



Enhancing Tanzania's Competitiveness in the Logistics Value Chain

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List of Abbreviations and Acronyms

AfCFTA	African Continental Free Trade Area
BCI	Business Climate Index
BOT	Bank of Tanzania
CET	Common External Tariff
CFF	Clearing and Freight Forwarders
COMESA	Common Market for Eastern and Central Africa
DSMGP	Dar es Salaam Maritime Gateway Project
D-T-D	Door to Door
EABC	East African Business Council
EAC	East African Community
EDI	Electronic Data Interchange
EU	European Union
FYDP	Five-Year Development Plan
GDP	Gross Domestic Product
GePG	Government Electronic Payment Gateway
GVCs	Global Value Chains
ICT	Information, Communication and Technology
IDB	Inter-American Development Bank
ISO	International Standard Operation
LDCs	Least Development Countries
LGA	Local Government Authority
LPI	Logistics Performance Index
MNCs	Multinational Cooperation
MNOs	Mobile Network Operations
MTOs	Multimodal Transport Operators
MTS	Multi Trading Systems
NTBs	Non-Trade Barriers
OAU	Organization of African Countries
OECD	Organization of Economic Cooperation and Development
OSBP	One Stop Border Post

O-RALG	President Office, Regional Administration and Local Government
RECDTS	Regional Electronic Cargo and Driver Tracking System
RECs	Regional Economic Cooperation
SCT	Single Customs Territory
SDGs	Sustainable Development Goals
SGR	Standard Gauge Railway
SI	Standard of Units
SMEs	Small Medium Enterprises
SUMATRA	Surface and Marine Transport Regulatory Authority
TAA	Tanzania Airport Authority
TAFFA	Tanzania Freight Forwarders Association
TAFICO	Tanzania Fisheries Cooperation
TANCIS	Integrated Customs Systems
TANROADS	Tanzania National Road Agency
TARURA	Tanzania Rural Road Agency
TARURA	Tanzania Rural Roads Agency
TASAC	Tanzania Shipping Agency Cooperation
TBS	Tanzania Bureau of Standards
TCAA	Tanzania Civil Aviation Authority
TEMESA	Tanzania Electronic Mechanical and Electronic Service Agency
TFDA	Tanzania Food and Drug Authority
TFS	Tanzania Forest Services
TIC	Tanzania Investment Centre
TMA	Tanzania Meteorological Agency
TMX	Tanzania Mercantile Exports
TPA	Tanzania Ports Authority
TRA	Tanzania Revenue Authority
TRC	Tanzania Railway Cooperation
UNCTAD	United Nations Conference on Trade and Development
USD	United States Dollar
WTO	World Trade Organizations

1.0 Background Information

A need to enhance export competitiveness and harnessing export-led growth is well stipulated in the Tanzania's Five-Year Development Plan (FYDP III). The plan gives absolute focus on trade and competitiveness and value-chains enhancement as one of the key drivers for economic growth. Experience from other countries have shown that the growth in trade is a result of both technological improvements and concerted efforts to reduce trade barriers. There is a wide body of literature that have established that one of factor that continue to undermine trading in most of developing countries including Tanzania are non-tariff barriers. This includes poor infrastructure, lack of effective coordination throughout the trading value chain, lack of supportive facilities and services such as logistics. Despite considerable improvements in Tanzania's physical infrastructure including roads, railways, ports and energy supply, constraints in trade expansion and diversification continue to persist. This is revealed with the continue high costs of trading in the country which is accounted by high transportation and logistics costs. It is the interest of many policy makers across the region to facilitate trading through trade costs reduction. Transport costs form part of the overall costs of logistics in the overall value chain of the product.

Logistics costs refers to all expenditures incurred to ensure that a good or service is available to the market. This implies that logistics relates to the coordination and integration of the production sector activities, warehousing, transportation, wholesaling, freight forwarding and information services. Global statistics shows that logistics expenditure account for about 10-15 percent of the total world GDP even though it varies significantly depending on the level and structure of the economic (Rodrigues, 2020). Countries that rely more on extraction of natural resources will likely have higher logistics costs than economies that focus on modern services (*ibid*). It is further revealed that transportation accounts for about 40 – 58 percent of the total logistics costs and 4 – 10 percent of the selling prices of the final products (*ibid*). Inventory carrying and warehousing account for about 23 percent and 11 percent respectively. This implies that, transport and logistics services are critical components of the commercialization and competitiveness of the country.

Tanzania's logistics performance has improved considerably since 2007 from an overall global rank of 137th with an aggregate score of 2.08 to 61st with a score of 2.99 in 2016 on the World Bank's Logistics Performance Index (LPI) (Arvis et al., 2018; World Bank, 2017). Despite improvements, logistics currently accounts for between 35-45 percentage of the total cost of imports, insurance and freight inclusive-making it one of the highest in the World. On average, it costs \$1,350 (against a Sub-Saharan Africa average of \$603) and 240 hours to import a 20ft. container through the main seaport of Dar es Salaam (World Bank, 2020).

In addition to actual high logistics costs, the Tanzania's logistics/transport chain systems are fraught with multiple challenges including inadequate handling and storage facilities, inefficiency, unreliability and unpredictability of transport and logistics services providers. While several interventions at both national and regional levels have been initiated, numerous challenges persist. Some of these initiatives and interventions include but not limited to the following: the ambitious expansion of port infrastructure and customs management through the \$345million Dar es Salaam Maritime Gateway Project (DSMGP), ongoing construction of a standard gauge railway, the implementation of single customs territory and associated East African Community (EAC) one-stop border points. Others are implementation of the Regional Electronic Cargo and Driver Tracking System (RECDTS), improvement of transport related infrastructure both at the ports and along the central corridor, and the adoption of an integrated Customs Management System (TANCIS).

The freight logistics sector of Tanzania faces capacity-related challenges, which undermine its efficiency and lead to poor services, delays, compliance challenges, and low competitiveness, among others. The negative impact is felt nationally and in countries across the region that use the Tanzania transport logistics corridors. While benchmark figures exist on the regulatory aspects of the logistics chain in Tanzania, policies aiming to improve the sector require much more detailed information on institutional bottlenecks, costs and time and complexity aspects of domestic logistics chain.

This report intends to address this gap through the provision of objective assessment of trade and transport facilitation readiness in Tanzania. In addition, the report identifies specific bottlenecks on the logistics chain including institutional, policy, regulatory and implementation frameworks, as well as operational challenges that impede the seamless flow of goods on the logistics chain.

1.1 Objectives of the Study

The overall objective of this undertaking is to provide a comprehensive trade value chain assessment and capacity building of the logistics sector in Tanzania. Specifically, the assignment is intended:

- 1) To identify bottlenecks that limit competitiveness and export diversification in the logistics value chain—and the trade policy framework to effectively address them. This entails (but not restricted to) the identification of key factors affecting logistics performance in Tanzania including costs, efficiency, complexity, and non-parametric analysis.
- 2) To strengthen the capacity of logistics value chain actors including Tanzania Ports Authority (TPA), Tanzania Revenue Authority (TRA), the Tanzania Freight Forwarders Association (TAFFA) and as well as Tanzania's research and advisory capacity on trade policy, competitiveness, and

facilitation in the context of enhancing the country's trading capacity with the EU.

1.2 Methodological Approach

The methodological approach used in this assignment involved two main approaches: Desk Review and consultations with the stakeholders involved and affecting the logistics value chain through a targeted field survey. Regarding the desk review, several policies, Acts, Laws, and Regulations affecting the logistics value chain were reviewed. Reports and studies on the subject, from both local and international sources, were reviewed and analyzed. Further, the review provided insights on issues to be captured and stakeholders to be involved in the fieldwork and consultations.

Regarding the fieldwork and consultations with the stakeholders, the methodological approach for this study involved four basic steps:

First, identification of the key stakeholders in the logistics subsector in Tanzania. These then were grouped into institutional, regulatory, service providers and clients. The stakeholders were grouped to give a sense of which will be the source for the *institutional and policy issues* (Ministries); *Regulatory Issues* (TFDA, TBS); *Implementation Frameworks* (ports, border posts, airports) and the *sector operators* (private stakeholders in the logistics subsector such as the customs and clearing freight forwarders etc.

Second, data collection protocols and relevant instruments, both qualitative and quantitative, were used in collection of information from the stakeholders. The qualitative instruments included Focus Group Discussion Questions and selected questions for the Key Informant Interviews. These were mainly administered to the institutional and regulatory authorities in the logistics sub sector in Tanzania. The quantitative instruments were designed for capturing information from service providers in the sector and the clients, including the customs and clearing and freight forwarders. The freight forwarders are key in this assignment given the fact that they take full responsibility of ensuring goods are moved from origin to destination on time, in good condition and in compliance with the applicable laws and regulations.

Third, is data analysis and report writing. In this stage, collected information was analyzed separately, in terms of qualitative analysis and the quantitative analysis.

Fourth, to conduct training needs assessment for the logistics industry and consequently prepare training modules and delivery of training for at least 60 participants in the logistics industry, arranged in two (2) cohorts of thirty (30) participants each.

1.3 Organization of the Report

After the introductory section, the rest of the report is organized as follow: section 2 provides the structure and performance of the logistics value chain in Tanzania, complemented by section 3 on the assessment of logistics value chain in Tanzania. Section 4 outlines the transport and trade facilitation costs for import and exports in Tanzania, section 5 covers issues of compliance in the value chain in Tanzania basing on Tanzania's key entry and exit points. Section 6 deals with the Comparative Analysis of the Performance of the Tanzania's Logistics Sector, where section 7 is solely on the Transport and Logistics Sector and the Non-Trade Barriers (NTBs). The analytical report ends with section 8, which is conclusion, summary, and policy recommendations.

2.0 Structure and Performance of Logistics Value Chain in Tanzania

2.1 Performance of the Sector

Logistics sub-sector is a crucial component of trade facilitation in Tanzania. The sub-sector grows at 12.5 percent and contributes to an average of 4.3 percent of GDP per annum¹. The various regulatory reforms and operational interventions have positively contributed to the performance of logistics in the country. Between 2007² and 2016, Tanzania overall global rank on World Bank's Logistics Performance Index (LPI) improved from 137th position with aggregate score of 2.08 to 61st position with a score of 2.99 (Arvis et al., 2018; World Bank, 2017)³.

Notable improvements have been recorded in all the six LPI indicators⁴: The LPI indicators given are Efficiency of customs and boarder management clearance; quality of trade and transport related infrastructure and the competency and quality of logistics services. Others are the ease of arranging competitively priced international shipments; the ability to track and trace consignments; the frequency with which shipments reach consignees with the scheduled or expected delivery time⁵.

The observed positive performance of Tanzania is partly attributed by the recent regulatory and operational reforms in logistics sub-sector as well as investment in soft and hard supporting infrastructure. Given these recent regulatory interventions, it is likely that Tanzania's performance, based on LPI and its indicators, has further improved between 2016 and 2018 where the latter year represents the most recent available LPI information. Nonetheless, information for Tanzania is not available in 2018 LPI database hence difficult to confirm Tanzania's recent performance.

¹ Blueprint for Regulatory Reforms

² 2007 was the year where the first Logistics Performance report was published

³ According to the latest World Bank Data, in 2018, available data suggest, LPI is 2.45 for sub Saharan Africa. It is yet to be disaggregated for countries considering recent developments in infrastructure projects in sub Saharan Africa eg. Tanzania SGR and Dar Port Expansion as well as completion of Lamu Port in Kenya The most recent Logistics Performance survey was conducted in 2018. Nonetheless, no data were reported for Tanzania in that survey, hence the most recent available data available for Tanzania is from 2016 Survey.

⁴ LPI indicators can be grouped into two main categories – Areas for policy regulations, which are the inputs (customs, infrastructure, and quality services) & Supply chain performance, which are the outcomes (time, cost, and reliability).

⁵ Despite these national level indicators, which shows logistics sub-sector performance and allows for inter-country comparisons, there are other emerging indicators, solely at operational level. These include Shipping Time: Spot potential issues in your order fulfillment process; Order Accuracy: Monitor the degree of incidents and Delivery Time. Others are track average delivery time in detail Transportation Costs: Analyze all costs from the order placement to delivery; Warehousing Costs: Optimize the expenses of your warehouse; Number of Shipments: Understand how many orders are shipped; and, Inventory Accuracy: Avoid problems because of inaccurate inventory.

Despite the improvements observed, logistics currently accounts for between 35-45 percentage of the total cost of imports, insurance and freight inclusive-making it one of the highest in the World. On average, it costs \$1350 (against a Sub-Saharan Africa average of \$603) and 240 hours to import a 20ft. container through the main seaport of Dar es Salaam (World Bank, 2020). In addition to actual high logistics costs, the Tanzania's logistics/transport chain systems are fraught with multiple challenges including inadequate handling and storage facilities, inefficiency, overly dependence on road mode of transport, unreliability and unpredictability of transport and logistics services providers. The negative impact is felt nationally and in countries across the region that use the Tanzania transport logistics corridors.

2.2 Policy and Regulatory Framework

There are several policies, laws, and regulations guide transport and Logistics activities in Tanzania, some of which are specific to the sector and some other that are crosscutting. From policy perspective, the National Transport Policy (2003) and the National Trade Policy (2003) guide the development of transport and logistics in the country. The goal of Tanzania's National Trade Policy is to facilitate smooth integration into the Multilateral Trading System (MTS) and roll back the gradual descent towards marginalization. It is intended to ensure that liberalization offers meaningful, identifiable, and measurable benefits. The policy recognizes a need for enhancing competitiveness through improving the productive capacities and delivery systems. The policy emphasizes for the firms and enterprises in the country to strive towards producing high quality goods and provide first class services at lower prices. In line with the Tanzania Development Vision (TDV) 2025, the policy direction is to improve efficiency and widen linkages in domestic production value chains.

The national transport policy aspires that Tanzania develops safe, reliable, effective, efficient, and full-integrated transport infrastructure and operations, which will best meet the needs of travel and transport at improving levels of service at lower cost in line with national efforts for social, economic, and environmental development.

2.3 Institutional Set-up and Mechanism

The Tanzania transport and logistics sector system comprises surface transport (roads and railways), sea and inland waterways (lakes and rivers) transport, and air transport. The transport and logistics value chain of Tanzania comprises these transportation means and facilitated by multiple actors who can be grouped as overall policy formulation and foreseeing ministries; regulatory agencies; Implementers; and supporting partners.

The Ministry of Works, Transport and Communication and President's Office, Ministry of Regional Administration and Local Government (PO-RALG) are the key institutions responsible for policy matters and overseeing of transport and logistics

activities in Tanzania. The PO-RALG oversees local government authorities, where the actual implementation of production, transportation, warehousing, and trading takes place. Apart from the central government regulations, there are LGA specific by-laws guiding the activities in logistic value chains.

There are also regulatory agencies, some specific on logistics matters and some who are crosscutting, with the main duty to ensure compliance on regulations. Tanzania Rural and Urban Roads Agency (TARURA), established under the Executive Agencies Act Cap.245 of 2017⁶ is vested with the mandate of developing and maintaining district roads network⁷. Apart from rural and urban roads, other transport and logistics means such as major roads, water and railway transport are under Ministry of works, transport and communication and its various regulatory bodies.

The Ministry of Works, Transport and Communication of Tanzania, through its agencies, is responsible for overseeing the major roads in the country, railways, seawater transportation operations as well as air transportation. Tanzania National Roads Agency (TANROADS), which is formulated by the Roads Act (2007),⁸ is responsible for the management of major roads and bridges in the country. The Act No. 3 of 2019 establishes the Land Transport Regulatory Authority (LATRA), a Tanzania Government Regulatory Authority⁹. LATRA is set to regulate the land transport sectors particularly, transportation of goods and passengers, railways, and cable transport. Tanzania Ports Authority (TPA), which is established by the Ports Act No. 17 of 2004, has a responsibility to oversee transportation activities in all water bodies of the country (i.e., sea transport, rivers, and lakes transport). Currently, TPA functions as the as a responsible caretaker of the infrastructure and the operator.

Tanzania Railway Cooperation (TRC) enacted by the Railways Act (2002) oversees the railway network of the country. To bring efficiency, the Railways Act has separated ownership of infrastructure and its regulations from the running of railway business function. Tanzania Civil Aviation Authority (TCAA), formulated by the Civil Aviation Act (2006) is responsible for safety and regulatory functions of the aviation sector. Similarly, the Tanzania Airports Authority (TAA) is responsible for running and managing airports in the country.

Furthermore, there are other crosscutting MDAs that are part of transport and logistics ecosystem in Tanzania: Tanzania Bureau of Standards, established under the Standards Act No. 2 of 2009, is responsible for setting and enforcing standards; Weights and Measures, established under the Weights and Measures Act Cap.

⁶ TARURA is established under Section 3 (1) of the Executive Agencies Act. (Cap 245) by Order Published in Government No. 211 dated May 12, **2017**, and was inaugurated on July 02, 2017.

