ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25aug1066

Examining how the Revamping and Construction of MV Uhuru I and MV Uhuru II Respectively by KRC in Collaboration with KSL have Promoted Socio-Economic Development in the Lake Victoria Region, Kenya

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Publication Date: 2025/09/04

Abstract: This study examines how the refurbishment of MV Uhuru I and the construction of MV Uhuru II by the Kenya Railways Corporation (KRC), in collaboration with Kenya Shipyards Limited (KSL), have contributed to socio-economic development in the Lake Victoria region of Kenya. Lake Victoria, as Africa's largest freshwater lake, serves as a vital hub for cross-border trade, fishing, and regional integration, but its potential has historically been constrained by aging infrastructure, inadequate investment, and limited vessel capacity. The revival of MV Uhuru I and the commissioning of MV Uhuru II therefore represent transformative state-led interventions aimed at modernizing inland water transport and enhancing Kenya's position within the East African logistics chain. The study is anchored on the Developmental State Theory, which emphasizes the state's active role in steering industrial growth, and the Ecological Modernization Theory, which highlights the potential for aligning economic development with environmental sustainability. A qualitative case study design was adopted, with data gathered through document analysis, expert interviews, and field observations at Kisumu Port to capture the perspectives of institutional actors, industry experts, and community stakeholders. The findings reveal that the operations of MV Uhuru I and II have substantially increased cargo handling capacity, reduced transport time and costs, and improved intermodal connectivity between Kenya and neighboring countries, while the local construction of MV Uhuru II at Kisumu Shipyard has stimulated industrial capacity building, skills transfer, and job creation. These developments have revitalized Kisumu as a strategic logistics hub and contributed to Kenya's broader blue economy agenda by fostering sustainable resource use and regional integration. The study concludes that the collaboration between KRC and KSL demonstrates the transformative potential of public-sector investment in maritime infrastructure and recommends further expansion of local shipbuilding programs, strengthened policy support for inland water transport, and enhanced environmental safeguards to ensure sustainable operations on Lake Victoria.

How to Cite: Evans Momanyi Getembe (2025). Examining how the Revamping and Construction of MV Uhuru I and MV Uhuru II Respectively by KRC in Collaboration with KSL have Promoted Socio-Economic Development in the Lake Victoria Region, Kenya. *International Journal of Innovative Science and Research Technology*, 10(8), 2185-2192. https://doi.org/10.38124/ijisrt/25aug1066

LIST OF ABBREVIATIONS

AfDB – African Development Bank
AU – African Union
BETA – Bottom-Up Economic Transformation Agenda
EAC – East African Community
EMT – Ecological Modernization Theory
FGD – Focus Group Discussion
ICD – Inland Container Depot
IWT – Inland Water Transport
KDF – Kenya Defence Forces
KIPPRA – Kenya Institute for Public Policy Research and Analysis

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KMA – Kenya Maritime Authority
KRC – Kenya Railways Corporation
KSL – Kenya Shipyards Limited
MOD – Ministry of Defence
MoTIHUD – Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works
NEMA – National Environment Management Authority
NMC – Numerical Machining Complex
SOE(s) – State-Owned Enterprise(s)
SGR – Standard Gauge Railway
UNECA– United Nations Economic Commission for Africa
UN – United Nations
Vision 2030 – Kenya Vision 2030 Development Blueprint
WB – World Bank

I. INTRODUCTION

The Lake Victoria region holds immense socio-economic significance for Kenya and the broader East African Community (EAC). As Africa's largest freshwater lake and one of the most vital inland water bodies globally, Lake Victoria facilitates cross-border trade, sustains millions of livelihoods through fishing and agriculture, and serves as a natural corridor for regional integration (World Bank, 2020). Inland water transport has long been recognized as one of the most cost-effective and environmentally sustainable modes of freight transportation, offering unique opportunities for East Africa's economic growth (African Union, 2020). However, despite its strategic importance, the full potential of Lake Victoria as an inland maritime corridor has historically remained underutilized due to aging infrastructure, limited vessel capacity, inadequate investment in port systems, and weak policy support (Gwilliam, 2011; AfDB, 2022).

