

POLICY ACTION PLAN FOR TRANSPORT SERVICES IN KENYA





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ABBREVIATIONS

ACI	Airports Council International
AfCFTA	African Continental Free Trade Area
APRP	Annual Public Roads Programme
AU	African Union
COVID-19	coronavirus disease
EAC	East African Community
GDP	gross domestic product
GoK	Government of Kenya
GVC	global value chain
ICD	Inland Container Depot
ICT	information and communications technology
Incoterms	international commercial terms
JKIA	Jomo Kenyatta International Airport
CAA	Kenya Airport Authority
KCAA	Kenya Civil Aviation Authority
KEBS	Kenya Bureau of Standards
KEPSA	Kenya Private Sector Alliance
KES	Kenya shilling
KIFWA	Kenya International Freight & Warehouse Association
KPA	Kenya Ports Authority
KRA	Kenya Revenue Authority
KRB	Kenya Roads Board
KTA	Kenya Tea Assosication
KURA	Kenya Urban Roads Authority
MGR	Meter-Gauge Railway
MoH	Ministry of Health
M&E	monitoring and evaluation
NCTTCA	Northern Corridor Transit and Transport Coordination Association
NTB	non-traffic barrier
NTSA	National Transport and Safety Authority
PAP	Policy Action Plan
PPP	public-private partnership
RVC	regional value chain
SDG	Sustainable Development Goal
SGR	Standard-Gauge Railway
SWOT	strengths, weaknesses, opportunities and threats
TMEA	Trade Mark East Africa
UNCTAD	United Nations Conference on Trade and Development
UNECA	United Nations Economic Commission for Africa

EXECUTIVE SUMMARY

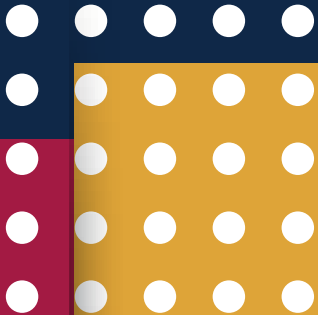
This is a Policy Action Plan (PAP) with an overarching goal of contributing to the potential of trade services in Kenya in the regional value chains (RVCs) and global value chains (GVCs). The PAP will outline the necessary policy framework to enable the sectors' growth by examining critical services trade policy issues as a strategic priority – including how to address these challenges, having identified responsible entities, actors, and partnerships – to foster the country's integration to regional value chains in the context of the African Continental Free Trade Area (AfCFTA) and COVID-19 impact and recovery responses. Thus, the objective of the PAP is to strengthen the capacities of national and regional policymakers and stakeholders to measure and analyze value chains and design services, and policies aimed at enabling a higher integration into global and regional value chains.

Transport and logistics as a trade services sector is a core part of Kenya's economic strategy. It is also crucial for the performance of other sectors of the economy, such as manufacturing and agriculture. A robust transport and logistics industry provides an economy with the ability to move goods to traders and consumers quickly, cost-effectively, and reliably, thus boosting trade performance, which, under appropriate circumstances, leads to higher incomes, employment gains, and lower poverty rates. The PAP is prepared in consultation with the respective Ministry of Trade, Ministry of Transport and other stakeholders, and draws upon the available materials developed under the United Nations Conference on Trade and Development (UNCTAD) in the services value chain². It examines and draws its policy gaps from two previous UNCTAD projects in the context of services value chain analysis.

Kenya is a transit country in the East African region. The modes of transport services in the country are roads, rail, air and water, with roads being the primary link within organizations' value, supply and distribution chains. A significant strength in the transport and logistics sector is the government's commitment to build and improve infrastructure for all modes of transportation. It is visible through the development of transit corridors and other urban roads, e.g., by-pass roads, the Standard-Gauge Railway (SGR) Project, the efficiency upgrade at the Port of Mombasa and the enhancement of other ports (Lamu and Kisumu), and the efforts to improve the infrastructure at Inland Container Depots (ICDs). Moreover, the transport services sector has the opportunity and potential to use technology to minimize costs and/or bring down the costs of operation, lowering the logistics charges on transit goods and enabling producers and exporters to meet their targeted profit margins, hence improving the tradability of goods and services in the RVCs and GVCs.

In this PAP, the objectives and the policies established in two projects on value chain previously conducted by UNCTAD have been reviewed. The PAP has identified transport policy gaps and their implementation frameworks. The gaps include strong emphasis and consideration to promote seamless transport, improvement of the air transport sector and capacity utilization, establishment of a monitoring and evaluation (M&E) framework and a transport hub, improvement of facilities and operations at the Port to facilitate smooth logistics in the RVCs, resolving on the existing pricing and marketing gaps for local producers, and training and capacity building of all players in the transport and logistic sector. The impact of the COVID-19 pandemic has been significant in the transport sector; therefore, the policy gaps in its response and preparedness are also pertinent.

² <https://knowledge.uneca.org/stp/>



CHAPTER 1: INTRODUCTION

1.1 Background

Transport and logistics are a sector in which global value chains (GVCs) and regional value chains (RVCs) play a vital role in connecting countries, spreading technology, and promoting best practices worldwide. The transport and logistics GVCs and RVCs are notable for the variety of lead firms involved in it — including major shipping, express delivery, freight forwarding firms — and the range of local operators they partner with. Transport and logistics GVCs are increasingly extending their reach into developing countries, including low-income and least developed countries.

In addition to its role as a GVC in its own right, the transport and logistics sector is also key for the performance of other sectors of the economy. Manufacturing and agriculture both depend on the ability to ship their goods to consumers quickly, cost-effectively and reliably. Indeed, the GVC business model that has become so important in several sectors, such as electronics or agri-food, is impossible to implement without a robust transport and logistics industry in each of the countries involved.

Transport and logistics have many direct and indirect links with important economic and social development goals. On the one hand, transport and logistics can boost trade performance, which, under appropriate circumstances, leads to higher incomes, employment gains, and lower poverty rates. Sectoral performance is also a key determinant of a government's ability to move important human development goods — like basic foodstuffs and vaccines — to its population, particularly in remote areas, at the lowest possible cost.

The trade in services project's overarching objective is to strengthen the capacities of both national and regional policymakers, and stakeholders to measure and analyze value chains and design services, and policies aimed at enabling higher integration into global and regional value chains.

