

INTERGOVERNMENTAL STANDING COMMITTEE ON SHIPPING

Report on the Assessment of Level of Service Delivery Across the Inland Waterways in the Facilitation of Shipping and Trade on Lake Tanganyika

August, 2022



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Lake Tanganyika forms a part of the East African Rift ecosystem and is shared amongst Tanzania 46% DRC 40%, Burundi 8%, and Zambia 6%. The four riparian countries have a growing population of about 12 million living within the Lake Tanganyika basin with most of this population settling in the western and northern parts of the lake.

Lake Tanganyika is about 670 kilometres long, which makes it the world's longest freshwater Lake. It is also the deepest lake in Africa and the second deepest (averaging at 570m deep) in the world, biggest by volume in Africa and second (about 18,880 cubic kilometres which is over seven times the volume of Lake Victoria) in the world, second oldest freshwater lake in the world and averaging around 50 kilometres in width, with the widest point measuring 72 kilometres.

The Lake is one of the transport connections between the states of Burundi, Democratic Republic of Congo, Tanzania, and Zambia. Major connecting lake ports are Kigoma (Tanzania), Bujumbura (Burundi), Mpulungu (Zambia), and Kalemie (DRC). New ports like Kibirizi and Karema in Tanzania are coming up which will shorten the distance between Tanzania and DRC (Kalemie port) hence reducing the transport costs with Kasanga port in Tanzanian also reducing the distance between Tanzania and Zambia's Mpulungu port. Lake Tanganyika therefore can play a key role in facilitating cargo movement across the lake and trade facilitation in the region.

Lake Tanganyika transport system is very key in connecting the distant coastal port of Dar es Salaam with land linked hinterlands like Burundi, Zambia and the eastern part of the DRC and easing the connection amongst the riparian states.

Development of the Lake Tanganyika transport system would offer opportunities for cross border and intra-regional trade and investment as well as deepened regional economic integration. This would have more benefits if developed as an integrated transport corridor having a multimodal system combining road, rail and water into the most cost-effective modal combinations. To achieve the requisite developments on the lake, there is need to mobilise regional stakeholders, private and public players and development partners to undertake collective and collaborative action.

2.0 Rationale of the Activities

With the foregoing introduction, it was planned and budgeted that the Secretariat conducts some field activities to assess the level of services being offered at the major Lake Tanganyika ports in facilitating shipping and trade in the 2022/23 financial year. In addition, the policies, procedures and practices at the same ports were to be scrutinised to establish if they facilitated the free flow of trade and shipping across the lake.

The need for this exercise was compounded by the recommendation by stakeholders attending the forum for the facilitation of shipping and trade across Lake Tanganyika held from 14th to 16th April 2021 in Dar es Salaam, Tanzania for ISCOS to review the differences in policies, procedures and regulations on the lake for purposes of advising on possible harmonisation.

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3.0 Scope of the Exercise

This exercise was limited to the Lake Tanganyika Ports of Mpulungu, Kigoma, Kibirizi and Bujumbura involving physical inspections of the port facilities and other maritime infrastructure and interviewing key stakeholders in port operations that included:

3.1 Zambia

- i. Mpulungu Harbour Corporation Ltd (Port Operator)
- ii. Zambia Revenue Authority Customs, Mpulungu Office;
- iii. Freight Forwarding and Clearing agents;

3.2 Tanzania

- i. Tanzania Shipping Agencies Corporation TASAC, Kigoma (Regulator)
- ii. Tanzania Ports Authority Kigoma and Kibirizi ports (port landlord and operator)
- iii. Tanzania Railways Corporation, Kigoma (railways operator)
- iv. Tanzania Revenue Authority Customs (Kigoma Office)
- v. Marine Services Company Limited, Bukoba and Mwanza (owner and operator of marine vessels);
- vi. Consolidators and Shipping agents, Kigoma.