In response to these challenges, the Government of Kenya, through the Kenya Railways Corporation (KRC) in collaboration with Kenya Shipyards Limited (KSL), embarked on bold interventions to revamp inland water transport. These efforts included the refurbishment of MV Uhuru I, a wagon ferry that had been dormant for over a decade, and the construction of MV Uhuru II, a state-of-the-art vessel built entirely at Kisumu Shipyard. The commissioning of MV Uhuru II in 2021 marked a historic milestone as the first cargo vessel constructed in Kenya in over 70 years (KSL, 2023). These initiatives are not only technical achievements but also strategic interventions aligned with Kenya's Vision 2030, the Bottom-Up Economic Transformation Agenda (BETA), and the African Union's blue economy framework, which all emphasize industrialization, regional trade expansion, and sustainable resource utilization (UNECA, 2016; United Nations, 2017).

The reintroduction of efficient and reliable maritime vessels has already demonstrated transformative impacts on the region. Cargo movement across the lake has improved significantly, reducing dependence on costly and congested road networks. Kisumu Port has been revitalized as a logistics hub, enabling intermodal linkages with the Standard Gauge Railway and regional road systems (KRC, 2023). These developments have stimulated employment, fostered investment in related sectors, and strengthened Kenya's competitiveness in the East African logistics chain (Nduati, 2023). More importantly, the local construction of MV Uhuru II at Kisumu Shipyard has proven the viability of building domestic industrial capacity, transferring technical expertise, and promoting local content in shipbuilding (Muasya, 2022).

Despite these promising achievements, limited scholarly attention has been directed toward evaluating the tangible socio-economic impacts of these infrastructural investments in the Lake Victoria region. Existing studies have focused largely on the theoretical benefits of inland water transport but have paid less attention to localized outcomes such as employment generation, industrial growth, and regional integration (Hoffmann & Hoffmann, 2021). This study, therefore, seeks to fill this gap by critically examining the extent to which the revamping of MV Uhuru I and the construction of MV Uhuru II by KRC, in collaboration with KSL, have promoted socio-economic development in the Lake Victoria region of Kenya.

➢ *Statement of the Problem*

Although Lake Victoria presents an efficient alternative for transporting goods and people across borders, poor infrastructure and unreliable maritime transport have long hindered its contribution to regional development. The revival and construction of lake vessels represent a potentially transformative intervention, yet empirical evidence on their developmental impact remains scarce. There is a critical need to evaluate how these initiatives are shaping economic activity, trade flows, employment, and industrial growth within the region.

➢ *Objectives of the Study*

- *General Objective:*

To examine how the revamping of MV Uhuru I and the construction of MV Uhuru II by KRC in collaboration with KSL have promoted socio-economic development in the Lake Victoria region, Kenya.

- *Specific Objectives:*

✓ To assess the impact of MV Uhuru I and II operations on trade and logistics in the Lake Victoria region.
✓ To evaluate the contribution of the MV Uhuru projects to employment and industrial capacity development.
✓ To examine how the initiative supports Kenya's blue economy strategy and regional integration.

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➢ *Research Questions*

- How have MV Uhuru I and II improved cargo transport and trade in the Lake Victoria region?
- What role have the projects played in creating employment and enhancing technical skills in the maritime industry?
- In what ways do the vessels support Kenya's blue economy framework and cross-border cooperation?

➢ *Significance of the Study*

This study is of great importance to policymakers, development planners, researchers, and regional stakeholders, as it provides critical evidence on the developmental role of state-led maritime infrastructure investments. For policymakers, the research highlights how the refurbishment of MV Uhuru I and the construction of MV Uhuru II can be leveraged as policy instruments for promoting trade facilitation, employment creation, and regional competitiveness. It provides practical lessons on how national strategies such as Kenya's Vision 2030, the Bottom-Up Economic Transformation Agenda (BETA), and the African Union's blue economy strategy can be translated into tangible outcomes at the local and regional level (UNECA, 2016; United Nations, 2017). For development planners, the study underscores the importance of aligning infrastructure interventions with broader socio-economic goals, ensuring that investments in transport not only improve logistics efficiency but also stimulate industrial capacity, skills transfer, and inclusive growth in the communities directly affected.