The transport sector is a trade service that contributes significantly to the national and regional value chains. Transport systems are key enablers which contribute significantly to national transformation and realization of socio-economic development through transportation of persons, goods, and services from one location to another. The systems also act as a catalyst for attracting more investment opportunities and providing the efficient provision of other trade services across borders in Africa and the

world. It is only possible where well-informed policies quantify the impact of transport services along the value chain and the entire economy. High-quality trade service systems, among them transportation systems, are key determinants of growth since they can directly raise human and physical capital productivity. Regional integration is a priority for Africa, as evidenced by the operationalization of the African Continental Free Trade Area (AfCFTA), which has services trade liberalization as one of its pillars. Therefore, the focus on identifying policy gaps and exploiting the full potential of transport systems strengthened by the AfCFTA will facilitate the efficient provision of trade services in the RVCs and GVCs.

1.2 Scope

More specifically, the project in Kenya aims to: (i) strengthen capacities to measure and analyze how transport services contribute to the level and scope of the country's integration into RVCs; (ii) assess the degree to which developing the sector may improve tradability of goods and services, and improve the country's penetration into RVCs; (iii) assess COVID-19 impacts and recovery responses; and (iv) identify policy gaps and how to address these to catalyze the growth of the sector and enhance the country's positioning in RVCs. The goal of the project is to identify measures and set a roadmap for the necessary policy frameworks that would enable the country to maximize the benefits that it can derive from the transport sector in terms of facilitating trade and supporting employment while fostering inclusive growth.

1.3 Methodology

The Policy Action Plan (PAP) is prepared in consultation with the respective Ministry of Trade, Ministry of Transport, and other stakeholders, and draws upon the available materials developed under this project's scope³. In addition to highlighting policy issues, the PAP will identify and discuss specific trade in services measurement challenges (institutional, technical, statistical, etc.) or capacity-building needs that should be addressed. In addition, participate in a multi-stakeholder workshop and share experiences of value chain measurement and analysis carried out in Kenya during this project.

Reviews are made on previous studies carried out on Road Transport Services in Kenya: A Case Study for the Tea Value Chain (UNCTAD 2022a); and the Assessment of COVID-19 Impacts and Recovery Responses on the Transport Sector in Kenya (UNCTAD 2022b). These reports are used as inputs

³ Services Trade Portal (uneca.org)

for the PAP to improve and develop trade services in Kenya. The consultancy will also be a platform for sensitization and creating awareness of the policy gaps to the key sectoral stakeholders in the transport services.

1.4 Ultimate result of service

The project draws from the activities undertaken so far within the context of the project (e.g.,

services value chains analysis, empirical measurement and tools, COVID-19 impact and recovery responses) and national priorities to propose a framework and "Policy Action Plan" to design and implement policies that are transformational, effective

and gender-sensitive, and promote integration into value chains, including within the AfCFTA context, whilst supporting resilience to COVID-19.

The PAP outlines the necessary policy framework to enable the sectors' growth by examining critical services trade policy issues as a strategic priority (including how to address these challenges within a specified timeline, having identified responsible entities, actors, and partnerships) to foster the country's better integration to regional value chains in the context of the AfCFTA, and COVID-19 impact and recovery responses AfCFTA, and COVID-19 impact and recovery responses.

CHAPTER 2: PREVIOUS UNCTAD ACTIVITIES

2.1 The Road Transport Services in Kenya: Case Study for the Tea Value Chain

A case study for the Tea Value Chain was carried out in 2020 under the Ministry of Transport and the Republic of Kenya as part of the UNCTAD Project in Value Chain Analysis (UNCTAD 2022a), and examined the contribution of the road transport sector in Kenya's tea. The study examined the contribution of the road transport services sector in Kenya's tea, from production to final product consumption. According to the study, the road sub-sector accounts for over 78 per cent of the country's total freight, leaving a small proportion to water, rail and air transport. Freight accounts for 50.2 per cent within the road subsector on its own. Road freight transport also embraces domestic and international conveyance of goods by road. The study established Kenya as an important transit country in the Northern Corridor for hinterland neighboring countries, namely, Uganda, Rwanda, Burundi, eastern parts of the Democratic Republic of Congo, South Sudan, southern Ethiopia and northern Tanzania. Despite a strong policy and regulatory framework and vast network, the road transport sector suffers low quality with poor maintenance and standards.

Through a review of existing literature and face-to-face interviews, the study collected various experiences about road transport services in the tea value chain, where tea plays an important role in Kenya's socio-economic development. It is the leading industrial crop in terms of its contribution to the gross domestic product (GDP). In addition, tea provides livelihoods to approximately 600,000 smallholders who contribute approximately 60 per cent of total tea production.

The study finds that transport services constitute a key component in the tea value chain. In-house transport services are exclusively used to transport green leaf tea from farms to factories for initial treatment and processing. Out-sourcing of transport services to third parties is based on returns to the investments, size and level of fixed costs, external economies of scale, and the benefits derived from the bundling of transport and logistics services.

Policy issues discussed included the nature of transport services required along the tea value chain, regulatory aspects affecting transport services

delivery across the chain, and the status of physical road infrastructure. The report suggests policies on maintaining unclassified roads in good conditions, effective coordination and management of road transport policies and regulations, technological improvements in in-house transport services in tea factories, and effective engagements between government and tea industry players regarding transport. In addition, the need to refine data collection instruments to capture the value-added road transport services embodied in the tea and other sectors is essential.

Findings from the Road Transport Services in Kenya: A Case Study for the Tea Value Chain (UNCTAD 2022a) noted the following policy recommendations:

1. Resource mobilization to improve maintenance and standards of unclassified roads

There is a need to consolidate national resources to sustain the financing of road transport, focusing on proper maintenance of standards and upgrading of roads, especially in tea-growing areas. Besides, county governments should consider maintaining feeder roads within tea plantations for small-scale growers to enhance efficiency in collections and reduce the cost of repairs. Improved road conditions can reduce the operational costs of in-house and outsourced transport services for tea factories. There is a need to fully sensitize county governments on prioritizing road maintenance works to allocate more funds towards road maintenance from the exchequer budgets.

2. Effective coordination and management of road transport policies and regulations

The multiple layers of institutions, and rules and regulations governing the road sector are enormous. Also, compliance requirements for road transport operators appear burdensome and lower the competitiveness of service provision. Effective coordination and management would facilitate faster and efficient delivery of local and transit cargo, including tea from neighboring countries.

3. Sensitization and stakeholder engagements

Sustained stakeholder sensitization and consultations are imperative to build and maintain constructive stakeholder relationships and improvement of government services. For instance, whereas the decision to compel freight (including tea) transporters to use the rail mode to the main Port of Mombasa may have been well-intentioned, the cost implications have far-reaching ramifications on the competitiveness of the tea industry.

4. Incentives to ease burdens and boost investor confidence

Tea companies cited the high costs of vehicle maintenance and spare parts as key constraints in in-house transport. There is a need to consider tax reductions for bulk importation of spare parts and related accessories for firms that invest in in-house transport to enhance their competitiveness in the production of trucks.