3.3 Burundi

- i. Maritime, Port and Railway Authority of Burundi (AMPF)
- ii. Vessel operators (port clients)

These activities were conducted between $25^{th} - 30^{th}$ July and $15^{th} - 17^{th}$ August 2022 by three ISCOS Officers namely:

- i. Mr. Aderick Kagenzi (DSPFS)
- ii. Ms. Mwanaulu Issa (DTFPH)
- iii. Mr. Jonah Mumbya (MSPFS)

4.0 Findings

At the conclusion of this activity, key of the findings observed were as follows:

4.1 Mpulungu Port

The port of Mpulungu is located in Mpulungu District, Northern Province (Northeastern part) of the Republic of Zambia in Mpulungu town council at coordinates 8°45'48.1"S 31°06'18.7"E at the Southern tip of Lake Tanganyika and operated by the Mpulungu Harbour Corporation Limited and owned by the Industrial Development Corporation (IDC) which was mandated to own and integrate all state-owned enterprises since 2015. The port occupied about 3hectares (fenced off) of land with a single access gate manned by port security with support from the Zambia Police service.

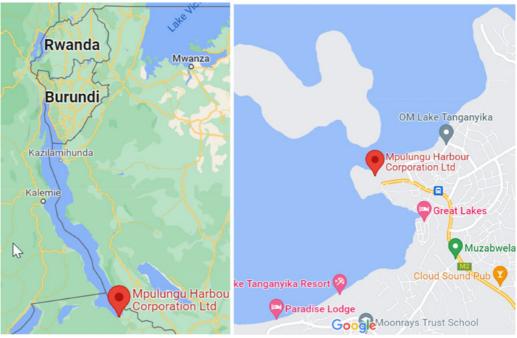


Figure 1: Google maps showing the location of Mpulungu Port

Built in 1930, Mpulungu port initially operated as a fishing berth but postindependence it was mainly used as an alternative storage facility for fuel imported through East Africa (mainly Dar es Salaam port) and supplied to the Northern part of Zambia with exports through the port to the Great Lakes region commencing in 1977. Mpulungu port is only served by road on the Zambian side and serves the DRC, Burundi and Tanzanian markets where cargo (majorly exports) are destined for through the ports of Kalemie, Bujumbura and Kigoma/Kasanga respectively.

At the time of this survey, Mpulungu port had a throughput of about 200,000tons (growing from about 106,000tons in 2017) of majorly break-bulk cargo like clinker, cement, sugar, coal and household items and about 16,000 passengers in 2016/17 but with the grounding of MV Liemba (which used to make two trips a month), the passenger traffic zeroed out. Major imports were cigarettes.

The port's capacity is envisaged to expand to about 800,000 metric tons and 236,000 passengers annually by 2030 with the planned redevelopment of the port. The port is a net exporter with over 90% of cargo handled being exports of which 85% goes to Burundi (Bujumbura port) with the balance to DRC with very minimal trade to Tanzania. In 2016/17, the port registered an average 34 vessel calls each month largely from Bujumbura.

Mpulungu had two berths of total length 30meters and drafts between 6m and 9m with capacity to each berth three vessels side by side at any one moment. There were 02No. mobile cranes with the ability to reach the most outside (third) berthed vessel in this arrangement. There were 3 1.5ton forklifts, 1 45tons reach stacker, 2 yard tractors and 6 yard trailers. Sheltered storage capacity stood at around 11,500tons with sugar having 3500tons of this offering 14days' free storage after which daily charge of about 0.25cents/ton is applied. The yard was partly concrete with the rest being natural earth. There was flood light though not sufficient for night operations.

Other support services like customs and immigration were within the port premises with the port operating between 0800hrs to 1800hrs and on very rare occasions would loading be conducted at night.

The harbour doesn't provide pilotage, anchorage but provides stevedoring on demand.

