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**The Decline of Lake Victoria Ferry Services in Kenya, 1961-2012**



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## The Decline of Lake Victoria Ferry Services in Kenya, 1961-2012



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### ABSTRACT

**Purpose:** This study examined the operations of Lake Victoria Ferry Services since the independence of the East African countries in 1961 when the management was under the East Africa Railways and Harbors (EARH) and later the Kenya Railways Corporation (KRC). At the beginning of the 20<sup>th</sup> century the British colonial government established Lake Victoria transport as an extension of railway line in the lake region in Kenya and into Uganda. Despite some challenges, lake transport demonstrated progress in its services and expansion during the colonial period. However, when the management was transferred to the independent governments of East Africa, the operations of ferries were affected by the inefficiencies which marked the beginning of its decline. This study was guided by Politics of the Belly Theory of Bayart who associates underdevelopment of Africa long after independence with corrupt practices of African leaders. The theory shows that postcolonial African leaders have personalized the state for their own and their ethnic community's gain thereby neglecting the regions which are perceived to be opposing the ruling regime.

**Methodology:** A Historical Research Design was used to conduct this study. Non probability sampling methods and procedures were used to identify informants during the collection of primary data. Other primary data were gathered from Kenya National Archives and Railways Museum in Nairobi. Secondary data was collected from relevant publications and other materials.

**Findings:** The data obtained were analyzed using content and thematic analysis techniques. This study established that transition in management from colonial to independent East African governments, competition from road transport and disintegration of East African Community led to the decline of maritime transportation on Lake Victoria. In order to revive ferry services on the Lake, major rehabilitations on the existing ports must be done and modern ports built. In the same vein new transport vessels should be acquired. Finally, a permanent solution to the threat of water hyacinth must be pursued and regular dredging of navigational channels done regularly.

**Unique Contribution to Theory, Policy and Practice:** This study suggests that, the government should promote integrated transport planning as well as developing proper regulations guiding Lake Victoria transport.

**Keywords:** *Lake Victoria; Transport; Ferries, Ports; Kenya; Independence*

## 1.1 Introduction

Organized ferry services on Lake Victoria were established by railway companies early in the 20th century as an extension of the railway lines in the lake region. Thus, coordinated lake maritime transport in Uganda, Kenya and Tanzania was organized and managed by the railway companies in East Africa (Nakyonyi, 2011). This was to make railway line remunerative by introducing the people of the lake region in the capitalistic economy through trade and agriculture. The British therefore established a port at the railway terminus in Kisumu and placed ferries on the lake (Knowles, Knowles & Knowles, 2005). At the same time, construction of roads around the lake region proved to be difficult due to the complex topography of the shoreline. Maritime transport on Lake Victoria therefore became the principal means of extracting agricultural produce in Nyanza region during the early colonial period due to poor road network in the region (Onduru, 2009). Debie (2012) further indicates that the coastal ports relied on the inland waterways to tap the resources in the hinterlands in the absence of railways in the interior. As a result, the whole lake was now surveyed and demarcated in 1906 (Uganda Railways, 1907). This led to the establishments of Homa Bay, Asembo Bay and Sio Ports in 1911 (Uganda Railways, 1911; Ochieng' & Maxon, 1992). Therefore, rail network and maritime transport on the lake became the best alternative modes of transport in the region (Maritime & Transport Business Solutions, 2016). At their inception in the early twentieth century, lake ferries offered services within Kenyan ports and between Kenya, Uganda and Tanzania using rail ferries that carried rail wagons loaded directly from rail tracks in some ports.

Railroads and the development of lake ports opened Lake Region for trade, and transport across the lake became a well-established trade route (Ford, 1955). Throughout the colonial period more ports were built including Kendu Bay, Mbita and Kowuor, and new ferries acquired to meet the rising transport demands. The Lake transport therefore demonstrated progress and expansion especially during the colonial period despite the challenges of world wars and economic depression of 1930s. However, independence of East African countries in the early 1960s marked the beginning of the decline of lake transport which was escalated by the break-up of the East African community in 1977 (Ogonda, 1992).

This study examines how the challenges which came with the independence together with the postcolonial government infrastructural development policies affected the stable operations of the ferry services across the lake in Kenya.