For researchers and academics, this study makes an important contribution to the discourse on the role of state-owned enterprises (SOEs) in driving economic transformation in developing contexts. By situating the MV Uhuru projects within the frameworks of Developmental State Theory and Ecological Modernization Theory, the study enriches comparative debates on how state agencies in Africa can mirror global experiences—such as those in China, Brazil, and Eastern Europe—where SOEs have historically played a catalytic role in industrialization and regional integration (Hu & Lin, 2004; Pinson & Morel Journel, 2016). The findings therefore add to the growing literature on inland water transport and industrial development in sub-Saharan Africa, an area that has received limited scholarly attention despite its strategic significance.

For regional stakeholders, including county governments, private sector actors, and local communities, the study offers practical insights into how revitalized inland water transport can support the blue economy agenda by promoting sustainable use of aquatic resources, reducing carbon emissions associated with road transport, and expanding market opportunities for fisherfolk, traders, and small-scale enterprises (Nduati, 2023; World Bank, 2020). In doing so, it provides a basis for designing future interventions that balance economic growth with social inclusivity and ecological sustainability. Overall, the study's findings will inform future projects under Kenya's blue economy framework and contribute to shaping policies and strategies for inland maritime development across the East African region.

➢ *Scope and Delimitation of the Study*

The study focuses on the socio-economic impacts of MV Uhuru I and MV Uhuru II in the Lake Victoria region, with particular emphasis on Kisumu County and its surrounding counties, which are directly influenced by cross-border lake transport activities. Kisumu serves as the primary hub for Kenya's inland maritime trade on Lake Victoria and provides a strategic linkage between Kenya and neighboring East African states such as Uganda and Tanzania (World Bank, 2020). By narrowing the geographical scope to Kisumu and its environs, the study captures the epicenter of maritime activity, port revitalization, and community-level socio-economic changes arising from vessel operations.

The study limits itself to evaluating core socio-economic indicators, including trade volumes, employment effects, and industrial growth since the commissioning of MV Uhuru I and II between 2019 and 2025. These indicators are central to understanding the developmental impact of maritime transport, as improved vessel operations have been linked to increased cargo throughput, reduced transport costs, and job creation in related industries (Hoffmann & Hoffmann, 2021; Gachanja & Ochieng, 2021). By concentrating on these dimensions, the research aligns with its primary objective of examining how public-sector investment in maritime infrastructure promotes regional economic transformation and industrial capacity building.

The scope of this study deliberately excludes broader environmental impacts and highly technical aspects of vessel engineering design. While ecological concerns such as pollution, water hyacinth proliferation, and carbon emissions remain important issues within Lake Victoria's transport system (UNECA, 2016), they are beyond the immediate focus of this research. Similarly, engineering specifications and technical vessel design details are not assessed, as the emphasis is placed on the socio-economic outcomes of infrastructure interventions rather than their mechanical intricacies. This delimitation allows the research to maintain a clear focus on its central objectives while acknowledging that environmental sustainability and technical vessel engineering remain critical areas for future scholarly inquiry.

II. LITERATURE REVIEW

➢ *Inland Water Transport and Regional Development*

Inland water transport (IWT) is increasingly recognized as a cost-effective, energy-efficient, and environmentally sustainable mode of freight transport, especially in regions with expansive water bodies like Lake Victoria. According to the African Union (2020), effective water transport can stimulate regional economic growth by lowering trade barriers, improving accessibility, and enhancing cross-border integration. Research by Gwilliam (2011) further emphasizes that when supported by well-maintained infrastructure, IWT can complement road and rail transport, thereby improving the efficiency of regional logistics chains.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25aug1066

However, in many African contexts, inland maritime systems have suffered from underinvestment, aging vessels, and insufficient policy support (World Bank, 2014). This has curtailed their role in socio-economic development despite their potential. The revival of MV Uhuru I and the construction of MV Uhuru II therefore represent a shift in national priorities, aligning infrastructure development with regional integration goals.

