

SEA BLINDNESS IMPLICATIONS ON MARITIME SECURITY IN MOMBASA COUNTY, KENYA

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ABSTRACT

Sea blindness in Africa remains a serious threat to maritime security as states continue to pay little attention to the safeguard of their maritime realm. With increase in international apprehension relating to threats of piracy, robbery, blue economy violations, environmental and climate change threats it is prudent to factor in implications of sea blindness on maritime security in Kenya. This study investigated the implications of sea blindness on maritime security in Mombasa County, Kenya. The specific objectives were to assess the extent of sea blindness maritime security awareness among residents and stakeholders involved in maritime security in Mombasa County, to analyze the socio-economic factors influencing sea blindness on maritime security in Mombasa County, to investigate the vulnerabilities associated with sea blindness and their impact on maritime security in Mombasa County and lastly to assess the effectiveness of existing civic education initiatives in addressing impact of sea blindness on maritime security. The study utilized social learning and conflict theories. Study adopted the exploratory research design employing data collection through interviews with stakeholders including the fishermen, the Kenya Navy personnel, Kenya Coast Guard officials, Kenya Maritime Authority, Kenya Ports Authority and Bandari College. The study also sampled views from the general public and expert opinions from the Non-governmental Organizations interested in sea blindness and maritime security. The findings revealed low awareness of the concept of sea blindness, although respondents showed positive engagement after its definition was explained. Economic, cultural, and social factors contributed to varying levels of awareness, while existing civic education campaigns had moderate effectiveness. The study concluded that sea blindness undermines maritime security management by delaying response times, underreporting incidents, and hindering resource allocation and policy effectiveness. It identified vulnerabilities in environmental, economic, security, and social dimensions. The study recommended enhancing economic diversification, integrating maritime education into curricula, improving policy coordination, and expanding educational campaigns to mitigate sea blindness and improve maritime.

Key Words: Sea Blindness Awareness, Socio-Economic Impacts, Security Vulnerabilities, Civic Education

INTRODUCTION

The risks associated with sea blindness are significant and complex, affecting not only maritime security but also economic growth of port states. Sea blindness, understood as a deficiency in the recognition and comprehension of the maritime world, diminishes general national and communal welfare of a people. Germond (2022) notes that sea blindness stems not from total ignorance or disregard of sea security but from a limited understanding of the sea's multifaceted character and its implication on people's safety. This negligence engenders vulnerabilities, cultivating conditions favorable for illicit operations including smuggling, piracy, illegal fishing, and other maritime incidents. The repercussions transcend criminality, including the social and cultural aspects of marine endeavors, encompassing the blue economy, maritime safety, and global security dynamics.

Traditionally, marine studies and policies have frequently been myopically overlooking the wider socioeconomic implications of the sea and its environs. The neglect to integrate the cultural and economic significance of the maritime domain into national discussions has sustained sea blindness (Smith, 2019). This narrow viewpoint restricts countries from fully utilizing their blue economies, which are essential for attaining sustainable development goals (UN, 2020). The World Bank (2021) states that maritime trade accounts for over 80% of world trade by volume; nevertheless, insufficient comprehension of its significance hinders regional and national development initiatives.

Sea blindness poses significant challenges to the efficient management, governance and security of maritime zones throughout continents including America, Europe, Asia, and Africa. As stated by Lombardi (2016). Sea blindness is a significant issue in the United States, even though it is one of the most advanced countries in terms of marine affairs, with rich nautical past and strategic interests. According to Dotard (2019), the prevalence of sea blindness has resulted in fragmented policies and minimal public involvement in maritime matters. Within Europe, the differences among member states prevent them from effectively responding to maritime challenges (Dotard, 2019). Consequently, the social and cultural aspects of significant maritime advancements, such as the blue economy, safety, and security, may be intentionally overlooked or misconstrued.

The widespread lack of awareness and understanding of marine issues in many jurisdictions has led to the implementation of disjointed policies and little public engagement. The heterogeneity among member states within Europe hinders their ability to effectively address marine concerns (Dotard, 2019). In Asia, the rivalry among countries' national interests and the limited availability of resources hinders cooperation on significant issues such as piracy and marine territorial disputes. The efforts to address marine hazards and use Africa's maritime resources for sustainable development are hindered by the continent's insufficient institutional capacity and lack of knowledge (Belhabib et al., 2019). To address sea blindness, it is imperative to implement synchronized initiatives aimed at increasing knowledge about marine operations, bolstering institutional capacities, and promoting regional cooperation frameworks that prioritize shared maritime interests and values across many continents.