⁷<https://www.tarura.go.tz/storage/app/media/ANNUAL%20REPORT%20DEVELOPMENT%20PROGRAMME%20FY%202017-2018.pdf>

⁸ <https://www.tanroads.go.tz/common/uploads/acts/z68d4318ced1a27694a9adb01e13a892.pdf>

⁹ LATRA Act. Repeal the Surface and Marine Transport Regulatory Authority (SUMATRA) act.

340, Executive Agencies Act, (Cap. 245), is responsible for issues concerning weights and measures and provides for the International System of Units (SI) in Tanzania; Warehousing Receipts Regulatory Board (WRRB) established under the Warehouse Receipts Act No. 10 of year 2005 and Act No 3 of 2015 is responsible of regulating and promoting the Warehouse Receipts System that ensures a fair and sustainable accessibility to formal credit and commodity marketing systems; Ministry of Home Affairs: Traffic, Fire Department and Immigration; The Government Chemist Laboratory Agency guided by Management and Control Act (2003) controls transportation and storage of chemicals; Tanzania Forest Services (TFS) – permits on transportation of forestry products.

There are product specific boards such as: Meat Board and Milk Board; Tanzania Revenue Authority, established by the Act of Parliament Cap 339 is responsible for management of customs and collection of tax related revenue; Tanzania Meteorological Agency (TMA) – to provide meteorological services to various users; Tanzania Electrical, Mechanical and Electronic Services Agency (TEMESA), which is responsible for providing electric services, ferry services and lending machineries to government institutions and the general public; and Tanzania Shipping Agencies Corporation (TASAC) established under Section 4 of the Tanzania Shipping Agencies Act No. 14 of 2017 is responsible for regulating ports, shipping services, maritime environment, safety and security. TASAC is also mandated to conduct shipping business related to clearing and forwarding, ship tallying, document control and shipping agency.

Private sector is part of the logistics institutional set-up, responsible for the actual implementation of logistics activities. In Tanzania, there are different private sector actors involved in the logistics, and they form part of the value chain. These include transporters; clearing and forwarding agencies; warehouses; handling and haulers companies (Swiss Port, KADCO etc.). On day-to-day operations and on strategic matter, private sector actors involved in logistics interact either directly with the government regulatory bodies or through their umbrella organizations. Organizations involved these key private sector umbrellas in logistics activities in Tanzania.

Tanzania Freight Forwarders Association (TAFFA) - represents all the clearing and forwarding firms in Tanzania and plays instrumental role in facilitating professional capacity building among clearing and forwarding operators with a view to ensure sustainability of the industry. Tanzania Truck Owners Association (TATOA), which is involved in Cargo Freight business in and outside the United Republic of Tanzania emphasizing on Transit Transportation Trade facilitation within the SADC and Great Lakes region. Tanzania Chamber of Commerce, Industry and Agriculture (TCCIA) - has a role to strengthen private sector operations including logistics through its semi-autonomous regional and district chambers. Furthermore, Tanzania Private Sector Foundation (TPSF), which has a mission to promote the private sector-led social and economic development in Tanzania.

TPSF serves as umbrella body for private sector associations and corporate bodies in all sectors of the economy, including logistics.

Development partners make part of the logistics institutional set-up in Tanzania where they provide various support to the sub-sector. Food and Agriculture Organization (FAO), United Nations Conference on Trade and Development and Food and Agriculture Organization (UNCTAD), International Trade Centre (ITC), European Union (EU), UNIDO, Trademark East Africa (TMEA) are among key partners supporting development of logistics sub-sector of Tanzania. Collectively, development partners are keen to support capacity-building efforts, financing infrastructural projects, providing developmental aid and loans, and assisting in searching and accessing external markets.

While institutional set-up for logistics in Tanzania appears to be clear, its operationization is not straightforward and smooth process, thus increases costs in various components of the value chain. It is subjected to regulatory impediments, where duplication and overlap of mandates, such as TASAC being a regulator and business operator, are at the core. Such aspects are well articulated in Tanzania's Blueprint for regulatory reforms hence cannot be overemphasized here. There is a mismatch of human resource capacities across regulators who serve the logistics sub-sector. For instance, in border posts, while custom personnel appear to be available in relative abundance, there is a general scarcity of facilitating personnel from several other regulatory bodies¹⁰.

There are no clear cost estimates associated with such shortages of work force. Nonetheless, it is widely acknowledged by actors in logistics that such shortages are costly to their operations in terms of both time and financial resources.

Furthermore, inefficiencies brought by the institutional set-up have partly encouraged informal operations in logistics. It is common for business operators to deviate their consignment from passing through formal borders and instead use informal routes, under what is termed "informal cross-border trade". A study by Nshimbe and Moyo (2017) estimated that Informal Cross Border Trade amounted to 30-40 percent of total intra-regional trade in the SADC region and 40 percent in the COMESA region¹¹. This is also encouraged by the new institutions, which seems to worsen the logistics sector and intervene the smooth operation by the private sector. This leads to the overcrowding of the private sector.

2.4 Interventions

In recent years, Tanzania has undertaken several initiatives and interventions geared towards improving the performance and contribution of logistics sub-sector to the economy. These include:

¹⁰ This was also observed during field visits for this study to the border posts.

¹¹ Nshimbe, C. and I. Moyo (eds.), 2017. Migration, Cross-Border Trade and Development in Africa: Exploring the Role on Non-State Actors in the SADC Region. Cham: Palgrave MacMillan

- i. Expansion of port infrastructure and customs management through the \$345million Dar es Salaam Maritime Gateway Project (DSMGP)
- ii. The Government is constructing a \$7.6 billion Standard Gauge Railway (SGR) along the central corridor. By June 2021, the construction of Dar-Morogoro (300Km) and Morogoro-Makutupora (421Km) sections had reached a progress of 91 and 60.2 percent, respectively¹².
- iii. Single customs territory and associated East African Community (EAC) one-stop border points (OSBPs)
- iv. Regional Electronic Cargo and Driver Tracking System (RECDTS)
- v. Improvement of transport related infrastructure both at the ports and along the central corridor
- vi. Adoption of an integrated Customs Management System (TANCIS)
- vii. Revamping of Air Tanzania Corporation
- viii. Laying down a submarine cable to improve ICT services. By April 2019, mobile communication coverage was 94 percent in terms of population and 66 percent in geographical coverage¹³.
- ix. Construction and rehabilitation of road infrastructure. The country has a total road network of 36,258 kilometers of which 10,062 kilometers (equivalent to 28 percent) are paved. Over 11,000 kilometers of tarmac road are expected to be built in the next few years at an estimated cost of 4 billion US dollars¹⁴.
- x. Rehabilitation and expansion of Tanzania's regional (domestic) and international airports' infrastructure. The construction of Terminal III at Julius Nyerere International Airport. The interventions have resulted in an increase in aircraft movements from 164,189 in 2016 to 168,602 in 2018 bolstered by an increase in flight frequency per week of major airlines in the country: Passenger traffic has also increased, from 4,207,286 passengers in 2016 to 4,268,896 in 2018. Traffic is expected to increase by 48 percent to reach 6.4 million by 2030.
- xi. The Government has imposed the fuel levy, which is used by ROAD FUND to finance TARURA and TANROADS activities including maintenance existing roads and construction of new roads¹⁵.

¹² According to budget Speech of the Ministry of Transport and Communication 2021/22, Dar – Morogoro Completion is 90% and Morogoro – Makutupora completed by 60.2%. <https://www.mwt.go.tz/uploads/documents/sw-1621256056-HOTUBAWUUM202122.pdf>

¹³ Voluntary National Review Report of 2019 for Tanzania

¹⁴ 2019 VNR

¹⁵ In the proposed budget for 2021/22 Financial Year, the Government is aiming at amending section 4 A (a) of the finance Act to provide for TZS 100/= collected from both diesel and petrol to be used for road maintenance in rural areas through TARURA.

- xii. The Government in collaboration with Japan ensured the availability of fund for revamping Tanzania Fisheries Cooperation (TAFICO), construction of meat processing industries including Tan Choice Limited, Elia Foods Oversees Limited, Binjiang Company Limited as well as Galaxy Milk Processing Industry with a capacity to process 75,000 liters per day.
- xiii. Establishment of Tanzania Mercantile Exchange (TMX), which facilitates purchases and sales of agricultural products.

Apart from the interventions and achievements as described above, Tanzania intends to improve its logistics sector as follows¹⁶: First, to ensure regional and district headquarters and neighboring tarmac roads including the main trade corridors connect countries. Secondly, continuing with road construction where 2,023 kilometers have been completed, 748 kilometers still under construction and 405 kilometers have been rehabilitated and lastly, appraisal process is ongoing where 9,316 kilometers of road will be built.

2.5 World Experience

Global trade has risen considerably over the last few decades, a change induced by the reduction and removal of trade barriers, improvements in transport and communications, and increase in cross-border production sharing. During the same period, many countries that have integrated successfully into the global economy and have managed to expand the volume and diversity of their exports and achieve high, sustainable economic development (Wilson et al., 2005).

However, this process of integration seems to be proceeding more slowly for many other countries, particularly developing countries. The main reason is that most developing countries face logistics-based deficiencies in integrating with global production networks and delivering their products to world markets (Hausman et al., 2013; Martí et al., 2014; Yadav, 2014; Saslavsky and Shepherd, 2014). The poor logistics infrastructure in developing countries increases the costs of and time required for trade, which hinders efficient movement of products within global production networks (Martí et al., 2014; Gani, 2017). Therefore, effective logistics systems are increasingly a key component developing countries require to expand their exports, especially at a time when trade barriers are reduced as part of the process of globalization.

For developing countries, Turkey is a good example not only because of the recent increases in its connections with global markets, but due to the diversification of its exports over our sample period. Geographical factors are also important when analyzing transport facilities, and like Tanzania, Turkey has significant geographical advantages. It is geographically located as a central gateway to the European, Middle Eastern, North African and Central Asian markets. Turkey has also built up multi-modal (rail, road, air and sea) transport

¹⁶ Ruling Party Election Manifesto

networks to facilitate internal and external trade in goods and services. Such improvements in the transport infrastructure reduce the import cost of raw materials and intermediate goods used in the production and exportation of final goods and services. This is particularly important for Turkey because its export products require a high rate of imported inputs (Gündoğdu and Saracoğlu, 2016). Thus, a reduction in the cost of imported inputs linked to reduced transport costs is of vital importance if Turkey is to improve its export competitiveness in world markets and increase its integration within global production networks.

It is estimated by various studies that the positive effect of the exporter's Logistics Performance Index (LPI) score on export variables is partially cancelled out by trade with advanced countries that have better logistics infrastructure. In contrast, an improvement in logistics at home leads to a larger effect on export values and margins when Turkey trades with less-developed countries.

2.7 Logistics and SDGs Attainment

The 2030 Global Development agenda through sustainable development goals (SDGs) has integrated logistics and transportation as catalysts for sustainable development. There are specific goals and targets directly dedicated to the logistics and transportation issues. There are also other goals and targets indirectly linked to the logistics and transportation. The 2030 agenda recognizes that sustainable transport systems accompanied by universal access to affordable, reliable, sustainable and modern energy services and quality infrastructure would build strong economic foundation for all countries¹⁷.

¹⁷ [https://slocat.net/transport-targets-sustainable-development-goals/#:~:text=The%202030%20Agenda%20states%20that,countries%E2%80%9D%20\(para%2027\).](https://slocat.net/transport-targets-sustainable-development-goals/#:~:text=The%202030%20Agenda%20states%20that,countries%E2%80%9D%20(para%2027).)

3.0 Assessment of Logistics Value Chain in Tanzania

3.1 The Context of Logistics Globally

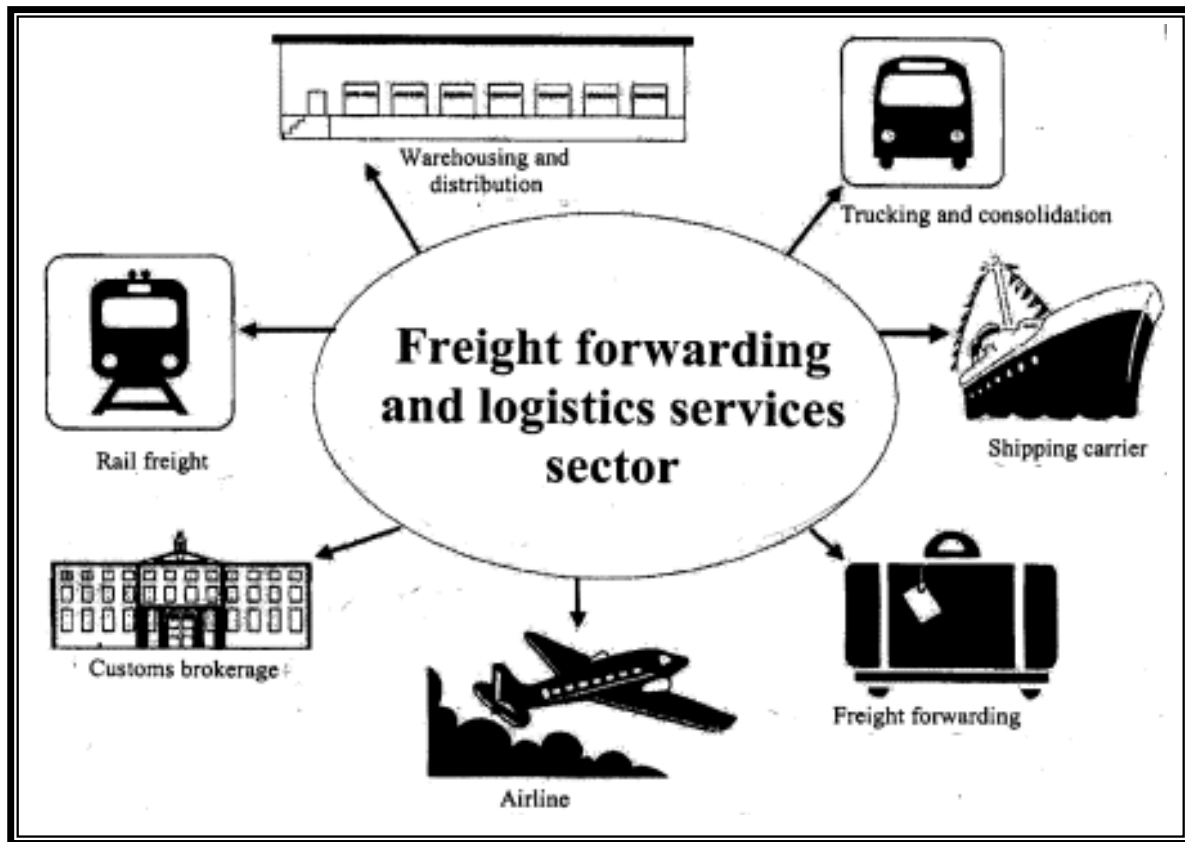
Before looking on the logistic sector in Tanzania, it is important to have an understanding on the critical dynamic issues related with logistic activities globally. In any dialogue on how to improve the logistics sector activities, it is important to ensure that the discussions are built on the understanding of what trends are driving business. The government as one of the key stakeholders need to be more aware of these trends to respond with appropriate policies. These trends should also guide the government when considering how to work with industry to maximize the country's local and international competitiveness. One of the issues is the changing marketplace at global, regional, and local levels.

Globally, multinational companies (MNCs) continue to grow through acquisitions and mergers as they build brands. This is associated with increasingly the usage of information technology (IT) and communications, which has become the powerhouse sectors, not just in terms of business efficiency, but also in terms of being central to new business models. In addition, companies operating globally are closely assessing each market's attractiveness when making strategic decisions regarding investment. In some cases, because of limited resources, companies are making critical decision to withdrawal from certain markets to focus on core growth regions.

With stiff competition, companies strive to create customer values by a combination of differentiation and lowest cost and thus, logistics and supply chain management is now increasingly becoming an important means of delivering value in the international and local business arena. These market-driven dynamics have resulted in customers demanding more from logistics globally, which is affecting at a regional and local level.

The trend of logistics is increasing its impact on business, as it creates value for companies and assists in delivering improved profits. The application of logistics varies across countries and regions. Experience has shown that the concept and coverage of logistics have been evolving and different countries perceived the logistics differently. Modern logistics is generally a new concept in most of developing countries including Tanzania. In most of developing countries, the logistics focus is on the basic transport processes of road, rail, air, and sea. These processes have in some areas been integrated into what is known as multimodal transport. Figure 1 shows the *functional approach* that is generally adopted in most developing countries whereby its attributes focus on the individual operational aspects of transportation, where operational excellence is the dominant capability.