5. Reduction of non-tariff barriers (NTBs) in transit transport

There should be efforts to eradicate NTBs, especially police roadblocks and the rent-seeking phenomenon associated with them. Truck owners and drivers should be sensitized on the need to comply with laid down rules and regulations and their rights to enjoy providing transport services, and desist from issuing bribes to curb the menace.

6. Information gathering and establishment of data

Despite the important role of services and road transport services in particular, very little data is available across the board to analyze its contributions and performances in general. It is incumbent upon service providers and beneficiaries to keep good records and databases using modern technology to facilitate the identification and measurement of value-added services.

2.2 Assessment of COVID-19 Impacts and Recovery Responses on the Transport Sector in Kenya

The COVID-19 assessment study (UNCTAD 2022b) was carried out in September 2020. Its overall objectives were to analyze the COVID-19 impacts on the transport sector in Kenya at both the national and regional levels; and to elaborate the policy responses needed to ensure the transport services sector remains part of inclusive and sustainable recovery solutions while considering Africa's development framework, including the Sustainable Development Goals (SDGs), the African Union (AU) Agenda 2063, regional economic integration, especially the AfCFTA, digitalization and innovations.

More specifically, the study (UNCTAD 2022b) aimed to investigate the following:

i) The impact of COVID-19 on the transport services sector in Kenya at both the national and regional levels, with regard to revenue, service delivery, employment, investment, capacity utilization rate and cost of access to finance; time and cost to return to normal business and investment decisions (delay/cancellation), among others.

ii) The best practices and lessons learnt, which were based on measures taken by both the public and private sectors in Kenya and elsewhere to deal with COVID-19 in the transport sector, as well as the key lessons learned to build stronger resilience to a similar crisis in the future.

iii) The effective recovery and resilience for identification and discussion of policy options and response strategies, in both the short- and long-term. Also, to deal with the impacts of COVID-19 in the transport sector services in Kenya at the national and regional levels, to pave the way for a recovery process that builds more resilience, inclusivity and sustainable transport sector services.

The summary of the key findings of the study (UNCTAD 2022b) and the conclusions drawn were:

- Overall, the impacts of COVID-19 on transport sector companies across all modes and all activities were mainly negative: 95.6 per cent per cent of businesses reported a decrease in total revenue, 83.9 per cent per cent reported an increase in operating costs, and 63 per cent per cent of the businesses reported a decrease in capacity utilization.
- Overall impacts of COVID-19 on road transport businesses show incomes plummeted, with 95.8 per cent per cent and 93.2 per cent per cent reporting a decrease in revenue and sales respectively. The road transport sector experienced job losses, with 41.1 per cent per cent of the companies reporting a reduction in permanent employees and 43.5 per cent per cent reduction in seasonal employees.
- COVID-19 impacted the air transport sector and reported a limitation in industry operating hours due to curfews and lockdowns, as well as difficulties to travel abroad. The overall passenger decline for the year was 63.2 per cent. The study shows that aircraft traffic movements were at the lowest in April 2020 (85.5 per cent). The freight traffic overall decrease was 8.8 per cent during the year compared to 2019. The air transport service was highly impacted by the measures to mitigate the spread of COVID-19.
- The impact of COVID-19 on maritime transport shows that businesses reported a decrease in sales and revenues, reporting a decrease in capacity utilization. Businesses reported contract performance failure, with 66.7 per cent reporting cancelation of services demanded by clients and an equal number of reporting delays in delivering services. 100 per cent of businesses reported an increase in operational costs resulting from the

protective measures businesses took, including the provisions of masks, sanitizers, cleaning points, and hermos guns. The impact of COVID-19 was not high in maritime compared to other modes of transport.

- Rail transport was impacted by COVID-19 measures, which resulted in a decrease of 48 per cent in revenue from railway passenger transport, whereby passengers' traffic decreased from 1,599,420 in 2019 to 783,042 in 2020. This resulted in a decrease of passenger revenue, from KES 1.7 billion to KES 893 million. Railway passenger services were impacted more negatively compared to cargo services.
- Based on regional dimensions on the impacts of COVID-19, different governments responded by implementing a raft of containment measures, including quarantine, social distancing and stricter border controls. Kenya closed its borders with Uganda, Somalia, and Tanzania on 16 May 2020 for passenger movement. This underscores the need for a harmonized approach across the region to deal with COVID-19.

The summary of the key findings of the main recommendations from UNCTAD (2022b) includes:

1. To enhance recovery efforts, there is a need to successfully contain the spread of the virus in order to reduce incidences of lockdowns and curfews. This calls for full implementation of COVID-19 preventative measures as per the Ministry of Health guidelines.
2. To enhance smooth international and cross border trade and travel that is critical for continued recovery, there should be a coordinated approach across the region and with international partners to ensure all borders remain open.
3. Measures that leverage technology, such as installation of digital tools, data systems and trade facilitation to fight the COVID-19 at key border points and airports should be enhanced.
4. To ensure a coordinated approach to recovery efforts in the transport sector, there is a need to develop post-COVID-19 recovery strategies for each mode of transport. This should be complemented by recovery strategies for supportive industries like tourism.
5. Given the continuing COVID situation and the likelihood of recurrence in the future, there is a need to develop disaster preparedness for the transport sector.
6. Develop an aviation policy to support the recovery of the air transport sector.

CHAPTER 3: SWOT ANALYSIS FOR TRANSPORT SECTOR IN KENYA

3.1 An Overview of Transport Services in Kenya

Kenya is a country in East Africa with a coastline on the Indian Ocean and sits at 580,367 square kilometers. It's capital and largest city is Nairobi, while its oldest city is the coastal city of Mombasa. Agriculture is Kenya's largest sector of the economy, with tea and coffee as the traditional cash crops. Also, the transport sector in the trade service industry is a significant economic driver.

In Kenya, the transport sector comprises the road, rail, aviation and maritime sub-sectors. The rail and road transport networks are the major modes of transport. They account for approximately 70 per cent of the total cargo transported within the country. The rest are taken by air and maritime transport. Roads have long been considered the prime transportation link between all economic sectors and Kenya's citizenry. They account for over 80 per cent of Kenya's total passenger and freight transportation, and value of output. Kenya's current road network is administered by various government departments. Additionally, the transportation industry sector comprises a wide range of service providers, covering all modes of transport, such as warehousing and value-addition services like packaging, labeling, assembling.