It was observed that there was no Zambian flagged vessel on the lake therefore solely depending on foreign vessels for its cargo. Some of the vessels that called at the port included the following:

Table 1: Showing List of vessels that call at Mpulungu Port

Flag	Owning company	Vessel (tonnage)
Burundi	Bartralac Shipping Company Email: <i>batralac@yahoo.fr</i> Phone: +257 2222 2312	MV Teza 1500MT MV Tora 1100MT MV Rwegura 500MT
	Rad Marines Company Email: radmetals@gmail.com Phone: +257 5777 9999	MV Byamwezi 1500MT MV Bihanga 570MT
	Anorlac Shipping Company Email: natndam@gmail.com Phone: +257 7623 5008/ +257 7596 6178	MV B. Buyenzi 550MT MV B. Murinzi 860MT MV B. Sagamba 1200MT MV Ndaje 600MT MV Ruremesha 350MT
DRC		MV Emmanuella 800MT MV Asifiwe 900MT MV Rafiki 3 650MT MV Africa 350MT MV Manne 470MT
Tanzania	Marine Service Company Limited (MSCL)	MV Liemba 250MT and 400Pax

Mpulungu port has registered an increased trend in throughput since 2016 attributed to the growing economic activities (especially the construction industries) within the served markets of Burundi and DRC as indicated below:

Table 2: Showing	g the	Throughputs	of Mpulungu Port
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Year	2017	2018	2019	2020	2021	
Throughput (tons)	106,000	166,000	181,000	205,000	231,000	
Main drivers						
Clinker	-	65,300	112,400	103,800	80,400	
Cement	-	24,700	16,800	34,300	105,300	
Others		76,300	51,800	66,900	45,700	

Source: MHCL

4.2 Kigoma Port

Kigoma port is one of the major ports on Lake Tanganyika located in Kigoma Region at coordinates 4°52'38.1"S 29°37'33.4"E owned and operated by the Tanzania Ports Authority (TPA).



Figure 2: Google Map Showing location of Kigoma Port

Kigoma is a multipurpose port handling breakbulk cargo, petroleum, containerised cargo and passengers with a total quay length of 532.7m comprising the container quay of 100m, general cargo quay of 210m, passenger terminal of 122.7m and the oil jetty quay of 110m all with maximum drafts of between 4m-4.5m.

Lake Tanganyika ports in Tanzania have shown a growing trend in throughput that suggests improving economic prospects for lake transport as indicated by the table below:

Imports/ exports	2015/16	2016/17	2017/18	2018/19	2019/20	Total
Tanzania	13,540	17,217	20,744	16,919	16,031	84,451
Burundi	7,736	2,191	38,074	54,148	27,453	129,602
DRC	117,341	118,305	137,927	128,765	162,460	664,797
Zambia	780	48	85	0	235	1,148
Total	139,397	137,761	196,830	199,831	206,180	879,998

Table 3: Summary of cargo imported/export through Lake Tanganyika Ports of Tanzania in metric tons



Figure 3: Expanded view of Kigoma Port

The port was equipped with a rail mounted gantry crane (35tons), 3 dockside cranes (two of 3tons and one of 30tons), a mobile grove crane (30tons), 11 forklifts (two of 16tons, two of 5tons and seven of 3tons), one reach stacker of 45tons, one standby generator. The port yard area was about 1.5hectares and a container yard with capacity of 608TEUs. The port also had two whorehouses with bagged storage capacity of 12,200tons and had sufficient lighting to work at night.

The main cargo through Kigoma were cement, petroleum, flour, edible salt, steel, project equipment and supplies and teak-logs from DRC for export through Dar es Salaam.

Over 70% of the cargo handled by Kigoma railway station came from Dar es Salaam with 75% of it delivered to the port of Kigoma and Kibirizi for onward shipment. This made the railway connection quite important to the operations of the ports. The port had a passenger waiting lounge with access controls, a customs office, immigration and port health offices to facilitate traffic over the lake.

