects, this ensured that forged collaboration is enhanced through buy in of ideas. This ensures project sustainability and continuity. consequently, it would as well provide and create a platform that government would engage with stakeholders with a view to exchange ideas and further propose room for improvement.

The respondents further suggested developing and maintaining functional maritime infrastructure, support and implementing of cross cutting issues, multi-sector and multi-disciplinary research and clear communication networks across the public stakeholders.

Developing of maritime and fisheries training institutions to ensure that they had the right infrastructure, acquiring the right teaching staff that are competitive for teaching.

This would translate to development of the human resource capacity necessary for the development of the blue economy.

Enhancement of sensitization workshops between the Government and the local communities particularly those that are bordering the waters and encourage them on sustainability issues and the harmful effects of climate change. This would create awareness and assist in mitigating the effects that come as a result of the human economic activities.

Development of maritime museums that coming generations could have opportunity to see and recognize the trends that the maritime and fisheries industry had undergone over decades. This would create lasting impressions that would always make people associate well with the industry and also act as a source of inspiration for the young growing generation that would wish to pursue fisheries and maritime careers in their life time.

4.3.13 Extent of awareness by citizen to exploit blue economy resources

Finally, respondents were asked by the researcher whether the citizenry was aware of exploitation of the blue Economy resources by use of government support/initiative in harnessing the benefits, n = 32.

Table 4.17 Awareness on Exploitation of BE by use of Government Initiatives

Opinion	Number of Respondents	Percentage
A little	16	50%
Moderate	14	43.75%
Very Much	2	6.25%

The Government should enhance effort in terms of making its citizens to be aware of the initiatives that it offers to enable them get access to this assistance in terms of promoting the blue economy activities thus contribute to the successful implementation.

CHAPTER FIVE

SUMMARY OF FINDINGS

5.1 Introduction

This chapter presents the summary and discussion on key findings and focused on addressing the objectives of the study. The study was intended, first, to establish why the Integrated National Maritime Policy had never been jump-started in the maritime sector, secondly, to examine the success levels of pertinent sectors of the blue economy and challenges facing them, and finally to identify best practices that can be borrowed from developed maritime nations and cross cutting issues in the maritime sector for sustainable exploitation of blue economy resources.

5.2 Prioritization of the Integrated National Maritime Policy

The results show that the government agencies had made concerted efforts in prioritizing the jump-starting of the Integrated National Maritime Policy in bringing coherence whilst developing related policies to avoid overlaps. Majority of the respondents indeed agreed that efforts had been made. This is critical in developing the blue economy. The results were consistent with literature which acknowledges that to achieve integrated approach and improved governance, the use of Integrated National Maritime Policy as tool would offer solutions to oversee overarching issues that arise in the institutional, legal and regulatory regimes to enhance successful implementation of the sustainable blue economy. Additionally, the results were consistent with institutional theory which notes that, for the blue economy to succeed, there is need for policies and regulations. Indeed, the external factors were found to affect decision making. Concurring with Delmas and Toffel (2013), the author found out that the institutional theory was concerned with external forces on the organizational decision-making process with emphasis on the role of socio-cultural practices that are imposed on the organizations that influence on the practices and structures. Further the conceptual framework underpins that all sectors of the blue economy should be closely coordinated due to the fact that a number of legal, regulatory and institutional framework developed by the sectors of the blue economy affect the operations of one sector or another and thus synergy and cooperation

between state departments and agencies responsible for blue economy is important to ensure joint approach in a number of issues that affect operations. This would lead to sharing of information that is critical and impacts the sector to eliminate silo mentality and compartmentalization. First, results revealed some of the impediments to the jumpstarting of the Integrated National Maritime Policy as lack of the technical capacity of the State Departments and Agencies that are responsible for implementation of the blue economy initiatives which had made State Departments and Agencies not to create a framework for starting the INMP. Secondly, the budget was inadequate from treasury to support in creating structures for jumpstarting the INMP and the willingness of stakeholders to determine the strategic direction the maritime sector would take through cooperation and sharing of information that impacts the sector. Finally silo mentality, compartmentalization of state departments and agencies has denied a platform to create synergy and agreement towards realizing the INMP.

5.3 Challenges due to lack of an IMP in the maritime sector

On regard to whether the blue economy had the capacity to build livelihoods, the results show that all the respondents agreed that indeed it had created jobs and had contributed to capacity building and education. The results were consistent to the literature which notes that, the blue economy had contributed to the GDP in terms of coastal maritime tourism, Maritime transport and port, Fisheries and aquaculture, marine biotechnology and bio prospecting. However, it was faced with challenges including weak law and regulations, over-reliance on traditional source of markets, unimplemented standardization guidelines for tourist facilities, inadequate research on tourism which concurs to the literature. Additionally, pollution and lack of modern technology has had negative effects to the blue economy. Also, lack of technical capacity in the areas of marine biotechnology and bio-prospecting were identified as some of the challenges that had greatly hindered the developing states as these ocean resources were existing but technical capacity to enhance these resources was missing and that developed countries were only giving adhoc trainings that would no longer sustain the capacity building. Again marine scientists were leaving to greener pastures

owing to the fact that terms of the service were not attractive to retain them in the service thus affecting operations in the marine sector as alluded by the world bank report on Small and Island Developing States. For instance, the results show that there are not enough legislations and bills to enhance jump starting of IMP with those disagreeing and uncertain above 50% suggesting that the lack of full potential exploitation of blue economy resources is a result of lack of proper policy framework. The results are consistent with the study by Bell et al, (2015) who notes that effective fisheries governance should be key to accelerate blue economy. The results were consistent with a study by Sarker et al., (2018) in Bangladesh who established that the economic value and potential of blue economy, would be developed if there was a well-developed management framework. For instance, Duru Okan (2014) argues that the concept of maritime governance without a government could be thought as a driving force for the future. It further adds that, deregulation and hollow-out framework governance for developed and developing countries should focus on soft power administration and the role of expert power as well as referent power to mainstream the maritime industry.

Collaboration with stakeholders in spearheading the blue economy was found to be critical with majority agreeing that the agencies were working together with the government. The results corroborate the study done by Brian (2018) who argues that stakeholders were critical and had a role to play in the development of the blue growth. In addition, the results show that due to lack of the Integrated National Maritime Policy in the maritime sector, policy overlaps exist and as a result there was no greater coherence in policies impacting the sector this aligns with the findings by Wakefield (2010) on European Union's Integrated Maritime Policy. This would directly or indirectly affect the maritime sector for lack of common understanding and sharing of information between State Departments and Agencies undertaking oversight roles.

5.4 Best Blue Economy Practices

Some of the notable best practices undertaken in successful maritime nations to guide the blue economy sustainability and cross-cutting issues were considered. The results show that budget allocation for blue economy initiatives in Kenya was inadequate,

successful maritime nations had given huge budgets in priority areas for the blue economy which translated to economic growth, creation of employment opportunities as well as food security. Kenya should provision enough resources to the blue economy sector if it wants to tap the blue economy resources to spur economic growth. Again Kenya should adopt best policies and regulations to guide the blue economy sector through close linkages between the State Departments and Agencies that are responsible for blue economy implementation, by reviewing policies that have never been reviewed to match with the current trends of the blue economy development. Also, development of infrastructure was key for developing and developed maritime nations, compared to Kenya's infrastructure which is less developed, thus Kenya should provision resources for developing the robust infrastructure to support blue economy initiatives which is critical for the success of the maritime sector. Again, neighbouring countries had entered into MOUs to control their operations jointly particularly on blue resources by sharing and exchanging of information as well as combating I.U.U fishing in their territorial jurisdictions. This will ensure that fisheries industry would be sustainable through enhancing operation to control illegal fishing and sustain indigenous species that have been overfished for years. Additionally, through sensitization on matters of blue economy would lead to empowerment of local communities with knowledge and skills to mitigate climate change as a result of economic activities by human beings. Finally, the country should give priority to research and development, developed countries undertake accelerated research with a few to identifying phenomenon to mitigate future effects to the maritime sector that can have adverse effect to slow the economic development.

CHAPTER SIX

CONCLUSION & RECOMMENDATIONS

6.1 Conclusions

The chapter presents the conclusion and recommendations of the research analysis. Blue Economy sector had played a significant role in Kenya's economy. The blue economy sector had long remained unknown, but owing to the immense benefits it had provided from Coastal Maritime Tourism, Fisheries and Aquaculture, Maritime Transport and Ports, Marine Biotechnology and Bio-prospecting and Ecosystem Based Management, it is becoming a new economic frontier.