## 1.2 Material and Methods

This study has been conducted through a Historical Research Design. The study area is located in Western Kenya along the Lake Victoria, specifically Nyanza Region. It was conducted from February 2021 to June 2023. Non-probability sampling technique of purposive and snowball sampling were specifically used to collect data from Maritime officers, Kenya ports authority officers, Beach Management Unit Leaders, Ferry operators, traders, residents around the lake ports,

boat owners and boat operators. At the end a total of 13 respondents were interviewed. The data obtained were analyzed using content and thematic analysis techniques. The study is guided by the “Politics of the Belly Theory” advanced by Bayart (1993). The theory is concerned about the persistence of underdevelopment of Africa long after independence. The theory establishes that the problem arises from personalization of the state by the post-colonial African leaders for personal and ethnic gain at the expense of the whole country. Ethnicity and acquisition of wealth through corruption dominates African politics and governance. Emeh (2013) asserts that Africans themselves are responsible for Africa state of underdevelopment today.

### **1.3 Deterioration of Lake Victoria Ports and Ferries**

The decline of lake ferry services and the consequent lack of maintenance and limited investments since the breakup of EARH have resulted to deteriorating quality of most ports and port operations on Lake Victoria. Besides, there is lack of navigations aids and paved cargo handling areas at the ports. Port operations are also inefficient and outdated with most offloading operations done manually (Ochieng & Maxon, 1992; Malele, I.O., 2021).

None of the ports on Lake Victoria has container-handling equipment. Generally, the existing port infrastructure is currently in a dilapidated state and there are limited operating spaces at the ports (Maritime & Transport Business Solutions, 2016). Additionally, most ports and piers along the lakeshore lack proper accessibility to the hinterland due to the poor condition of the minor roads connecting them to the main roads. This has rendered the inter-modal connectivity very costly and difficult (Muyodi, Bugenyi & Hecky, 2010). These ports have been subject to vandalism and neglect by the government (Mola, 2021).

The “Floating islands”, water hyacinth and Sedimentation in the lake sometimes clog up the ports, obstructing the movement of vessels in and out of the ports requiring regular services of ports to ensure accessibility. In some occasions it has been impossible for light steamers to dock due to excessive congestion of water hyacinth (Ochieng, 2003; Omar, O.I, 2021). At the same time, lake navigability together with maritime safety have not been sufficiently addressed. Ferries have relied on outdated hydrographical surveys from 1924, which do not reflect the level of channel silting (AU-ECA, 2008). Even though all registered ferries on Lake Victoria were provided with radio communication systems, all the lake ports were not provided with formally structured maritime assistance services of any kind. This indicates that no general weather synopsis, storm or other navigational warnings could be given to ships departing from any of the lake ports (Maritime & Transport Business Solutions, 2016).

The operations of maritime transport on Lake Victoria further deteriorated due to low investment in transport vessels. Moreover, a number of the existing vessels, which used to ply the Lake were either broken down or have been surveyed and disposed of as scrap (Republic of Kenya, 2009).

For instance, SS Nyanza was lying idle at the Kisumu Port; SS Usoga has been lying alongside the dock but flooded and was being broken up for scrap; Tug Kavirondo has been lying on the slipway in Kisumu; Reli/Kyaka has been sitting between what was a dredger and a steam piling hammer and Alestes and Tilapia have been lying at Kisumu Port.

The best global marine practices that have been adopted in areas similar to Lake Victoria such as the coastal waters of the Baltic, Adriatic and Aegean seas have never been applied. All these areas envelop a number of islands, therefore the need for short to medium range of cargo and ferry systems, comparable to the Lake Victoria case. Besides, as Lake Victoria is not directly accessible to the Sea and the lake ports have been lacking large shipbuilding facilities, the size of the vessels that operated on the lake is limited. This limitation is based on the size of the available dry-docks. In the same vein, lack of shipbuilding capabilities means that large vessels are constructed abroad and subsequently disassembled and transported to Lake Victoria, where they are reassembled. Such elaborate process results to increased costs of establishing new vessels, and subsequently affecting the viability of the projects. Furthermore, the passenger and cargo catamarans between different landing sites require a proper solution. The landing sites that are majorly serving engine boats and catamarans are many yet quite a number of them lack a safe and healthy set-up. Depending on the use of the landing sites, the catamarans lack a proper ramp or a jetty and proper access road (Maritime & Transport Business Solutions, 2016; Onyango, O.I., 2021).