4.3 Kibirizi Port

Kibirizi port is a general-purpose port currently handling passengers and general cargo. It is located about 2.8km separated by the Kigoma bay from Kigoma port with shallow draft of about 1.5m to 3m increasing gradually into the lake. At the time of the survey, the port berthed vessels of traditional build calling at small ports in DRC delivering cement, edible salt and other household merchandise.



Figure 4: Overview of Kibirizi Port

The port was under construction into a modern facility with a concrete quay of at least 150m quay length, passenger lounge, storage facilities and port offices all in a fenced area with access controls. The port had customs offices to facilitate trade over the lake and had been envisaged to effectively supplement Kigoma port by handling all loose cargo. The port had a throughput of over 3,000 metric tons each week which was expected to rapidly increase with planned mechanisation of cargo handling (stevedoring).

4.4 Bujumbura port

Bujumbura was built in 1950s to be a general-purpose port in Burundi on the northern part of Lake Tanganyika located in the Bujumbura city industrial zone with a general cargo terminal, a small container terminal (about 100TEU capacity) and an oil jetty.



Figure 5: Bing Map showing outlay of Bujumbura Port

However, at the time of the survey, only breakbulk cargo was being handled with petroleum and containerised cargo solely being delivered by road from the time the Dar es Salaam – Kigoma railway line wasn't fully functional. This rendered the oil jetty and the container terminal redundant.

The port had one main berth on the southern edge with quay length of about 400m

and a draft of between 5-7m (reduced from about 10m due to sedimentation), six sheltered storage warehouses with four being along the quay, port offices hosting port operations, customs, port health and immigration.



Figure 6: Satellite View of Bujumbura Port

The port was owned by the government of Burundi but operated under a 30year concession since 2012 with Maritime, Port and Railway Authority of Burundi (AMPF) providing regulatory services. It had 4 quayside rail mounted cranes of capacity between 2.5 to 5tons, about 9 1.5ton forklifts, 2 100ton weigh bridges (with one functional), fire plant, one 45ton reach stacker, one 40ton port crane (for containers) with the entire port perimeter fenced and having two access-controlled gates, one entry one exit.

Bujumbura port was a net importer of majorly cement, clinker, sugar, edible salt and project cargo from the ports of Mpulungu (Zambia), Kigoma (Tanzania) and Kalemie (DRC) with a net growing throughput over the years as seen below:

Table 4: Showing throughput of Bujumbura Port

Year	2017	2018	2019	2020	2021
Throughput (tons)	180,000	164,000	203,000	227,000	194,000

The port with support from JICA under the Bujumbura Port Extension and Modernisation Project was extending the North Quay to 300m, constructing a 200m shipyard/slipway for ship repairs, establishing a water filtration system, diverting water from the Buyenzi Canal to prevent port from siltation and dredging the port basin to improve port draft. In addition, new cranes would be installed and an electronic navigation chart was to be designed in addition to creating space for receiving passengers. Construction works commenced in October 2019 but closed in 2020 due to covid and expected to be complete by June 2023.

Under the Bujumbura Port and Lake Tanganyika Transport Corridor Development Project funded by the African Development Bank, contractor to renovate the existing south quay was being procured. This phase will renovate the oil jetty, reinforce the existing quay, construct a passenger and RO-RO terminal, construct and equip a first aid house, re-equip the port and install port entrance beacons (Aids to Navigation). It is estimated that these two projects will increase the port's capacity to 500,000tons upon completion by 2025.

In a bid to improve port efficiency, there is a port committee that seats monthly under the chairmanship of the Director General AMPF to address stakeholders' issues.