This sector had contributed to creation of employment opportunities, Improvement of food security, Increased foreign exchange earnings through remittances and taxes, and improvement of livelihoods. The nature of the sector is that, it is highly regulated by International Laws/Convention/Treaties, Regional Laws/Agreements/MoUs, and National Laws.

In the dispensation of mandates of various State Department and Agencies; there arises conflict of interest that had brought hurdles in administration of the institutional, legal and regulatory frameworks which has led to lack of sharing of information, silo management and compartmentalization. This often leads to lack of achievement of common goals and duplication of resources. The Government has been addressing various challenges affecting the sector, however the Institutional, Legal and Regulatory frameworks had teething challenges in regard to sustainable exploitation of the blue economy resources.

To come up with a supervening legislation, a well-integrated governance framework would help to accommodate and resolve conflicts between the vast range of marine-related interests and values, and could highlight any trans-boundary implications of maritime developments. The goal here was to develop governance policies that are effective and efficient to strengthen existing governance mechanisms thus contributing to the jumpstarting of the Integrated National Maritime Policy in Kenya.

Finally, for blue economy to be successful the need to strike the balance between exploitation and sustainability cannot be under-estimated. Kenya needs to adopt the best international practice and standards in regulating the blue economy sector in order to realize its full potential.

6.2 Recommendations

The following are the recommendations to the Government of Kenya concerning the blue economy: -

Fragmented sectoral management of maritime affairs exists in Kenya. This however was deemed inadequate. A key to successful jumpstarting of the INMP was to build on what already exists, improve and integrate management of maritime affairs thus making it more efficient and effective.

Implementation of the INMP requires an orderly process of planning and assessment, consultation and collective decision making, policy making, coordination and management. Starting of the INMP must be guided by a high-level government entity. This was required to ensure the necessary high level engagement and to establish effective coordination mechanisms with other competent entities and the nation at large;

Improvement of infrastructure necessary for the sustainable blue economy which gives rise to a robust maritime and fisheries industry;

Improvement of maritime and fisheries training institutions; this would produce the necessary human capital needed for the blue economy activities through capacity building;

Entering into Memorandum of Understanding with neighbouring states in controlling Illegal, Unregulated and Unreported (I.U.U) fishing happening in the EEZ hence sustainable fisheries industry;

Lobbying and soliciting of enough budgetary allocation to fund blue economy activities from the Government Treasury; however, this should be supplemented with proper monitoring and evaluation systems to account for resources used and realized objectives;

Sensitization and Awareness among the local stakeholders of the blue economy sector and this ensures that there is buy in of ideas which build the transformative agenda;

Provisioning of enough funds for research and development; this would ensure that emerging issues are taken care of through research which provides insight thus development of mitigation measures to predictable future problems;

Establishment of a museum for maritime where the heritage of the nation could be show-cased, this would ensure that future generations would get an opportunity to see the earlier history of maritime/fisheries;

Undertaking benchmarking activities with the developing and developed nations with a view to borrow best practices and entrench them into the systems towards the success of the blue economy sector;

Inclusion of private sector in the discussions on how to link the blue economy resources to the right markets. This gives private sector an opportunity to invest in the sector.

6.3 Limitation of the Research

There was limited time and resources during the study hence the use of Google Forms to administer the study questionnaires since the researcher was in Sweden while the targeted respondents were in Kenya. The targeted number of respondents was not achieved during the study, the researcher intended to get a target of 35 respondents, however those questionnaires that were returned were 32 online questionnaires and they had minor omissions though these did not influence the final results. Among organizations that were targeted, some did not respond with adequate respondents.

6.4 Areas for further Research

The subject of the Blue Economy had remained widely discussed in International Forums and Conferences and it forms a new discourse onto which a lot of research has to be conducted to give insight on the underlying issues. An area for further research would involve research work to understand the challenges facing donor funding on Blue Economy initiatives in Kenya.

References

- Anton, C., & Gasparotti, C. (2018). Introducing the Blue Economy concept in the Romanian nearshore. *Risk in Contemporary Economy*, 281-289.
- Appeltans, W., Ahyong, S. T., Anderson, G., Angel, M. V., Artois, T., Bailly, N., ... & Błażewicz-Paszkowycz, M. (2012). The magnitude of global marine species diversity. *Current biology*, 22(23), 2189-2202.
- Arnaud-Haond, S., Arrieta, J. M., & Duarte, C. M. (2011). Marine biodiversity and gene patents. *Science*, 331(6024), 1521-1522.
- Banousis, D., Kyriazi, Z., & Bourtzis, T. (2016). Social economy as a key factor for enhancing Blue Growth in Greece: a conceptual perspective. *AIMS Environmental Science*, 3(4), 815-826.
- Bell, J. D., Allain, V., Allison, E. H., Andréfouët, S., Andrew, N. L., Batty, M. J., ... & Harley, S. (2015). Diversifying the use of tuna to improve food security and public health in Pacific Island countries and territories. *Marine Policy*, 51, 584-591.
- Bennett, N. J. (2018). Navigating a just and inclusive path towards sustainable oceans. *Marine Policy*, 97, 139-146.
- Cicin-Sain, B., VanderZwaag, D. L., & Balgos, M. C. (2015). *Routledge handbook of national and regional ocean policies*. Abingdon, Oxon: Routledge.
Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=nlebk&AN=1086838&site=eds-live&scope=site&custid=ns056238>
- Ciołek, D., Mateczak, M., Piwowarczyk, J., Rakowski, M., Szeffler, K., & Zaucha, J. (2018). The perspective of polish fishermen on maritime spatial planning. *Ocean & Coastal Management*, 166, 113-124.
doi://doi.org/10.1016/j.ocecoaman.2018.07.001
- Colgan, C.S. (2007). Measurement of the ocean and coastal economy: Theory and methods. National Ocean Economics Project, USA.
- Curtis, T. P., Sloan, W. T., & Scannell, J. W. (2002). Estimating prokaryotic diversity and its limits. *Proceedings of the National Academy of Sciences*, 99(16), 10494-10499.
- Clark Howard, B. (2018). *Blue growth: Stakeholder perspectives* doi://doi.org/10.1016/j.marpol.2017.11.002

- Delmas A.M and Toffel W.M (2005). Institutional pressure and environmental management. ISBER Publications.
- Doloreux, D., & Shearmur, R. (2018). Moving maritime clusters to the next level: Canada's Ocean Supercluster initiative. *Marine Policy*, 98, 33-36.
- Duru, O. (2014). Irrationality in politics and governance of maritime affairs: The collapse of sovereign maritime governance. *International Journal of E-Navigation and Maritime Economy*, 1, 48-59.
doi://doi.org/10.1016/j.enavi.2014.12.006
- FAO, F. (2012). The state of world fisheries and aquaculture. *Opportunities and Challenges. Food and Agriculture Organization of the United Nations*,
- Guba, E. G, and Lincoln, Y. S. (1989). *Fourth Generation Evaluation (I)*. Sage Publications.
- Islam, M. K., Rahaman, M., & Ahmed, Z. (2018). Blue Economy of Bangladesh: Opportunities and Challenges for Sustainable Development. *Advances in Social Sciences Research Journal*, 5(8).
- Jiang, X.-Z., Liu, T.-Y., & Su, C.-W. (2014). China' s marine economy and regional development. *Marine Policy*, 50, 227-237.
- Jonsen, K., & Jehn, K. A. (2009). Using triangulation to validate themes in qualitative studies. *Qualitative Research in Organizations and Management: An International Journal*, 4(2), 123-150.
- Koskei, B., & Simiyu, C. (2015). Role of interviews, observation, pitfalls and ethical issues in qualitative research methods. *Journal of Educational Policy and Entrepreneurial Research*, 2(3), 108-117.
- Kraft E.M and Scott R.F(2017). Public policy: Politics, analysis and alternatives. 6th edition. CQ Press.
- Kronfeld-Goharani, U. (2018). *Maritime economy: Insights on corporate visions and strategies towards sustainability*doi://doi.org/10.1016/j.ocecoaman.2018.08.010
- Kupzyk, K. A., & Cohen, M. Z. (2015). Data validation and other strategies for data entry. *Western journal of nursing research*, 37(4), 546-556.
- Mu, R., Zhang, L., Fang, Q. (2013). Ocean-related zoning and planning in China: A review. *Ocean& Coastal Management*, 82: 64–70.