➢ *Socio-Economic Impact of Maritime Infrastructure*

Maritime infrastructure plays a pivotal role in facilitating trade, creating employment, and stimulating industrial development. In a study on the impact of port modernization in Sub-Saharan Africa, Hoffmann and Hoffmann (2021) found that investment in maritime transport led to a significant increase in trade volumes and improved access to markets for landlocked countries. Moreover, vessels like MV Uhuru provide intermodal linkages between rail, road, and water transport, enabling landlocked regions to connect to coastal markets efficiently (AfDB, 2022).

In Kenya, the revitalization of Kisumu Port and the re-introduction of vessel operations have been linked to increased cargo throughput, reduced transport costs, and employment opportunities for youth (KRC, 2024). According to KSL (2023), over 1,000 technical personnel and youth trainees were engaged during the construction of MV Uhuru II, highlighting the project's role in skills transfer and industrial capacity building.

➢ *Role of State-Owned Enterprises (SOEs) in Infrastructure Development*

State-Owned Enterprises (SOEs) often play a critical role in delivering strategic infrastructure in developing countries where private sector investment may be limited. Kenya Railways Corporation (KRC) and Kenya Shipyards Limited (KSL) serve as key SOEs driving maritime revival on Lake Victoria. Similar models can be seen in China, where SOEs have spearheaded shipbuilding and port development to support regional and international trade (Zhao & Zhang, 2014).

Hu and Lin (2004) observed that in Northeast China, SOE-led transformations in the shipbuilding industry generated localized industrialization, increased employment, and stimulated economic revival in post-industrial regions. In Kenya, KSL's partnership with the Ministry of Defence and its acquisition of the Numerical Machining Complex (NMC) has positioned it as a key industrial actor in the blue economy (MOD, 2024).

➢ *Blue Economy and Sustainable Maritime Growth*

The blue economy framework, as adopted by Kenya and promoted by the United Nations (2017), emphasizes the sustainable use of aquatic resources to drive economic growth, employment, and social inclusion. Within this framework, investment in inland water transport systems like MV Uhuru I and II contributes to both economic and environmental goals by offering an alternative to carbon-intensive road transport.

Ecological Modernization Theory (EMT) supports the idea that economic development and environmental sustainability can be mutually reinforcing (Mol & Sonnenfeld, 2000). In this context, the modernization of Lake Victoria's transport through new and retrofitted vessels reduces pollution, road congestion, and degradation associated with overland haulage, while fostering green job creation.

➢ *Regional Integration and Cross-Border Trade*

Lake Victoria links Kenya to Uganda, Tanzania, Rwanda, and the Democratic Republic of Congo, making it a strategic corridor for East African trade. The revival of MV Uhuru I and the commissioning of MV Uhuru II have enhanced Kenya's ability to move goods—such as petroleum, maize, fertilizer, and building materials—across regional borders in a timely and cost-effective manner (The Star, 2024). This aligns with EAC objectives to harmonize infrastructure and deepen economic ties among member states.

According to Pinson and Morel Journel (2016), infrastructure investments that blend economic and social objectives can serve as catalysts for inclusive regional development. The Lake Victoria transport initiative demonstrates such blending, with positive spillovers for communities involved in port logistics, trade, fishing, and local commerce.

➢ *Gaps in Literature*

While available literature underscores the theoretical benefits of inland water transport and state-led infrastructure, there is limited empirical research on Kenya's inland vessel-based trade systems especially the socio-economic effects of MV Uhuru I and II. Little scholarly attention has been paid to localized impacts such as job creation, skills development, and changes in regional trade behavior. This study addresses this gap by focusing on how KRC and KSL's maritime initiatives have influenced socio-economic outcomes in the Lake Victoria region.