The private sector was instrumental in the operations of the port and the maritime space of Burundi in general with over 27 vessels registered under the Burundian flag

5.0 Summary of Key Findings

Key findings were summarised in the table below with ratings ranging from very good to poor:

Table 5: Summary of Lake Ports Infrastructure and Procedures

	Mpulungu	Kigoma	Bujumbura
Port infrastructure			
State of access road	Good	Good	Good
Port entry control	Good	Good	Good
Size of traffic circulation area	Fair	Very good	Very good
Yard surface	Fair	Very good	Very good
Yard size	Fair	Very good	Very good
Sheltered storage	Good	Good	Very good
Quay length	Bad	Very good	Good
Quay quality	Bad	Very good	Very good
Equipment			
Weigh bridge exists/capacity/condition	Very good	Very good	Very good
Other weigh scales and capacities	Good	Very good	Very good
Quay crane	Fair	Good	Good
Reach stacker	Good	Good	Good
Forklift	Good	Good	Good
STS Gantry Crane	None	Very good	None
Mobile Crane	Good	Good	Good
Dry Dock/Slipway	None	Very good	fair (under construction)
Support offices and others			
Port administration	Very good	Very good	Very good
Customs	Very good	Very good	Very good
Immigration	Very good	Very good	Very good
Port Security	Good	Good	Good
Main grid power connection	Very good	Very good	Very good
Standby power source (gen-set)	Good	Very good	Very good
ISPS Compliant (No/Yes)	No	No	No
Police boats	None	Good	Good
Fire engines	None	None	Very good
Fire extinguisher	Fair	Fair	Good
Stevedoring	Good	Good	Good
Bunkering	Fair	Good	Good
Port procedures			
Entrance restraint	Very good	Very good	Very good
Entrance security checks	Good	Good	Good
Cargo scan	None	None	Very good
Declaration of weights	Very good	Very good	Very good
Local MA notified of departure	Bad	Good	Good
Pre departure notification of destination port	Good	Good	Good
Pre-arrival submission of documents	Fair	Fair	Fair
Pre arrival customs declaration	Good	Good	Good
Pre arrival immigration declaration	Fair	Fair	Fair

6.1 Legal framework

At the time of this activity, there was no lake-wide maritime transport policy that would give strategic direction on the initiatives, investments, maritime operations and overall guidance on the harnessing of the blue economy over Lake Victoria.

a) Zambia

The Zambian legal framework guiding the inland waterways was under the Inland Waters Shipping Act of 1961 CAP 466 of the Zambian laws which came into force on the 1st January 1964. The Act had been confirmed by an Order made under section 735 of the Merchant Shipping Act, 1894, of the United Kingdom.

The Act provided for the survey, registration and safety of certain vessels used on inland waters of Zambia, for the safety of passengers and cargo, for the competency of masters and crews and for matters incidental thereto.

There were regulations developed under the Act to specifically guide on issues like new vessels' sea trials, lifesaving appliances, logbooks, construction of the hull, machinery and equipment, manning and crew, navigation, crew training and harbours.

The Act however doesn't cover small vessels of less than 5tons and is quite old with some schedules like fees and training syllabuses being outdated to be currently relevant.

b) Tanzania

Tanzania being a coastal state had in place the Merchant Shipping Acts 2003 which regulated the maritime transport sub-sector. This Act spelt out how it would be administered, the rights and restrictions to trading in the maritime space, registration and licensing of maritime operations, spelt out the proprietary interests in the registered national ships, the engagement, deployment and welfare of seafarers and the general safety aspects of maritime transport.

It was noted that these Act also applied to the inland waterways which included Lake Tanganyika and provided for the enactment of specific regulations to guide the inland water transport operations. It also provided for regulations to guide safety of navigation, cargo that may be carried, inspections and surveying, licensing mechanisms, issuance of safety certificates, safe manning for such vessels and any other matters that the responsible Ministers would deem necessary to regulate.

c) Burundi

Burundi being a relatively young maritime nation is doing its best to grow the subsector as a key complement to road transport in moving cargo. In 2011, Burundi enacted the Lake Transport and Navigation Law that gives guidance to the operations of the industry.

It sets to regulate the vessel building permission, inspections and surveys, registration and licensing of water vessels, certification of crew, manning requirements and safety of navigation of all vessels plying on Burundian waterways. Inspection checklists have been developed to guide the functions of Port State and Flag State Control and periodic surveys to be conducted.