Since the collapse of EARH in 1977, the government of Kenya has not prioritized the development of Lake Victoria transport. Some studies have associated this neglect to a reaction by the ruling regime to the perceived opposition politics from Nyanza region led by Oginga Odinga and later Raila Odinga (UN-Habita, 2006). None the less the decline of the lake ferries services gave room to the expansion in use of the engine boats (Mbuga, et. Al, 1998; Onyango, O.I., 2021). The outboard engine boats have, however, been used extensively for transport purposes (Roberts, et al., (2021) while sails and oars have remained to be the main means of propulsion for the small-scale fishers (Jansen, et, al., 2000). However, from the mid-1980s outboard engines boats have been increasingly used for commercial fishing of Nile-perch (Harris et al., 1995).

#### **1.4 Independence of East Africa and the Challenges of Lake Victoria Transport, 1961-1977**

The events in the member states of East African Community after independence put some doubt on the prospects for the continuation of the East African Common Services Organisation (EACSO) (International Bank for Reconstruction and Development, 1965). The independence of Tanganyika which coincided with the establishment of EACSO in the same year marked the beginning of the collapse of the federalism in East Africa (Potholm, 1979). Potholm posits that whereas during the colonial period there was an integrating factor (the common colonial administration), the postcolonial East Africa lacked a common driving force of a similar nature. This was manifested by lack of full commitment to the ideologies of the organization. This led to the dwindling of Lake Victoria transport during the transition period when management was transferred to independent

African governments. Thus, road transport was increasingly attracting transporters (Hyde, 2012). For a long time, roads were used as feeders of railways and lake transport. For instance, the commodities from the hinterlands of Homa Bay, Kendu Bay and Asembo Bay ports were delivered to these ports by road. However, with improved roads and better vehicles these commodities were now transported directly to Kisumu or Nairobi by road (Akuno, O.I., 2021) and from 1957 EARH made relatively small profits (EARH, 1964). Roads now indicated the ability to serve independently and as the competitor and an alternative to railways and lake transport (Ochieng & Maxon, 1992).

At independence, the EARH had to deal with some difficult financial challenges, which arose mainly from; first, the need of renewing EARH's obsolete rolling stock and other railway and ports equipment. Secondly, the East African Governments' inability to raise loans for EARH purposes in the traditional London market in order to refinance maturing public issues. Finally, the heavy compensation payments which were to be made to departing Asian and European staff whose contracts were terminated prematurely. In trying to implement the policy of Africanization after independence, the East African Governments replaced European and Asian staff by the Africans. In addition to financial burden, this policy affected efficiency of the enterprise by premature retiring of skilled Europeans and Asians staff and replacing them with the inexperienced Africans (International Bank for Reconstruction and Development, 1965). In an attempt to reduce the financial burden, the company reduced the wages of its labours as well as relinquishing some of them throughout the region. This action elicited angry resistance from these workers in all the three colonies (Ochieng & Maxon, 1992). Abok (O.I, 2021) indicates that poor ferry services were further escalated when employees missed their salaries in some months in 1974 leading to a go slow and strike. According to Okombo (O.I, 2021) the problem of the EARH was a result of lack of commitment on the part of the three heads of state of East Africa.

Amidst the growing of entire financial crisis, suspicion and hostility were also growing between the three partner states. For instance, Tanzania had a strong feeling that Kenyan government allowed excessive road competition and seemed to be more interested in the road transport industry than the railway and lake transport. At the same time, the establishment of military regime in Uganda in 1971 was not recognised by the Tanzania government and there were common clashes between the armed forces of Tanzania and that of Uganda. Moreover, the three heads of state did not meet for a long time and the underlying bitterness was the feeling particularly in Tanzania that Kenya was the major beneficiary of the integration of the community. Thus, it was such feeling that lay deep behind the problems facing the lake transport and other corporations including the airways. Amidst all these, there was allegations that Tanzania planned to withdraw from the railways corporation in 1974 and this was given credibility by the failure to transfer funds in that year (Ogonda, 1992). The weak financial position and the post independent wrangles of the East African Community states affected the performance of lake transport. This was escalated by the disintegration of EAC in 1977 (Ochieng & Maxon, 1992).