Kenya is an important transit country for regional and international markets in East Africa. In addition to a natural harbor at the port of Mombasa and a rich road network, and international airports that all serve the country and the landlocked countries of Uganda, Burundi, Rwanda and Democratic Republic of Congo, Kenya recently launched the high-capacity, high-speed Standard Gauge Railway (SGR) line. Within the East African Region, Kenya has embarked on the development of transport corridors with its neighboring partner states, namely Uganda, Rwanda, South Sudan, Ethiopia, Tanzania, and beyond these Partner States to enhance regional socio-economic and deepen integration through facilitation of national, regional and international transport. These joint efforts have culminated in the development of the modern, efficient SGR line, road networks, well-rehabilitated existing Metre Gauge Railway (MGR) linking the Partner States and hinterland to the outside world through gateway ports, such as Mombasa, Dar es Salaam, among others, in Eastern Africa and other parts of Africa.

The government's long-term development blueprint, Vision 2030, is geared towards lifting Kenya to middle-income status over the next decade, has infrastructure development at the core with a host of large-scale transport projects in the rail, road, and shipping segments set to boost GDP growth. In tandem with the blueprint, there are developments such as the Lamu Port-South Sudan-Ethiopia-Transport (LAPSSET) Economic Transport Corridor, which will link Kenya, Ethiopia and South Sudan to the Indian Ocean, the Northern Corridor road network linking the Great Lakes countries of Burundi, Democratic Republic of Congo, Rwanda and Uganda to the Kenyan sea port of Mombasa, and the Lake Victoria transport navigation project to improve navigation of the Lake ports to provide inland water link for transportation of cargo and persons across the border to other ports in neighboring Uganda.

Compared to other East African countries, the transport sector in Kenya is relatively well developed in terms of both infrastructure and services. All the components of a transport system are designed to facilitate the movements of passengers, freight, and information, either as separate or joint components. Strategies for the inter-networking systems, like the direct rail age of cargo from the Port of Mombasa to Inland Container Depots at Nairobi and Naivasha, and passenger centers along the SGR line have been implemented. They have boosted the trade-in-service within the country and East African region. However, the developments in the transport industry and technology in the East African countries have outgrown the capacity of the Kenyan transport sector infrastructure in many ways. Such factors have led to over-dependence of some transport subsectors like the road network, strain in budget allocation, slow infrastructure rehabilitation projects, and violation of the maximum load limit in the modes of transport.

Economic crises due to the COVID-19 pandemic have led to extra costs in the entire transport sector. Thus, assessing the strengths, weaknesses, opportunities and threats (SWOT) analysis can strengthen the transport sector policies and establish an implementation framework with strategic policy issues. SWOT in the transport sector includes determining the sector objectives and identifying the internal and external factors for achieving those objectives. SWOT is helpful when used to convert weaknesses into strengths, as well as threats into opportunities. SWOT analyses for the transport sub-sectors are given below.

3.2 SWOT Analysis for Kenya's Road Transport Sub-Sector

Roads are of strategic importance in facilitating trade and hence, require a high level of serviceability. The

SWOT analysis in Table 1 below identifies the key strides in road transport, points of deficiencies that have hindered the flawless and seamless flow, and the potential in the sub-sector.

Table 1: SWOT for the Road Sub-Sector in Kenya

Strengths	Weaknesses
<ul style="list-style-type: none"> • Government commitment in the road infrastructure development and maintenance through the Annual Public Roads Programme (APRP) and exchequer funds. • Current national-wide opening of road network access to remote and bordering countries, e.g., the LAPSET Corridor project and the Northern Corridor from Mombasa, Kenya to Bujumbura, DRC. • The government invested in low-volume sealed roads across the country to open up rural areas. There is over 9,800 km of ongoing development programs across the country, approximated at KES 658 billion. • Facilitated road sector reforms that include the formation of Road Boards and Road Funds. • Institutionalization of County Governments inroads for the management, development and maintenance of county roads (Classes D and below). • Goodwill from key stakeholders in the road transport sub-sector. • Availability of support from the development partners. • Regional cooperation with neighboring countries on trade facilitation through the Port of Mombasa. 	<ul style="list-style-type: none"> • Coordination and regulatory overlaps among agencies and between national and county governments. • Presence of overloaded Heavy Goods Vehicles (HGVs) that contribute to road destruction. • Corruption and mismanagement leading to ineffective axle load control measures that are important for minimizing damage to the roads. • Costly traffic delays on weighbridges and at roadblocks. • Fragmented and uncoordinated legal and institutional framework for regulation, coordination, development and management of road passenger transport services. • Disorganization in the public passenger transport service operations (Matatus) like flouting traffic regulations, charging unauthorized fees and non-regulation of fare prices. • Laxity by local authorities in regulating and coordinating road transport as well as soliciting bribes.
Opportunities	Threats
<ul style="list-style-type: none"> • Expansion of road networks in all 47 counties and in economically-demanding areas. • Complementarity with the SGR line to serve the hinterland. • Facilitating investments in the sector by providing credit accessibility to the private sector involved in the road transport. • Advancement in technology to provide a platform for fast and effective service delivery this helps various producers take their goods to the market in time, especially goods that are very perishable, avoiding extreme cases of losses. 	<ul style="list-style-type: none"> • Road traffic accidents due to carelessness ignorance, poorly maintained vehicles, and violation of traffic rules by road users. • Climate change and environmental degradation leading to natural disasters and calamities such as floods which negatively impact on transport infrastructure. • Increased motorization leading to traffic congestion. • Corruption and other bureaucratic practices during award of road construction tenders. • Inflation and rising cost of fuel leading to non-competitiveness in road transport. • High taxation burdens including tolls, fees and levies on cargo trucks for entry into counties.

3.3 SWOT Analysis for Kenya's Rail Transport Sub-Sector

Rail transport provides an important and strong link between inland container depots and the Port of Mombasa as well as passenger services in Kenya. The SGR is complemented by Meter Gauge Railway

(MGR) passenger line that was constructed during the British colonial period. The Kenyan SGR is part of a proposed wider regional network for the development of railway connecting Kenya, Uganda, Rwanda and South Sudan. The rail transport sub-sector has its SWOT analyzed in Table 2 below.