6.2 Institutional framework:

a) Zambia

The Ministry of Transport and Logistics is responsible for the application of the Inland Waters Shipping Act. A Directorate charged with the regulation of inland water transport was formed under the Ministry meant to provide the regulatory function of the subsector. It was however observed that the Directorate was still small with limited capacities in areas like marine surveying and inspection.

There was no physical presence of the regulator at the port of Mpulungu to provide an oversight role of the harbour operations like monitoring compliance regulated services, certification of seafarers and ensuring they conform to international standards of training and certification, clearing vessels for voyages, conducting port state controls and ensuring that the port security and environment protection protocols are adequate. In essence, the Mpulungu port operators were selfregulating within their means.

b) Tanzania

Tanzania instituted the Tanzania Shipping Agencies Corporation (TASAC) as the regulator who had physical presence at the port of Kigoma with well constituted human resources to conduct their duties. The regulator also provided periodic guidance on aspects like weather forecasts, security requirement changes, port health issues, cargo and passenger declaration requirements, etc through marine notices.

The function of Port State and Flag State Control was also implemented by TASAC in addition to the provision of aids to navigation (however insufficient they still were). TASAC also provided minimal inspections for safety of small boats of traditional build as provided for in the regulations for small vessels.

TASAC regulated the operations of the clearing and forwarding agencies, guided on the safety, security and environmental protection requirements for the port and coordinated the navigational aspects of the port providing leadership on maritime search and rescue, navigational security and communication protocols.

c) Burundi

Lake Transport and Navigation Law of 2011 provided for the formation of AMPF a semi-autonomous body responsible for the development and operation of ports in Burundi and the general regulation of the sub-sector.

AMPF, headed by the DG (answerable to the Minister responsible for Transport) was created with three Departments of Finance and Administration (general administration), Port Operations (port development and operations) and Maritime (regulation).

AMPF is fully constituted and among other duties oversees the development of new port facilities, rehabilitation of existing ports, registration of vessels flying the Burundian flag, registration of crew, conduction of vessel inspections and surveys, port state and flag state controls, and monitoring the general performance of the port operation concession.

A synapsis of the application of some legislation was summarised below:

Policies/legislation	Mpulungu	Kigoma	Bujumbura
Inland water transport law	Yes	Yes	Yes
Port regulations	Yes	Yes	Yes
PSC inspection checklists	No	Yes	Yes
FSC inspection checklists	No	Yes	Yes
Statutory Cargo Manifest	Yes	Yes	Yes
Statutory Passenger Manifest	Yes	Yes	Yes
Statutory Vessel departure clearance	No	Yes	Yes

Table 6: Summary of Policy Outlook at Lake Ports

7.0 Safety of Navigation on Lake Tanganyika

The Merchant Shipping Acts 2003 of Tanzania, requires that every master of a vessel MUST have on board UP-TO-DATE nautical charts, sailing directions, list of aids to navigation and tide tables. However, there were no nautical charts available for Lake Tanganyika and no functional aids to navigation. The other riparian states didn't provide for the requirement of nautical charts on board all vessels.

No lake port had radio communication system therefore dissemination of vital information like weather forecasts, safe navigation, environmental protection and rendering of other maritime communication services wasn't as effective as should have been. This meant that there was no effective communication of general weather synopsis, storm or other navigational warnings given to ships departing from any of the lake ports.

The lake didn't have aids to navigation like landfall lights, beacons, buoys, leading lines or other facilities that delineate headlands, ship routes, known dangers or the fairways and approaches to ports. In addition, Lake Tanganyika lacked a coordinated maritime search and rescue scheme.

The above expose existing vessels on the lake to enormous dangers and may discourage private sector investment on the lake with the few in operation pricing their services excessively higher to cover for the eminent risks involved. This discourages growth of trade and transport over the lake.