Sea blindness presents a significant risk to the global blue economy, as well as to the resilience and development of the global economy as a whole (Farmery et al., 2021). The nation's progress and advancement may be ascribed to several variables, such as the ease of access and the safety of sea lanes of communication (SLOC) (Kowalskiet et al, 2015). States that have access to the sea or other navigable waterways have a distinct economic advantage compared to states that are landlocked. This study highlights the phenomenon of sea blindness, which is often overlooked by many players in the marine sector. Sea blindness refers to the lack of understanding and competence in dealing with marine security challenges and the failure to fully use the vast opportunities offered by the sea (Agardy et al. 2011).

Sea blindness may also be described as a limited comprehension of the hazards to maritime security (Anyimadu, 2013). It impacts those who have the intention of or need to engage in deep-sea exploration, as

well as those who choose to stay on land. From fisherman delicately lowering their nets to port workers negotiating international commerce, to maritime security services diligently addressing security problems at sea. Sea blindness may result in a lack of awareness or recognition of the importance of the waters. Maritime security is a crucial but sometimes disregarded element in the battle against sea blindness (Young, 2019). Maritime security refers to the comprehensive protection of a nation's marine domain against potential threats and risks. It is prudent to examine the strong correlation between significant threats to maritime security and lack of awareness, sometimes known as sea blindness, in this evaluation. It is essential to emphasize how physiological traits, institutional flaws, and economic conditions all contribute to the environment that promotes maritime crime. Poorly managed environments provide offenders with more incentives and lower risks, particularly when they are not in close proximity to the water (Ericson, 2007).

The United States of America is proud of a lengthy coastline and a wide range of nautical operations. The region has several marine security challenges, such as drug trafficking, smuggling, illicit fishing, and maritime terrorism (Boutilier, 2005). The extensive coastline of the United States renders it susceptible to drug trafficking, smuggling, illegal fishing, and marine terrorism. One example of a historical case study is the "Cocaine Cowboys" in Miami, where criminal traffickers engaged in the illicit transportation of cocaine. Undocumented immigrants are illegally transported over the U.S.-Mexico border by water. There is also a problem with large-scale drift-net fishing in the Pacific Ocean. Additionally, there are concerns about global maritime terrorism and other related matters (Gugliotta & Leen, 2011). To effectively tackle these dangers, it is essential to implement extensive measures for safeguarding coastal security and preserving marine ecosystems. In order to overcome these obstacles, it is crucial for the general people to comprehend the significance of maritime security and actively engage in its activities. Hence, it is essential to comprehend the concept of sea blindness and its ramifications inside the United States in order to devise ways that successfully bolster marine awareness and fortify security protocols (Crain et al, 2009).

The Mombasa coastal communities have a reduced degree of participation in local marine matters due to a lack of knowledge and understanding of the economic and cultural importance of the sea. This gap gives rise to worries over the susceptibility of the local community to maritime security risks such as piracy, smuggling, and illegal fishing. The government's lack of awareness and understanding of the importance of the sea results in ineffective distribution of resources and policies. Legislators lack a complete understanding of Mombasa's specific marine security challenges, resulting in inadequate infrastructure, safety measures, and legislative frameworks necessary to effectively address maritime threats (Ngeti, 2016).

The interaction between countries in the fields of science, culture, and civilization has been greatly impacted by the oceans (Hobson, 2014). Nations have allocated resources towards technological advancements and expertise in maritime affairs in order to exert control over the oceans and exploit the economic and geopolitical benefits they provide, since the seas play a crucial role in fostering economic prosperity and securing geopolitical influence. However, the importance of the seas has not been extensively studied in several academic circles; this phenomenon is referred to as "sea blindness" (Kirval & Özkan, 2023).

The lack of awareness leads to a scarcity of financial resources, which greatly impedes endeavors to protect the environment, crucial sea and ocean infrastructure, the safety of seafarers, and the whole marine industry. Sea blindness, a prevalent but often overlooked syndrome, highlights the need for the areas of security and international affairs to prioritize the issue of maritime dominance while developing foreign policy. The current literature solely investigates these matters concerning specific geographical focal points and the administration of specific hazards, such as political conflicts in the South China Sea or the Arctic, maritime piracy in East Africa, human trafficking in the Mediterranean, or organized crime in West Africa (Eski & Wright, 2023).