Table 2: SWOT for Rail Transport Sub-Sector in Kenya

Strength	Weakness
<ul style="list-style-type: none"> • The Governments of Kenya, Uganda, Rwanda and South Sudan commitment to providing high capacity, cost effective modern railway transport within the Northern Corridor. • Construction and operation of Phase 1 (Mombasa–Nairobi) with a port station at Mombasa and intermediate stations; Phase 2A (Nairobi –Naivasha) SGR lines. • Revamping and reconstruction of existing MGR. Naivasha-Longonot link to Kisumu Port rehabilitated, as well as MGR link from Nairobi to Nanyuki. • Decongestion of ports through increased capacity of land transport infrastructure through rail transport. • Ecological transport with low CO₂ emissions. The values of CO₂ emissions are determined according to the electricity generated for railway traction. The electric-multiple unit trains have lower energy consumption, which allows for a reduction of the emissions with approximately the same number of trains on the lines. Naturally, power consumption increases proportionally to the speed increment; consequently, the goal of this criterion is to minimize electric consumption. • Wagons offer large capacities and a high payload of containers resulting in economies of scale, reducing the cost of the total logistics chain when rail transportation is used as the main mode of land transportation. • Reliability of the network. The railway stations have a timely schedule that they follow that helps reduce inefficiencies and delays that come about compared to the road network. 	<ul style="list-style-type: none"> • High operating costs. Operating costs depend on the number of trains. Costs for investment in rolling stock, as well as reconstruction are not taken into account. The objective of this criterion is minimization. • Capital constraints to expand the SGR line. It is a public-private partnership (PPP) project financed and built by China Communications Construction Company (CCCC), and China Road and Bridge Corporation (CRBC) on loan. • Few direct passenger trains without the intermediate stops. • A lack of flexibility as access to the rail network is lower compared to road transportation. • High costs for the last mile deliveries when cargo arrives at terminals. No seamless transport provided for the last mile for cargo or passengers. • Lack of proper engagement with all stakeholders, e.g., cargo owners, truckers, container freight station (CFS) operators, cargo handling facilities operators, shipping lines. • Inadequate resources for key operators – Kenyan Ports Authority (KPA)/Kenya Railway Corporation (KRC). • Lack of proper coordination and cooperation between the KPA and KRC. • Lack of adequate facilities, such as yards and the capacity of the Inland Container Depots (ICDs). • No automation or application of use of advanced technology.
Opportunities	Threats
<ul style="list-style-type: none"> • Job creation from the construction and maintenance of the SGR line phase II and from transport of passengers and freight. • Reduction in wear and tear of roads, especially from overloading; hence, reduced road and vehicle maintenance costs. • Rail transport is fast and less affected by usual weather conditions such as rain, fog, etc., compared to other modes of transport. • More sustainable mode of transport compared to road transportation, due to its low marginal external cost factor on long-haul distances. • On the importance of intermodal transport now and in the future, the rail transport as a major player in the corresponding hinterland transport. • Economies of scale especially for long haulage cargo and mass travel. 	<ul style="list-style-type: none"> • Increasing passenger traffic on the current rail network. Due to road congestion, trains are becoming more attractive for commuter traffic, pressuring the available capacity for rail freight transportation. • Increasing the quality and condition of road infrastructure will make it possible to increase the speed of cars and buses in parallel routes to railway transport making it competitive. • Government interference. • Court cases ongoing/pending determination. • Inadequate technical know-how in management and operations.

3.4 SWOT Analysis for Kenya's Maritime Transport Sub-Sector

Kenya's maritime transport at the Port of Mombasa takes a large share of international and regional trade flows. The economic growth of Kenya and the East Africa region are driven by industrialization along with the Port's ongoing improvements, and the SGR project which offers great opportunities for maritime transportation. The Port of Mombasa is the principle Kenyan seaport that not only serves Kenya, but is also the main gateway to the Eastern African hinterland countries of Uganda, Rwanda, Burundi, Democratic Republic of Congo and Southern

Sudan. It also offers shipping services to key destinations around the world. The Port is served by road and rail to inland destinations and is equipped to handle a wide range of cargo, including dry bulks, such as grain, fertilizers, cement and soda ash, and liquid bulks such as crude oil and oil products, as well as bagged products (coffee, tea, sugar, etc.) break-bulk (iron and steel, timber), motor vehicles, machinery – and containerized cargo. Thus, the maritime transport sub-sector in Kenya has a big role to play in global trade for RVCs and GVCs. Table 3 below gives the SWOT analysis for the sub-sector in trade value chain.

Table 3: SWOT for Maritime Transport Sub-Sector in Kenya

Strengths	Weaknesses
<ul style="list-style-type: none"> ● Government commitment in the maritime infrastructure development and maintenance ● Strong and committed regulatory and institutions for regulation and promotion of trade facilitation and maritime investments. ● The maritime transport has been key in the process of globalization and trade facilitation revolution, connecting trade between countries in East Africa. ● Technological advancement in cargo inspection, verification clearance processes and logistics services. ● Mombasa Port and Northern Corridor Community Charter (MNPCCC) that binds the port community for efficient and effective service delivery. ● Presence of intermodal transport at the Port with connectivity to the SGR cargo line and road transport. 	<ul style="list-style-type: none"> ● Unavailability of land for expansion. ● High and slow government bureaucracy. ● Insufficient support investments, e.g., enough truckers for last mile. ● Customs and clearance are extremely time consuming, which leads to delays at the Port that directly affects RVCs and GVCs ● Poor access to the Port from the hinterland ● Weak regulatory and institutions' frameworks, and regulatory overlaps
Opportunities	Threats
<ul style="list-style-type: none"> ● Increasing economic activity in the hinterland. ● Increasing number of shipping lines. This has a direct repo effect that will have an increase in GVCs making the Kenyan market a competitive place to sell and buy commodities. ● Concession of Kenya-Uganda railway will give us access to different RVCs based in Uganda that can help promote trade in Kenya and Uganda, expanding Kenya's market. ● Free trade zones which represent an excellent choice for attracting more export-oriented industries. ● Increasing trade with Asian countries especially China. We are extensively looking at how we are heavily dependent on the importation of goods from China, whereas we can impact them by having the agricultural sector export various commodities to China, as well promoting GVCs. 	<ul style="list-style-type: none"> ● Increasing political instability distances ourselves from the international markets, where not many investors would invest in Kenya, as it is very risky and prone to losses. ● Competition from Dar Es Salaam and Durban Ports. ● Increasing shipping line cartels. ● Maritime jurisdiction in Kenya. ● Vertical integration of major shipping logistics companies. ● Regional interests of citizens/people from areas where port and maritime developments are found/located. ● Political interest and interference.

3.5 SWOT Analysis for Kenya's Air Transport Sub-Sector

Air transport is the primary mode of long-distance transport within and between nations, thus, a crucial facilitator of economic activity. Kenya's air transport sub-sector provides international, regional and domestic cargo and passenger carriage to many

destinations across the globe. The country has four international airports (Jomo Kenyatta, Kisumu, Moi and Eldoret) and many domestic airstrips. Air transport generates economic value chain benefits by enabling flows of goods, investments, people and ideas that are the fundamental drivers of economic growth. Table 4 below outlines the SWOT analysis of the air transport sub-sector in Kenya.