There was however a pipeline project named the Lake Tanganyika Search and Rescue Project (under feasibility study financed by the World Bank) which was justified by inadequate lake transport safety conditions, including: (i) lack of modern navigational charts allowing for safe navigation; (ii) lack of navigational aids near specific ports, port entrances and shoreline areas (for example, landfall lights); and (iii) limited search and rescue services.

When implemented, this project was envisaged to greatly improve the safety of navigation across the lake.

Overall, it was observed that:

- i. Demand for lake transport services existed but needed to be fully tapped by a couple of interventions including increased carrying capacities by deploying more vessels (containerised ones too), improving ports' infrastructure to support business, streamlining processes, marketing and harmonising port tariffs;
- ii. Zambia didn't have its own flagged vessel yet it contributed the most of cargo towards the North-South Lake Tanganyika route. This led to unpredictable supply of carrying capacity for Zambian exports;
- iii. There were significant variations in the port tariffs levied at the different lake ports some of which were quite high as reported by stakeholders in the private sector;
- Mpulungu port needed a railway connection to the main source of most of its cargo (Lusaka and Copperbelt regions) with distances of over 1,000km which could be most economically practical by rail rather than road;
- v. Railway connection was vital for the operations of the Kigoma port since over 75% of rail cargo was delivered to the port. It was observed that rail service reliability was quite low with limited running speeds of 30-40kph between Tabora and Kigoma due to fears of potential costly derailments because of the poor state in which the section was.
- vi. It had been observed that Tanzania Revenue Authority never permitted shippers to switch modes say from road to rail especially for export of teak logs after a particular mode had been lodged into the system. This affected shippers especially when the lodged mode develops some issues and there was need to switch to another;
- vii. The lack of nautical/hydrographical charts of the lake and lack of aids to navigation were serious limitations to the growth of the traffic volumes on the lake. This was noted amongst all lake stakeholders interacted with;
- viii. There was very minimal or no consideration given to the health and safety of manual labourers rendering the stevedoring services in all the lake ports surveyed;

- ix. Language barriers was observed as a limitation with Zambia and Tanzania using English while DRC and Burundi using French. This made communication amongst stakeholders slower, less effective and seen as a potential barrier to free flow of trade;
- x. All the ports did not have food grade storage facilities neither did they have cold rooms;
- xi. It was observed that there were no periodic lake ports stakeholders' meetings to discuss changes in policies and procedures or seeking to get feedback from stakeholders;
- xii. Port handling equipment (to reduce the slow manual stevedoring), harbour lighting (to facilitate working extended hours) and warehousing especially at Mpulungu were significantly limited;
- xiii. Given the infrequent supply of vessels and the lack of Zambian flagged ones, the surcharge of 0.25cents/ton per levied on cargo after the 14days free period was noted by shippers at Mpulungu as distortional;
- xiv. There were some regulatory capacity gaps identified in Zambia that needed fixing by enhancing the institutional capacities of the regulators in terms of numbers and training in areas of survey and registration of vessels, navigation and nautical sciences, shipping and logistics management to assist in the transposition of the international conventions and protocols into national practices;
- xv. Port State Control inspections (checklists and procedures) across the three countries were found to differ which was cited to be source for disputes amongst maritime administrators in cases of noncompliances of vessels calling at either of the ports;
- It was reported that different permits for the same shipment were required by different agencies in Tanzania (export permit, transport permit) which were perceived as double burden and tariff barriers to trade;
- xvii. There was no VHF radio communication system with no port able to communicate to the other or to any ship at any time. Reliance on mobile phones wasn't observed to be the best practice for maritime transport.
- xviii. The grounding of MV. Liemba a Tanzanian ship had greatly affected passenger and cargo (parcels) movement across the lake.