Sea power is synonymous with military and naval capabilities. Exceptional maritime strength has a crucial role in alleviating the lack of awareness or understanding of the sea. Specifically, it encompasses various types of watercrafts, including ships, submarines, and the associated facilities, such as naval bases, that support their

operations. The people responsible for outfitting these boats and facilities also constitute a crucial component of maritime power. Simultaneously, the study of marine jurisdiction areas and sovereignty concerns is conducted as part of the examination of sea power. Sea power includes not just military might, but also control over marine territories, authority and boundaries, and adherence to international maritime laws. Maritime domain studies include several aspects including the marine environment, preservation of the seas and marine life, maritime safety and security, and seamanship. The Global Maritime Distress and Safety System (GMDSS) plays a crucial part in these studies. The primary objective of this topic area is to achieve safe navigation, security free of crimes, and clean waters. Sea power plays a crucial role in enabling the attainment of these safety goals, especially in Mombasa.

The safety of marine transportation depends on methods that can safeguard human life, materials, and both physical and intangible property related to water transport. The concept of maritime safety can be categorized into several fundamental components: regulatory bodies accountable for establishing and enforcing laws, authorities responsible for executing and overseeing safety measures and standards, legal frameworks concerning maritime safety, and individuals present at sea (Galic et al. 2014).

Preserving maritime security has the potential to foster economic growth and development, while also ensuring human security in terms of food security, housing, sustainable livelihoods, and safe job opportunities. Ultimately, this contributes to the eradication of poverty. The marine domain in Africa, as in other regions, has a vital impact on the economy and is essential for guaranteeing food security and sovereignty. A substantial amount of imports and exports take place at African ports, enabling international commerce. The historical primary raw commodities include precious resources such as gold, diamonds, minerals, fish, cocoa, timber, and various agricultural products. Hence, it is imperative to have the capability to use reliable and protected maritime transportation channels in order to successfully incorporate these goods into the worldwide market. In Africa, fish has a vital role as a food supply that extends beyond its economic significance in the marine sector, ensuring the survival of the people. Consequently, any interruption in fish availability presents a substantial threat to both food security and economic stability in these nations (Mwangura, 2003).

Kenya's economy is greatly enhanced by the significant economic prospects offered by Lake Victoria and the Indian Ocean, which support the lives of a large number of people. However, the possibility of advancement in these domains is impeded by maritime security issues, such as the existence of illicit, unregulated, and unreported (IUU) fishing, piracy, marine pollution, and the over use of maritime resources. In the past, Kenya has faced environmental and maritime safety issues, such as a major event in which an oil tanker spilled five million litres of crude oil into Port Reitz Creek in Kilindini Harbour. This had harmful impacts on the marine ecology. In 1994, Kenya had a maritime disaster when the MV Likoni Ferry sank to the bottom of the ocean at the Likoni crossing channel, leading to the unfortunate demise of over 272 people (Mwangura, 2003). The government of Kenya has prioritized maritime security due to the inherent hazards associated with it. The Border Control and Operations Coordination Committee (BCOCC) was established by the 2014 Security Laws. Its primary role is to develop a comprehensive national maritime security strategy and implement the decisions made during the 2017 Blue Economy Conference.

The presence of many incidents underscores the gravity of maritime security issues in Mombasa County. The 1994 Mtongwe ferry tragedy highlighted the vulnerabilities of marine transportation infrastructure and the need for improved safety measures and a greater awareness of maritime issues. As reported by Standard Digital on September 30, 2019, Mariam Kigenda, aged 36, and her four-year-old daughter, Amanda Mutheu, were involved in a terrible incident at the Kenya Ferry (KF) Likoni on September 29, 2019. Both individuals perished when their vehicle veered off the bow of MV Harambee while in the middle of the sea at precisely 6:13 PM. As a result of our slow response, exacerbated by a lack of awareness about maritime issues, the rescue effort lasted more than 5 days. This had a terrible impact on the country's reputation, particularly in the eyes of the foreign media and local public. The marine environment of Mombasa County is similarly

impacted. Maritime incidents such as accidents, ferry and boat mishaps, fires, pollution including oil spills and chemical releases, seashore erosion, and coastal storm surges have been experienced throughout time. Mombasa County has experienced several catastrophe threats in recent years, including terrorism, boat capsizing, tsunamis, ship accidents, oil and chemical spills, pollution, and hazardous waste on land and water (CIDP, 2013). Sea blindness, or the lack of awareness and understanding of marine issues, is a significant factor in the increasing levels of maritime insecurity. It has also been a contributing factor to past incidents and significant losses.