- Mugenda, O. M. and Mugenda, A. G. (1999). Research Methods: *Quantitative and Qualitative Approaches*. African Centre for Technology Studies, Nairobi, Kenya.
- Mugenda, O. M. and Mugenda, A. G. (2003). Research Methods: *Quantitative and Qualitative Approaches*. African Centre for Technology Studies, Nairobi, Kenya.
- Mugenda, A. G. (2008). Social science research: Theory and principles. *Nairobi: Applied*.
- Niavis, S., Papatheochari, T., Kyratsoulis, T., & Coccossis, H. (2017). Revealing the potential of maritime transport for 'Blue Economy' in the Adriatic-Ionian Region. *Case studies on transport policy*, 5(2), 380-388.
- Okello, M. M., & Novelli, M. (2014). Tourism in the East African Community (EAC): Challenges, opportunities, and ways forward. *Tourism and Hospitality Research*, 14(1-2), 53-66.
- Partnerships in Environment Management for the Seas of East Asia (PEMSEA) (2012b) *Towards an ocean-Based Blue Economy: Moving Ahead with sustainable Development Strategy for the Seas of East Asia*, online <http://www.pemsea.org/publications/towards-ocean-based-blue-economy-moving-ahead-sustainable-development-strategy-seas-east> (accessed 9th November, 2014)
- Pinto, H., Cruz, A. R., & Combe, C. (2015). Cooperation and the emergence of maritime clusters in the Atlantic: Analysis and implications of innovation and human capital for blue growth. *Marine Policy*, 57, 167-177.
- Queffelec, B., Cummins, V., & Baily, D. (2009). Integrated management of marine biodiversity in Europe: Perspectives from ICZM and the evolving EU maritime policy framework. *Marine Policy*, 33(6), 871-877.
doi://doi.org/10.1016/j.marpol.2009.04.016
- Robinson, O. C. (2014). Sampling in interview-based qualitative research: A theoretical and practical guide. *Qualitative research in psychology*, 11(1), 25-41.
- Ryan, G. W., & Bernard, H. R. (2003). Techniques to identify themes. *Field methods*, 15(1), 85-109.
- Sarker, S., Bhuyan, M. A. H., Rahman, M. M., Islam, M. A., Hossain, M. S., Basak, S. C., & Islam, M. M. (2018). From science to action: Exploring the potentials of Blue Economy for enhancing economic sustainability in Bangladesh. *Ocean & coastal management*, 157, 180-192.

- Saunders, M., Lewis, P., & Thornhill, A. (2007). Research methods. *Business Students*.
- Stockdale, M. S. (2002). ANALYZING FOCUS GROUP DATA WITH SPREADSHEETS. *American Journal of Health Studies, 18*(1).
- Suttle, C. A. (2013). Viruses: unlocking the greatest biodiversity on Earth. *Genome, 56*(10), 542-544.
- Shkaratan, M. (2012). *Tanzania's Infrastructure - A Continental Perspective, World Bank Policy Research Working Paper*. Washington DC: World Bank
- UNCTAD (United Nations Conference on Trade and Development). 2016. *Review of Maritime Transport 2016*. United Nations, Geneva.
- UNECA (United Nations Economic Commission for Africa). 2016. Africa's Blue Economy: *A Policy Handbook. Economic Commission for Africa*, Addis Ababa, Ethiopia.
- Unit, E. I. (2015). Investing in the blue economy—growth and opportunity in a sustainable ocean economy. *Briefing Paper*,
- Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & health sciences, 15*(3), 398-405.
- Wakefield, J. (2010). Undermining the integrated maritime policy. *Marine pollution bulletin, 60*(3), 323-333.
- Wang, X., Huang, K., Yu, Y., Hu, T., & Xu, Y. (2016). An input–output structural decomposition analysis of changes in sectoral water footprint in China. *Ecological indicators, 69*, 26-34.
- Watkins, D. C. (2012). Qualitative research: The importance of conducting research that doesn't “count”. *Health Promotion Practice, 13*(2), 153-158.
- World Bank. (2012). *Inclusive green growth: The pathway to sustainable development*. World Bank Publications
- World Bank Report (2017). Blue Economy United Nations Conference on Trade and Development 2014a. Small Island Developing States: *Challenges in Transport and Trade Logistics. Background note to third session of Multi-Year Expert Meeting on Transport, Trade Logistics and Trade Facilitation*. Geneva, 24–26 November.

WTTC (World Travel and Tourism Council, 2016). Travel and Tourism Economic Impact Summary 2016.

Yilmaz, K. (2013). Comparison of quantitative and qualitative research traditions: Epistemological, theoretical, and methodological differences. *European Journal of Education*, 48(2), 311-325.

Young, M. (2015). Building the blue economy: the role of marine spatial planning in facilitating offshore renewable energy development. *The International Journal of Marine and Coastal Law*, 30(1), 148-174.

Appendix 1
Protocol



WMU Research Ethics Committee Consent Form

Dear Participant,

Thank you for agreeing to participate in this research survey, which is carried out in connection with a Dissertation which shall be written by the researcher, in partial fulfilment of the requirements for the degree of Master of Science in Maritime Affairs at the World Maritime University in Malmo, Sweden.

The topic of the Dissertation is ***“Harnessing the Potential of the Blue Economy for Kenya’s Sustainable Development”***

The information provided by you in this questionnaire will be used for research purposes and the results will form part of a dissertation, which will be published online and made available to the public. Your personal information will not be published. You may withdraw from the research at any time, and your personal data will be immediately deleted.

Anonymised research data will be archived on a secure virtual drive linked to a World Maritime University email address. All the data will be deleted as soon as the degree is awarded.

Your participation in the questionnaire is highly appreciated.

Student’s name	Enock Mong’are Okemwa
Specialization	Maritime Education and Training (MET)
Email address	w1701324@wmu.se

* * *

I consent to my personal data, as outlined above, being used for this study. I understand that all personal data relating to participants is held and processed in the strictest confidence, and will be deleted at the end of the researcher’s enrolment.

Name:
Signature:
Date:

Appendix 2

Count of 1. Please indicate your gender

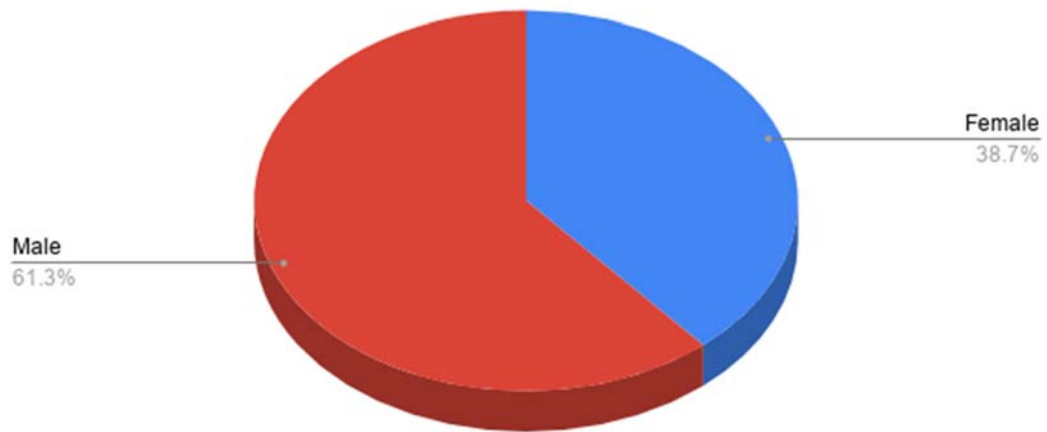


Figure 3.2 Gender of Respondents

Figure 3.2 showed that there were 19 males representing 61.29% and 12 females representing 38.71% respectively. The findings showed that majority were males implying that most of the organizations' managerial teams are dominated by males. One respondent did not indicate his/her gender.

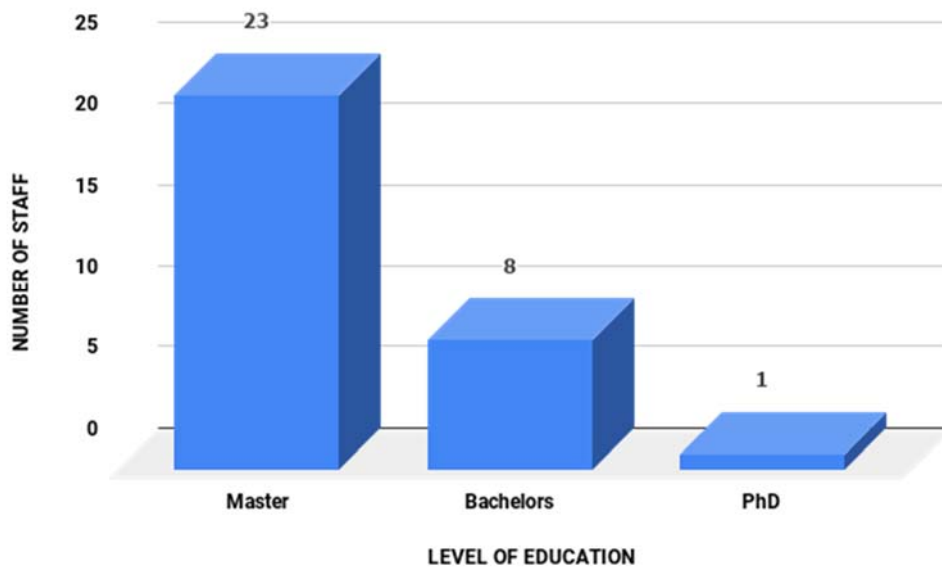


Figure 3.3 highest Academic level of Respondents

Figure 3.3 showed academic levels of the respondents where majority, 72% had a master, 25% degree, 3% PhD. This demonstrates that majority of the respondents had master degree certificate.