➢ *Theoretical Framework*

This study is anchored on two interrelated theoretical frameworks that provide both an economic and environmental lens for analyzing the revamping of MV Uhuru I and the construction of MV Uhuru II on Lake Victoria. These are the Developmental State Theory and the Ecological Modernization Theory. Together, they guide the understanding of how state-led maritime interventions can simultaneously drive socio-economic transformation and promote environmental sustainability.

- *Developmental State Theory*

The Developmental State Theory emphasizes the critical role of the state in steering and accelerating economic transformation through deliberate intervention in key sectors of the economy. According to Johnson (1982), developmental states actively shape markets and drive industrialization by using state-owned enterprises (SOEs) as strategic instruments of growth. Within this framework, the state is not merely a regulator but a direct participant in economic activities,

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25aug1066

channeling resources and coordinating investments to achieve long-term national goals.

In the context of the MV Uhuru I and MV Uhuru II projects, this theory highlights how Kenya Railways Corporation (KRC), in collaboration with Kenya Shipyards Limited (KSL), functions as an arm of the state to promote socio-economic transformation around Lake Victoria. The revamping and construction of these vessels are not just technical interventions but strategic state-led initiatives aimed at boosting regional trade, creating jobs, and improving transport efficiency. Thus, the projects align with the developmental state model, demonstrating how state agencies can spearhead structural change and regional integration through targeted maritime infrastructure investments.

- *Ecological Modernization Theory*

The Ecological Modernization Theory provides a complementary lens by emphasizing the compatibility of economic development and environmental sustainability. Mol and Sonnenfeld (2000) argue that technological innovation, institutional reforms, and improved environmental governance can drive both ecological protection and economic progress. Rather than seeing environmental management as an obstacle to growth, this theory frames it as an opportunity for modernization and innovation.

Applying this perspective to the MV Uhuru projects, the deployment of modern shipbuilding and repair technologies not only enhances water transport efficiency but also reduces ecological pressures on Lake Victoria. Improved vessel efficiency minimizes fuel consumption and emissions, while state regulation ensures that maritime expansion aligns with broader sustainability goals. This approach illustrates how economic growth in the region, spurred by improved trade and connectivity, can coexist with ecological preservation. Therefore, the MV Uhuru I and II projects reflect the principles of ecological modernization by integrating state-led infrastructure development with environmentally conscious practices.

Together, these theories provide a basis for analyzing how state-led investments like MV Uhuru projects can stimulate regional development while advancing sustainability goals.

III. RESEARCH METHODOLOGY

This chapter outlines the overall methodological framework employed in investigating how the revamping of MV Uhuru I and the construction of MV Uhuru II have promoted socio-economic development in the Lake Victoria region. Specifically, it presents the research design, data collection methods, target population, sampling procedures, data analysis techniques, and ethical considerations that guided the study. Each of these components is carefully structured to ensure the research maintains credibility, reliability, and depth in addressing the stated objectives.

➢ *Research Design*

The study adopts a qualitative case study design. This design is appropriate as it allows for in-depth exploration of contemporary developments such as infrastructure investment and its socio-economic impacts within their real-life context. By focusing on the case of MV Uhuru I and II, the study critically examines the interplay between maritime infrastructure and development outcomes in the Lake Victoria region.

➢ *Study Area*

The research is conducted in the Lake Victoria Basin**,** with a focus on Kisumu County**,** where both vessels are docked and operated. Additional data is gathered from key trade and transport corridors linked to the MV Uhuru operations, including Kisumu Port**,** the Kisumu-Kampala route, and the Naivasha Inland Container Depot (ICD)**.**

➢ *Target Population*

The study targets a wide range of stakeholders who have both direct and indirect roles in the construction, operation, and socio-economic utilization of MV Uhuru I and II. These stakeholders represent institutional actors, technical experts, community beneficiaries, and regulatory authorities whose perspectives are critical to understanding the multi-dimensional impact of the vessels on the Lake Victoria region. Direct stakeholders include agencies such as the Kenya Railways Corporation (KRC), which provides strategic oversight of the vessels' operations and integration into Kenya's intermodal transport system (Gachanja & Ochieng, 2021), and Kenya Shipyards Limited (KSL), whose engineers and administrators were actively engaged in the design, construction, and maintenance of MV Uhuru II (Muasya, 2022). Indirect stakeholders comprise officers from collaborating institutions such as the Kenya Maritime Authority (KMA), the National Environment Management Authority (NEMA), and the Kenya Defence Forces (KDF), who contribute to regulatory enforcement, environmental monitoring, and security oversight (World Bank, 2020).