Local communities along the Mombasa coastline exhibit little engagement in marine matters mostly because of inadequate education and a lack of comprehension of the economic and cultural significance of the sea (Atieno, 2022). This disparity gives rise to worries over the extent to which the local populace is susceptible to threats pertaining to marine security, such as smuggling, piracy, and illicit fishing. Sea blindness is evident in the formulation of insufficient policies and resource allocations, as well as in accidents and incidents. Therefore, there is a need to perform the suggested study.

MATERIALS AND METHODS

This study employed exploratory research approach. This design was ideal in determining the possibility of doing more comprehensive investigations in the future. This study aimed to investigate the extent of sea blindness and the factors that contribute to it among different demographic groups and stakeholders. It assessed the effectiveness of current educational and awareness campaigns in addressing sea blindness and improving maritime security in Mombasa County. Thirdly, it examined the socioeconomic factors contributing to sea blindness on coastal communities in Mombasa County and lastly it examined various Vulnerabilities of sea blindness on maritime security in Mombasa County.

This design was appropriate because it enabled the creation of original ideas and hypotheses by investigating a certain topic or issue area. It facilitated the development of a comprehensive comprehension of phenomena and enables the examination of the feasibility of conducting more following research with the study participants. Sheppard, in the year 2020. By performing preliminary inquiries, researchers identified patterns, connections, or trends that may not be immediately obvious. Moreover, it assisted the researcher in gaining a deeper understanding of the basic dynamics, factors, and components involved in the subject matter. The evidence derived from well-established facts has the potential to be challenged or supported throughout the process of formulating a hypothesis.

The research was conducted in Mombasa County, located in Kenya and next to the Indian Ocean. The research location was ideal and critical for the research objectives due to its concentration of organizations and individuals involved in the marine industry. It serves as the largest marine entrance in East Africa, overseeing substantial trade volumes for the region and facilitating the entry and export of a diverse variety of commodities to several countries and destinations. It has a population of diverse ethnic groups and being a cosmopolitan area, the largest communities are Mijikenda, Kamba and Swahili. Other significant communities include the Kenyan Arabs, Luo, Luhya, Taita, Gusii and Kikuyu. The native Mijikenda are mainly preoccupied with fishing and farming while the majority of the other communities are business men and employee of various organizations and institutions in Mombasa County (Kenya Demographic Data 2019). The population size of Mombasa is 1,495,229 (World population review 2024)

The location is instrumental in accelerating the country economic growth. In 2016, Mombasa managed a total of 27,364 metric tons of cargo and 1.1 million Twenty Foot Equivalent Units (TUEs), according to the Kenya National Bureau of Statistics (KNBS, 2017). Port Kilindini, being a significant regional hub for commerce, is vulnerable to several security risks such as terrorism, smuggling, maritime accidents, armed robbery, illegal, unreported, and unregulated (IUU) activities, Marpol violations, marine harassment, and piracy. To address these dangers, the port has adopted many security systems, such as cargo screening, security patrols, and

surveillance cameras. The county of Mombasa is well resourced with human capital, organizations and institutions that are key in ensuring the smooth running, security, training institutions. They include KMA, Kenya Navy, KCGS, KPA, Bandari College and these clearly confirm the presence of government agencies dedicated to maritime security and safety in Mombasa County. Within this research location cultural ties to the way of doing things and prior held beliefs and practices about the ocean influences fishing practices, risk tolerance and security management within the maritime realm. Poverty rates in this region may limit investment in maritime safety measures and awareness programs, exacerbating sea blindness.

Ngechu (2012) defined a study population as a clearly defined or characterized group of individuals, objects, homes, businesses, services, components, or events that are being examined. The intended recipients of this study were the primary individuals and organizations that have a significant interest and influence in the marine sector. The research recruited individuals from the county of Mombasa involving the registered local Fishermen, Seafarers, Port Workers, Shipping Companies, Tourism operators, Coastal Business Owners, Kenya Navy, Kenya Coast Guards Service, Kenya Ports Authority, Kenya Maritime Authority, Local Administration, Coastal Communities, Non-Governmental Organizations and Civil Society, International Maritime Organization (IMO) Representatives, Education institutions, (Bandari College)

Table 1: Target Population

Category	Target Population
Licensed Fishermen	14,000
Kenya Navy	6,000
Kenya Coast Guard Service	400
Port workers	6,522
Bandari College Reps and Associate NGOs	190
KMA	260
General public	1000
Total	28,372

This research used three sampling techniques: stratified sampling, which involves classifying the sample into two strata. The non-policy makers consisted of the general population and licensed fishers, while the policy makers included security agencies, Bandari, KMA, and dock workers. A random sample method was used to get data from the general population. The researcher used purposive sampling to find respondents who held important information relevant to the study issue. This included persons such as maritime personnel employed by marine organizations, members of the public, and scholars who possessed substantial expertise on sea blindness and marine security in Mombasa County. The use of snowball sampling focus on fisherman and had similar importance in this research, because to its secretive and evasive nature and the useful insights that was be gained from insiders in finding important sources of information.