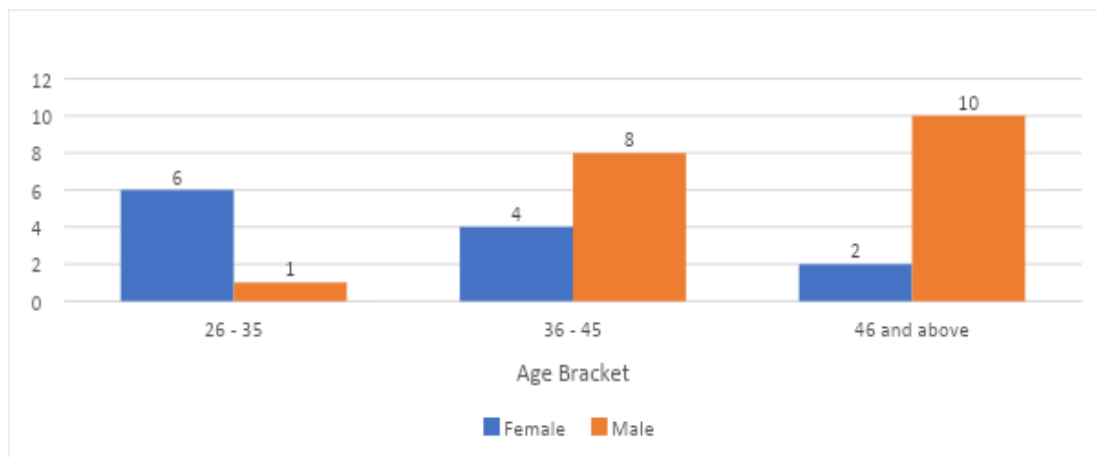


Figure 3.4 age and gender

Cross tabulation between age bracket and gender

n=32, Gender = 31

Age bracket	Female	Male
26 - 35	6	1
36 - 45	4	8
46 and above	2	10
Total	12	19

Figure 3.4 above demonstrates that majority of the men in the State Departments/Agencies were in the advanced age as compared to ladies who were relatively fewer in advanced age. This further indicates that the organization was male dominated as compared to women in the service.

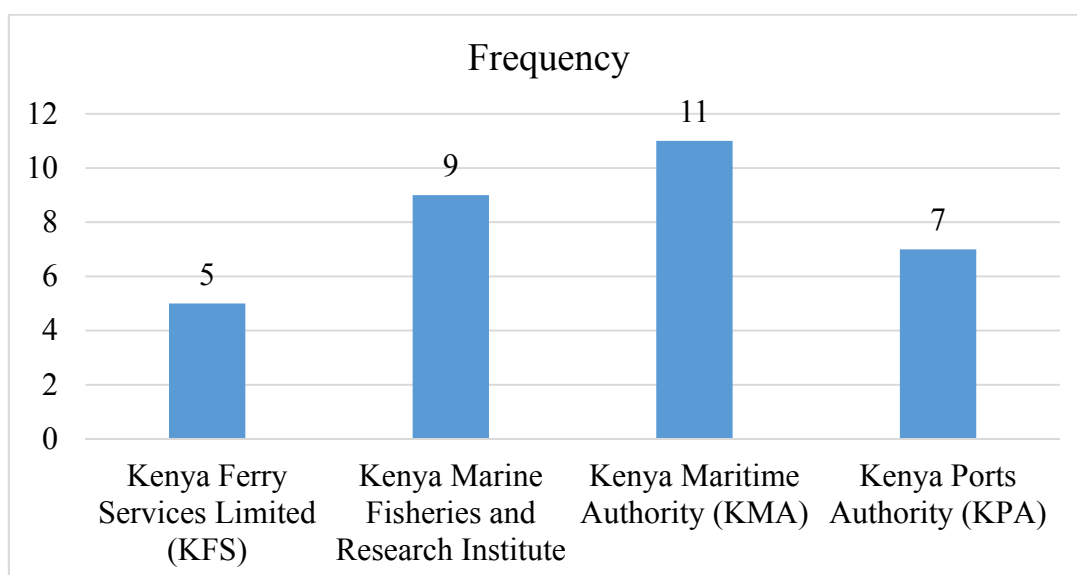


Figure 3.5 Affiliated state Agencies

The figure 3.5, showed that many respondents were from Kenya Maritime Authority representing 37 % followed by Kenya Marine Fisheries and Research Institute with 27%, Kenya Ports Authority with 21% and finally Kenya Ferry Service with 15%.

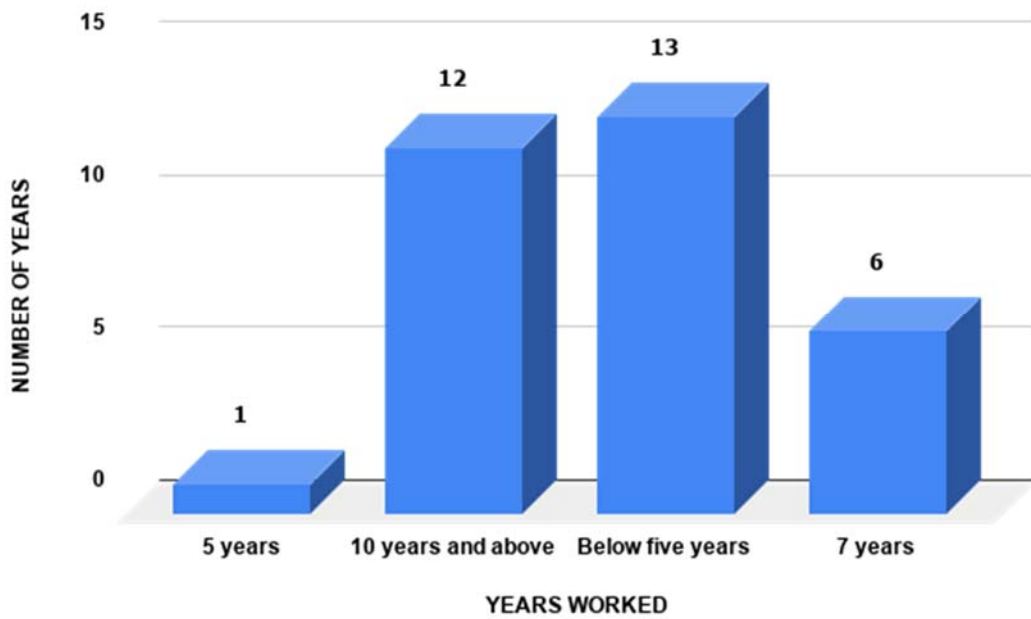


Figure 3.6 Years worked by Respondents

The Figure 3.6 presents the years worked in state Departments and Agencies by respondents, whereby 1 respondent had worked for five years, 12 respondents for 12 years and above 13 respondents below five years and 6 respondents for 7 years. It could be revealed majority of respondents had spent considerable period in this organization and were well versed with the subject under study.

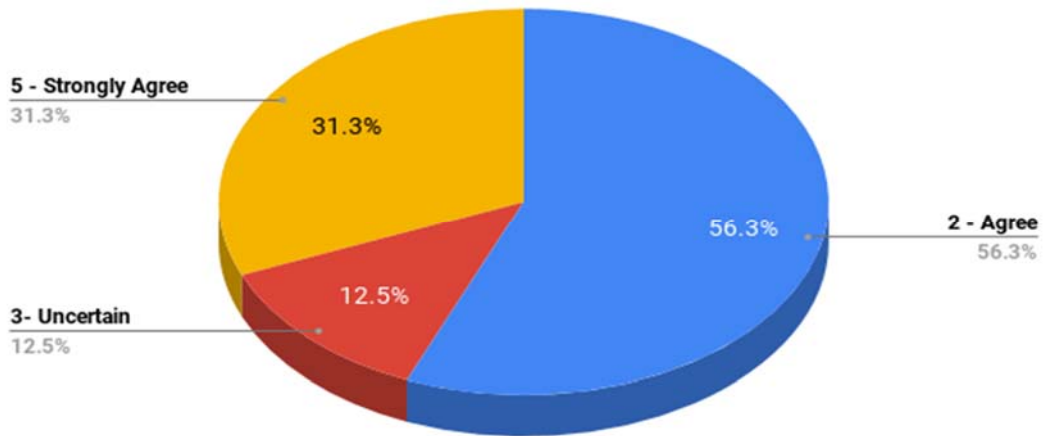


Figure 4.1 Prioritization of IMP

Figure 4.1, majority of respondents placed priority in jumpstarting Integrated National Maritime Policy. This would be supported by the Agreed opinion which represented 56.3% and Strongly Agree which equally had 31% compared to the uncertain figure of 12.5%. This means that priority should be given to jumpstarting Integrated Maritime Policy to avoid overlaps with other policies going forward in the maritime sector.