### **1.5 Kenya Railways Corporation and the Decline of Lake Victoria transport, 1978- 2012**

The dissolution of East African Community in 1977 led to a breakup of EARH into three national corporations, The Uganda Railways Corporation, The Kenya Railways Corporation and The Tanzania Railways Corporation. The lake ferries were similarly divided among the three East African community states. The collapse of EAC meant that each state restricted its transportation system within its territorial waters (Goldstein & Ndung'u, 2001). In 1978, Kenya Railways Corporation was established under the Kenya Railways Act Cap 397 of the Laws of Kenya. It became a wholly government-owned parastatal and took over the operations of the defunct EARH following its demise in 1977 with the disintegration of EAC. The Act was revised in 1986, and provided that the duties of the corporation was to provide coordinated and integrated rail and inland waterway transport services, port facilities in relation to inland water transport and auxiliary road transport services (Irindu, 2000). However, the Act had a weakness on the critical issues on requirements for vessel registration, safety of life, navigation, survey and insurance (Republic of Kenya, 2009).

At its establishment, the corporation was in the possession of a number of lake ferries including M.V. Reli, M.V. Alestes, M.V. Kamongo, Kavirondo, M.V. Uhuru, M.V. Peeda, M.V. Homa, M.V. Cathleen, M.V. Tilapia, and Nyanza (Goldstein & Ndung'u, 2001) and all the Kenyan lake ports (Disi, O.I., 2020). The ferries offered both passenger and freight services between different Kenyan lake ports such as Kisumu, Homa Bay, Kendu Bay, Kowuor, Mbita, Asembo Bay, and Sena (Mfangano Island). However, the provision of services to Karungu and Mohuru was suspended because it was not cost effective (Otieno, 1986). Kokeyo (O.I., 2020) observes that lake ferries serving Karungu port stopped in 1980s after which the people in this region relied on engine boats for local travel and road transport for their movements to places such as Homa Bay, Migori and Kisumu.

Railways and Lake Victoria transport was a dominant mode in Kenya for many years until in the mid-1980s when it began experiencing challenges and thus its performance began to decline (Wasike, 2001). KRC enjoyed government protection against other modes of transport and was the sole transport agent for all state owned corporations. For instance, all the tea and coffee to Mombasa and all commodities and produce handled by National Cereals and Produce Board (NCPB), Bamburi Portland Cement, Kenya National Trading Corporation (KNTC) and products from Kenya Cooperative Creameries (KCC) were transported by the railways. Transportation was highly controlled and transporting such commodities by any other mode had to be approved by KRC. After the liberalization, KRC could now set its own tariff, but the government lost the authority to direct customers to use its services anymore (Kariuki, 2000).

Liberalization of the economy gave customers room to choose appropriate mode and they moved in large numbers to road transport, which though was expensive but was more convenient and efficient.

Furthermore, the government funded the corporation's capital expenditure through foreign aid; however, the donor assistance stopped in the early 1990s. This resulted to little or no capital available for the corporation from the government. As a result, the total freight handled by KRC started declining rapidly. In 1980, KRC transported 4.3 million tonnes of cargo which was the highest level attained since its formation. In 1990-1991, it recorded 3.4 million tonnes, 3.1 million tonnes in 1991-92, 2.5 million tonnes in 1992-93, 2.33 million tons in 1993-94 (Onyango, 1997) and a further decline in 1996-1997 financial year where it transported 1.6 million tonnes (KRC, 1986; 1996). In 2005 it transported 1.9 million tonnes (Jedwab, Kerby & Moradi, 2017) demonstrating a slight increase from the previous years against 3.5 million tonnes as projected by 2001-2002 (Irandu, 2000).