In addition to institutional actors, the study also encompasses community-based stakeholders whose livelihoods are directly tied to improved maritime transport. These include fisherfolk and small-scale traders around Lake Victoria, who depend on efficient cargo and passenger services for access to markets and economic sustainability (Nduati, 2023). Furthermore, community leaders and business owners in Kisumu and neighboring counties are considered, as they provide insights into localized socio-economic transformations resulting from the vessel projects (Pinson & Morel Journel, 2016). Finally, county government officials working in trade, transport, and blue economy departments are included to highlight the role of devolved governance in aligning national infrastructure projects with local development priorities (UNECA, 2016). By engaging this diverse group of stakeholders, the study ensures a holistic understanding of how the revamping and construction of MV Uhuru I and II contribute to trade facilitation, industrial development, employment creation, regional integration, and the advancement of Kenya's blue economy agenda.

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- *Kenya Railways Corporation (KRC) Officials*

Kenya Railways Corporation (KRC) officials are central actors in coordinating the operations of MV Uhuru I and II, as the vessels are part of the broader intermodal transport system linking Lake Victoria to the Standard Gauge Railway and road networks. Their responsibilities include policy implementation, operational oversight, and the integration of maritime transport with national logistics frameworks. According to Gachanja and Ochieng (2021), KRC has been instrumental in spearheading transport modernization projects in Kenya, positioning Kisumu Port as a regional hub for trade facilitation. In this study, KRC officials provide expert insights into the strategic objectives, challenges, and outcomes of vessel operations within Kenya's socio-economic development agenda.

- *Kenya Shipyards Limited (KSL) Engineers and Administrators*

Engineers and administrators from Kenya Shipyards Limited (KSL) form the technical and managerial backbone of the shipbuilding projects. KSL engineers oversee the construction, repair, and maintenance of vessels, while administrators coordinate industrial partnerships, project financing, and workforce development. Muasya (2022) highlights KSL as a pioneer in industrial revival through local shipbuilding, noting its role in skills transfer and industrial capacity building. Their inclusion in the target population ensures a deeper understanding of the technological innovations, human resource development, and institutional strategies that underpin the successful construction of MV Uhuru II.

- *Officers from Collaborating Agencies (KMA, NEMA, Kenya Defence Forces)*

The success of maritime infrastructure projects requires cross-agency collaboration. Officers from the Kenya Maritime Authority (KMA) regulate vessel safety, compliance, and navigation standards, while the National Environment Management Authority (NEMA) ensures that maritime activities adhere to environmental safeguards. The Kenya Defence Forces (KDF), under whose mandate KSL operates, provide security and technical oversight. According to the World Bank (2020), regulatory and inter-agency collaboration is essential for sustaining inland water transport systems in Africa. These officers offer critical perspectives on the governance, environmental sustainability, and security dimensions of the MV Uhuru projects.

- *Fisherfolk and Traders Operating Around Lake Victoria*

Fisherfolk and small-scale traders are among the most directly affected stakeholders, as they rely heavily on Lake Victoria for their livelihoods. Improved vessel services enhance their access to regional markets, lower transport costs, and reduce post-harvest losses, especially for perishable goods like fish. Nduati (2023) emphasizes that transport revitalization in the Lake Region has expanded trading opportunities for grassroots communities, directly contributing to poverty reduction and socio-economic empowerment. Their views provide important evidence on how large-scale infrastructure translates into tangible benefits for everyday citizens.