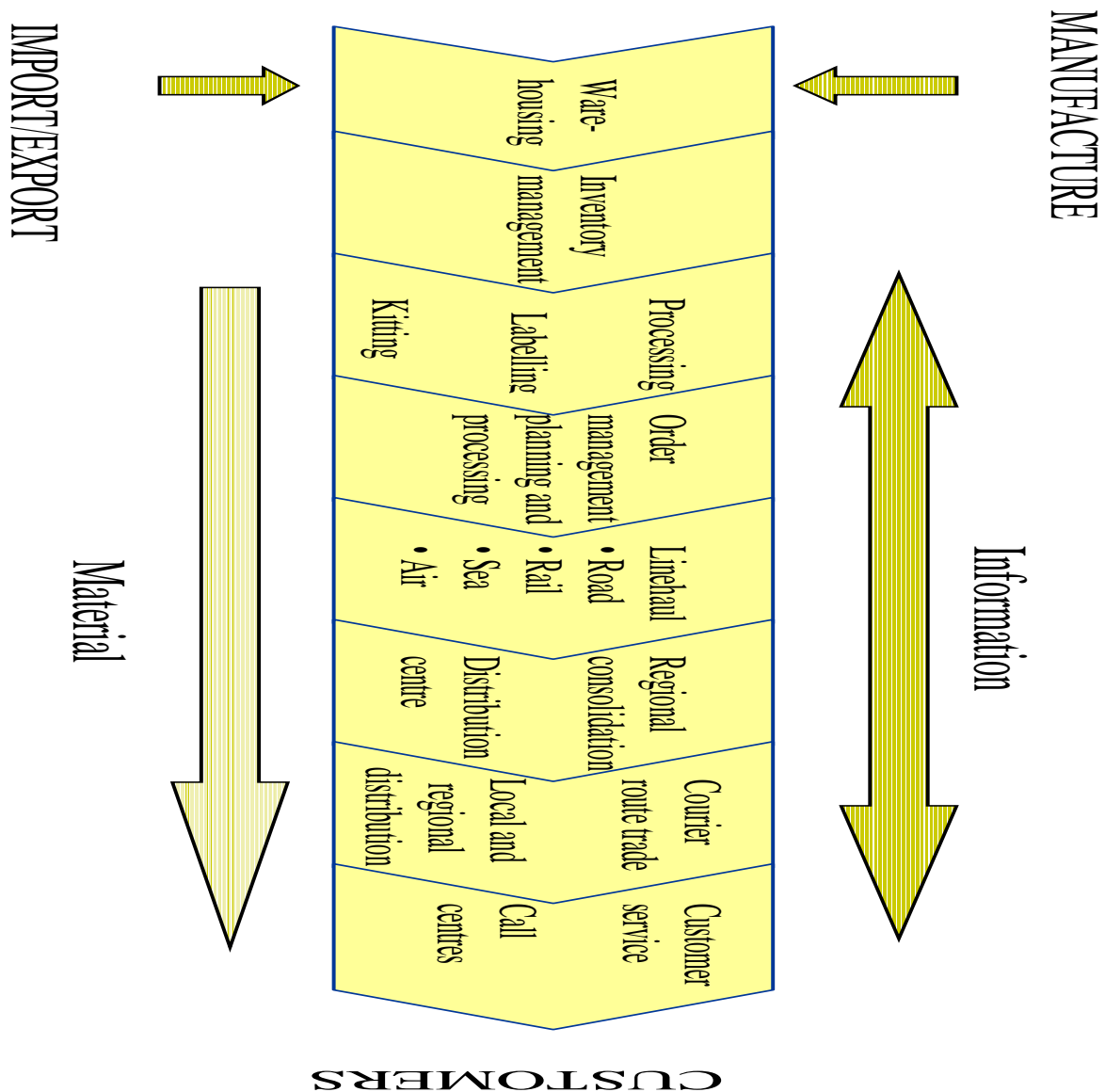
Figure 1: Developing Countries Logistics Concept



Source: Powell, 2001

Figure 2 shows the contemporary advanced economies views of logistics. This view focuses on the customer's perspective, from the point of supply through to the end user. The strength of this view is to deliver high-class value at the lowest cost. The competencies required depend upon building strong customer partnerships, client-specific solutions, innovation, and supply-chain systems integration. This view takes a holistic approach and is the trend in modern economies.

Figure 2: Modern View of Logistics



3.1.1 Logistics in Tanzania

The rapid economic growth recorded for the past two decades in Tanzania was a result of waves of reforms and structural shifts in terms of contribution to the GDP from traditional sectors to newly emerged sectors such as the logistics sector, etc. The role of the newly emerged sectors was part of the dynamic change of the economy in demanding services from these sectors. These sectors are becoming crucial in supporting other sectors and the economy in general.

The emergence of covid19 pandemic has brought significant changes on how businesses are conducted and has signified even further the need of logistics sector in supporting production and trade of goods and services in the country. As discussed in the previous section, Tanzania is amongst developing countries

that up take the need of modernizing the logistics sector by considering the need of taking a holistic approach of the sector. The approach is towards building strong customer partnerships, client-specific solutions, innovation, and supply-chain systems integration, which are critical in the modern logistics. This approach goes hand in hand with supporting and attracting foreign investors as well as facilitating established investment in the country.

The assessment of logistics in this section based more on trade and transport logistics rather than production logistics. It is widely understood that production logistics play a major role in influencing trade and transport logistics but the scope here is more on trade and transport logistics for Tanzania. Logistics and Transportation sectors are catalysts in creating platform and building strong base for other sectors to operate efficiently.

3.1.2 Trade and Transport Logistics in Tanzania

Like in other countries, trade and transport logistics in Tanzania are critical in facilitating investment and movement of goods to markets or destination. They are also key in determining the cost of production and trade, of which they contain bigger role in enhancing the country's level of competitiveness. Series of reforms have been implemented since mid-1980s to-date that focus on improving business environment in the country and one of the areas that have taken more attention is on trade and transportation. To the greater extent, these sectors depend highly on the availability and efficiency of infrastructure and logistics since they are costs sensitive (monetary and time) and engage multiple of actors that are within and outside the country.

In terms of organization, Ministry of Trade and Industry is responsible in overseeing trading activities in the country while Ministry of Transport and Infrastructure is managing transportation. Several institutions under each ministry coordinate and manage trade and transport in the country. Moreover, because of existing synergies, trade and transport are crosscutting of which some or part of their activities involve other institutions under different ministries. From the field and interviews that was held engaging different actors to these two sectors, there are several issues that relate to logistics sector that call for utmost attention of the government as well on stakeholders engaged in logistics activities. The following is a synthesis of issues:

Transport infrastructure – it is well acknowledged that transport infrastructure is key for smooth operationalization of logistic activities in the country and the government has devoted significant resources to improve transport infrastructure particularly on road, rail, sea, and air. Poor infrastructure has been a concern throughout the discussions on enhancing competitiveness of the country on doing trade. Road is the mode of transport that is widely in Tanzania not only for movement of people but also goods and cargo.

Although major resources have been, devote to improve trunk and regional roads since they are key in connecting major trading corridors in the country, there is a need to put similar efforts on rural roads. They are key facilitating logistics of transporting agriculture products from rural areas where majority of smaller farmers resides to markets. Linking agriculture produces with markets timely, has been a critical concern especially in making Tanzania exploiting the comparative advantage of having good arable land for cultivation. Having good road infrastructure will support more transportation of perishable agriculture products by attracting trucks with storage facilities to reach remote areas.

Border management - is one of the important areas for facilitating trade and transport logistics. As part of the regional collaborative interventions in enhancing boarder management, the government introduced the One-Stop Border Posts (OSBPs) that is equipped with relevant ICT systems to facilitate smooth processing and movement of goods across borders. Under the East African Community (EAC) OSBP program covers the following borders:

- i. With Kenya: Namanga, Taveta-Holili, Lunga Lunga-Horo Horo, Isibania-Sirari
- ii. With Uganda: Mutukula-Mutukula
- iii. With Rwanda: Rusumo-Rusumo
- iv. With Burundi: Kobelo-Kabanga

Other borders OSBP, which are under the wider Tripartite Regional Integration Program, include:

- i. With Zambia: Tunduma-Nakonde
- ii. With Malawi: Kasumulu-Songwe
- iii. With Mozambique: Unity Bridge (Mtambaswala-Namoto)

Generally, these OSBP have shown positive progress in supporting movement of goods across borders particularly in reducing time in processing documents however, there are still some challenges that partly emanate from the installed systems, users, and overseers, etc.

Efficiency in border posts is one of the issues that have taken wide discussion and interventions within the country as well as in the region. There are several agencies in each of the border stations and TRA is the lead agency responsible for managing the borders and customs clearances. TRA also operates six transit-monitoring stations. Other border management agencies include TPA, the Ministry of Agriculture, the Tanzania Medicines, and Medical Devices Authority (TMDA), the Tanzania Bureau of Standards (TBS), the Ministry of Energy and Mineral, and the Ministry of Natural Resources and Tourism.

E-Commerce and Communication Technology - This is another area that supports trade in the country. Tanzania has made significant progress in this area by taking key steps to develop the country into a regional e-commerce hub. Digitalization of government services is advancing, and the government is investing resources into enhancing the overall business environment. For example, the government has adopted a series of e-Government services, including the establishment of a government portal that serves as a one-stop centre for public services.

The government has also recently introduced the Government electronic Payment Gateway (GePG) that enables all government entities (Central, Local and Agencies) to use a single payment platform. Moreover, the development in ICT infrastructure and services is critical in supporting logistics activities. With a large and growing population, existing competitive mobile network operators (MNOs) market and increasing mobile service delivery, the growth of mobile Internet users has rapidly increased which is an essential element for facilitating logistics. The effort of the government to build the National ICT Broadband Backbone (NICTBB), connected to the region's main submarine cables, has resulted in lower mobile data prices for end-users. By the end of 2018, 3G and 4G networks covered around 61 per cent and 28 per cent of Tanzania's population, respectively (UNCTAD, 2020). Such milestones have facilitated trading activities in the country by supporting communication as well as financial transactions.

Mobile network subscriptions in Tanzania reached 51 million at the end of 2020. In 2019, mobile market revenues were estimated at USD 1.1 billion (TZS 2,703 billion), and the sector accounted for 1.9% of Tanzania's GDP. However, given that most subscribers have more than one Sim card, the number of unique subscribers was 25 million with a unique-subscriber penetration of 41%, and a large proportion of the population (59%) remains unconnected to the mobile network. Tanzania Mobile Internet The unique-subscriber penetration of mobile internet in Tanzania is low at 18%, less than Kenya (27%), Uganda (23%), and Sub-Saharan Africa (26%). Barriers to using mobile internet include affordability, lack of awareness, illiteracy, and lack of digital skills. However, British technology research firm Cable estimates that the average cost of one mobile gigabyte (1GB) in Tanzania is USD 0.75, making the country the 32nd cheapest in the world, and the cheapest in East Africa.¹⁸

Despite these significant progress in ICT infrastructure, to reap more the benefits of the ICT more effort is needed on skills development for e-commerce. Although a number of efforts have been made to develop ICT human capital in the country, including adding ICT curriculum to tertiary education, skills in digital entrepreneurship and e-commerce remain limited. It is important to make a distinction between technical ICT skills and the broader set of skills that are needed to conceive, plan, develop, launch and operate an e-commerce

¹⁸ Read more at <https://www.tanzaniainvest.com/mobile>.

business. Limited understanding of the different features of e-commerce, across all levels of society, in some cases has led to a persistent lack of trust between e-commerce vendors and their customers.

Therefore, skills on e-commerce are critical in the modern logistic where large transactions are made instant across the world, which are time sensitive and require the use of modern technology. Most of the visited stakeholders in transport logistics admit the huge gap on ICT knowledge and shows the need to be equipped with extensive knowledge on the area to enhance smooth operation of their activities.

Supportive Facilities. Notable in Tanzania, approximately, more than 70 percent of all trade in the country is processed through the port of Dar es Salaam (World Bank 2018). Clearances are authorized at 86 customs stations, including 25 seaports, and 8 airports, although more than 90 percent of all clearances are through 9 major border stations. This implies that there is a need to invest more on supportive facilities major entry and outlets but more so, in the port of Dar es Salaam which is the major inlet and outlet of goods from outside to the country as well as to the neighboring countries.

It is well acknowledged that there is massive investment the government has done and continue to do in the Dar es Salaam port. Nonetheless, more investment is needed to ensure other supportive facilities such as storage facilities, weight measures, dry ports and road/rail infrastructure are well functioning to support the efficiency of the port.

Notable, the competition from other ports such as Beira in Msumbiji, and Mombasa in Kenya is currently high and thus a need for more strategic efforts like ensuring these supportive facilities are available. Some stakeholders interviewed showed concerns on the decision of the government to allow foreign investors to run dry ports to facilitate cargo to their respective country's destinations, however, our understanding is that this is part of efforts in facilitating movement of cargo. Such arrangements are considered a good move, which in the future, by utilizing the Public Private Partnership (PPP) arrangements it could well help the government to improve operational efficiency of the Dar es Salaam port.

Transport and Logistics Costs. Despite having infrastructural improvements and customs modernization in Tanzania, the country is still considered to have high transportation and logistics costs. There are diverse of factors that have argued to increase transportation and logistics costs:

- i. *Existence of multiple government agencies* that play the role of regulating the logistic sub-sector but also doing almost similar functions. Each regulator charges a certain amount in the logistic value chain. For example, licensing charges, port charges, local cargo charges, import duties, storage charges and customs rent, etc. In addition to these costs, there is waiting or opportunity cost agents and customers face in case of delays in the

logistics sub-sector. There should be re-alignment among the regulatory authorities i.e. some costs should be charged by one authority or if possible, the transporters should deal with TATO only.

- ii. *Many bureaucratic procedures* and fuel price volatility, which increase operational costs of transporting cargo. Experience have shown that there are few procedures to be done in other countries when transporting cargo compared to Tanzania, which make costs to be higher in the country. In order to enhance efficiency of the logistics sub-sector, the government should make waiver in some costs and improve the whole process and system by improving technology and having trained and committed personnel.
- iii. *Great variation in the rate of carrying cargo* across countries is also one of the issues that increase costs and uncertainties in transport and logistics industry. As a country, there should be a standard rate of charging the transportation of a certain cargo.
- iv. *Over-estimation of Taxes.* Over-estimating of taxes in the private companies due to inadequate information has been also a factor that escalates costs. There is a need to ensure that tax estimates are based on the right information of the company. The over estimating has been due to lack of proper information that is used to tax transport and logistics companies. This has compromised operations of companies and discouraged to formalize businesses because the process becomes too expensive due to a lot of charges and bureaucracy.

Access to Finance and Payment Systems. Logistics sector is still in its infancy stage in Tanzania when compared to other more advanced countries, for example in Asia. According to a study undertaken by *National Payment Corporation of India in 2020*, digital payment adoption is now very well entrenched. Overall, one third of Indian households are using it in some form or the other. Heartening to note that almost a quarter of the households in the bottom 40% income group are using it as well and it has not remained a rich or well educated person's preserve. It is noted that 15 percent of households in bottom and middle category would like to adopt digital payments. Further, smart phone ownership is no longer a bottleneck for the adoption of digital payment systems. This implies that the support to the sector should not only focus on skills development but also ensuring access to funding among actors in the sector is facilitated.

One of the features that we observed in the field is that majority of transport logistics companies operating in Tanzania are family owned, and they face challenges to allow them to grow because of internal and external factors. One of the effects of majority of family owned firms is that most of the companies employ blood related relatives despite of the required skill and professionalism as

a way of avoiding or managing operating costs i.e. avoiding paying higher professional and skilled personnel.

One of the constraining issues that compromise growth of these companies was lack of finance. The challenge has been accessing funds from financial institutions are relatively expensive and can be managed more by larger companies which some have foreign ownership. Thus, the government needs to see how best to support the logistic sector in accessing feasible finances.

Concerning payment systems, although many formal financial sector service providers operate in Tanzania, uptake and usage of the offered services are limited. The demand-supply gap in formal financial services is due in large part to the lack of awareness in the general population and the high cost of services. Usage gaps persists between men and women, and between higher and lower income segments of the population.

Mobile money has emerged as the main tool used by Tanzanians to access financial services. Based on the numbers of users and transactions, Tanzania has become one of the largest markets in the world for mobile finance. The Bank of Tanzania's regulations provide a conducive business environment for mobile money, including interoperability between mobile money service providers. Despite the growth in this form of payment, cash-on-delivery is still the most common form of payment, even for e-commerce transactions. This compromises the thrusts of moving towards the modern logistics sector in the country.

Access to information and Support from Embassies. The main challenge is access to right information. The players in the logistic sub-sector do not have the right information and right people/institution to guide especially when they operate in foreign land. There should be cooperation between Tanzanian embassies and the private sector since it becomes costlier for a single individual to compete in the global export market with having right information. Tanzanian embassies can assist local firms/indigenous people by providing them with accurate information and connecting them with the right people in the market.

Lack of Standard. This is more of operational challenges, which has continued to undermine the quality of services offer by transport and logistics companies in the country. Since there are no restrictions to entry in the logistics sub-sector then there are no standards to enter in the industry, absence of quality check for-example there is no minimum requirement when one transports oil. For companies like Prime Fuel who take into consideration the number of hours that a driver should drive on the road and limit speed usually end up losing small-scaled customers hence reducing the customers' base. In addition, all the risks are born by the transporter.

3.2 *Best Practices in Trade and Logistics*

During the last three decades, the integration of the world market has proceeded apace. Multilateral, regional, and unilateral trade liberalization has greatly

increased market access and together with sharply falling transportation and communication costs, this has facilitated the emergence of value chains. Production that once was primarily located close to sources of major suppliers of inputs (or near consumers in final markets) is now increasingly carried out wherever the necessary skills and materials are available at competitive cost and quality. This fragmentation of production has created new opportunities for developing countries to enter global markets as components or services suppliers, without having to build the entire value chain. By providing access to networks, global markets, capital, knowledge and technology, integration in an existing value chain can provide a first step to economic development, a path that is often easier to travel than building a complete value chain (OECD, 2013a: 10).