The study adopted simple random sampling, snowball sampling and purposive sampling.

Table 2: Sample Size

Category	Target Population	Sample Ratio	Sample Size
Licensed Fishermen	14,000	0.5	75
Kenya Navy	6,000	0.5	32
Kenya Coast Guard Service	400	0.8	3
Port workers	6,522	0.5	35
Bandari College Reps	190	1.0	2
KMA	260	0.8	2
General public (New comers)	1000	0.6	6
Total	28,372		155

This research used a mixed methods approach, using questionnaires with structured and semi-structured questions; these questionnaires were used to collect quantitative data and conducting one-on-one interviews to

gain qualitative data. For standardized responses the researcher used closed-ended questions to collect data about awareness levels, perceptions, and behaviors; and Semi-Structured Questionnaires to capture additional qualitative insights through open-ended questions. To ensure the information is clear, the researcher used comprehensive interview guides to conduct interviews with representatives from Maritime security Agencies (KN, KCGS, and KMA). An interview schedule guided face-to-face interviews between the researcher and some of respondents. These respondents; after handling in their questionnaires were engaged in personal interviews on the sea blindness and Maritime security management in Mombasa County. This tool was used to guide the discussions between the researcher and the informants on sea blindness and maritime security management in Kenya, it helped to verify issues noted in the questionnaires, and ensured a detailed qualitative data. The key informants were Academic institutions, Security Agencies, Locals and existing NGOS representatives.

Questionnaires were sent to the remaining target respondents, which included academicians in Bandari College and Dock Workers. This strategy streamlined the process of gathering primary data. A combination of questions and an in-depth interview guide were used to conduct a thorough interview with individuals, with the goal of eliciting their perspectives on a given situation. The use of this strategy ensured that the obtained data retains a high degree of consistency, dependability, and validity.

The study aimed at establishing the validity of the tools and the supervisor by seeking expert comments. Through engaging in discussion, the researcher had the skills to recognize questions that need to be revised and those that have unclear meaning. The research equipment was subjected to a pilot test in Lamu County, which is a separate region from the study location. The main goal of the pilot study was to assess the accuracy of the instruments used, as proposed by Mugenda & Mugenda (2003). The pilot research aided in identifying possible barriers that respondents could have encountered while responding to the given questions. The interview guidelines conducted by a pilot were modified to include the necessary enhancements. The researcher used rigorous and unbiased methodologies to perform data analysis, therefore minimizing the impact of any possible biases. The presentations of the results were conducted in a direct and unbiased way. The participants used in the preliminary test were excluded from the ultimate investigation in order to mitigate the potential influence of historical factors.

Reliability, on the other hand, pertains to the degree of consistency in a measurement. The reliability of this research was assessed utilizing the test-retest procedure, which involved giving the instrument to a pilot group on two separate occasions.

The requisite standard of data collection in Mombasa Kenya was rigorously adhered to. Requisite research clearances were obtained from relevant organizations, such as the Kenyatta University Graduate School and the Kenya National Commission for Science, Technology and Innovation (NACOSTI). The researcher used both primary and secondary data sources in the investigation. Data was collected via primary sources by using a comprehensive interview guide, in order to maintain uniformity throughout the interviewing process. Interviews were documented via script filling and voice recorder, and written notes were made throughout the conversations. Secondary data was obtained from pre-existing sources such as academic journals, conference proceedings, books, newspapers, magazines, and open sources.

The researcher used Quantitative method as the main method of data collection supplemented by Qualitative method. The qualitative method used was the use of questionnaires which were filled by the respondents, while the qualitative methods employed were directed observation, personal interviews and key informant interviews. The researcher used both open and close-ended questions in one questionnaire. All the respondents selected for the study was subjected to both and open-ended questionnaires. The questionnaires were designed to cover the background of the respondents; their age, sex, level of education, and area of specialization.