Table 4: SWOT for Air Transport Sub-Sector in Kenya

Strengths	Weaknesses
<ul style="list-style-type: none"> ● Strong institutions for management, development and regulation, such as KCAA, KAA and IATA ● Strategic headquarters location. JKIA, the largest international airport in Kenya is strategically placed in Nairobi, a hub which allows easy connection to Central, West and Southern Africa. ● The GoK has signed the Single Action Air Transport Marker (SAATM) that focuses on the sustainable growth of the air transport and enhancement of aviation down-stream sector activities. ● Safe and speedy. Air transport is the fastest mode of transportation, hence reliable for perishable cargo. ● Timely service. 	<ul style="list-style-type: none"> ● Slow rate of infrastructural development. There is an imbalance of investment between the airports and airplanes. ● Costly – high freight charges from cities. ● High cost of travel, especially for domestic. ● Not enough domestic airports, airstrips and feeder airports.
Opportunities	Threats
<ul style="list-style-type: none"> ● Increase in trade within Kenya and the East African region, necessitating more air travel. ● Potential in the use of technology to minimize costs. The country can borrow from developed countries. Technology can bring down costs of operation lowering the charges they have on transit goods enabling producers and exporters to meet their targeted profit margins. ● Market expansion. There is a great opportunity for air transport to expand their geographical market into the new airports. This is very crucial in developing RVCs and GVCs. ● Construction of domestic airstrips in designated areas that help producers and farmers that deal with perishable goods to have their commodities reach markets in good time and in a good state (quality). ● Reforms on air and maritime freight rates 	<ul style="list-style-type: none"> ● Development of other means of transport. ● Global economic crisis. With the current COVID-19 global pandemic, there are fewer jobs and people are working at the least minimum wage. Traveling for adventure and pleasure is declining. Also, the pandemic caused the lockdown of all the airports and airlines. ● Delays in flights due to security officials; also, weather conditions, such as heavy storms and strong winds. ● Threat of global terrorism attacks in the civil aviation industry. ● Ecological transport with high CO2 emissions.

CHAPTER 4: POLICY ACTION PLAN

4.1 Introduction

The goal of the project is to identify measures and set a roadmap for the necessary policy frameworks that would enable the country to maximize the benefits that it can derive from the transport sector in terms of facilitating trade, and supporting employment, while fostering inclusive growth in the value chain. UNCTAD's previous activities on The Road Transport Services in Kenya: Case Study for the Tea Value Chain; and Assessment of COVID-19 Impacts and Recovery Responses on the Transport Sector in Kenya both pointed out policy recommendations essential for transport in services trade to thrive. The SWOT analyses identified further gaps to improve the transport sector policies and integration of the RVCs and GVCs, and establish an implementation framework for the Policy Action Plan that covers the entire trade services for all modes in the transport sector. The Policy Action Plan details key gap areas for improvement, and the contributions of the transport sector in regional and global value chains, as well as consideration in the promotion of transport in services trade in Kenya.

4.2 Policy Gaps Identified and Recommendations

The review has identified the following policy gap areas for the improvement of the transport sector contribution in transport trade services for RVCs and GVCs. A framework for implementation that includes identified policy gaps, measures to be undertaken, institutions and actors responsible is provided in Annex 1.

4.2.1 Strong emphasis and consideration to promote seamless transport

An integrated transport logistics strategy is a critical driver in managing costs, resources and achieving a streamlined transportation system, which would enhance the country's positioning in RVCs and GVCs. This can be achievable by:

A) Promoting multimodal transport through the following action plans:

(i) Provide adequate road, rail, port and airport infrastructure with good connectivity.

(ii) Roads seem to play a bigger role in improving accessibility to other modes. Thus, it is important to improve access by road to the rail terminals, inland container depots, airports and seaports.

(iii) Promote use of single documentation in the cargo clearance and handling processes across all the modes of transport, such as cargo for global value chains (import, export and transit, to and from East African Community (EAC) countries), passes through all the steps of import/export processes under a single document reducing delays.

(iv) Construct more by-pass roads in urban areas to avoid congestions and ease the flow of cargo.

(v) Opening up more roads, local airstrips, and service lines from the railway terminals and access to ports, which would improve the logistics value chain to market centers.

B) Tackling the first and last mile for the railway transport

Freight costs for cargo deliveries from rail terminals to customer warehouses are very high due to handling and trucking services involved. High costs are devastated by poor road conditions and road congestions around rail terminals. The high costs from the last-mile take away benefits from the low freight charges achieved from the high economies of scale operations. This impacts RVCs and GVCs negatively by increasing logistic costs, which limits trade.

(vi) Increase the service by promoting licensed groups through public, private partnerships to provide first and last-mile cargo handling services, e.g., cargo delivery.

(vii) Improve logistics around the terminals by improving road access, establishing truck parking and marshalling yards.

(viii) Engagement of private agents (e.g., freight clearing agents) in policy formulations on trade logistics helps increase ownership and ease implementation of first and last mile decongestion strategies.

(ix) Naivasha is a good terminal for transit. It has infrastructural first mile gaps to support exports and last-mile gaps to support imports. Thus, improve road accessibility to promote first mile transportation and provision of auxiliary services at the Naivasha ICD, for instance to support the export of tea produced in the Rift Valley Region.

4.2.2. Improve on air transport planning and capacity utilization

There are opportunities in managing air transportation demand and capacity. The JKIA

faces capacity constraints resulting in congestion, high costs of domestic transport, high costs on logistics and access to its users. Strategic initiatives that could be undertaken for improving the reliability and performance of air transportation service, with a focus on managing demand and capacity in the air transportation system, are:

- (i) Employ efficient intermodal transportation system at JKIA and make the airport more accessible. The integration of the modes of transport is effective by improving road network accessibility, having intermodal cargo transfers, reliable schedule coordination and compatible ticketing procedures. Inter-modal transport in the Kenyan domestic market would enhance competitiveness within and to the external markets, leading to improved RVCs and GVCs
- (ii) Upgrade capacity and facilities, and improve infrastructure for auxiliary services in the other international airports (Kisumu, Moi and Eldoret) to achieve user-attractiveness and reduce an overconcentration at the JKIA.
- (iii) Construct new runways at existing airports and new airstrips near major transportation hubs.
- (iv) Establish PPPs to provide logistic services.
- (v) Reform air freight charges.