The emergence of value chains has major policy implications for economic growth in developing countries. For many industries, the global spread of integrated production segments across countries has lowered the costs of production of associated final goods and increased the productivity of associated labour and capital. As Baldwin (2011) points out, this has two consequences for developing countries. firstly, it has created an avenue through which countries can industrialize at a much earlier stage of development as producing firms choose to offshore fragments of the production value chain to countries where labour is cheaper, or where other locational advantages confer a competitive cost advantage on the whole value chain. Such participation in value chains grants considerable benefits. It may allow suppliers to meet standards and regulations that permit them to access rich country markets; it may allow imports under privileged tariff treatment for intra-firm trade; it may permit the utilization of network technology that would not otherwise be available; and finally, it may open new sources of capital.

However, the second consequence of a world in which production can be allocated to locations with the lowest cost is that countries trying to industrialize through import substitution policies, such as those prevalent in the pre-1990 period, are unlikely ever to reduce their costs to the point of being competitive on global markets. Stated differently, value chains raise the penalties for countries that seek to expand their exports through using their policy space to build competing domestic production networks; high border and regulatory barriers will only result in high-cost local production and poor connectivity to the global market.

In short, value chains appear to create opportunities for faster economic growth, but they also raise the penalties for maintaining inefficient border procedures, high tariffs, non-tariff barriers that unnecessarily constrain goods or services trade, restrictions on the flow of information, impediments to FDI, and restrictions on the movement of people. Participants in value chains share a political interest in reducing policy-induced delays and inefficiencies in the value chain and in that sense can be powerful allies for reducing trading costs.

3.3 Value chains as a path towards development

Motivated by the success of emerging economies within value chains, increasing numbers of developing countries are also aiming to become more integrated into international production networks. Value chains as a new form of globalization allow these countries to integrate more rapidly into the global economy. Nevertheless, despite their large advantages in terms of for example low absolute labour costs, developing countries are disadvantaged in other respects, such as high trade costs resulting from a broad range of factors including tariff- and non-tariff barriers, logistics and transportation costs, but also from geographical distances and cultural differences. As shown by a new global dataset of bilateral trade costs, developing economies face higher trade costs and larger connectivity constraints, which directly raise the costs of offshoring to these countries.²

According to a recent study, reducing supply chain barriers, which are especially detrimental to small and medium- sized enterprises (SMEs), could increase world GDP six times more than the increase that would result from eliminating all tariffs (WEF, *et al.*, 2013). The same study reveals that if every country improved its border administration, as well as its transport and communication infrastructure, even halfway towards world best practices, global GDP could increase by 4.7 percent and exports by 14.5 percent. Consequently, the authors argue that, given the significance of supply chain barriers, the international community should urgently address these barriers. The inter-American development Bank (IDB, 2013) concurs with this assessment. It also highlights the vital role transportation networks and efficient logistics play in reducing trade costs and improving competitiveness.

3.4 Value Chains Best Practices

A common theme with respect to these constraints is speed: every day of delay in the movement of goods in the value chain diminishes competitiveness and raises prices for the final consumer. This means importing must be as efficient as exporting, and services must be competitive. Poor “connectivity” can occur either because natural barriers impede ready access to global markets (e.g., in a country that is landlocked, because poor infrastructure makes transportation costly, because institutions function poorly, or because policies have imposed barriers such as trade restrictions). Improvement in trade facilitation and logistics was a key factor behind the success of global value chains (GVCs) in east Asia and the emergence of “factory Asia” (WTO/IDE-JETRO, 2011). Coordinating delivery times and multiple inputs into production at a given stage mean that wide varieties of both public and private services are critical to linking the production process over different countries (OECD, 2013a).

It is important to embrace best practices in value chains since trade costs play a larger role in vertical trade within value chains compared to regular trade, as vertical specialization leads to goods crossing national borders more times before

reaching the final consumer (Yi, 2003; Ma and Van Assche, 2010). Tariffs, for example, can add up to a significant level by the time the finished good reaches customers, stifling demand and affecting production and investment at all stages of the value chain. Protection against imports of intermediate goods and services increases the cost of production and reduce a country's ability to compete in export markets. Tariff and other barriers on imports are in effect a tax on exports. Policies that restrict access to foreign intermediate goods and services also have a detrimental impact on a country's position in regional and global supply chains.

Integration into value chains depends largely on the ease and costs of international flows of goods, services, capital, knowledge and people, etc. effective policies at the border, as well as behind the border, are necessary to increase engagement in value chains. The reduction of trade barriers has strongly favored the shift from import substitution to export promotion policies and has, for example, greatly promoted the economic integration of East Asia (Hummels, *et al.*, 2001). Trade barriers depend on the level of tariffs and the existence of non-tariff barriers; the efficiency of border processes and customs practices are also an important determinant of the costs and time to export and import. Furthermore, domestic regulations and trade-related bureaucracy are significant cost factors for companies that must operate in a competitive and timely manner within value chains (WTO/IDE/JETRO, 2011).

Foreign direct investment is an important driver of export capacity. The cumulative effect of several seemingly small costs may discourage firms from investing, or from maintaining investment, in the country – and may lead them to relocate production facilities, technologies and jobs elsewhere. Just like trade barriers, lower investment barriers facilitate the integration of countries into international production networks as they attract investments by lead firms. In addition to specific investment rules or restrictions, barriers to investment cover a broad range of policy areas that determine how attractive countries are for international investment that is investment policy, trade policy, competition policy, tax policy, human resources, infrastructure, corporate governance, responsible business conduct, public governance, promotion and facilitation (OECD, 2013a: 159).

Quality of infrastructure is increasingly considered a determinant for the success of countries in international production networks. High-quality transportation is an important factor influencing countries' integration into value chains. Gateway ports, hubs, and their inland transport connections are crucial for the international transfer of goods, services and people. Maritime transport has greatly benefitted from containerization: standardization, automation and inter-modality of freight have resulted in faster movement of intermediate and final goods within value chains. Air transport has become important, especially for the (international) transfer of high-value and low-volume products as well as for time-sensitive goods

due to just-in-time production and other lean production processes within value chains (OECD, 2013a: 160).

Speed and flexibility are crucial not only for the exchange of physical goods/services, but also especially for information flows across countries within value chains. Adherence to international standards has become more important for the production of increasingly modular physical goods, as well as for the exchange of information across borders. Value chains crucially depend on seamless and uninterrupted information flows across companies and countries; ICT networks channel business information and data needed for the efficient coordination of activities across locations. A well-developed ICT infrastructure is therefore necessary to connect countries to the value chain activities of companies (OECD, 2013a: 161). Overall, reductions in effective transportation and communication costs can be seen as equivalent to trade liberalization in reducing the costs of exchange and enhancing trade between countries (Globerman, 2011).

In addition to investments in “hard” transportation and communication infrastructure, the development of a “soft” infrastructure (*i.e.* facilitating policies, procedures and institutions) is at least as important for the integration of countries into value chains. Recent research has pointed to the quality of the institutional framework as a source of comparative advantage (Grossman and Helpman, 2005). Since value chains involve a large number of activities contracted between different companies, *i.e.* lead firms and independent suppliers, contract enforceability is crucial for the smooth functioning of value chains. Countries with better legal systems are indeed found to export more in more complex industries (Levchenko, 2007; Costinot, 2009). Moreover, tasks that require more complex contracts (*e.g.* R&D, design, branding) are more cheaply conducted in countries that have well-functioning contractual institutions (Acemoglu, *et al.*, 2007). countries characterized by bad governance and political instability have failed to attract foreign investors to export processing zones despite the fact that these dedicated zones promised to shelter investors from local rules (Cadot, *et al.*, 2011).

Competitiveness in value chains is critically dependent upon efficient services inputs. Embedded services largely represent the “glue” between countries’ infrastructure and companies’ activities within the trade-investment-services nexus of value chains. Investments in logistics services (*i.e.*, services and processes for moving goods from one country to another) are found to be strongly trade enhancing; examples are the organization and management of international shipment operations, tracking and tracing, and the quality of transport and information technology infrastructures. High-quality logistics affect trade relatively more than less policy-dependent trade determinants such as distance and transport costs. A recent OECD study indicates that every extra day needed to

ready goods for export and import reduces trade by around 4 percent (Korinek and Sourdin, 2011).

Finally, yet importantly, the supply capacity of domestic firms (often SMEs) is key to connect them better to value chains. Lead firms are attracted to “deep” markets in their search for independent suppliers in foreign markets: if the market is large, companies will have a better chance to find the appropriate match and in the case the supplier fails to deliver, alternative solutions are available (WTO, 2008).

3.5 Current Initiatives and Interventions

A domestic business environment grounded in competitiveness and transparency enables traders to reduce costs and improve performance in national and international markets. Competitive and efficient logistics services are directly associated with larger trade volumes and economic growth. Especially in developing countries, high-quality logistics facilities are crucial to connect MSMEs to regional and international supply chains and consumers worldwide at a faster pace. Disjointed public action, state monopolies, and the resulting market failures hinder the coherent regulation of logistics services as an integrated sector, causing major trade bottlenecks. Insufficient coordination between government agencies, a lack of public-private dialogue and complex compliance requirements lead to delays and raise costs for logistics services providers. Reforming the logistics regulatory framework will make the industry competitive and productive. The private sector will only be able to provide better quality logistics services and become competitive nationally, regionally, and globally once governments tackle the regulatory fragmentation of logistics supply chains and improve access to strategic infrastructure.

Logistics management is that part of supply chain management that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption to meet customers' requirements. Logistics management is often confused with supply chain management. Supply chain management has broader objectives and encompasses logistics management. Supply chain management (SCM) includes inter-enterprise, multi-functional processes that target everything from the supplier's inbound freight to the end consumer. Logistics management (LM) is the more practical, hands-on part of the supply chain where goods are transported into a facility, properly stored, handled, and transported out. LM focuses on short-term procedures and SCM is focused on the long-term¹⁹.

The example of exploiting efficiency is a simple change most companies can effortlessly implement. *Freight Paid* is a common payment method for inbound freight among shippers. Freight Paid means that the supplier pays for

¹⁹ https://www.logisticsmgmt.com/wp_content/pls_wp_best_practices_092915.pdf

transportation costs. A switch to *Freight Collect* is advantageous; this is where the consignee pays for freight cost. It might sound counterintuitive, but it is important to keep in mind that the company who immediately pays a carrier is not necessarily the party ultimately responsible for the cost of transportation. Switching to *Freight Collect* gives the company control over inbound logistics. Often, the true cost of transportation is hidden in the price of a product, between 4% and 7% of the total cost. With control over inbound freight, you know exact transportation costs and can streamline the truck's route by having it drive straight to your distribution center, not making an extra stop at the supplier's distribution center.

Freight Collect is a best practice in logistics management because this method will give you visibility into the inbound process. Visibility makes identifying inefficiencies and implementing change possible. With visibility, a company can analyze carrier performance, track overall costs, predict, and avoid disruptions, and analyze vendor performance. Then, choose the best combination to save money and time; these benefits will be seen by your customer through improved service.

For businesses, especially micro, small, and medium-sized enterprises (MSMEs), to thrive, a transparent, predictable, and facilitative regulatory environment is critical in ensuring the free circulation of goods and services.

There are several determinants to a country's capacity to trade efficiently. Three of these complex yet interdependent factors are:

- i. The *quality of trade-related infrastructure* (ports, roads, rail networks and ICT penetration)
- ii. Trade-related *border procedures*
- iii. The *quality of private-sector services* responsible for movement of goods (logistics services)

Harmonized regulatory interests and reduced market restrictions in the logistics services sector represent an untapped potential in the international trade facilitation agenda. By going beyond the requirements of the WTO Trade Facilitation Agreement, this wider emphasis on revamping the logistics sector complements efforts to ease cross-border movement of goods and services and connect MSMEs to overseas markets. Policymakers should ensure that the policy reform agenda adheres to a 'whole of supply chain' approach towards cooperation, so that barriers in one country do not hamper businesses in a partner country.

This is especially crucial for landlocked developing countries that often rely on their neighbors for transit of goods. Recent trade deals are already forging the trail in harmonizing the respective national laws that address obstacles in the logistics sector in a holistic manner. The International Trade Centre (ITC) encourages policymakers in developing countries and least developed countries to improve their national trade competitiveness by promoting positive policy

reforms in the logistics and transport sectors. In a competitive market, synergies between public and private actors and stronger trade and investment support institutions can make a real difference.

For example, in the last decades, outsourcing has been one of the fastest-growing practices in the business environment. Firms now commonly concentrate on their core competencies to gain and maintain competitive advantages, while other functions are outsourced to their suppliers, which possess technologies and cost advantages. Therefore, we now observe many types of supply and value chains involving various buyer–supplier relationships, and how to build and control those relationships is one of the most important factors determining the performance of an entire value chain. One typical buyer–supplier relationship is that between the original equipment manufacturer (OEM) and contract manufacturer (CM), in which the OEM, with its own brand, designs a product while the CM is responsible for its production.

However, as competition among supply chains becomes more sophisticated, many firms are now relying on their suppliers' complementary capabilities to keep up with the changing needs of consumers. Thus, recently emerging relationships not only allow suppliers to ensure quality compliance to design specifications, but also require them to engage in product design, which entails investing in their own R&D capabilities]. For example, Apple has involved Foxconn, LG, and Samsung in its product design and development stages to respond to the customer's needs [7]. Likewise, value chains requires to be incentivized through availability of soft financial windows and markets for their products and services.

Harmonizing regulatory interests to minimize red tape through greater cooperation is a stepping-stone towards a more consistent and efficient logistics sector. Efforts to this end reflect a current trend in the logistics regulatory environment, whereby new policies and regulatory actions aim to respond to common challenges:

- Delivering integrated logistics services through a coherent regulatory framework establishing an efficient institutional framework through effective coordination between government actors and interests, and public-private dialogue eases displaced regulations in the logistics supply chain.
- Updating entry and operational restriction regulations in some cases Government regulations may discriminate against competitive logistics services. Complex licensing requirements and regulations restrict market access and deter providers seeking to offer new services. These requirements necessitate constant resources and discourage foreign investment in the industry. A rethink of the institutional framework governing entry and operational restrictions should guide specific policies.
- Providing better access to infrastructure the quality of the services provided correlates directly with better access to strategic infrastructure, which in

some developing countries is obstructed by inefficient state monopolies and discriminatory practices.

- Improving infrastructure accessibility through appropriate policy changes is crucial to making the supply chain competitive and cost-effective, and to correcting market failures, which protect the status quo of stakes.

The logistics services sector is integrated by three broad sets of activities. According to a classification used by World Bank (2010), these entail:

1. *Core freight-logistics services*, including supply-chain consulting services and transportation management services, which are offered by most logistics services firms. They are often supplied on a standalone basis or together with other logistics services. a. Supply-chain consulting services involve global network design and distribution strategies, where warehouse locations and transportation needs are determined. They may also include inventory forecasting and planning; product design strategies; technology needs assessment; and vendor identification and management. b. Transportation-management services include storage and warehousing, cargo handling, transport agency services and customs brokerage.

2. *Freight logistics*, which entails freight transportation through road, rail, air, or maritime services.

3. *Non-core freight logistics*, including fleet maintenance and repair, packaging services, computer and related services, management consulting, etc. They are inputs or value-added services for the supply chain, but they do not necessarily generate revenue.

A review of existing literature and emerging trends indicates that a strong reformist trend is under way. The specific mix of policies and concrete measures for the logistics industry varies in each country, but the overall direction is to encourage development of the logistics industry. The review suggests that the most successful policies have three common features:

- i. An efficient institutional framework for development of policy based on effective coordination among government agencies, monitoring the performance and growth of the logistics industry, and seeking input and feedback from the industry.
- ii. Appropriate enabling policies (such as ensuring security for goods in transit, improving border procedures, upgrading infrastructure, and opening the sector to foreign investment and increased competition) that encourage improved performance.
- iii. Operational tools that address clear policy problems and yield quantifiable results. They include initiatives such as mandatory fleet up gradation rules to mitigate environmental damage. The three features are all interdependent and critical in serving the overall goal of achieving logistics sector policy reforms. The role of an efficient institution is to set goals. The enabling policies offer the means to realize those goals, while operational

tools help achieve the specific goals through targeted industry directed action.

- iv. Together, these three instances should also contribute to government accountability vis-à-vis the logistics industry. The review of successful policies suggests that having a regulatory policy is a necessary, but insufficient, first step in unlocking the logistics industry's economic potential. Emphasis should also be placed on coherence and coordination. More specifically, coherence is needed between policy goals and the programs promoting an enabling environment to reach those goals. Sufficient coordination is also required to ensure that the regulatory interests of different agencies are harmonized, to minimize the red tape.