By 1990, KRC operated only one wagon ferry, M.V. *Uhuru*, which was mainly operating between Kisumu and Port Bell in Uganda. In 1991-92, this ferry made 57 voyages transporting 170,128 tonnes of cargo compared to 20 voyages transporting 29,975 tonnes in the previous year. During 1992-93, the ferry transported 90,229 tonnes, which represented a 47 percent decline from the 1991-92. During 1993-94, lake marine tonnage sharply declined further by 54 percent to 41,292 tonnes. The observed fall in overall performance was due to the fact that there was a shift in the mode of movement of transit traffic from the lake route to the rail route through Malaba. An agreement between KRC and URC required that M.V. *Uhuru* was to make one voyage for every two made by URC wagon ferries (Onyango, 1997).

In 1995-1996, Kisumu port handled 506, 773 tonnes of transit cargo and 573,034 tonnes in 1999-2000. The slow growth in transit cargo was caused by poor wagon used and long turnaround times with much delays on the URC side. To avoid further delays some transit cargo from Rwanda and Burundi had to be diverted to Dar es Salaam. Wagon ferries which were serving neighboring countries were vital in reducing the burden of loading cargo during transshipment because they carried loaded train wagons. Therefore, building warehouses at the pier or the installation of high capacity loading equipment such as cranes became unnecessary. Moreover, KRC workshop at Kisumu port was underutilized (carpentry shop, blacksmith and painting shop) though it could have generated a lot of revenue for KRC if the management was ready to provide services to the surrounding sugar processing and other industries (Irandu, 2000).

The financial performance of KRC dropped for five consecutive years up to the 1999-2000 financial year and expenses increased over the same period. With revenue declining and expenses rising, KRC deficit level continued to rise and made operations increasingly difficult. In 1995-1996 financial year for instance, KRC made a net deficit of The -1.013 billion, in 1996-1997, the net deficit rose to Sh -1.32 billion and in 1997-1998, the net deficit was Sh -1.34 billion (Irandu, 2000). According to Onyango (1997) between 1989 and 1997, KRC recorded a significant 37 percent decline in freight tonnages moved.

The November 1988 Union of African Railways and the World Bank international Conference in Brazzaville acknowledged that railway transport in Sub-Saharan Africa was in crisis and recommended the new efforts to revitalize the sector (Irandu, 2000). In Kenya, the decline was mainly due to the aging rolling stock and equipment, coupled with changes in the transport market due to economic, and specifically transport liberalization (Kariuki, 2000). After the liberalization of the transport sector, road transport became more competitive and challenged KRC in the market. Moreover, shoreline roads around Nyanza Gulf underwent repairs and reconstruction. The situation was further worsened by lack of coordinated planning of all littoral transport modes to enhance their complementarities. Thus, KRC was not able to adjust to the emergence of road transport (Republic of Kenya, 2009).

The decline in performance of KRC is further attributed to the age of the locomotive fleet in addition to inadequate capital and general lack of vital spare parts, which resulted in the skipping of some maintenance services or repairs. The Increased competition was further caused by the oil pipeline as well as the increased insecurity and accidents, which led to the suspension of some railway's services (Onyango, 1997). Additionally, the poor performance of KRC could largely be associated with inappropriate policies, particularly reliance on public monopoly administrative structures, poor determination of tariffs, indirect subsidization of services and preference for national to regional economic approaches. Other challenges included lack of government subsidies, escalating public debt, bloated workforce and fast deterioration of KRC's asset base (Ongaro, 1999). From 1978 however, lake transport declined tremendously (Gilbert & Perl, 2010).

The poor performance of the railways and lake transport could not allow the implementations of the laid out plans such as the proposed laying of a railway line from Homa Bay-Awendo-Migori with a branch line to Rongo-Kisii and to Sotik, with a rail ramp way installed at Homa-Bay Port that was to ensure transportation through the lake. This network targeted the transportation of agricultural produce from the region currently transported by road (Irandu, 2000). However, it was never implemented. Different scholars have linked this experience to political marginalization by pioneer regime of President Kenyatta and President Moi due to the perceived opposition politics from Nyanza region led by Oginga Odinga and later Raila Odinga (UN-Habitat, 2006; Jedwab, Kerby & Moradi, 2017). Sugar which, is produced at South Nyanza Sugar Company (SONY), is transported by trucks to Kisumu or directly to other markets including Nairobi. Similarly, trucks also transport maize all the way by road around the lake including Kisii to Kisumu. This together with other cereals that used to come down to the lake is now transported by road to Kisumu (Ochieng and Maxon, 1992).