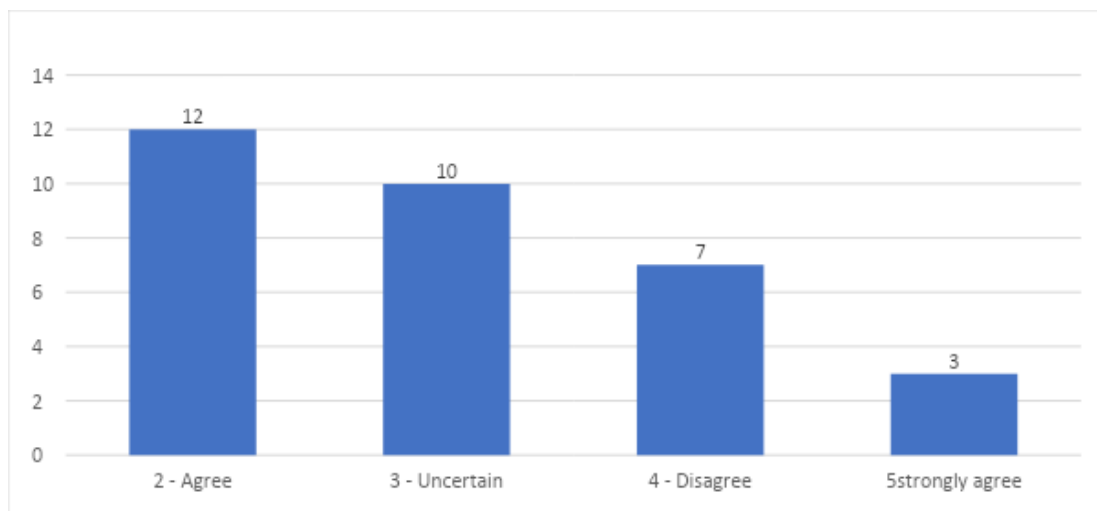


Figure 4.2 Government Sponsorship of Bills for IMP

Figure 4.2, majority of respondents disagreed that the Government was not sponsoring bills that support the Integrated Maritime Policy. The highest percentage of uncertain was 31.3%, followed by disagreed at 21.9% in which both combined would surpass the percentage of those who agreed at 37.5%. The Government through parliament should strategize towards making this a priority in the national agenda.

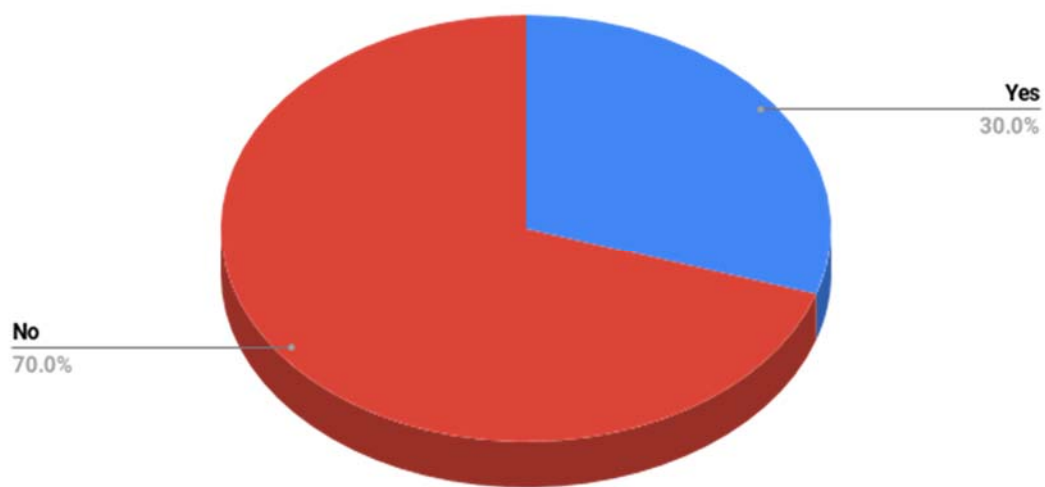


Figure 4.3 Budget Views

Figure 4.3, 70% of respondents noted that there was no budget item for IMP policy framework whereas 30% agreed that there was a budget. Considering that 70% was a high percentage, it implied that either there was no budget or the budget would be there and the staff in State Departments and Government Agencies were not aware about its use. Therefore, State Departments should make all staff aware of this budget to enable them contribute towards the realization of the set blue economy goals.

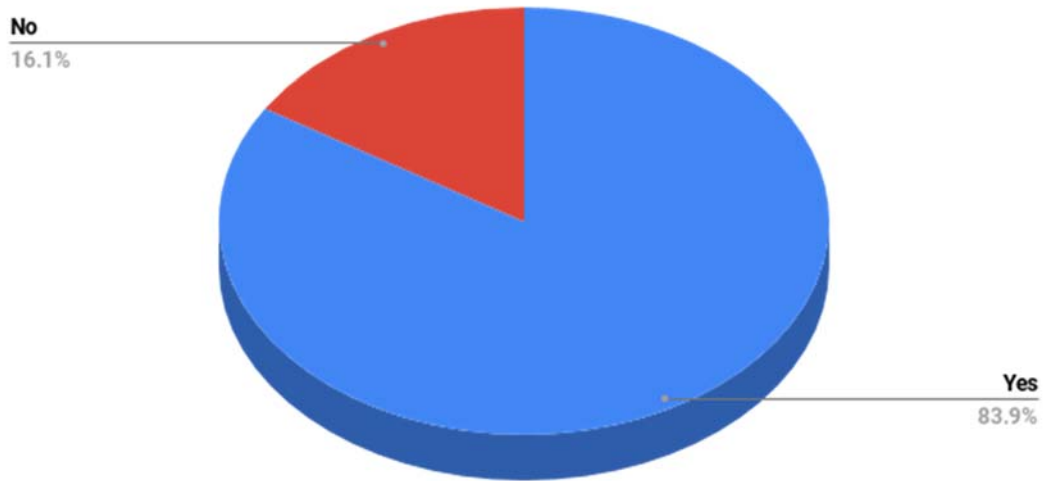


Figure 4.4 Training Institutions of Maritime and Fisheries

Figure 4.4, shows that there are institutions for fisheries and maritime training represented by 83.9% respondents and no responses were represented by 16.1%. This analysis gives an opportunity for the government to take stock of the current training institutions, establish their challenges and provide interventions that would see them develop capacity for the technical skills and competences that are required for the development of the maritime economy which would lead to the success of the blue economy.

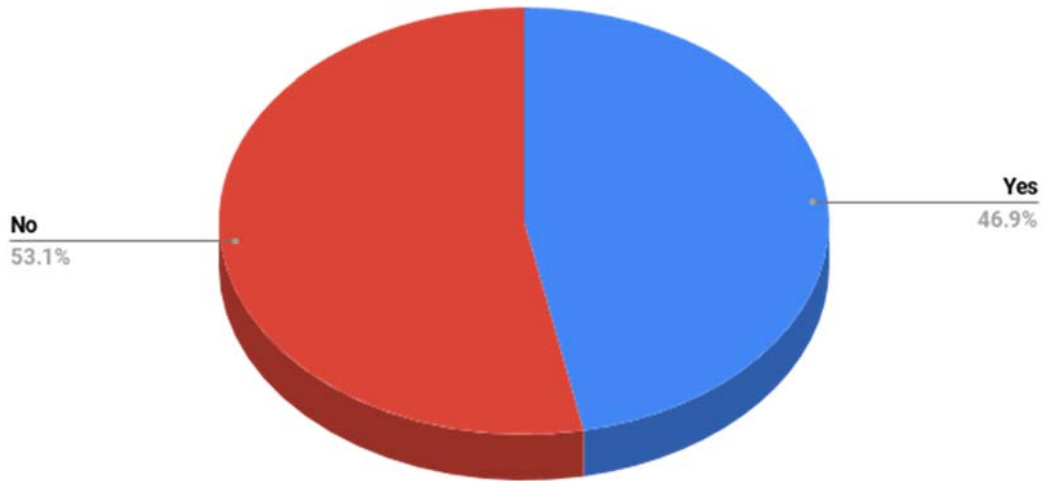


Figure 4.5 Development of Infrastructure for BE

Figure 4.5, 46.9% agreed that blue economy had the infrastructure to accommodate BE whereas 53.1% which was the highest, indicated that there was no infrastructure. This implied that for the success of any sector, infrastructure development was critical in order to achieve the anticipated goals. This gives opportunity for stock taking of the existing infrastructure in order to map out the kind of requirements needed on a priority basis to develop and this could range from maritime/fisheries as well as inland port developments which is an interface for the land and sea transport in the blue economy.