Face to face interviews were carried out between the researcher and some of the respondents. These respondents; KN, KCGS, KPA, KMA, Bandari College and Local fishermen after handing in their questionnaires were engaged in personal interviews on sea blindness and maritime security management in the county. Further, informants' interview was conducted with individual well-grounded on sea blindness and maritime security issues. This method was used to explore sea blindness prevalence, it helped to verify issues noted in the questionnaires, and ensured a detailed qualitative data.

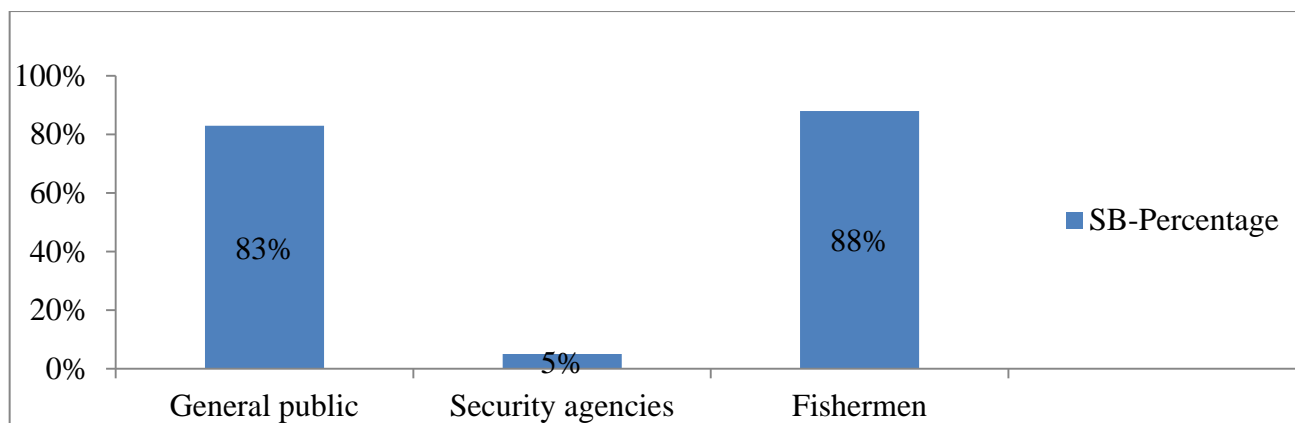
Documents were reviewed on sea activities, existing policy frameworks, ROEs of various organizations and strategic formulation policies and Mandate of the organizations. The documents reviewed were KN and KCGS operational documented journals and soft returns and the incidences and action record books.

According to Sjoberg G and Nett. R (1968:160), the advantages of direct observation is that the research witnesses or experiences events or phenomena first hand and thus do not rely upon his/her interpretation of impressions of informants. In this study, the researcher observed how normal work activities by various respondents happens and in relation with the set Standard Operating Procedures and how contravention of the same had a direct and indirect repercussion on Maritime security.

The data analysis was conducted concurrently with the objectives and goals being studied. Both qualitative and quantitative methodologies will be used for analysis. Quantitative data will be analyzed using descriptive statistical techniques, including SPSS. The qualitative data was analyzed using the theme technique and also through initial transcribing, consolidation of material, and thematic categorization. The second phase of the analysis commenced promptly at the conclusion of fieldwork to prevent the forfeiture of crucial data. The data captured via the use of a voice recorder was transcribed and organized according to several thematic categories. The process of initiating the writing of chapters began promptly and the legitimacy of the material was ensured by critically examining and comparing secondary sources with original data.

RESULTS AND DISCUSSION

To establish the extent of Sea Blindness and Maritime Security Awareness among Residents and Stakeholders in Mombasa County the researcher found out that the blindness is more pronounced among the general public and less among the security agencies. The results are displayed the figure below.



This study interrogated various drivers of vulnerabilities of sea blindness which are security incidents, low awareness of sea blindness, nature of crime in the seas and oceans among other.

The drivers of vulnerabilities analyzed included security incidents, Resource Constraints, low awareness of sea blindness, Lack of Coordination among Agencies:, evolving nature of crime in the seas and oceans among others. The drivers of vulnerabilities are discussed below:

Drivers of the Vulnerabilities of Sea Blindness

Security incidents

Security incidents in the coastline have a potential threat to maritime security in Mombasa County. According to respondents, several threats to maritime security exist in Mombasa County: A respondent from Kenya Coast guard Service had this to say...