4.2.3 Establishment of the transport logistics Monitoring and Evaluation (M&E) Framework

The lack or absence of efficient M&E tools for logistics along value chains is an existing gap in trade services with the transportation system. The M&E tool will enable us to be able measure how different regional value chains are performing on a quarterly basis, helping to identify the strengths and weaknesses that will help capitalize on how well we can seize the opportunities, keeping most threats at bay. It is very critical to have an M&E tool because it will help us expand our RVCs to work more efficiently and at low operational costs, leading to a transformation in export and import markets for GVCs. Furthermore, the M&E tool will allow governments to have awareness of why RVCs and GVCs are important to the economy and how they could be able to facilitate trade within the country. The following action plans could be applied to promote the establishment of an M&E framework:

- (i) Carry out the sensitization awareness, capacity building and training on M&E with relevant stakeholders in trade, transport and logistics.

- (ii) Encourage the stakeholders to design and establish M&E frameworks in their value chains.

- (iii) Promote a digitized and automated M&E framework (digitalize data collection) for higher quality, quantity and timeliness of the information on value chains for all modes of transport.

- (iv) Utilize existing information systems for performance data collection.

- (v) Government to ensure public entities are providing platforms transacting widely on regional and global value chains (e.g., Kenya Revenue Authority (KRA), Kenya Bureau of Standards (KEBS), KenTrade and Kenyan Ports Authority (KPA) information systems) are established with a digitized M&E tool and issue regular reports (monthly, quarterly, annually) to inform on performance and identify areas for RVC & GVC improvements in transport for trade promotion.

4.2.4 Training and Capacity Building

An integrated transport system will require a diverse multi-disciplinary and multi-skilled human resource complement for its sustainable implementation. The skills will be required to manage the relevant institutions, undertake research and operate the envisaged diversified and integrated transport services. There are different courses that are required to promote efficiency in the maritime sector and would include ones such as diplomas in clearing and forwarding, management and administration. These will help foster a culture in different RVCs on the importance of human resource training that leads to an efficient work environment. Also capacity building on data collection, management and analysis to inform better policies is required. Inclusion of development partners, such as the World Bank, to support and fund training and capacity building projects would be significant and impactful.

A good example is Kenya Ports Authority (KPA) which has facilitated training through its initially owned and managed Bandari College that was conducting internal training on ports' operations and maritime courses. However, there was a need to fully equip and accredit the Bandari College through enlarging the scope of its programs, and also establishing an examination board. This was implemented in 2018 through a presidential promulgation that transformed Bandari College to the Bandari Maritime Academy (BMA).

Capacity building is the enhancement of knowledge and acquisition of skills. Based on the policy

gap areas mentioned above, human resource development will be carried out targeting various groups on their activities on trade facilitation on:

- (i) Training on the measurement and analysis of transport services using trade in value-added (TiVA) as a statistical method that can better inform stakeholders on policy making decisions to provide new insights into commercial relations between nations.
- (ii) Training skills on the M&E framework.
- (iii) Refreshing and reminding the personnel from the transport stakeholders on trade logistic regulations requirements and the International Commercial Terms (INCOTERMS) to be at par while operating along the RVCs and GVCs.
- (iv) Enhancing knowledge on COVID-19 preparedness and response tactics along the value chain.
- (v) Train and encourage transport companies on the importance of improving on their environmental substantiality performance in the RVCs and GVCs.
- (vi) Train transport logistics players and authorities on the blue economy for global and regional relevance and efficiency

4.2.5 Establishment of logistics transport hubs

The current developments in transport logistics are driven by global economic mega-trends, such as establishing logistics hubs. A transport logistics hub aims to provide efficient and effective services and related information conforming to customer requirements at a central physical location. Logistics concepts mainly determine good transport services and changes in freight transport. A transport logistics hub is a relevant consideration. It would positively affect transportation processes by incorporating several logistics aspects, intermodal terminals and depots, cargo distribution and consolidation centers, finance and insurance institutions, warehousing, and value addition services (e.g., repackaging and rebranding) that support the value chain. The role of the hub will be to integrate transport-related services, ensuring reliability, reduced costs, time management and easy access to logistics in the value chain.

4.2.6 Improve the facilities and operations at the ports for GVCs

Improving the facilities and operations at the Port of Mombasa have an exponential effect on the global value chain of reducing the vessel turnaround time, cargo dwell time, truck turnaround time, storage

and cargo handling charges, and vessel shut-outs. The focus would be increasing the port capacity and improving productivity.

4.2.7 Tackling Congestion and Improve services at the cross-border points

Dealing with congestion is another important aspect of transport policies. A strategy has to be developed on both economic and environmental grounds to deal with increasing congestion. Our cities have been continually growing at an uncontrolled rate leading to the problem of traffic congestion, which has discernable effects on all the aspects of accessibility to markets. Policymakers should assess the prevalence, seriousness, and sources of trade delays.

Congestions causing delays are experienced at seaports and cross-border points, where export delays from various sources have serious trade-inhibiting effects influencing the GVCs. An example is seen at the Port of Mombasa where the vessel dwells, and handle time is long-ships take a longer period at shore. At border points, trucks are forced to line up and cause congestion at the border, delaying products that are meant to be delivered on time. There is a need to conduct a trade and transport logistics survey to identify alternative transit routes to decongest existing routes and borders.

Cross-border points are characterized by cargo clearance delays and congestion due to poor coordination, lack of facilities, lack of proper information and security systems, and duplication of duties by government agencies acting as cargo interveners. The policy action plans that would improve the existing transport logistics services at cross-border points to reduce delays and costs, and promote cross-border trade are:

- (i) Improve borders' access with expanded and maintained roads to ease congestion on roads, especially during day time.
- (ii) Increase infrastructural facilities, such as parking areas, and information systems for sharing and data collection.
- (iii) Improve the security systems at border points to facilitate 24-hour cargo operations.
- (iv) Increase personnel for cargo clearance services in border departments for immigration, customs, bureaus of standards, health (for COVID-19 testing, certification and clearance).

(v) Automate services, improve pre-arrival processing, and adopt paperless transactions to improve efficiency and reduce delays at the border points for seamless logistics, and promote cross-border value chains.

(vi) Merge transport and logistics government agencies that have similar roles in mitigating duplication of duties, reduce corruption, streamline public entities and achieve cargo facilitation rather than intervention.

(vii) Establish systems for regular collection of data for monitoring and evaluation of cross-border performance. The system will identify challenges and areas for improvement. The system will draw information from existing information systems from customs, bureau of standards, immigration, single window system, and other border systems. The system should be digitized for good quality, quantity, timeliness and reporting of information.