9.0 Level of Service

After gathering all the information against the set parameters, the weighted analysis of the level of service was computed for each port. This was calculated to indicate the percentage to which a port could facilitate the free flow of trade capturing the perceptions of the users, the physical and human infrastructure of the port to handle trade, the prevailing processes that facilitate trade and legal framework that guide lake transport. Below is a summary of the results with 100% being the most desirable level of service:

Table 7: Summary Showing Level of Service offered by the Surveyed Lake Ports

Port	Mpulungu	Kigoma	Bujumbura
Level of Service	43.95%	59.57%	61.04%

10.0 Recommendations and Way Forward

From the key findings and observations during these activities, it is therefore recommended that:

- i. With increasing cargo volumes and transport activities over the lake, there is need to connect Mpulungu port with a railway spur from Nseluka;
- ii. Tanzania Railways need to expedite the rehabilitation of the Tabora Kigoma MGR line to increase its running speed and reliability;
- iii. Hydrographic survey of Lake Tanganyika be conducted and nautical charts produced to illustrate the prevailing profiles and features of the lake. It would be important that this exercise is conducted for the entire lake at once and ISCOS takes lead of its coordination;
- Riparian states are urged to harmonise Port State Control procedures and checklists to avoid potential detentions of vessels in one state that were deemed fit in another country;
- v. Port tariffs should be harmonised and made competitive across the lake in a way that balances the need to support port operations and retention of shippers. This is because one over priced port could give raise to shippers shifting to other competing modes;
- vi. Zambia should strengthen her legal and institutional frameworks by updating the respective legal instruments and building requisite human capacities to adequately regulate the subsector;
- vii. Port procedures be harmonised to remove any disparities amongst the Lake ports. This would include the harmonisation of Port State Control regulations and inspection checklists and statutory port declaration forms;
- viii. Mpulungu port landlord ought to expedite the redevelopment of the port infrastructure and installation of port handling equipment for it to offer related level of service like other peer lake ports and hence increase port efficiency and throughput;
- ix. There is need for stakeholders to increase investment in the carrying capacities across the lake by building more vessels including container carriers and passenger vessels. Particularly, Zambia needs to flag some vessels operating on the lake;

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- x. Tanzania should fast track the rehabilitation of her vessels which had created a gap since their grounding;
- xi. Lake ports needed to invest in additional warehousing capacities especially for food grade cargo like salt, sugar, flour which should never be stored in the same facilities with cement;
- xii. Maritime Administrations and port landlords/operators ought to expeditiously acquire and deploy VHF radio communication systems across all ports as termination points for the easy communication with all flagged vessels;
- xiii. There is need to develop and deploy single window electronic systems to house every agency which would speed up clearance processes and cut out unnecessary bureaucracies and costs;
- xiv. Health, safety and environment (HSE) considerations be imbedded in all ports' operations with clear HSE plans developed, adopted and implemented at strategic level;
- xv. There should be continuous dialogue amongst ports' stakeholders interacting to discuss matters of mutual interests and port improvement initiatives;
- xvi. Fast track all planned projects on Lake Tanganyika in a coordinated manner to ensure that a development in one port gives complementary value to another port on the lake;
- xvii. Lake maritime administrations especially in Burundi and Zambia should fast track the establishment of maritime training institutions to help build the much needed capacity in a sustainable manner;
- xviii. Profile all Lake Stakeholders with a view of developing a single point source of information on any lake transport stakeholders. ISCOS could take lead on this.

List of Stakeholders Interacted with: 11_0

	Name	Organisation	Designation	Contact	
Mr. F	Mr. Rodriguez Valentin	Tanzania Ports Authority Kibirizi	Port Manager	Mobile: +255 748 814 157	
Δr.	Mr. John Mamyya	Tanzania Railways Corporation (TRC)	Manager Tabora region	Mobile: +255 715 212 275	
Ar.	10 Mr. Lenny Mukola	Tanzania Revenue Authority (TRA) Kigoma	Ag. Assistant Manager Customs – Kigoma	Mobile: +255	
Ϋ́.	11 Mr. Allen Butembelo	Marine Services Company Limited Kigoma		Mobile: +255 712 398 236	
Ϋ́.	Mr. Jean Claude	AMPF Bujumbura	Port Inspector	Mobile: +257 790 07274	
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NOTES



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