3.6 *Operational Challenges: Efficiency, Cost and Complexity*

When defining performances of logistics systems, it is possible to make very different and even conflicting aspects of performances. Defining and measuring the efficiency of logistics systems, as one of the most important performances in recent years is very significant. Existing models for measuring and monitoring efficiency are not fully applicable in logistics and contain many constraints. The lack of models for measuring and monitoring the efficiency in logistics systems applicable in practice is evident. This confirms the lack of papers and models tested on real examples.

Measuring efficiency in logistics can be viewed from various aspects. From the point of time and the significance of the decision-making, there are three hierarchical levels of efficiency measurement: strategic, tactical, and operational level. In accordance with the mentioned aspects, it is possible to make a difference among the following efficiency measurement aspects in logistics: activities efficiency, processes efficiency, subsystems efficiency, systems efficiency, and supply chain efficiency.

Here is a snapshot into eight of the top challenges facing the industry.

1. **Fuel Costs.** One of the highest costs contributing to the 'cutting transportation cost' concern is fuel prices. Recent price volatility of oil in the market place has demonstrated abrupt spike influencing costs of freight and transportation. Fuel price volatility has multiplier effect. Competitiveness of the value chain is a function of sophistication of soft and hard infrastructure and a robust taxation system thus, current investment efforts in the country to both soft and hard infrastructure as well as regular review of taxes and levies will in the long term boost competitiveness.
2. **Business Process Improvement.** Notwithstanding the need for new technology, which we discuss in number eight on this list, it has become an increasing challenge for the logistics industry to stay on top of new advances in business processes. Taking advantage of these new

opportunities sounds enticing but adoption and onboarding can be overwhelming.

3. **Improved Customer Service.** Customers want full transparency into where their delivery is always. These days, the location of a package is as interconnected as your social network. In fact, as customer expectations have increased, their willingness to pay for fast shipping has decreased with just about 64 percent of consumers unwilling to pay anything extra for less than two-day shipping.
4. **Economy.** This industry is pressured by increasing compliance regulations, declining demand, additional capacity with additional increases in key cost centers.
5. **Driver Shortage & Retention.** Hiring and retention of skilled drivers remain an issue despite the lower demand mentioned above.
6. **Government Regulations.** Carriers face significant compliance regulations imposed by government, state/provinces, and local authorities.
7. **Environmental Issues.** The anti-idling and other emission reduction regulations brought about by state and local governments has created concern that the compliance costs could exceed benefits.
8. **Technology Strategy & Implementation.** While the industry understands and supports many of the benefits of these technologies, some questions remain as to how they will pay for it and who will help implement the improvements.

4.0 Transport and Trade Facilitation Costs for Import and Exports in Tanzania

4.1 *Overview of the Main Transit and Corridors in Tanzania*

In Tanzania road is the major transport mode used to transport goods followed by railway. Nevertheless, for sometimes now, railway has performed poorly and thus much of the cargo has switched to road. Tanzania has three main widely known corridors that transport goods to the interior regions of the country and to the neighboring countries.

There is northern corridor, central corridor and the southern corridor. The *northern corridor* link the ports of Tanga to the northern part of the country and up to the border of Namanga enroute to Kenya. This is one of the strategic development corridor that aims to ensure regional integration among countries around Lake Victoria (the east African Countries of Uganda, Burundi, Kenya and Rwanda), using the Tanga port, Tanzania, to access the Indian Ocean to facilitate trade.

The *central corridor* link the port of Dar es Salaam with the central part of the country moving goods towards the borders of Rusumo, Mtukula Sirari, Kabanga, etc. This strategic transportation route connects the Port of Dar es Salaam by

road, rail and inland waterways to Burundi, Rwanda, Uganda, and the Eastern part of the Democratic Republic of Congo and all central and northwestern Tanzania. The corridor forms part of the backbone of the regional transportation system in East and Eastern Central Africa transporting large proportion of imports and exports of the five countries.

The *southern corridor* link the country to Malawi, Mozambique and Zambia through the port of Dar es Salaam, Mtwara inland alongside the Ruvuma River and to the border with Mozambique and Malawi. This corridor facilitate regional integration.

The government in collaboration with other neighboring countries in the region have put joint efforts in upgrading trade facilitation along these corridors since they are essential for increasing the volume and profitability of trade across members' states. The efforts aimed at cutting delays throughout corridor routes and the supply chain to lower trading costs to boost exports, imports, and investment. Notable the shorter and more predictable transport times can cut costs, raise profits, and allow product diversification and enhance competitiveness of the country.

ITC Studies²⁰ have shown that, on average, an added day of delay for any reason reduced trade by at least 1 percent (Gasiorek, et al 2017). On the other hand, reducing delay by one day was equivalent to a country reducing the distance to its trading partners by about 70 kilometers. The lengthy of export process makes developing countries less likely to enter markets for goods that are sensitive to delays, such as perishable products (e.g., agricultural produce), products produced in global supply chains (e.g., electronics), and products where demand changes rapidly (e.g., women's fashion clothing). The lack of quick delivery in African countries has weakened their competitiveness in these markets.

4.2 *Overview of the main exports and imports in Tanzania*

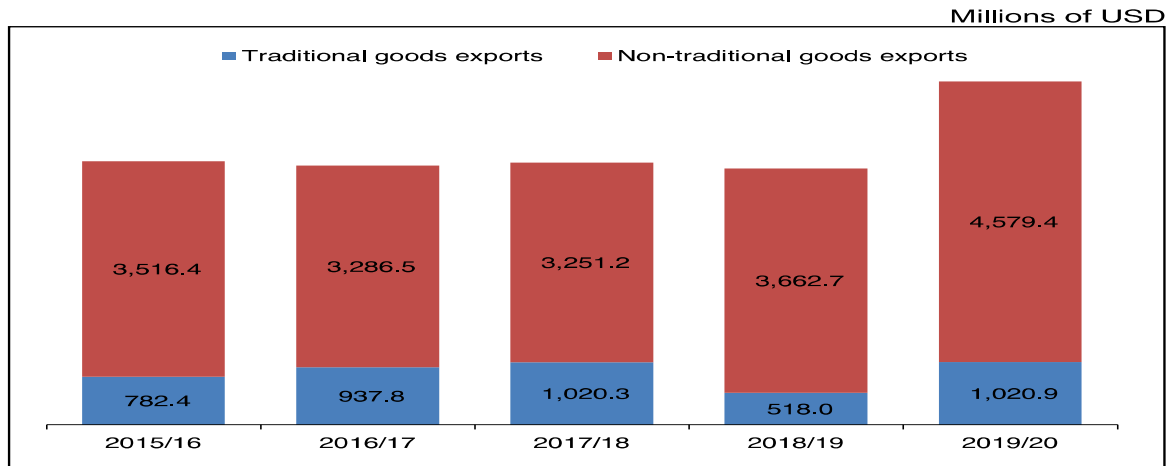
Logistics activities to the greater extent facilitate both domestic and foreign trading globally. This implies that dynamics of the country's trading with the rest of the world is critical in the performance of logistics industry. Prior to reforms, the Tanzanian external sector was largely monopolized by traditional products mainly from agriculture sector such as tobacco, coffee, cotton, tea, and sisal. Nevertheless, with structural transformation of the economy that have been back up with reforms has seen the emergence of non-traditional products such as minerals (particularly gold), manufactured goods, horticulture, fish, and fish products. Such diverse has contributed significantly to the country foreign reserves but also help the country to mitigate shocks against global changes.

²⁰ Arvis et al., 2013

This is revealed for example in 2018/19, when the outbreak of covid19 pandemic emerged across the world (Figure 1). The outturn in this period was largely accounted by the increase in the value of exports coupled with the decrease in import bill (BOT, 2020). Important to recollect here is that, the noted shifts on the pattern of exportation has implication to the logistics sector whereby the demand for managing the smooth movement of the newly emerged products are different compared to the traditional products because due to the nature of the products and their demand globally. Such a shift may likely to demand specialized services with international standards.

The demand of logistics follows the trend of the exports in Tanzania as shown in Table 1 below. The magnitude of the exports compels Tanzania to match and improve its logistics services.

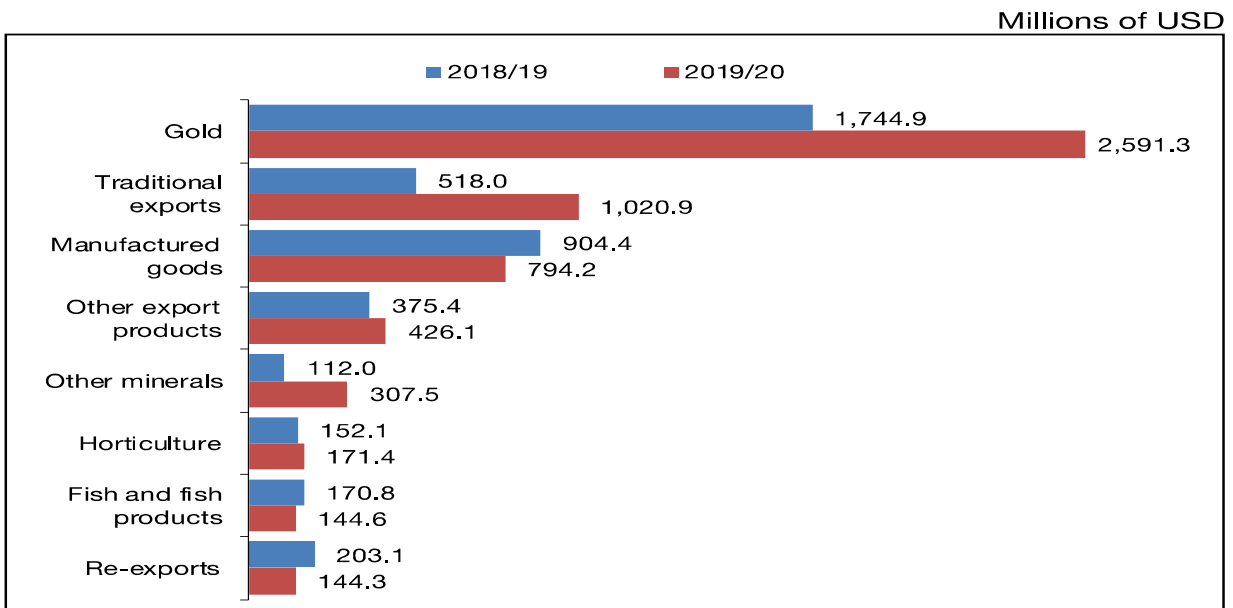
Figure 3: Export Performance



Source: BOT, 2020

Figure 2 details the composition of goods exported from Tanzania for the period 2018/19 and 2019/20. The figure reveals that minerals accounts significant share of the export value of Tanzania currently. Notable, in all these products logistics have potential role in enhancing the competitiveness of the global market.

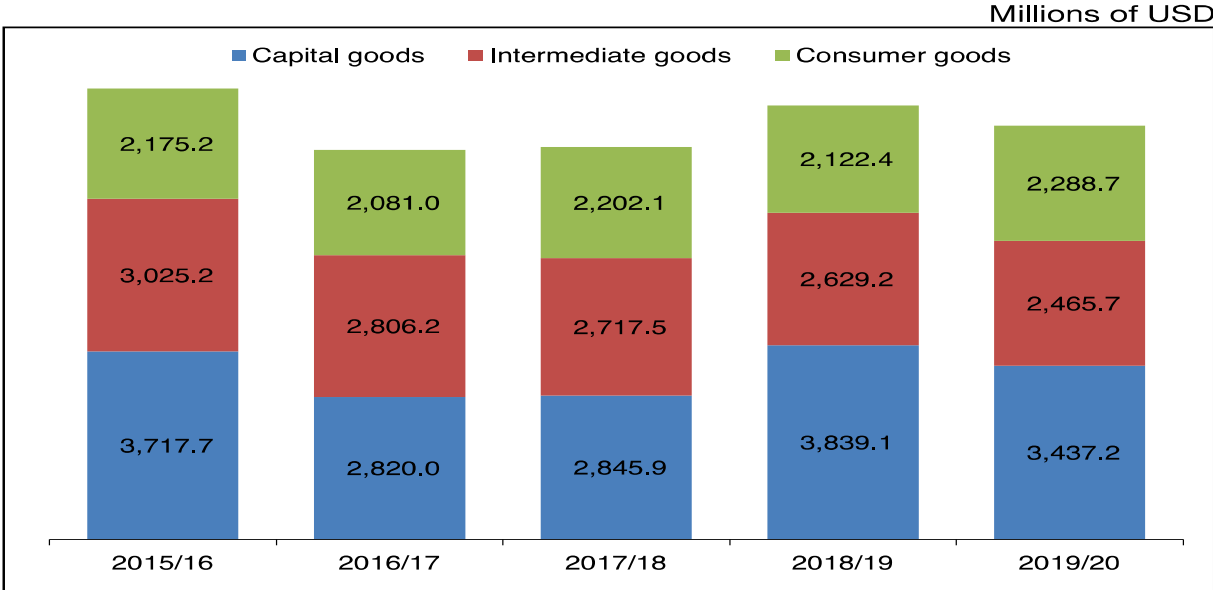
Figure 4: Composition of Goods Exports by Category



Source: BOT, 2020

Tanzania like most other developing countries imports more than the exportation due to low level of industrialization. Tanzania's value of import more valued goods e.g. capital and semi-capital goods that support domestic investments in the country. Figure 3 shows the trends and type of goods that has been imported to the country for five years. Handling importation in the country and in particularly capital goods, which are case sensitive, requires modern and sophisticated infrastructure in the ports and logistics arrangements. This also reveals the need for the government to continue investing in the Dar es Salaam port as well as supporting the logistics activities in the country.

Figure 5: Composition of Goods Imports



Source: BOT, 2020

Another important area to look is on the country of destination i.e. the direction of trade in Tanzania, which is also important and have significant implications on the logistics sector. Table 1 shows the top 15 major destination of the country's exports of which South Africa and India are the main destinations of Tanzania's exports, altogether accounting for 36.8 percent of goods exports. In the light of promoting and supporting logistics sector, bilateral relation between public and private sectors in both countries is crucial and embassies have strategic roles in linking local logistics firms with counterparts for undertaking collaborative business, which will expose firms to international standards and skills uptake.

Table 1: Share of Tanzania's Exports, Top 15 Countries

Country	2016	2017	2018	2019
South Africa	14.6	17.2	19.2	19.4
India	17.2	24.5	19.1	17.4
United Arab Emirates	1.9	2.5	2.3	7.9
Switzerland	14.1	6.4	6.9	6.5
Vietnam	3.4	7.7	1.8	6.2
Kenya	4.4	4.7	5.6	5.4
China	8.2	3.5	3.8	4.7
Rwanda	1.5	1.7	1.9	3.8
Belgium	6.5	4.8	6.2	3.7
Democratic Republic of Congo	3.3	2.8	4.3	3.3
Uganda	0.6	0.9	2.7	2.5
Burundi	1.2	1.3	1.2	1.8
Netherlands	1.5	1.9	2	1.6
Japan	3.2	1.8	1.7	1.3
Malawi	0.9	1.1	1.6	1.1

Source: BOT, 2020

With regards to source or origin of importation of goods to the country, Table 2 shows that China, India, and the United Arab Emirates continued to be the main sources of imports, accounting for 46.3 percent of goods imports in aggregate. Understanding origin of importation is critical to local logistics firms to be able to synergize the demand and quality of service that might be needed.

5.0 Compliance in the Value Chain in Tanzania (based on Tanzania's Key and Entry and Exit points)

The key functions of the entry and Exit Points is to facilitate clearing and forwarding of product in and outside the boundary of Tanzania. All visited borders are OSBP, thus clearance is done in one part. The key functions of the entry and exit Points is to facilitate clearing and forwarding of product in and outside the boundary of Tanzania. All visited borders are OSBP, thus clearance is done in one part. For example if a person is going to Kenya he/she is not required to go through customs in Tanzania instead proceeds direct to Kenya station where there are Tanzanians officers. From there he/she will do Tanzania exit formalities while is in Kenya, the second window there is Kenyan officers who do entry formalities.

5.1 *Determination of Time and Costs*

Time and costs are key elements in compliance in the value chain in Tanzania. The time is defined as the period in which the entry and exit good clears at the border. In Tanzania, most of the entry and exit points are now One Stop Border Posts (OSBPs) in which the clearance of the good is done only on one-border posts. In this post, there are officers in both side of the country bordering each other. For example if a person is going to Kenya he/she is not required to go in Tanzania instead go direct to Kenya station where there are Tanzanians officers. From there he/she will do Tanzania exit formalities while is in Kenya, the second window there is Kenyan officers who do entry formalities.

Compliance with respect to time seems to differ, between exit and entry points and across the goods in questions. Export and import is normally done through pre arrival declaration, so it is within 2 hours. If take long time it is because the agent did not finish the procedures. If a person pre arrival declaration without complete documentation, this delay the release. In addition, all Customs operate under ISO Standard, which specify the standard time until release, other cargo within 2 hours or so.