## 1.6 Conclusion

This study established that at Independence, Lake Victoria ferry services in Kenya witnessed a trend of decline and finally collapsed in 2012. The study shows that when the management of lake transport was transferred to the independent governments of East Africa, it experienced both

financial and managerial hitches. In particular there was lack of capital to repair and replace some of the old fleet of vessels acquired during the colonial period. Similarly, the immediate overhaul of the European and Asian employees and replacing them with the inexperienced Africans caused insufficiencies in the running of the ferry services. Moreover, termination of the Asians and Europeans contract prematurely also meant that they had to be heavily compensated further causing financial distress to EARH. The disintegration of EARH in 1977 with the demise of the East Africa community led to the low investments in the lake transport infrastructure in Kenyaports and subsequently caused a decline on the lake transport. At the same time the development of road transport around the lake subjected lake transportation to stiff competition. The presence of the “Floating islands”, water hyacinth and Sedimentation in the lake sometimes obstructed the movement of the vessels in and out of the ports causing fear and interruptions on transport schedule.

In order to revive the attractive services across the lake this study recommends that major rehabilitations of the ports should be undertaken and construction of additional modern ports done. A part from MV *Uhuru*, Lake Victoria ferries are out of service and are laid off. Therefore, there should be investments in modern ferries. Dredging and regular maintenance of navigational channels and coming up with a permanent solution to the problem of water hyacinth should be undertaken. The government should improve logistics and infrastructural development as well as promotion of integrated transport planning. Additionally, the government needs to develop proper regulations guiding the inland water transport and Lake Victoria in particular.

## REFERENCES

- Abubakar A. A. (2000). The Case of Inland Water Ways. A paper presented at the Transport Planning and Management Course at the Nigeria Institute of Transport Technology.
- Asoluka, C. (2012). National Shipping Policy and Shipping Sector Development in Nigeria (Doctoral dissertation).
- AU-ECA. (2008). State of Transport Sector Development in Africa. First Session of the
- Debie J. (2012) The West African port system: Global insertion and regional particularities. *Echogéo*, 20: <https://echogeo.revues.org/13070>
- Fraser, D., & Notteboom, T. (2012). Gateway and hinterland dynamics: the case of the Southern African container port system. *African journal of business management*, 44(6), 1080710825.
- Gilbert, R., & Perl, A. (2010). Transport revolutions: moving people and freight without oil. New Society Publishers.

- Goldstein, A., & Ndung'u, N. S. (2001). Regional integration experience in the Eastern African Region.
- Harris Hyde, D. (2012, September). East African Railways and Harbours 1945-60: From crisis of accumulation to labour resistance. A paper presented at the Commodities of Empire „anti-commodities“ conference. Wageningen University.
- International Bank for Reconstruction and Development (1955). Appraisal of the East African Railways and Harbours Administration Development Program
- Irandu, E. M. (2000). Improving Railway Transport in Kenya: Policy options and achievements to date. Techno-serve Inc, ARD-RAISE Consortium, USA.
- Jansen, E. G., Abila, R. O., & Owino, J. P. (2000, June). Constraints and Opportunities for Community Participation in the management of the Lake Victoria Fisheries. In Forum for Development Studies. Taylor & Francis Group Taylor & Francis Group 27 (1), 95133.
- Jedwab, R., Kerby, E. & Moradi, A. (2017). History, path dependence and development: evidence from colonial railways, settlers and cities in Kenya. *The Economic Journal*, 127(603), 1467-1494.
- Kariuki, J. M. (2000). Performance of Public Enterprises in Kenya, a Case Study of Kenya Railways Corporation (Doctoral dissertation, United States International UniversityAfrica). Evaristus M. Irandu (2000). Improving railway transport in Kenya: policy options and achievement to date
- Knowles, L. C. A., Knowles, L. C. A., & Knowles, C. M. (2005). The economic development of the British overseas empire (Vol. 2). Taylor & Francis. Lake Victoria Fisheries Research Project (2001).
- Maritime & Transport Business Solutions (2016). Lake Victoria Transport Due Diligence Inception Report.
- Mbuga, J. S., Getabu, A., Asila, A., Medard, M., & Abila, R. (1998). Trawling in Lake Victoria (No. 3). Report.
- Muyodi, F. J., Bugenyi, F. W., & Hecky, R. E. (2010). Experiences and lessons learned from interventions in the Lake Victoria Basin: the Lake Victoria environmental management project. *Lakes & Reservoirs: Research & Management*, 15(2), 77-88.
- Nakyonyi, A. (2011). Maritime safety on Lake Victoria: Analysis of the legal and regulatory framework (Master's thesis).
- Ochieng, Z. (2003). Lake Victoria chokes under the water hyacinth. *News from Africa*.