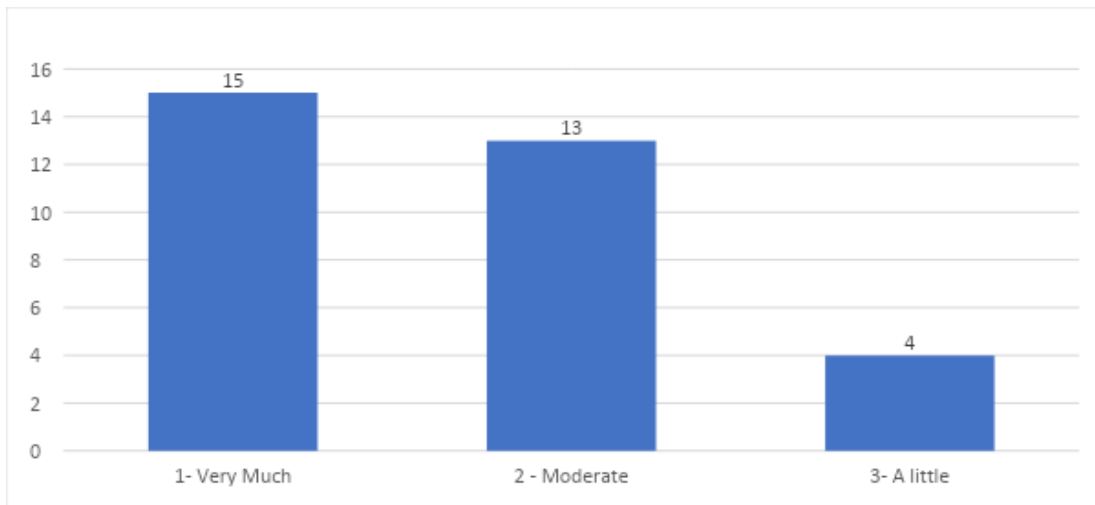


Figure 4.6 Maritime Economy

Figure 4.6, majority of respondents agreed that blue economy was considered a component of economic development in Kenya with by very much represented by 46.9% followed by moderate responses at 40.6% whereas 12.5% indicated that the blue economy had little impact on the overall economic growth of the country. This implies that the sector was given priority among other sectors by the Government.

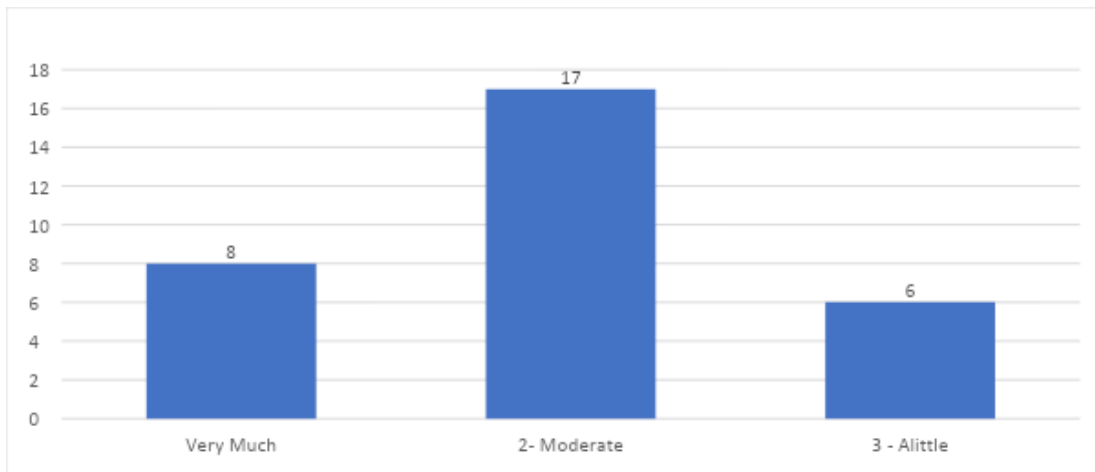


Figure 4.7 Maritime resource Exploitation connection with policies

Figure 4.7, shows responses in regard to the connection between maritime exploitation and policies. Very much and moderate responses were represented by 25.4 % and

54.8% respectively, whereas 19.4% represented a little. It could be deduced that maritime resource exploitation had connection with existing policies.

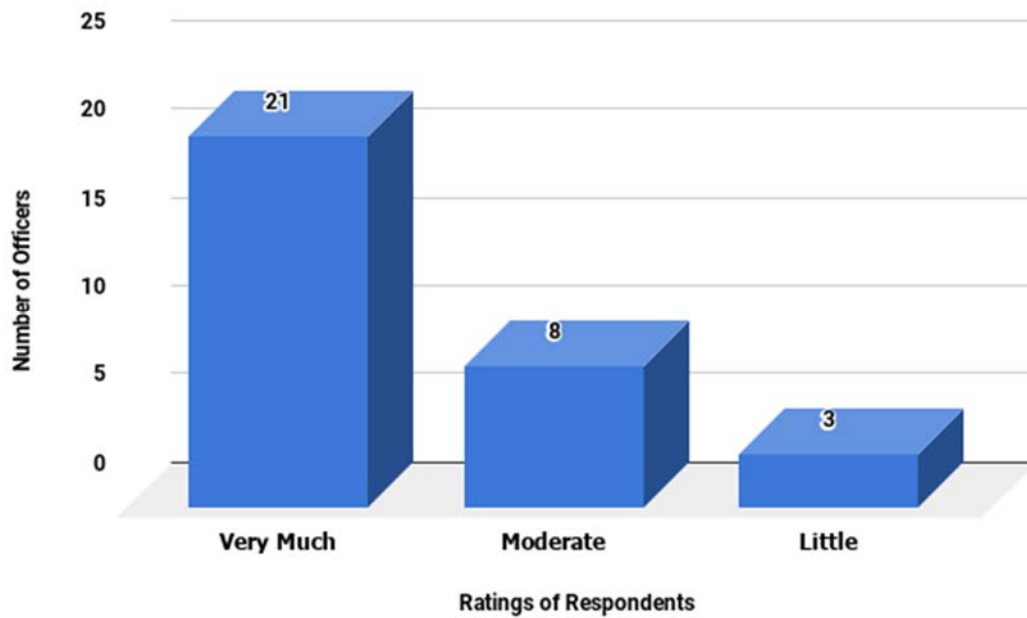


Figure 4.8 Maritime as a current concern

Figure 4.8, majority of respondents agreed that maritime was a current concern for Kenya as demonstrated by very much represented by 65.4% and moderate by 25% as compared to little which was 9.4% and did not have much influence on the findings. This implied that its indeed a current concern and should be given priority.