5.2 *Regulatory and Operational Demands*

In the OSBPs, the leading government entity is Tanzania Revenue Authority (TRA).. TRA have two section, which are Customs Service Centre (CSC) and customs Preventive Service (CPS). CSC and CPS support the OSBP in charge in full filling his/her duties. CSC deal in assessing of cargo with the value more than 2000 \$. CPS deals with small business, which their cargo is less than 2000\$. What is done is direct assessment also known as simplified trade regime. CPs also deal with patrol, control of import and export of motor vehicle, control transit both in and out.

Other entities at the OSBP include TBS, Immigration, Port health under the ministry of health, TMDA, Weight and measure, Chief chemistry agency GLCA, Ministry of agriculture, Livestock, Minerals, Forest, TISS, Military, Fire , PCCB, Radiation and TASAC. Regulatory and operational demands are key constraints in compliances in the value chain. There are many and uncoordinated regulatory and operation demands in the exit and entry points which jeopardized the smooth running of compliance in the value chain in Tanzania. There are also established regulations on quality assurance mechanism at the entry and border posts.

5.3 Challenges

There are several challenges which were noted in the field visits at the OSBPs. In Holili it was noted that the challenges lack of instruments/tools to facilitate trade like mobile scanner and crane or focal lift, shortage of staff, limited working spaces for staff, lack of laboratory at the OSBP which impels the sample to be sent to Dar es Salaam; and lack of staff houses.

In KIA challenges includes unscheduled planes, which need to be attended though they are not in timetable as well as system down. In Mtukula challenges includes outreach permit do not arrive onetime. Usage of porous border as well as requirements of OSBP are not yet implemented example wearing of OSBP identity. In Kabanga, it was pointed out while the structure is conducive in Kabanga side of the OSBP, similar structures on Kobelo OSPB part are not conducive, they are not supportive.

In Rusumo, challenges are road infrastructures, system issue (network), Lack of scanner for big cargo, Permit issue, some permit delay-causing clearance to take long time. Communication problem caused by poor mobile network, Lack of enough spaces for other sectors/department, Lack of laboratory, Common agreement are not followed but politics dominate. Namanga challenges includes system are not Interphase it is difficult to know if a person did exit. Storage facilities.

5.4 Areas for Improvement

Several key areas have been pointed out for improvement during the visit to the OSBPs in the Northern and Southern corridors. First, the system need to be stable and reliable for all stakeholders dealing with the cargo. Secondly, storage facilities for all OSBPs is a major problem. Thirdly, there is a training need on evaluation for the staff working at OSBPs especially on the management of the scanners and interpretation of the results. In addition, valuation classification and awareness on government rules and regulations which keep on changing. There is the need of international training to bring broader interaction and learn from other.

6.0 Comparative Analysis of the Performance of the Tanzania's Logistics Sector

6.1 Understanding of Tanzania's Logistics Competitiveness

The logistics sub-sector in Tanzania like in many parts of Africa, faces several capacity related challenges, which undermine its efficiency. These lead to poor services, delays, compliance challenges, and low competitiveness, among others. By Global standards, operators in logistics sub-sector are expected to have cross-functional comprehension of various business fields, strategic decision-making, communication, leadership, and intercultural skills, and well developed analytical and IT skills (McKinnon et al. 2017). There is no evidence that such skills co-exist in abundance in Tanzania's logistics value chain.

Stakeholders in logistics sub-sector have a view that costs are high compared to other countries and are attributed by lack of sufficient skills to operate in the logistics value chain. Insufficient supportive road infrastructure is also cited as a constraint limiting competence of Tanzania's logistics sub-sector. Furthermore, most of operational equipment used in the industry is second-hand, some with outdated technology, prone to frequent maintenance requirements. Capital constraint is also observed among operators in the industry. For instance, several transporters have a fleet of less than 10 trucks, causing delay in delivery at times.

It was further observed during the field visit that some of inefficiencies, particularly in boarder ports, are caused mode of operations of neighboring countries. For instance at Tunduma border, on Zambia side, there is a single lane road, which is used for both entry and exit to the country. As such, the two bi-directional movements are rationed in terms of usage time. Also observed as factor constraining efficiency and competence of logistics in Tanzania was payment system for trucks, which is monthly based even when the truck is not travelling and the reduction of allowed cargo weight limitation by TANROAD from 32 tons to 28 tons bringing inconvenience to cargo movement.

The fine charged by TASAC for delayed cargo is too high. TASAC should provide a grace period when unload the cargo to the land because of fine paid for delaying single day i.e. 250,000/TZS for head and 500,000/TZS for trailer too high. The truck owners pay same tax rate regardless of fleet size. The rate should be differentiated by the size of fleet (number of trucks). Using this suggested arrangement is expected to improve government revenue. Stakeholders have a view that in the past five years there has been an increase in transport cost due to decrease in demand for services caused by decline in cargo flow – hindering competence of the country's logistics sub-sector.

6.2 Strengths and Weaknesses of the Tanzania's Logistics Competitiveness

The National Trade Policy recognizes several constraints and challenges that impede the nourishment of the country's trade sector. These include legal and regulatory framework; Economic regulation and competition policy; Capacity development; Infrastructure Development; Domestic Market and Demand Challenges; Regional and international trade dimensions; Implementation instruments and complementary sector policies. Since 2003 following the inception of the policy, several interventions have been undertaken to address these challenges. Preparation of the Blueprint for Business Enabling Environment, extensive investment in infrastructure as stipulated in the FYDP I, deliberate deepening in regional trade integration blocks are some of the attempts in this regard. Nevertheless, the challenges are still valid to date.

The trade policy of Tanzania has a clear focus on how the country can strategically use trade as a vehicle for stimulating its economic growth and sustaining development. It further recognizes the dynamism of global trade set-up and a need to have flexible responses to the changing demands. On the same, the policy emphasizes on a need to build capacities and skills to predict and interpret changes and be able to adopt appropriate responses. The capacities in this context, according to the policy, depend on human skills development and institutional capacity building, transformation of production systems and overall private sector development.

While the policy focus, largely, is clear there are number of aspects, which pose as limitations or gaps in the policy:

- i. **Skills Development:** While the policy recognizes a need to improve skills for enhancing competitiveness, much of the policy is on the formal education (primary to tertiary) and little on specialized skills, which are required in operating in production and trade value-chains. For instance, the policy emphasizes on a need for Tanzania's society to absorb and assimilate modern production skills and technologies in areas, such as agriculture, where the nation is abundant in resource endowment. Such a strategic move requires enhancement of specialized skills beyond the ones offered in formal education.
- ii. **High focus on production side:** While the policy focus is skewed towards formal education as far as skills development aspect is concerned, there is a mention of a need to enhance skills in other dimensions, particularly related to enhancing production capacity. Such as scope, is narrow while production is primarily the major determinant of capacity to supply and hence competitiveness, it is typically a single segment in the entire value-chain. Beyond production, there are other activities that require specialized skills. Delivery capacities through a well-capacitated logistics system is one example and requires some skills especially for agriculture commodities. The

policy puts a particular emphasis is capacitating agriculture and livestock value-chains.

- iii. **Enterprise development** is an important component for development of trade sector of a country. The block is a source of technology transfer and adoption as well as specialized skills development. There is a mention in education strategy in the trade policy document but there is a lack of concrete statement on how enterprise development should assist in technology transfer and adoption and skills development.
- iv. The policy recognizes a need enhancement of **skills development** and production techniques, focusing on extension services for agronomic and animal husbandry practices in agriculture sector. Nonetheless, the policy is silent about agro-processing (with a view to add value), storage (with a view to maintain quality) and logistical handing (with a view effectively and efficiently deliver the produce to the targeted markets).
- v. The policy highlights that **the government will take initiatives** that will introduce better packaging and delivery practices in response to market needs. While the government has a fundamental role to facilitate and regulate trade activities including ensuring standards are observed and maintained, it is merely a business practices implementer. Private sector is the main implementer in this regard. Nonetheless, the policy is silent about the role of private sector on this policy response to market needs.

Table 3: Strength and Weakness of Tanzania Logistics Sector

S/N	Strength	Weakness
	<ul style="list-style-type: none"> • Strong political will to develop logistics supportive infrastructure • Institutional framework for logistics operations • Strategically positioned to access a wide market in SADC and EAC (connection to central corridor) 	<ul style="list-style-type: none"> • Limited skills in the value chain, i.e. inadequate trainings compared to the logistical needs • Uneven distribution of facilitating infrastructure such as testing laboratories, cold storage facilities and improved feeder roads • Insufficient, unreliable, and un-integrated ICT related network systems • Overlaps and duplications in legal and regulatory mandates among MDAs • Underdeveloped railway and marine transportation systems

		<ul style="list-style-type: none"> • Nepotism where there are notable cases among logistics private operators of employment based on “personal relations” rather than “skills required”.
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6.3 Modern Solutions for addressing Country's Logistics Competitiveness on Agro-Exports

Agriculture and agro-processing sectors represent an opportunity for Tanzania to access the EU market and export its produce. Another opportunity specific for logistics sub-sector is importing technology to improve for example, and Tanzania has improved its system from ASCUDA to TANCIS. In addition, Tanzania integrate with foreign stakeholders operating in the logistics sector. Tanzania Investment Cooperation (TIC) and Embassies can facilitate this. Moreover, the government can provide funds to the operators in the sector.

Logistics sub-sector has a special space to enhance and facilitate trade and competitiveness of the economy particularly on agricultural related output. As such, transport and logistics services are a critical component of the commercialization and competitiveness of agricultural value chains. For Tanzania to be competitive in global export market, it should have a well-trained consolidator with marketing skills. The consolidator will be responsible in collecting other people's cargo, there are few planes. The government should buy its own cargo planes to facilitate the logistics sub-sector in Tanzania.

Utilization of railway system offers avenue for strengthening the Tanzania's competitive position. It may require innovative solutions to realize the same. Stakeholders suggest the need to introduce “block trains system” where trains with say 20 wagons can be organized particularly to transport specific commodities such as perishable goods. The aim is to ensure timely delivery and maintaining the quality of commodities. Nonetheless, demarcation of responsibilities among facilitating agencies needs to be spelt out clearly. There are bureaucratic procedures due to the absence of harmonization among regulatory authorities. For instance, TASAC, apart from being a regulator also plays clearing and forwarding roles. With overlapping and duplication of mandates among the MDA, it may pose a limiting factor for cost effective and efficient operation of the block train system.

Stakeholders have a view that service delivery in handling of cargo in Tanzania's airports is inadequate and thus it should be improved in terms of technology and human resource capacity to match with modern and sophisticated airports in Africa and beyond. Specifically, there is a need to modernize

Cold storage facilities in Mwanza, Kilimanjaro, and Zanzibar airports. That should go hand in hand with increasing a fleet of cargo planes. Currently, Ethiopian Airline facilitates cargo transit especially for KIA and JKNIA. The challenge emerges on prioritization between competing airports especially when there is

assurance of cargo in homeland, Ethiopia. Tanzania can best position itself by acquiring its own relevant airport infrastructure and facilities for cargo handling and a fleet of cargo planes.

Table 4: Stakeholders Views on Modes of Transport

Stakeholders Views on Modes of Transport	
I Railway	
<ul style="list-style-type: none"> • Efficiency is very low. • Poor infrastructure. The rail is poorly performing with old and depreciated wagons to support the movement of goods as the cheapest means of transport. • The business community (stakeholders) have shifted to the roads, which is very expensive. • Old Railways system and services are not reliable, 	
II Sea	
<ul style="list-style-type: none"> • Used mostly for export and for imports • Freight is next to air flight • Cheaper and affordable but the consignment takes very long time to reach the destination. • Enormous investment for rehabilitation of the ports i.e. Dar, Tanga and Mtwara has been made complemented with necessary warehousing facilities cold storage and special rooms for products. • Currently, service reliability exists with exception of specific ships that are custom made to meet specifications or requirement of specific consignment Example some do not load certain commodities e.g. Minerals. Fresh produces etc. • Time consuming unloading and loading of cargo in the ship at Dar es Salaam port. It takes 14 days for the ship to dock and unload partly due to number of working hours per day which is 8 hours in a day while Mombasa is 24 hours a day. Also a challenge of ships parking outside the port for significant number of days. 	
III Air Transport	
<ul style="list-style-type: none"> • Expeditious but too expensive to be used especially by our either exporters or importers • Not reliable for the specifications set in our country • Favourable means to compete with the rest of the world • We have modern facilities at International airports i.e. Dar es Salaam, Zanzibar and Kilimanjaro. However, the working method does not improve efficiency 	

General view on the state of transport infrastructure (road, rail, sea, air) in supporting trade activities in our country is - based on the real situation that the infrastructure is still not supportive: not connected to the grass root i.e. To the village level where production of the produce for logistics is done. The country is not connected to affect the coordination as desired.

Source: Views from stakeholder during data collection, June 2021

6.4 Diversification of the Tanzania Logistics Sector

Diversification of transportation modes is critical for enhancing competition in global trade value chains. Tanzania uses the various modes of transportation in varied intensities. Road transportation is the widely used where the central, northern, and southern corridors are connected to each other. The challenge remains on connectivity between district/council to the village/farms where most of the roads are still poor. Deliberate efforts to ensure logistics sub-sector is diversified focuses on:

- i. *Railway transportation*: the construction of the SGR is aimed to ease the same at the cheapest cost. There is also a purposeful rehabilitation and upgrading of meter gauge rail lines, wagons and rolling stock. However, as by now, the railway transport does not meet the standard particularly on the transportation of goods due to depreciation of wagons, rolling stock and infrastructure. In fact, the meter gauge railway transport cannot be relied in any way until all necessary upgrades are completed.
- ii. *Air Transportation*: ATCL has been facilitated to purchase new planes and a cargo plane. Currently there are more than eight passenger planes facilitating the movement of the business community and the public. To date, discussion with KLM and Rwandese Air to carry cargo from our airports is in progress. Now, air transport is currently mainly for passengers. However, Cargo transportation is being considered by the government as a necessity for exports of perishables and horticulture products.
- iii. *Sea transportation*; Intensive investment in the rehabilitation and construction of both passenger and cargo ships in the great lakes Tanganyika, Victoria and Nyasa is ongoing. The rehabilitation and expansion of the ports of Dar es Salaam, Tanga and Mtwara and Zanzibar is ongoing. This intervention is currently playing a potential role for facilitating both imports and exports in the region and beyond.
- iv. Construction of the expected Trade Logistic Centre at Kurasini Dar es Salaam, the Integrated Logistic Centre for processing, packaging, coordination systems and storage will diversify coordination towards the desired efficiency.

- v. In implementing Tanzania Development vision 2025 (TDV), the government has invested in agriculture through the Agricultural Sector Development Programme phase I and II (ASDP) with as the country is potentially well off. Investments in Storage and warehouses with specified requirements such as cold storage facilities at the international airports i.e. Julius Nyerere International Airport, KIA, Zanzibar and Mwanza for in-bounds and out bounds is promoted through private sector and PPP.
- vi. Through regional cooperation, the government has agreements with SADC, EAC to facilitate the movement of incoming and outgoing goods across the borders using optimal time and costs. Transit Trade Facilitation mechanisms at boarder's e.g. Holili, Namanga, Silari, Mtukula, Taveta, Rwandese boarder, Tunduma etc. among others do support and promote logistics activities.

6.5 **The value chain of the Tanzania's Logistics Sector**

Transport logistics encompass all steps in the transfer of freight modal or multimodal and, for the purpose of these guidelines, the interaction between the various institutions intervening in international freight transport, the operators transporting it, and the transport intermediaries providing brokerage services between freight transfers. Consequently, the customs administration, insurance companies, banks, parastatal transport operators, terminal operators, Shippers' Councils, private carriers, and intermediaries are considered as intervening in transport logistics.

The evolution of transport logistics in recent years has been tremendous. Since the early 1960s, the container has been a factor of change influencing not only the way freight is transported and handled, but also the design of ports and terminals for modal interface, the design of transport units and ships, and the documentary and procedural control for freight in transit. More important, the container has also become a tool for revenue control of freight in transit from origin to destination (Door-to-Door, or D-T-D).

The financial liquidity offered to international multimodal transport operators (MTOs) by advance payments on containerized DTD transport contracts, has provided these operators with key financial leverage and with the possibility of subcontracting, at competitive rates, shipping, railway, and truck capacity while controlling subcontractors payment schedules (usually after services have been rendered). In addition, the shortage of expertise and network capacities on the part of Africa freight-forwarding industries has helped to divert the financial flows associated with D-T-D freight forwarding from LDCs operators to their better-organized counterparts in industrialized countries. As a result, investments in intermodal facilities and systems carried-out by LDCs have helped facilitate and reduce the cost of transport transactions, but not necessarily for the benefit of the LDCs carrying-out the investment.

The unsuspected role of the container in transforming transport logistics has had important consequences: (a) for the traffic shares between developed and LDCs; (b) for the potential access of LDC operators to multimodal transport services; and (c) for the return on capital invested by LDCs in facilities and services. With the growing volumes of container trades, and with greater demand for speed and tight scheduling, it has become necessary for the water, road, and rail transport systems to be physically and operationally closely linked. Reacting to these changing requirements, key international carriers have realigned their service provisions substantially. What has happened is that these carriers (particularly of U.S. and Far Eastern origin) have undergone a transformation from providers of pure ocean transport to providers of integrated Door-to-Door services.