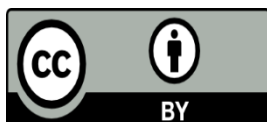
- Ogonda, Richard T. (1992). ["Transport and Communications in the Colonial Economy"](#). In Ochieng', W. R.; Maxon, R. M. (eds.). *An Economic History of Kenya*. Nairobi: East African Educational Publishers. Pp. 129–146. [ISBN 978-9966-46-963-2](#).
- Onduru, T. A. (2009). *Economic change in South Nyanza, Kenya, 1880 to 1945* (Doctoral dissertation, University of the Witwatersrand).
- Ongaro, S. A. (1999). *Transportation as a Medium for Spatial Interaction: A case Study of Kenya's Railway Network*, M.A. Thesis.
- Onyango, G. (1997). *Comparative transportation cost analysis in East Africa*. United States Agency for International Development.
- Otieno, D. (1986). *Planning for water transport on Lake Victoria* (Doctoral dissertation, University of Nairobi).
- Potholm, C. P. (1979). "Who Killed Cock Robin? Perceptions Regarding the Breakup of the East African Community," *World Affairs*, 142 (1), 46
- Republic of Kenya. (2009). *Integrated National Transport Policy: Moving a Working Nation*.
- Roberts, R. D., Goodman, S. J., Wilson, J. W., Watkiss, P., Powell, R., Petersen, R. A., ... & Virts, K. S. (2021). Taking the HIGHWAY to Save Lives on Lake Victoria. *Bulletin of the American Meteorological Society*, 1-65.
- UN-Habitat (2006). *Kisumu Urban Sector Profile*, Kisumu: UN-Habitat
- Wasike, W. S. (2001). *Road infrastructure policies in Kenya: historical trends and current challenges* (No. 1). Kenya Institute for Public Policy Research and Analysis.

### **Archival Sources**

- Uganda Railway (1907). *Annual Reports of the General Manager on Administration of the Uganda Railway, 1906-1907*. Nairobi: Uganda Railways Press.
- Uganda Railway (1911). *Annual Reports of the General Manager on Administration of the Uganda Railway, 1910-1911*. Nairobi: Uganda Railways Press.

**Informants Interviews**

<b>NAME</b>	<b>DATE</b>	<b>PLACE</b>	<b>COUNTY</b>
Abok Songa	07/02/2021	Kisumu	Kisumu
Akoth Syllas	12/12/2021	Karungu	Migori
Akuno Joseph	20/04/2021	Kendu Bay	Homa Bay
Bmu Sori	10/06/2021	Karungu	Migori
Bmu Sori	10/06/2021	Karungu	Migori
Disi Mwalimu	12/02/2021	Kismu	Kisumu
Kokeyo Johnson	09/06/2021	Karungu	Migori
Malele (Engineer)	23/04/2021	Kisumu Port	Kisumu
Mola George	09/08/2021	Asembo Bay	Siaya
Okidi Justus	02/04/2021	Kendu Bay	Homa Bay
Okombo John	12/03/2021	Kendu Bay	Homa Bay
Omar Idi	03/03/2021	Kendu Bay	Homa Bay
Onyango Rabong'o	09/08/2021	Asembo Bay	Siaya



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