“If you look at the current incidents that are very common to us you find that maritime accidents are very common beginning with ferry, cars and bus incidents, stampede accidents ships accidents, IUU and pollution. The piracy happenings elsewhere can't be ignored since it affects us directly” (KII KCGS)

The ferry accidents, boats capsizing and drowning were amplified as the most experienced threats lately in Mombasa. In addition, piracy, pollution, accidents and armed robbery at sea, particularly in the waters off the Horn of Africa and the Indian Ocean, pose significant risks to maritime trade routes, vessel safety, and the lives of crew members and general public despite them occurring further away from Mombasa. Respondents stressed that these criminal activities require robust maritime law enforcement and international cooperation to combat these vices effectively. Illegal, unreported, and unregulated (IUU) fishing practices were clearly cited as significant threats to maritime security and sustainability. Talking about IUU, one of the fishermen interviewees said that IUU depletes fish stocks, undermines local fisheries management efforts, and jeopardizes food security for the communities reliant on fishing as a livelihood and can even lead us to starvation and lack of economic activity necessary to live a normal life. The fishermen complained of large-scale fishing which is conducted illegally is depleting the catches rendering them poor by day since they lack bigger vessels, technology and resources to venture to deep sea fishing. They said that strengthening regulatory frameworks, punishing the offenders and protecting small scale fishing zones in addition to enhancing maritime surveillance capabilities, and promoting regional cooperation are essential steps to curbing IUU fishing activities in Mombasa's waters.

According to KCGS interviewee, smuggling of illicit goods, including drugs, weapons, and contraband, through maritime routes presents a challenge to national security and stability. Echoing his words, another respondent said organized crime networks exploit vulnerabilities in port security and maritime infrastructure, necessitating enhanced border control measures, intelligence-sharing mechanisms, and capacity-building initiatives to disrupt illicit trafficking networks effectively (Respondent No 17).

Furthermore, respondents emphasized that the coastal and marine environment in Mombasa County is vulnerable to environmental degradation, pollution, and habitat destruction. They noted that industrial activities, construction of bridges, roads within the proximity of fishing zones and other coastal development project have slowed their activities since they pollute the natural habitats of their catches, inadequate waste management practices also contribute to marine pollution, impacting water quality, marine biodiversity, and ecosystem health. They said that most sewer within Mombasa is channeled to the oceans greatly damaging the environment and therefore mitigating these environmental threats requires stringent enforcement of environmental regulations, promoting sustainable coastal development practices, and fostering community-based initiatives for marine conservation and restoration.

Lack of awareness on Sea Blindness and Maritime Security

On the impact of sea blindness on security, the respondents said that a lack of awareness about maritime activities significantly undermines maritime security in Mombasa County.

In the words of a KMA respondent.

“Limited understanding among the general public, policymakers, and communities about the vulnerabilities and risks in the maritime domain leads to inadequate preparedness, ineffective response measures, and gaps in maritime law enforcement” (KII KMA)

From the responses it's clear that lack of awareness exacerbates several challenges which include: Underreporting of Incidents. The respondents noted that without a clear understanding of maritime security threats, incidents may go unreported or unnoticed. This hampers efforts to address security issues promptly, as unreported incidents do not receive the necessary attention and resources for resolution. This insufficiently leads to an incomplete picture of the security situation, making it harder to develop effective strategies to combat maritime crime.

In addition, lack of awareness results to Insufficient Resource Allocation. According to the respondents, policymakers may prioritize other sectors over maritime security due to perceptions of lower relevance or urgency. As a result, limited resources are allocated for maritime law enforcement, surveillance, and infrastructure development. This insufficiency hampers the ability of security forces to monitor and protect the maritime domain effectively. To add to the above, it results to Vulnerability to exploitation: The respondents responded that criminal networks exploit gaps in awareness and enforcement, engaging in activities such as piracy, illegal fishing, and smuggling with reduced risk of detection and prosecution. These activities thrive in an environment where there is little understanding or attention given to maritime security threats.

Sea blindness, characterized by a lack of awareness or understanding of maritime activities and their implications, significantly impacts the maritime security posture of Mombasa County in several critical ways. During the scheduled interviews, a Kenya Navy Officer was asked how he perceives and understands how sea blindness affects the overall maritime security posture of Mombasa County, and he had this to say...