- *Community Leaders and Business Owners in Kisumu and Neighboring Counties*

Community leaders and local business owners play a vital role in linking national infrastructure projects to grassroots development outcomes. Community leaders serve as intermediaries, voicing local concerns and facilitating community acceptance of large-scale interventions. Business owners, on the other hand, leverage improved logistics for investment and entrepreneurship. Pinson and Morel Journel (2016) argue that development projects achieve greater inclusivity when economic and social objectives are blended, as seen in Kisumu's port revival. By engaging with this group, the study captures localized impacts of MV Uhuru I and II on commerce, employment, and community development.

- *Officials from County Departments of Trade, Transport, and Blue Economy*

County-level officials provide local policy oversight and ensure alignment of national projects with county development strategies. They are tasked with implementing trade regulations, supporting transport infrastructure, and advancing blue economy initiatives in the Lake Victoria region. According to UNECA (2016), sub-national governments are critical in operationalizing blue economy policies by linking them to community-level priorities. Their inclusion in the study highlights how the vessels contribute not only to national goals but also to devolved economic development, ensuring a balanced assessment of multi-level governance in transport infrastructure.

This diverse population provides a comprehensive understanding of the vessels' socio-economic impact.

➢ *Sampling Techniques*

Purposive sampling is used to select knowledgeable participants such as engineers, policy-makers, port officials, and transport experts in volved with KRC and KSL. **Snowball sampling** is used to identify community members and small-scale traders who benefit from or are affected by the vessels' operations. A sample size of **30–40 respondents** is targeted, ensuring representation across institutional and grassroots levels.

➢ *Data Collection Methods*

The study employs the following qualitative data collection tools:

- *Interviews*

Semi-structured interviews are conducted with key informants from KRC, KSL, port management, and regional transport agencies. These interviews explore project design, objectives, implementation challenges, and perceived outcomes.

- *Focus Group Discussions (FGDs)*

FGDs are held with local traders, fisherfolk, and small-scale transport operators to capture community-level impacts and experiences.

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- *Document Analysis*

Official reports, policy briefs, vessel construction data, trade volume statistics, media articles, and academic papers are reviewed to contextualize findings and support triangulation.

- *Field Observations*

Direct observations at Kisumu Port and adjacent trade centers provide practical insight into how vessel operations affect logistics, trade activities, and port utilization.

➢ *Data Analysis*

Thematic content analysis is used to analyze qualitative data. Interview transcripts, field notes, and document excerpts are coded and grouped according to key themes aligned with the study objectives:

- *Trade Facilitation and Logistics Efficiency*

The revamping of MV Uhuru I and the construction of MV Uhuru II have significantly enhanced trade facilitation and logistics efficiency in the Lake Victoria region. These vessels increased cargo-handling capacity, particularly for petroleum, agricultural produce, and manufactured goods, thereby easing the movement of bulk cargo across borders. By reducing dependence on road transport which is often congested and prone to delays the vessels lowered transportation costs and cut delivery times, creating a more predictable and competitive trading environment (World Bank, 2020). According to Hoffmann and Hoffmann (2021), maritime infrastructure investment in Sub-Saharan Africa has been shown to boost trade volumes and improve access to markets, a trend mirrored by the MV Uhuru initiatives. Moreover, the improved intermodal connectivity between Kisumu Port, the Standard Gauge Railway (SGR), and the Naivasha Inland Container Depot enhances Kenya's role in regional logistics, aligning with UNECA's (2016) call for integrated transport systems to drive cross-border trade in Africa.

- *Employment and Industrial Development*

The collaboration between Kenya Railways Corporation (KRC) and Kenya Shipyards Limited (KSL) has also fostered employment and industrial growth. The construction of MV Uhuru II at Kisumu Shipyard created more than 1,000 direct and indirect jobs while simultaneously transferring technical skills to local engineers and artisans (KSL, 2023). This aligns with Muasya's (2022) findings that local shipbuilding initiatives stimulate industrial revival by creating forward and backward linkages in supply chains. The project also encouraged ancillary industries—including suppliers of steel, welding equipment, and logistics services—to expand their operations, further promoting local industrial clusters. Studies on state-owned enterprises in China have shown similar patterns: SOE-led shipbuilding initiatives stimulated industrial development and localized employment in post-industrial regions (Hu & Lin, 2004). By mirroring such development models, Kenya's shipbuilding efforts demonstrate the state's ability to drive industrialization and job creation, in line with Developmental State Theory (Johnson, 1982).