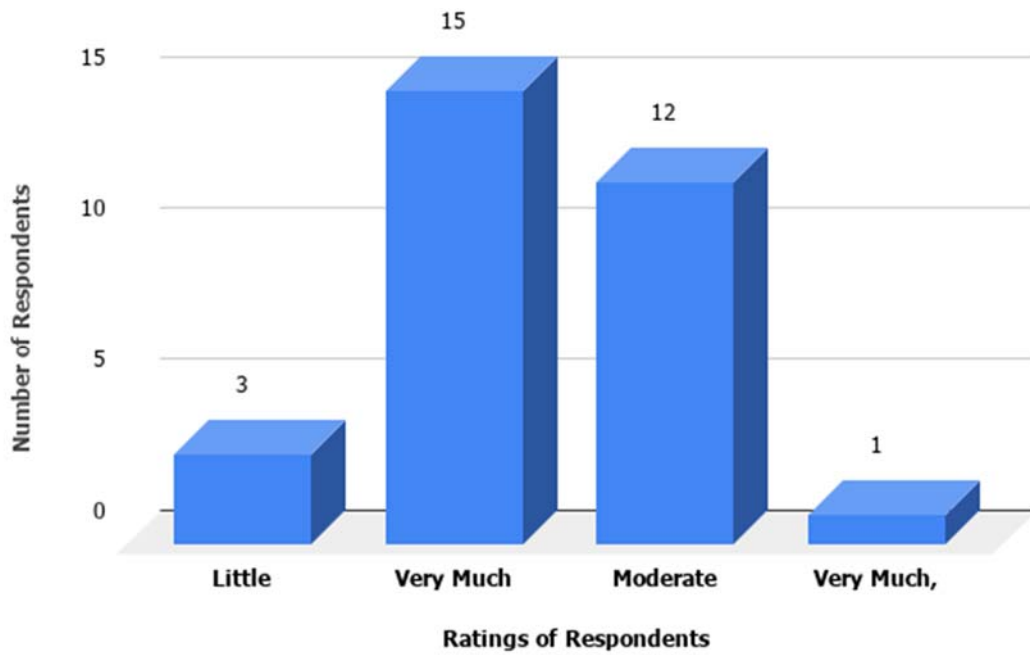


Figure 4.9 Maritime legal policies and sustainability

Figure 4.9, majority of respondents agreed that there was close relationship between maritime legal policies and sustainability as represented by 48.4% and 38.7% who indicated very much and moderate.

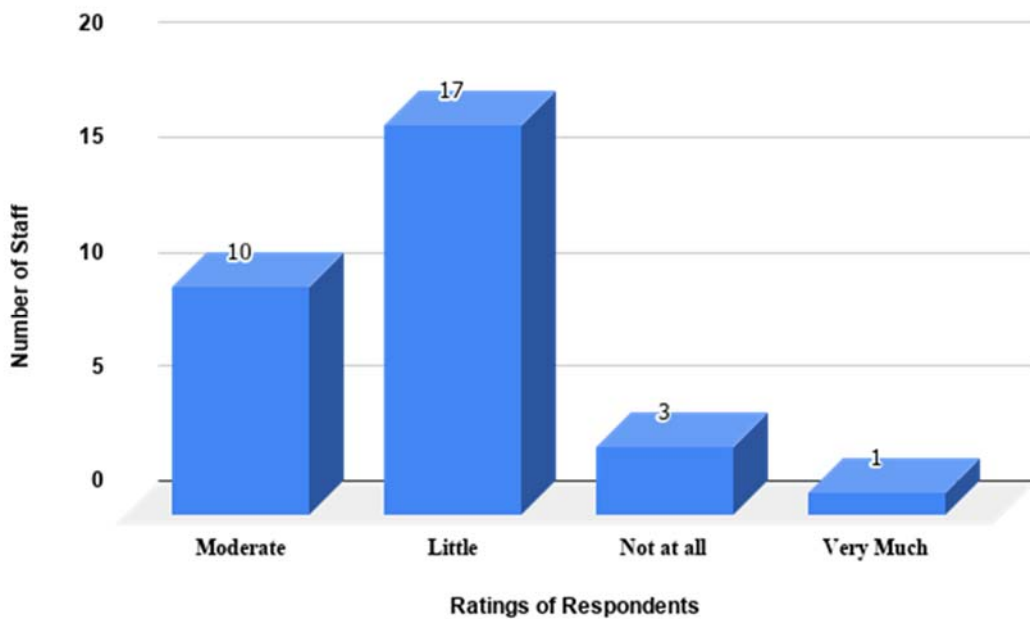


Figure 4.10 Blue Economy Worthiness

Figure 4.10, majority respondents noted that Kenya has not realized the true worth of the blue economy. This opinion was supported by 54.8% respondents who indicated Kenya had only realized a little worth of the blue economy and 32.3% who indicated moderate. The worthiness of the blue economy should be explored further.

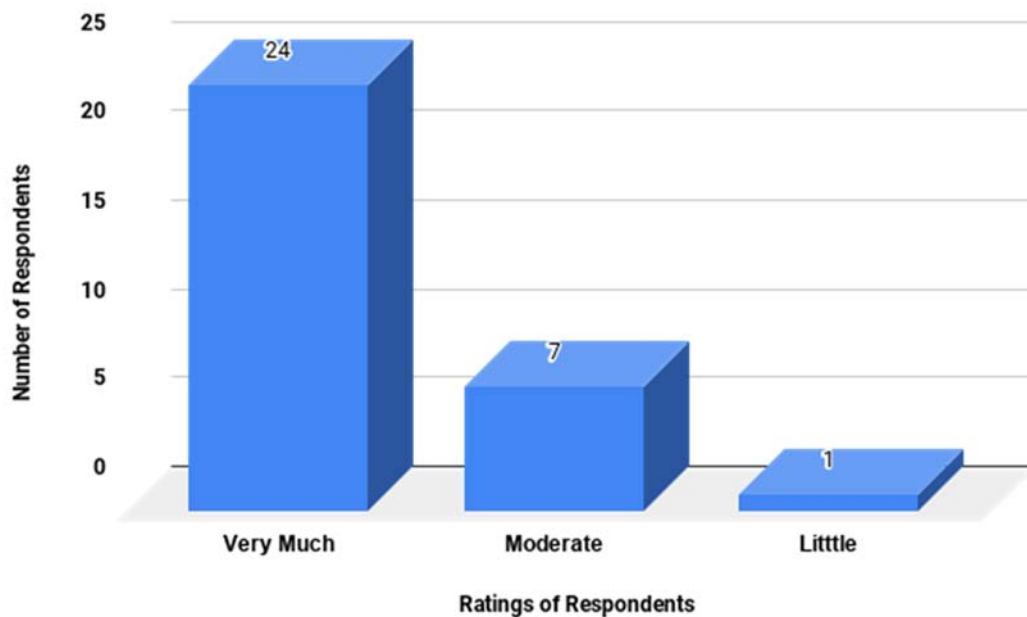


Figure 4.11 Interest in BE

Figure 4.11, majority respondents indicated that their State Departments/Agencies had direct interest in BE as represented by 75% and 21.9% of the respondents who indicated very much and moderate respectively. This shows that State Departments and Agencies dealing with issues of BE are committed towards the realization of its benefits at the same time pursuing its sustainability for future use.

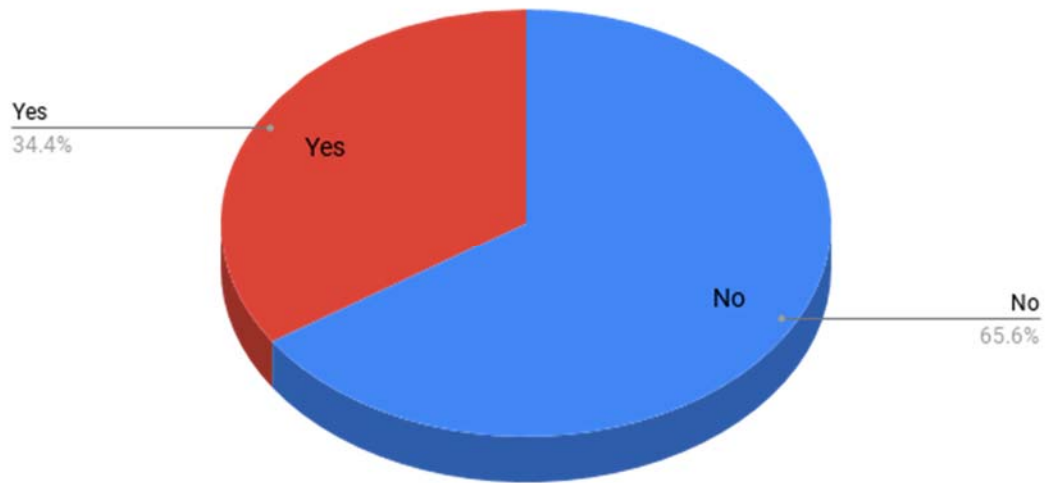


Figure 4.12 Benchmarking by Ministry/or Agency

Figure 4.12, 65.6% of respondents indicated that their organization had not made any benchmarking visiting on blue Economy in any country whereas 34.4% indicated yes. Considering that benchmarking was one of the key areas that assisted countries to borrow best practices and lessons for implementing into their local jurisdictions, there was need for Kenya to map out those developing and developed countries that had succeeded in Blue Economy with a view to identify, borrow and implement best practises and cross-cutting issues that might be helpful in enhancement of the sector.