“There are various ways in which these phenomena of Sea blindness affect security and to begin with, it results to underreporting and Lack of Vigilance” (KII KN)

The respondents also noted that sea blindness contributes to underreporting of maritime security incidents. When communities, stakeholders, and even law enforcement agencies are not fully aware of the types and frequency of threats in the maritime domain, incidents such as piracy, illegal fishing, and smuggling may go unnoticed or unreported. This lack of vigilance hampers the ability to implement timely and effective responses to emerging security threats. “No 2 these blindness results or rather affects resource Allocation and Preparedness” (KII KCGS)

According to the respondents, when maritime threats are not perceived as significant or urgent due to low awareness, policymakers may prioritize other sectors over maritime security. This can lead to inadequate funding, limited deployment of security resources, and gaps in surveillance and enforcement capabilities along the coastline and maritime routes. “No 3 it results to vulnerability to exploitation and Policy Ineffectiveness :”(KII KCGS)

Sea blindness creates vulnerabilities that are exploited by criminal networks. Respondents highlighted those illegal activities such as piracy, smuggling of drugs and weapons, and illegal fishing thrive in environments where awareness and enforcement are weak. Criminal entities capitalize on gaps in maritime security caused by sea blindness, posing serious threats to the safety of maritime trade, coastal communities, and marine ecosystems. The lack of awareness about maritime security issues among policymakers and the general public contributes to ineffective policy frameworks. Respondents indicated that without a comprehensive understanding of maritime threats and vulnerabilities, policies aimed at enhancing maritime security may lack coherence, enforcement mechanisms, or adequate community support. This can hinder efforts to develop and implement sustainable solutions to maritime security challenges.

“Lastly we cannot forget the economic impact and the contemporary serious issues that are affecting us that is environmental Consequences” (KII KPA)

Sea blindness also affects the economic activities linked to the maritime sector. According to the respondents, maritime trade, tourism, and fisheries are crucial economic drivers in Mombasa County. However, inadequate awareness of maritime security risks can deter investors, disrupt trade routes, and undermine the sustainability of fisheries. This economic impact further exacerbates the region's vulnerability to socio-economic instability and undermines efforts to achieve sustainable development goals.

Sea blindness contributes to environmental degradation in coastal areas. Respondents noted that illegal fishing practices, pollution from maritime activities, and habitat destruction often go unchecked due to insufficient awareness and enforcement. This poses long-term threats to marine biodiversity, ecosystem health, and the livelihoods of coastal communities dependent on marine resources.

Resource Constraints

Respondents noted that insufficient resources amplify sea blindness. Limited financial resources hinder the ability of maritime stakeholders to conduct comprehensive surveillance and enforcement activities, thereby compromising the effectiveness of security measures (Respondent 5 from KCGS). This confirms Martin (2022) work on the factors that contribute to sea blindness by those involved in the Australian fishing industry. The results showed how financial and resource limitations majorly caused by other economic pressures like limited resources and a lack of alternative means of subsistence to play an integral part in accelerating lack of awareness and uptake of sustainable fishing methods.

Lack of Coordination among Agencies:

The lack of coordination among different agencies involved in maritime security was identified as a significant challenge. On coordination problem, KN respondent pointed out that “Fragmented efforts among government bodies, law enforcement agencies, and international partners lead to inefficiencies and gaps in coverage” This lack of coordination diminishes the overall effectiveness of maritime security initiatives and response strategies.

Evolving Nature of Maritime crisis and activities:

According to respondents, sea blindness exacerbates the challenges posed by the evolving nature of maritime crime. A senior KCGS officer respondent explained criminal networks continuously adapt their tactics to exploit vulnerabilities in security measures, making it difficult for authorities to stay ahead of emerging risks. This dynamic nature of threats underscores the need for continuous vigilance and adaptation in maritime security operations.

The respondents acknowledged the progress made through collaborative efforts between local authorities and international partners in combating piracy and other maritime threats. However, they emphasized that persistent resource constraints, coordination issues, and the evolving nature of maritime crime require sustained commitment and investment in maritime security infrastructure and initiatives. They stressed the importance of enhancing surveillance capabilities, improving enforcement measures, and engaging communities to ensure long-term stability and safety in Mombasa County's maritime domain.

RECOMMENDATIONS

Based on the scope and the findings for this study, the following is the recommendation for future research, local authorities and economic planners should actively promote economic diversification beyond traditional sectors like tourism and agriculture. Specifically, efforts should be directed towards attracting investment in maritime-related industries such as shipping, logistics, and fisheries to underscore the economic benefits of maritime activities.

Further Research

The study underscores the need for further research to delve deeper into the nuanced additional factors contributing to sea blindness in Mombasa County. Future studies could explore the evolving socio-economic dynamics, cultural perceptions, and governance challenges impacting maritime awareness and security, facilitating more targeted interventions and policy improvements. In a nexus with contemporary issues future research can study on the relationship between sea blindness and blue economy.

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