In the context of such services, the sea transport link represents only a portion of total cost. Imaginative management, aggressive marketing, and superior service have enabled these carriers to control larger market shares, resulting in a trend towards oligopoly in many market segments, including the Western and to a lesser extent, the Eastern African seaboard. Trends towards increasing capacity of vessels and growing structural linkages with the inland network have accentuated the demands placed on ports, while port authorities in turn are beginning to appreciate their strategic role in the capital-intensive multimodal transport industry.

There are two backbones of formal intra-EAC trade, which are overland road and rail routes, the Northern and Central corridors - starting from the ports of Mombasa and Dar-es-Salaam respectively and reaching the border of DRC on the region's western edge - along with a north-south road link through Namanga on the Kenya-Tanzania border. These corridors are also critical for transit of EAC's imports from outside, and its goods exports beyond the region. This suggests a focus on NTMs related to the functioning of these corridors in particular.

An acute constraint for the producers, traders and transporters of goods in EAC is the poor physical condition of the state-run transport and communications infrastructure. The potential for rail transport is recognized, even though the current state of disrepair of railroads along both corridors and inadequacy of rail equipment for use will need to be alleviated before it is a viable alternative again. In addition, constraints include the poor state and maintenance of roads and weighbridges; the small capacity and disrepair of the ports on the Indian Ocean and the lakes; and, the underdeveloped water transportation across Lake Victoria and Tanganyika. While this report does not focus on the state of the physical transport infrastructure in EAC, it clearly is a complementary priority (World Bank, 2008).

In Africa, the situation is typical of the "new" logistics and critical in terms of meaningful participation of the domestic freight-forwarding industries. African transport has a strong public sector presence (few countries are exception) and large-scale public agencies. These agencies have been the object of numerous

analyses and studies. Those engaged in overland transport, which are particularly important from the standpoint of logistics and transit, rarely are financially viable. Their share of the market has fallen in most countries to uneconomic proportions.

These enterprises, a legacy from the colonial era, are no longer suited to countries that are largely diverse. The control of these immense enterprises has become very difficult in the context of fraud, waste, low wages, technical unemployment for lack of supplies, scarcity of skilled workers, and the like. They make very inefficient use of the considerable resources they absorb, although they are handsomely assisted by bilateral and multilateral foreign aid. Their ex post profitability of investment in transport is questionable. Either the anticipated traffic fails to materialize, or the equipment is far from being amortized within the forecast period of useful life.

At the other end of the Africa spectrum, small entrepreneurs are emerging to take the bits and pieces of commercial services left ill served by public sector parastatals. These entrepreneurs are operating within a highly hostile policy and regulatory environment largely suitable to the convenience of parastatals. Their market share is minimum, or when large — as in Cameroon where small customs brokers control about 50 percent of clearances at Douala port — it becomes informal, fraudulent, and goes underground. This emerging industry, however, is key to the future growth of African national capabilities in transport logistics and should have the support of international financial agencies.

NTBs in EAC, like in any other region, result in delays and increased costs, which ultimately hinder the free movement of goods and services. Removal of NTBs is much more effective in boosting intra-regional trade than the method of tariff liberalization. This is to say that, returns in terms of welfare gains, growth, employment generation and poverty reduction are more likely to be realized by addressing NTBs, than through tariff liberalization. (*Odhiambo, W. 2010*).

In 2005, the East African Business Council (EABC) launched a major initiative in efforts to eliminate the existing NTBs in East Africa by commissioning the Business Climate Index Survey (BCI). The main aim of the survey was to identify the nature and scope of NTBs that are experienced in the day-to-day business within the region. Broadly, NTBs in East Africa are rooted in a variety of causes that can be labeled as 'structural bottlenecks'. These include inadequate government structures/procedures; mismanagement; erratic application of rules; and bureaucratic staff attitude coupled with low staff morale. For the private sector, NTBs represent an additional cost factor and sometimes even lead to complete loss of markets or customers.

Non-Tariff Barriers on intra-EAC trade are categorized under the following categories:

1. **Customs and administrative documentation procedures** – Which include varying systems for imports declaration and payment of applicable duty rates; limited customs working hours; varying interpretations of the Rules of Origin; application of discriminatory taxes and other charges on EAC originating imports; cumbersome procedures for verifying containerized imports; unfair competition from counterfeit products, and diversion of transit goods into the region.
2. **Immigration procedures** – Which include varying application of visa fees and work permits; cumbersome and duplicated immigration procedures, and lack of an East African Passport by many citizens who cross borders in search of business opportunities.
3. **Cumbersome inspection requirements** – Which include procedures on Gross Vehicle Mass and axle load regulations, costly quality inspection procedures, cases of lack of recognition of inspection certificates issued by accredited laboratories, cases of lack of mutual recognition of quality certification marks and test certificates issued by EAC Standardization Bureaus. Others are varying quality inspection and testing procedures, which are also introduced without prior discussions and consensus, and varying procedures for issuance of export certification marks.
4. **Police roadblocks** – Which involve police officers stopping commercial vehicles at various inter-country roadblocks and at border crossings even where there is no sufficient proof that goods being transported are of suspicious nature.
5. **Varying trade regulations among the EAC countries** – The most notable one different axle loads and different specified maximum Gross Vehicle Mass (GVM) for commercial vehicles. In addition, EAC countries have varying parameters on weights, labeling, and quality, tolerance in measurements, and technologies used in packaging, which limits ability of goods to cross borders.
6. **Varying, cumbersome and costly transiting procedures in the EAC countries** – Which include varying requirements on commercial trucks used in transit traffic, bottlenecks in offloading imports at the Port of Mombasa and Dar-es-Salaam Port, unrealistic grace period on imports before application of demurrage, and application of insurance bonds even on goods traded within the region
7. **Duplicated functions of agencies involved in verifying quality, quantity and dutiable value of imports and exports** – Which include numerous agencies involved in import and export inspection, and in certifying compliance to procedures; resulting to duplication of effort and wasted business-time. In addition, many inspection bodies have not established laboratories at major entry and exit points.
8. **Business registration and licensing** – Which includes Varying business registration procedures and lack of preferential treatment to EAC originating businesses versus foreign originating businesses, which makes

cross-border registration of business a difficult process, cumbersome and expensive manual processes used in business names search, registration, and payment of relevant charges. Others are multiplicity of licenses used in production, and distribution and sale of goods, resulting to duplication and inhibitive cost of doing business in the region. (*East African Business Council*)

Behind all these mentioned categories, there lies corruption. Corruption is another important issue that has implications on the economies of the EAC member states, as well as in affecting the trade flows. In 2020, South Sudan has been ranked the most corrupt country in East Africa followed by Burundi. Kenya and Uganda tie in third position, according to latest Corruption Perception Index 2019 report published by Transparency International.

In the report released in August, 2021, , Rwanda was rated the least corrupt country in the region and the only EAC state to score above the global average rate of 43 out of 100 points after garnering 53 points. Tanzania with 37 points was ranked the second least corrupt country in East Africa. Kenya and Uganda scored 28 points, Burundi 19, and South Sudan only 12 points. The CPI report measured the perceived levels of corruption in the public sector, drawing on 13 expert assessments and surveys of business executives²¹.

The survey as well depicts that, among the institutions identified as being involved in corruption are the police (in all countries), the Revenue Authorities and Customs (of which all these institutions play a great role in the facilitation of trade in the region).

²¹ [The East African News](#) in East Africa, S. Sudan most corrupt, Rwanda least: report. Monday January 27, 2020

7.0 Transport and Logistics Sector and the Non-Trade Barriers (NTBs)

7.1 *Review of the past assessment of border management*

African countries are increasingly facing daunting tasks of managing their borders in ways that secures their territorial sovereignty and integrity, ensures that they are bridges rather than barriers for cross-border cooperation and regional integration prevents illegal entries and exiting of people and goods while allowing easy movement of goods and people. In addition, others tasks are allowing relatives to visit their kin while keeping away criminals (such as drug and human traffickers, terrorists, etc.), and facilitates tourists to easily cross while keeping out terrorists.

The challenges facing African states to manage their borders are compounded by globalization that is tearing down traditional borders through advancement in technology and transformation of international relations. Now crimes are committed without crossing borders and huge amounts of goods are sold through cyberspace. The internet has not only made it more difficult to manage borders and to combat cross-border crimes, but has also effectively dismantled borders by allowing imports without going through customs.

Increases in volumes of cross-border trading and movements of people from their countries of origin in search of greener pastures elsewhere have put enormous pressure on border control systems. These realities give urgency to African countries to put in place effective border management systems that minimizes border tensions, increases joint enforcement and surveillance efforts, decreases organized crime activities by syndicates and traffickers in borderlands and generates common understanding of border insecurities and approaches to addressing them. Others are securing flow of goods and people in the spirit of regional and continental integration and integrates and develops marginalized border areas through provision of essential infrastructure and promotion of a sense of security and well-being among the border population. Others are enhancing communication and information exchange between neighboring countries, maintains borders in ways that do not obstruct cross-border trading and legal movements of people, harmonizes, and enables borders to be sources of mutual trust and harmony between neighbors.

The EAC has gone through successive cycles of integration and dis-integration since colonial times, but is now once more in the vanguard of regional integration. In the decades after independence, African states tended to pursue very similar import substitution policies that aimed at building national industries and agro-industries behind the protection of boundary walls. Regionalism was one of the casualties of the drive for national self-sufficiency. The federations and regional communities that had existed in the first half of the 1950s were but a distant

memory two decades later. The winding up of the East African Community in 1977 was merely the culmination of this process of attrition.

Over the past two decades, however, the tide has reversed. Structural Adjustment reforms of the 1980s and 1990s prepared the way by pulling the rug from beneath state industrialization strategies. The subsequent re-engagement with regionalism is based on an article of faith that an outward facing strategy is more likely to unlock the economic complementarity of African countries. Whereas the African Union (AU), which replaced the Organization of African Unity (OAU) in 2002, looks to the long-term goal of continental unification and the rolling out of the African Continental Free Trade Area (AfCFTA), the RECs have been more concerned with practical measures to forge regional blocs. Since the 2000s, models of regional integration have rested on three pillars. Firstly, under the Common External Tariff (CET), goods produced outside a given community are supposed to be taxed only once at the port of entry according to internationally recognized

Customs values. Secondly, there is supposed to be a free flow of commodities within a designated Single Customs Territory (SCT), subject to any specific concessions that member states may have extracted. While individual RECs have sought to remove the tariff barriers between states, the Common Market for Eastern and Southern Africa (COMESA) has begun to take shape as a free trade area spanning East, Central, Southern Africa and the Horn. Thirdly, the RECs have committed themselves to the principle of freedom of movement and labour for citizens of member states, which in the case of the EAC is enshrined in the 2009 Common Market Protocol.

Lurking beneath the apparent tidiness of the package, however, are manifold tensions as the larger states weigh the benefits of closer integration against some of the perceived downsides. Hence, South Africa stands to benefit from freer access to other African markets, but is concerned about immigration flows. Nigeria is worried about the influx of cheaper Chinese manufactures and South-East Asian rice into the sub-region. In East Africa, where there is equally a protectionist tendency, countries have exploited two specific loopholes: the right of countries to apply for duty-free inputs for industries that plan to export and the right to apply for 'stays of application' on particular goods. Tanzania has restricted agricultural exports on grounds of food security, whilst protecting its own industries through exemptions. By contrast, Uganda and Rwanda have limited industrial capacity and depend on the supply of petroleum and consumer goods by road. Not surprisingly, it is at the borders themselves that many of these tensions play themselves out.

7.2 Review of the Trade Logistics

Trade logistics may be defined as the procedural and documentary background of production and transport logistics, which enables freight to change hands by means of commercial transactions. At the heart of trade logistics lies the set of rules governing commercial documents and procedures, banking and financial

securities, transport and shipping bills, and manifests, which regulate international flows of goods by structuring supply and demand from seller to buyer and of payment from buyer to seller. The goods' physical movement from production to destination may be evidenced by appropriate documents. Payment, however, is influenced by trust between the commercial parties, their need for finance, and by governmental trade policies and exchange control regulations. Consequently, the "documentary credit" process is at the heart of trade logistics, and is an important internationally recognized method by which payment of international trade materializes.

Trade logistics have been recently expanded and complemented by the International Chamber of Commerce (ICC) with two additional tools specifically designed to facilitate trade and transport. These tools are the INCOTERMS and the new electronic data interchange (EDI). The purpose of INCOTERMS is to provide a set of international rules for the interpretation of the most used terms in foreign trade. Thus, the uncertainties of different interpretations of such terms in different countries can be avoided. INCOTERMS have been revised in 1990; the purpose of the revision has been the desire to adapt terms of trade to the increasing use of EDI. In the present 1990 version, INCOTERMS have also been adapted to changed transportation techniques, particularly the utilization of cargo in containers, multimodal transport, and roll-on-roll-off traffic with road vehicles and railway wagons. Because of the 1990 revision, the reduced terminology used previously in commercial transactions (FOB/CIF) has expanded.

Box 1: Buyer

Advising/confirming bank

1. The buyer and the seller conclude a sales contract providing for payment by documentary credit.
2. The buyer instructs his bank—the "issuing" bank—to issue a credit in favor of the seller (beneficiary).
3. The issuing bank asks another bank, usually in the country of the seller, to advise or confirm the credit.
4. The advising or confirming bank informs the seller that the credit has been issued.
5. As soon as the seller receives the credit and is satisfied that he can meet its terms and conditions, he is able to load the goods and dispatch them.
6. The seller then sends the documents evidencing the shipment to the bank where the credit is available (the nominated bank). (This may be the issuing bank, or the confirming bank, or a bank named in the credit as the paying, accepting, or negotiating bank. If the credit allows for negotiation

by any bank, there will not be a "nominated bank" and documents may be sent to any bank willing to negotiate under the credit. (Article 11 (b), UCP).

7. The bank checks the documents against the credit. If the documents meet the requirements of the credit, the bank will pay, accept, or negotiate, according to the terms of the credit. In the case of a credit available by negotiation, the issuing bank or the confirming bank will negotiate without recourse. Any other bank, (including the advising bank if it has not confirmed the credit,) which negotiates will do so with recourse.

Box 2: Seller

Issuing Bank

8. The Bank, if other than the issuing bank, sends the documents to the issuing bank.

9. The issuing bank checks the documents, and if they meet the credit standard requirements, either:

a) effects payment in accordance with the terms of the credit, either to the seller if he has sent the documents directly to the issuing bank, or to the bank that has made funds available to him in anticipation, or

b) Reimburses in the pre-agreed manner the confirming bank or any bank that has paid, accepted, or negotiated under the credit (Art. 21, UCP).

10. When the documents have been checked by the issuing bank and found to meet the credit requirements, they are released to the buyer upon payment of the amount due, or upon other terms agreed between him and the issuing bank.

11. The buyer sends the transport document to the carrier who will then proceed to deliver the goods.

7.3 Review of the Transport Logistics

Transport logistics encompass all steps in the transfer of freight modal or multimodal and, for the purpose of these guidelines, the interaction between the various institutions intervening in international freight transport, the operators transporting it, and the transport intermediaries providing brokerage services between freight transfers. Consequently, the customs administration, insurance companies, banks, parastatal transport operators, terminal operators, Shippers' Councils, private carriers, and intermediaries are considered as intervening in transport logistics.

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for modal interface, the design of transport units and ships, and the documentary and procedural control for freight in transit.

More important, the container has also become a tool for revenue control of freight in transit from origin to destination (Door-to-Door, or D-T-D). The financial liquidity offered to international multimodal transport operators (MTOs) by advance payments on containerized DTD transport contracts, has provided these operators with key financial leverage and with the possibility of subcontracting, at competitive rates, shipping, railway, and truck capacity while controlling subcontractors payment schedules (usually after services have been rendered). In addition, the shortage of expertise and network capacities on the part of Africa freight-forwarding industries has helped to divert the financial flows associated with D-T-D freight forwarding from LDCs operators to their better-organized counterparts in industrialized countries. As a result, investments in intermodal facilities and systems carried-out by LDCs have helped facilitate and reduce the cost of transport transactions, but not necessarily for the benefit of the LDCs carrying-out the investment.

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There are two backbones of formal intra-EAC trade, which are overland road and rail routes, the Northern and Central corridors - starting from the ports of Mombasa and Dar-es-Salaam respectively and reaching the border of DRC on the region's western edge - along with a north-south road link through Namanga on the Kenya-Tanzania border. These corridors are also critical for transit of EAC's imports from outside, and its goods exports beyond the region. This suggests a focus on

NTMs related to the functioning of these corridors. An acute constraint for the producers, traders, and transporters of goods in EAC is the poor physical condition of the state-run transport and communications infrastructure.

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8.0 Conclusion and Policy Recommendations

8.1 Conclusion

The main objective of this study was to provide a comprehensive trade value chain assessment and capacity building of logistics subsector in Tanzania. The study aimed to identify bottlenecks that limit competitiveness and export diversification in the logistics value chain and suggest ways to strengthen the capacity of logistics value chain actors on trade policy. The study has emerged with the following main conclusion.