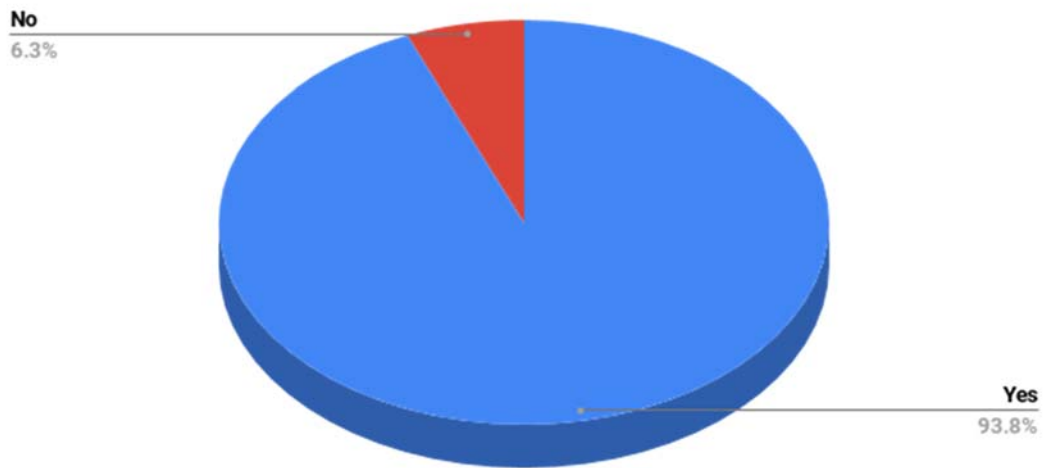


Figure 4.13 Private sector representation

Figure 4.13 shows that 93.8% of respondents agreed that blue economy initiatives were represented by the private sector whereas 6.3% disagreed. Considering the highest percentage that agreed, it implies that the role of private sector cannot be under-estimated especially when dealing with blue economy initiatives. These organizations assist in development of projects through their expertise and knowledge. The government should strive towards making partnerships that would see many projects sustained in the long run by forging unity with private organizations.

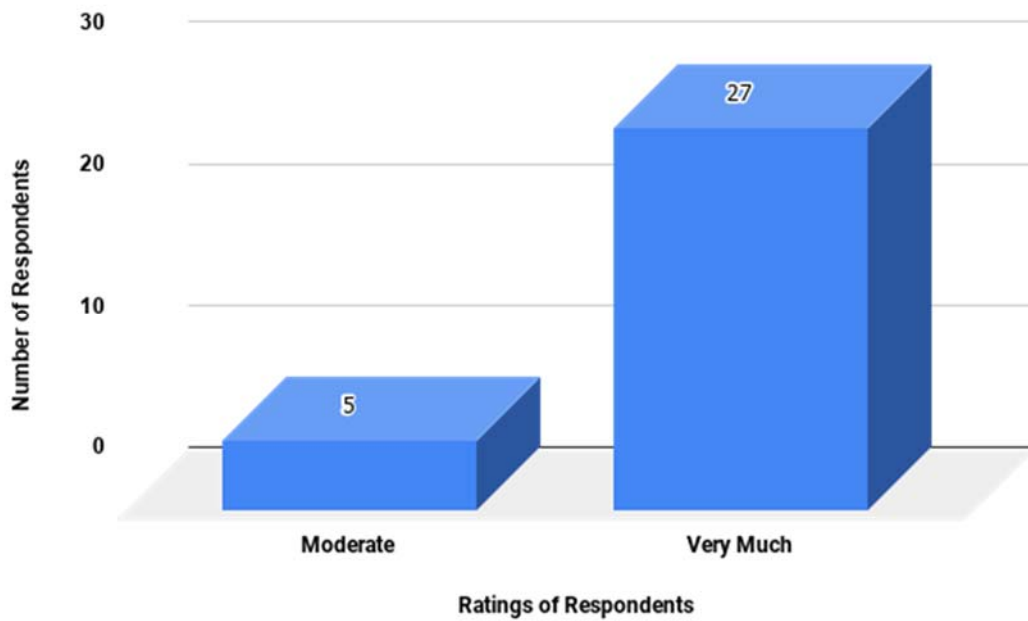


Figure 4.14 Influence of Development

Figure 4.14, shows that 84.4% of the respondents agreed that sustainable exploitation influences development compared to 15.6% of respondents who indicated that sustainable exploitation has moderate effect on development. This indicates that respondents were very much aware of sustainability issues and it was the way to achieve development of the blue economy.

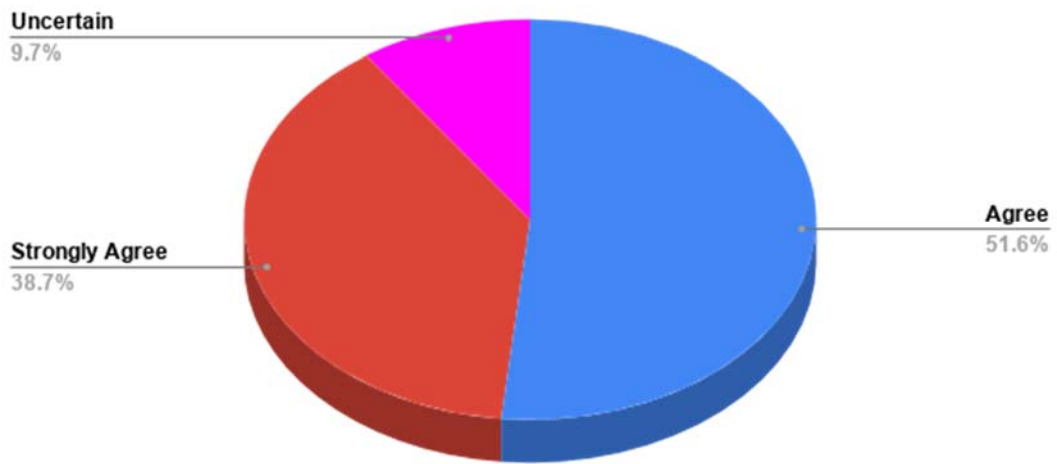


Figure 4.15 Government Collaboration

Figure 4.15, majority of respondents strongly agree/agreed as represented by 38.71% and 51.61% respectively that, the Government was collaborating with stakeholders on various key initiatives of the blue economy. The local stakeholders need to capitalize on these opportunities given by the Government to realize the potential of the blue economy.

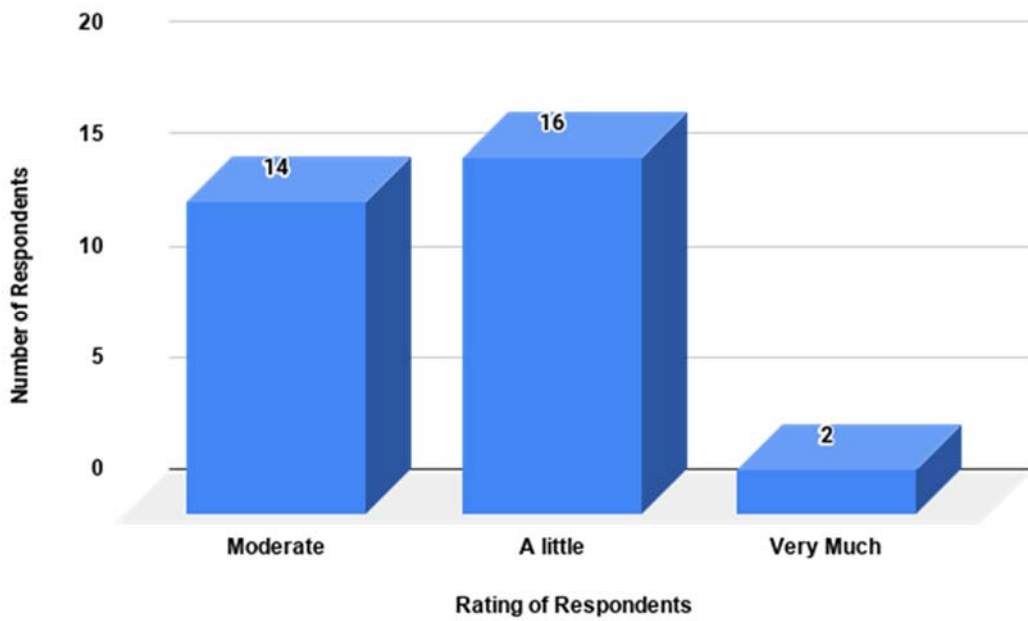


Figure 4.16 Exploitation of BE Initiatives

Figure 4.16, majority of respondents represented by 50% indicated that citizens were not aware of Government initiatives on BE as compared to moderate which was 43.75% and very much at 6.25%. Awareness was deemed critical as this was the way that people in a region would be able to know through communication on issues that pertain them and this would create synergy and cooperation in meeting the government agenda on blue economy.