- *Regional Integration and Blue Economy Contributions*

Modernizing maritime transport through MV Uhuru I and II has reinforced Kenya's position in promoting regional integration within the East African Community (EAC). The vessels facilitate seamless trade with Uganda and Tanzania, reducing trade barriers and strengthening cross-border economic ties (The Star, 2024). This development resonates with Pinson and Morel Journel's (2016) argument that infrastructure projects combining economic and social objectives act as catalysts for inclusive regional development. Additionally, the initiative aligns with Kenya's blue economy agenda by utilizing Lake Victoria as a sustainable trade corridor. According to the United Nations (2017), blue economy strategies enhance economic growth while ensuring ecological sustainability. Improved vessel efficiency reduces carbon emissions compared to road haulage, echoing the principles of Ecological Modernization Theory that economic development and environmental sustainability can be mutually reinforcing (Mol & Sonnenfeld, 2000). By enabling eco-friendly trade, tourism, and fisheries, the MV Uhuru projects highlight how state-led infrastructure can deliver both socio-economic and ecological benefits to the Lake Victoria Basin.

This approach allows for systematic interpretation of participant perspectives and triangulation with secondary data.

➢ *Validity and Reliability*

To ensure validity, the research instruments (interview guides and FGD prompts) are pre-tested and reviewed by academic experts and stakeholders. Data triangulation—using interviews, observations, and documents—enhances the credibility and consistency of the findings. Reliability is further supported by detailed documentation of procedures and consistent application of data coding schemes.

➢ *Ethical Considerations*

Ethical approval is obtained from relevant institutional authorities. Participants are informed about the purpose of the study and provide **informed consent** prior to interviews. Data confidentiality and anonymity are strictly observed. Sensitive information is handled responsibly, and respondents are allowed to withdraw at any stage of participation.

IV. CONCLUSION

This study has demonstrated that the revamping of MV Uhuru I and the construction of MV Uhuru II by the Kenya Railways Corporation (KRC), in collaboration with Kenya Shipyards Limited (KSL), have played a pivotal role in reshaping socio-economic dynamics within the Lake Victoria region. The initiatives not only revived inland water transport but also repositioned Kisumu as a strategic logistics hub, enhancing Kenya's role in regional trade and integration. By significantly improving cargo capacity, reducing transport costs, and easing cross-border trade with Uganda and Tanzania, the vessels have addressed longstanding inefficiencies in regional logistics while fostering new opportunities for commerce.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25aug1066

Beyond trade, the projects have contributed to industrial capacity building and employment creation. The local construction of MV Uhuru II at Kisumu Shipyard provided a platform for skills transfer, youth employment, and the stimulation of supporting industries, aligning with the broader objectives of Kenya's Vision 2030 and the Bottom-Up Economic Transformation Agenda. In addition, the initiatives embody the principles of Developmental State Theory by illustrating the state's capacity to drive industrialization through state-owned enterprises, while also reflecting Ecological Modernization Theory by promoting more sustainable and environmentally conscious transport alternatives.

The findings further emphasize the potential of inland water transport as a driver of Kenya's blue economy strategy. With reduced reliance on carbon-intensive road transport, the vessels contribute to ecological sustainability while advancing socio-economic inclusivity. Overall, the collaboration between KRC and KSL underscores the transformative potential of public-sector investment in maritime infrastructure. The study recommends sustained policy support, expansion of shipbuilding initiatives, and stronger environmental safeguards to ensure that such interventions continue to balance economic growth, regional integration, and ecological preservation for the Lake Victoria Basin.

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