- i) There is a notable improvement in the Logistics Performance Index (LPI) in Tanzania mainly attributed by the recent regulatory and operational reforms in the logistics subsector as well as from the investment in soft and hard supporting infrastructure²².
- ii) Despite the improvement observed, Tanzania still has multiple challenges including handling and storage facilities, inefficiency, overly dependence on road mode of transport, unreliability and unpredictability of transport and logistics services providers.
- iii) The assessment of logistics is based more on trade and transport logistics rather than production logistics, even though production logistics play a more role in influencing trade and transport logistics.
- iv) Logistics and transportation sectors are catalysts in creating platform and building strong base for other sectors to operate efficiently.
- v) One Stop Border Posts (OSBP) have shown positive progress in supporting movement of goods across borders particularly in reducing time in processing documents. However, there are still challenges on the operation of the OSBPs in terms of installed systems, users, and overseers.
- vi) Several drivers have been identified to increase transportation and logistics costs. These are existence of multiple government agencies; multiple bureaucratic procedures; variation in the rate of carrying cargo across countries and overestimation of taxes. In addition, access to finance and payment systems constraint ownership of transport and logistics companies to the families and hence constrained to grow because of internal and external factors.
- vii) Transparent, predictable, and facilitative regulatory environment is critical in ensuring the free circulation of goods and services.
- viii) Quality of trade related infrastructure; trade related border procedures and the quality of private sector services are key determinants to a country's capacity to trade efficiently.
- ix) There are eight (8) operational challenges facing the logistics industry. These are fuel costs; business process improvement; improved customer care; increasing compliance and declining demand (economy);

²² Port expansion, building of the SGR, implementation of the Single Customs Territory; RECDTS, adoption of an integrated Customs Management System; improvement of ICT and the ongoing construction; revamp of air Tanzania, rehabilitation of road infrastructure and establishment of Tanzania Mercantile Exchange (TMX) which facilitate purchases and sales of agriculture products.

- drivers' shortage and retention, government regulations, environmental issues and the technology strategy and implementation.
- x) Time and costs are key elements in compliance in the value chain in Tanzania. Compliance with respect to time seems to differ between different exit and entry points in Tanzania.
 - xi) Diversification of transportation modes is critical for enhancing competition in global trade value chains.
 - xii) African countries are increasingly facing daunting tasks of managing their borders in ways that secures their territorial sovereignty and integrity, ensures that they are bridges rather than barriers for cross-border cooperation and regional integration.

8.2 Main Observations

The logistics industry is undergoing rapid transformation and some governments, especially in developing countries, have yet to appreciate the effects of these developments and respond with appropriate policies. Key emerging issues in regulating logistics services include three regulatory challenges:

- i. Regulatory Challenge I: Integrating logistics services
- ii. Regulatory Challenge II: Entry and operational restrictions – entry
- iii. Operations Regulatory Challenge III: Accessing and using infrastructure to provide services

ITC has developed a four-step methodology to foster regulatory reform of logistics services based on a public-private dialogue approach. The approach is valid for national policy and regulatory reforms as well as for taking evidence-based positions in international trade negotiations.

Step 1: Map regulatory restrictions to trade and investment in logistics services as per the checklist above (Box 1). In parallel, assess the governance framework of the agencies charged with the regulation of services sectors to gauge their ability to implement the updated measures. The mapping will be done using World Bank methodology, which has been simplified and adapted to suit the usual administrative and political realities of ITC's client countries.

Step 2: Prepare policy options based on the information collected in Step 1. The process will be guided by ITC's list of feasible market-friendly policy and regulatory options for the most common trade restrictions in logistics services. This list has been compiled based on the reported experiences of various countries in applying such reform measures.

Step 3: Strengthen the capacity of public and private participants so they can analyze and weigh the pros and cons of choosing among various policy alternatives. The intensity of effort at this stage will be determined by assessing the needs of participants.

Reforming logistics services for effective trade facilitation the assistance will entail:

- i. Organizational strengthening of the private sector association(s) (coalition of services)
- ii. Developing evidence-based position papers by local research institutions
- iii. Knowledge-building workshops/training on relevant technical issues,
- iv. Sharing experience of results from similar reforms in other countries and, above all,
- v. Mentoring by experts to assist in result-oriented facilitation of the process of customized selection of the most optimal regulatory option.
- vi. General principles (detailed in Box) will be followed to help stakeholders arrive at a consensus on the most appropriate reform strategy in accordance with an individual country's situation.

Step 4: Draft new regulations to endorse and track the progress of the chosen regulatory alternative, and report on the progress of implementation. The feasibility of moving to this stage as part of this project will be determined only local conditions are assessed in consultation with the beneficiary countries.

8.3 Policy Recommendations

The main policy recommendation emanating from the study is that, Tanzania should continue to improve its infrastructure facilities, both the soft and physical infrastructure in order to enhance the logistics and trade competitiveness in Tanzania. In addition, there is a crowding-out of the private sector activities in the logistics industry whereby the government has been taking-over the role of private sector not only regulatory but also operation. Specifically, the government should look at the roles and responsibilities of the Tanzania Shipping Agency Corporation (TANSAC); which is now acting not only at the regulatory, but also as the operator in the sector.

In addition, several policies, Laws and Acts, guides the Transport and Logistics activities in Tanzania and regulations some of which are specific to the sector and some other that are crosscutting. These are spread across different ministries and as a result, clearance at the border posts involves several ministries. It is important that these laws and regulation be streamlined to reduce the number of involved Ministries, Departments and Agencies (MDAs) to reduce the clearance time at the entry and exit points.

Lastly, the review of successful policies suggests that having a regulatory policy is a necessary, but insufficient first step in unlocking the logistics industry's economic potential. Emphasis should also be placed on coherence and coordination. More specifically, coherence is needed between policy goals and the programs promoting an enabling environment to reach those goals

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Attachments

Appendix 1: Sustainable Development Goals

[GOAL 1: No Poverty](#)

[GOAL 2: Zero Hunger](#)

[GOAL 3: Good Health and Well-being](#)

[GOAL 4: Quality Education](#)

[GOAL 5: Gender Equality](#)

[GOAL 6: Clean Water and Sanitation](#)

[GOAL 7: Affordable and Clean Energy](#)

[GOAL 8: Decent Work and Economic Growth](#)

[GOAL 9: Industry, Innovation, and Infrastructure](#)

[GOAL 10: Reduced Inequality](#)

[GOAL 11: Sustainable Cities and Communities](#)

[GOAL 12: Responsible Consumption and Production](#)

[GOAL 13: Climate Action](#)

[GOAL 14: Life Below Water](#)

[GOAL 15: Life on Land](#)

[GOAL 16: Peace and Justice Strong Institutions](#)

[GOAL 17: Partnerships to achieve the Goal](#)

Appendix 2: List of People Interviewed

No	Name	Sex	Job title	Affiliation	Region, District	Phone	Email
1	Domician Rwezaura	M	Chairman	TAFA Holili	Kilimanjaro	0784474130	
2	Kimwaga Ramadhani	M	CPS	TRA Holili	Kilimanjaro	0784764500 0754764500	k.ramadhani@tra.co.tz
3	Josam Malema	M	CPS ass	TRA Holili	Kilimanjaro	0759676928	j.malema@tra.co.tz
4	Pius Marwa	M	In charge	TRA KIA	Kilimanjaro	0769300324	p.marwa@tra.co.tz
5	David Msigwa	M	GS	TAFA KIA	Kilimanjaro	0754510342	
6	Paulo Kamukuru	M	In charge	TRA Namanga	Arusha	0744657818	p.kamukuru@tra.co.tz
7	Robinson Masai	M		TAFA Namanga	Arusha	0757333307	
8	John Lyaruu	M		TAFA Namanga	Arusha	0753727508	
9	William Mkenda	M	In charge	TRA Mtukula	Kagera	0787202461	w.mkenda@tra.co.tz
10	Jassen Kambuga	M		TRA Mtukula	Kagera	0755951292	j.kambuga@tra.co.tz
11	Seif Mkilindi	M	In charge	TRA Kabanga	Kagera	0658212134	s.mkilindi@tra.co.tz
12	Haruna	M	Chairman	TAFA Kabanga	Kagera		
13	Mohamed Mhonda	M	In charge	TRA Rusumo	Kagera	0715656704 0627097605	m.mhonda@tra.co.tz
14		M		TAFA Sirari	Mara		
15	Daniel Werema	Male	MOWT (Transport)	PEC		0688244673	Daniel.werema@uckuhaze.go.tz
16	Fred Kazembe	Male	Ministry (Transport)	Economist		07682601596	fkkazembe@gmail.com

No	Name	Sex	Job title	Affiliation	Region, District	Phone	Email
17	Joyce Lubonera	Female	Ministry (Transport)	Economist		0659630994	Joyce.lubonera@uchukuzi.go.tz
18	Noel Sigonda	Male	MWT-T	Economist		0716662706	Noel.sigonda@uchukuzi.go.tz
19	Dr. Chile Albert	Male	MWT-T	Principal Economist-Policy		0786202020	albert.chile@uchukuzi.go.tz
20	Andrew Magombana	Male	MWT-T	Air Transport Officer		0769100013	Andrew.magombana@uchukuzi.go.tz
21	Isaya Nyagabona-		Director	<u>TOWERS CARGO AGENCIES LTD.</u>		0784462 091	<u>towerscargo@gmail.com</u>
22	<u>Mr Mwinjaka Salim</u>		<u>Assistant Director for Investment</u>	Ministry of Investment		<u>:0754 496 902</u>	
23	FIKIRI KARIKO	M	MOA	Marketing Economist		0713 865 052	
24	MONIKCA KAWANARA	F	MOA	Economist –Policy		0767 404 969	
25	ALLY K. MNZAVA	M	MOA	Policy & planning Economist		0713 499 572	
26	Mr. Samweli Abisai		Director	Senior Freighters & Logistics Company Clearing & Forwarding		0684 445 424	
27	Ombeni Mwashu	Male	Ministry of Industry and Trade	Assist. Director		0754 800 034	
28	Genoveva Kilabiko	Female	Ministry of Industry and Trade	Principle Economist Industrial Development		0754 465 659	
29	Angelina Bwana	Female	Ministry of Industry and Trade	Bilateral & Regional Integration		0759 706 325	

No	Name	Sex	Job title	Affiliation	Region, District	Phone	Email
30	Fredy Kavula	Male	Ministry of Industry and Trade	Trade Officer Multilateral Trade		0736 640 574	
31	Eng Nyangombe	Male	Ministry of Industry and Trade	Trade Officer Multilateral Trade		0756141179	
32	Mr John Paul Kishombo		Economist (Policy)	MINISTRY OF FINANCE		0755 729 543	
33	Gylfi Palsson	Male		World Bank			gpalsson@worldbank.org
34	Hamisi Sudi Mwanasala	Male	Research & Training Manager	TBS			Hamisi.mwanasala@tbs.go.tz
35	Erick Felix Ndekao	Male	Marketing officer	TPA			erick.ndekao@ports.go.tz
36	Arnold Kimario	Male		TPA			arnoldtarimo@gmail.com
37	Bruno T. Ching'andu	Male	Managing Director & CEO	TAZARA			mdhq@tazarasite.com
38	Justine Kabela	Male	Manager Planning & Corporate Affairs	TAZARA			justinekabela@gmail.com
39	Henry Maro Machoke	Male	Director of Business Development	TRC			henry.machoke@trc.co.tz
40	Marwa Magori	Male	Supplies Manager	TAZARA			marwa.magori@tazarasite.com
41	Evarist Kasumbai	Male	Traffic Manager	TAZARA			kasumbai@hotmail.com
42	Teddy Samwel	Male	Marketing Manager	TAZARA			teddysamwel@yahoo.com
43	David Ndibalema	Male	DSD	TBS			david.ndibalema@tbs.go.tz

No	Name	Sex	Job title	Affiliation	Region, District	Phone	Email
44	Gervas Kaisi	Male	Certification Manager	TBS			gervas.mwanjabala@tbs.go.tz
45	Chihimba Nenyela	Male	Chief Internal Auditor	TBS			chihimba.nenyela@tbs.go.tz
46	Hamisi Sadiki	Male	HR Officer	TBS			hamisi.rajabu@tbs.go.tz
47	Marcia P. Awe	Female	Drug Inspector	TMDA			marcia.awe@tmda.go.tz
48	Chimpaye J. Nabatinya	Female	Drug Inspector	TMDA			chimpaye.ndabatinya@tmda.go.tz
49	Asha Hango	Female		UNIDO			A.HANGO@unido.org
50	Vedastus Timothy	Male		UNIDO			V.TIMOTHY@unido.org
51	Gerald Runyoro	Male		UNIDO			G.RUNYORO@unido.org
52	Valency Mutakyamirwa	Male		UNIDO			V.MUTAKYAMIRWA@unido.org
53	William Nkondokaya	Male	Planning Office	TMDA			William.Nkondokaya@tmda.go.tz
54	Deborah Wami	Female	Planning Office	TMDA			Deborah.Wami@tmda.go.tz
55	Esther Michael	Female	Planning Office	TMDA			Esther.Michael@tmda.go.tz
56	Jacob Mhagama	Male	Drug Inspector	TMDA			Jacob.Mhagama@tmda.go.tz
57	Beatrice Malamsha	Female	Human Resource Officer	TMDA			Beatrice.Malamsha@tmda.go.tz
58	Nicholous	M	Customs Manager	TRA, Tanga	Tanga	0767 978167	
59	Razaro Magogongo	M	Customs Incharge	TRA, Horohoro	Tanga		
60	Obasi Matola Ndelwa	M	Licence Executive	TATO	Dar es Salaam		
61	Eljon Dube	M	General Manager	Bravo Logistics	Dar es Salaam	0787 7377448	

No	Name	Sex	Job title	Affiliation	Region, District	Phone	Email
62	Albert Swai	M	Transport Manager	CMTL Group	Dar es Salaam	078 2721213	
63	Patrick Renat	M	Operations Manager	Awsome Logistics	Dar es Salaam	0787 377448	
64	Abdulrahman Ally Kaisi	M	Assistant Logistics Officer	Bubele Logisitcs	Dar es Salaam	0758 620988	
65	Gilbert	M	Operations Manager	Vigu Trading Company	Dar es Salaam	0758 814581	
66	Yohana Ole Ormanoo	M		Vigu Trading Company	Dar es Salaam	0688 528881	
67	Albert Feruzi	M	Finance Manager	Prime Fuel	Dar es Salaam	0784 158286	Alfred.feruzi@primefuels.com
68	Partson Mugishagwe Mutayoba	M	Operations Manager	Stork Logistics	Dar es Salaam	0753 100022	pattymutayoba@gmail.com
69	Edson Nasuwa	M	Owner	Bridge Distributors TZ limited	Dar es Salaam	0767 266230	
70	Kelvin Safari Mligo	M	Operations Manager	Safari R. Mligo	Dar es Salaam		Kelvinsafari39@gmail.com
71	Andrew Chaula	M	Operations Manager	Chaula Limited	Dar es Salaam	0684191963	
72	Hussein Ahmed Wandwi	M	Chief Operations Officer	TATOA	Dar es Salaam	0655 888490	
73	Ally Rajab Hassan	M	Owner	Grand Prix	Dar es Salaam	0682 672558	
74	Lino Mlai	M	Director	Authentic Motors	Dar es Salaam	0713 116716	
75	Briton Mndelwa	M	Logistics Officer	Simba Logistics	Dar es Salaam	0677 222655	
76	Denis Ngaila	M	Export coordinator	Swissport	Dar es Salaam	0766 606241	Dennis.ngaila@swissport.co.tz
77	Ally Dewji	M	Owner	Simba Logistics	Dar es Salaam	0744 095319	
78	Richard Athuman	M	Logistics Coordinator	Raphael Logistics	Dar es Salaam	0672 596606	

No	Name	Sex	Job title	Affiliation	Region, District	Phone	Email
79	Maziri Kasim	M	Operations Officer	Usangu Logistics	Dar es Salaam	0715600825	mnahdel@gmail.com
80	Pascazia		Owner	Tedy Junour LTD	Dar es Salaam	0677 062468	
81	Jafari	M	Owner	Merzaro (T) LTD	Dar es Salaam	0789 216474	
82	Joseph Mashimu	M	Operation Officer	Transcargo	Dar es Salaam	0783 550008	Operation2@transcargo.co.tz
83	Msafiri Charles	M	Manager	BVK Logistics LTD	Dar es Salaam	0737 870763	
84	Lightness Lema	F	Deputy Managing Director	Labock Company LTD	Dar es Salaam		labockcompany@gmail.com
85	Mark Gama		Committee Member	TAMSTOA	Dar es Salaam	0718 000002	
86	Chula Shaban		Chairperson	TAMSTOA	Dar es Salaam	0765999000	
87	Isa John		Director	TAMSTOA	Dar es Salaam	0717 600600	
88	Yusto D. Siwiti		Officer Incharge	TRA, Tunduma Border	Songwe	0763 059711	
89	Fredy Kapipi	M	Operations Officer	JB Holdings	Dar es Salaam	0658 071245	
90	Kaimu Kilwa	M	ARM	TRA, Kasumuro	Mbeya	0712 846768	