4.2.8 Pricing and marketing gaps along the value chain

The transport services are characterized by the involvement of many intermediaries along the value chain that increase costs and prices of products and services, impacting competition. Policy actions to reduce the brokers and link producers directly to the market to increase the profit margins and improve commodity competitiveness are highly required. In the case of the tea value chain, the presence of tea brokers as intermediaries is not appreciated, as the farmers get low pay and feel cheated. The following policy actions would help resolve the pricing and marketing gaps along the value chain:

(i) Promote associations that would play the role of intermediaries, which have farmers or producers as members. The associations will give the relevant market and commodity information, organize or negotiate for transport, mobilize funding for the common facilities adding value to the products (e.g., storage, processing, grading, packing), organize training, sensitization, awareness workshops, and meetings to enlighten on critical issues in the value chain. The associations acting as intermediaries will help coordinate transport logistics, pricing, marketing of goods along the value chain, promoting trade.

(ii) Reforms on tax regimes impacting commodities, processing and transportation costs.

4.2.9 COVID-19 preparedness and response

The COVID-19 impacts and recovery responses have slightly differed across the EAC and globally, along with different levels of value chains. The regional approach for capacity testing, accepting, and funding has been imbalanced; for instance, some countries charge for testing and vaccinations, while others are not. The following action plans will improve COVID-19 preparedness and response associated with transport logistics services and promote trade facilitation in the RVCs and GVCs:

(i) Reduce physical verification of cargo by investing in automatic verification and security systems at all cargo release points.

(ii) Adopt paperless transactions to improve efficiency, reduce interaction, reduce rent-seeking and comply with COVID-19 prevention measures.

(iii) Streamline COVID-19 stimulus packages to target each sector of the transport system to facility trade.

(iv) Invite the private sector to provide COVID-19 response services where funds are limited.

(v) Increase regional COVID-19 capacity testing, vaccination and certification.

(vi) Regional approach for funding, testing, recognition of certificates and protocols on COVID.

(vii) Promote the use of information technology in sharing information from COVID tests for border clearance.

(viii) Adherence to the Ministry of Health protocols on COVID prevention.

4.2.10 Promotion of Information Technology

Information and communication technology (ICT) plays a vital role in the sector of transportation. The ICT market continually launches new applications that support traffic congestion control, transport logistics, and transport infrastructure management. In addition to all these, ICT has also invaded the new era of transporting information rather than people. The ICT applications can increase the efficiency of transport networks, and decrease the negative externalities, e.g., decrease the congestion and increase the quality of transport networks, improving and increasing the regional and global value chains. However, their actual impacts on the transport sector and sustainable development are still unknown. The transport sector has slowly progressed in the ICT services whereby we see various institutions

like Kentrade successfully implementing the single window system where they can rely on the automated system in tracking cargo and clearance platform for cargo. This has largely helped in delays caused at the Port of Mombasa.

Despite the slow growth seen, policymakers should look into deploying their transport systems in terms of the concept of "Cloud Transport System," which is based on shared transport infrastructure and modes, instead of being owned by a single operator, which is currently the National Transport & Safety Authority (NTSA) and ICT Authority (ICTA). The Cloud Transport System could provide users with value-added smart and green trip plan services according to multimodal transport connectivity. This is going to be an appropriate alternative to limiting increased vehicle usage.

Another critical issue is focused on the integrated transport information services to be put in place on people's mobile phones as "Mobile All Transit." This integrated information might provide people with a networked smart journey or trip planner services according to their daily schedule of business and life, increasing the business transactions in value chains. It would be able to integrate reservations, payments, information on transport for freight and passengers.

Not only are we moving towards a digitalized world, but we are also helping to take the fight to the current pandemic we are facing. Through digitalization, there are fewer interactions in offices and areas that COVID-19 can spread. This has aligned itself with the contemporary World Health Organization (WHO) guidelines that have been issued to help organizations operate efficiently.

ICT will potentially increase the efficiency of transport networks and decrease the negative externalities, e.g., decrease the congestion and increase the quality of transport networks through policy actions such as:

- (i) The integration of information systems like the Kenya Revenue Authority's Simba and iCMS for efficiency in transport services delivery and improving their stability.
- (ii) Introducing the Cloud Transport System, which can provide users with value-added smart and green trip plan services according to a multimodal transport connectivity. This is going to be an appropriate alternative to limiting increased vehicle usage.

(iii) Adoption of an integrated transport information services to be put in place on people's mobile phones as "Mobile All Transit." This integrated information might be able to provide people with a networked smart journey or trip planner services according to their daily schedule of business and life. It would be able to integrate reservations, payments, information on public transport.

(iv) Promotion of ICT will also help take the fight to the current pandemic. Through the digitalization of logistics processes, there are fewer interactions in offices and areas where COVID-19 can spread. This has aligned itself with the current World Health Organization guidelines that have been placed to help organizations operate at an efficiently.

(v) Establish ICT systems for the regular collection of data for monitoring and evaluating cross-border performance.

4.2.11 Environmental Sustainability

All improvements in the transport sector need to be sustainable. Consequently, short-run gains from infrastructure should not obscure wider or long-run damage that may be associated with it.

Most of the environmental factors largely affect the various inputs in the different regional value chains. For example, if there is a steady increase in the pollution of water from a transport sector project, farmers would irrigate their farm produce with water that contains harmful chemicals and lowers the quality of production and hurts the consumer in the long run, lowering production and consumption of the product.

The Kenyan Government should look into regulating the impact made on the environment when implementing different policies like the development of infrastructure that leads to the destruction of flora and fauna, displacement of human settlements and animal habitats, separation of animal herds, and negative changes in the environment. This affects tourism in Kenya, where in recent years, we have seen how crucial it is to preserve wildlife being its GVCs that largely promote international trade in Kenya.

Transportation is among the largest source of greenhouse gas emissions and air pollution. Also, the construction of transport infrastructure has a large impact on environmental degradation and pollution. Considering all the modes of transport, the road network is the most extensive inland transport system and contributes the greatest impact on the

environment. Climate changes due to any effect on the environment also affects production and distribution, impacting value chains. For example, changes in the rain season affects tea farmers and road transportation systems, causing the delay of goods to the preferred destination, pricing and competitiveness. Thus, the environmental sustainability and management decision are a policy gap area for institutions in the transport and logistics sector to consider.

The following strategies and promoting de-carbonization policies will improve environmental sustainability and protection measures in transport logistics and promote trade in the value chains.

- (i) Conserve the environment by reducing the amount of carbon emissions by modal shift on freight movement from road to rail through the improvement of rail service and connections to industrial parks.
- (ii) Proper prior planning on the construction of a transport infrastructural network and its impacts on the environment.
- (iii) Imposing a car purchase tax based on fuel consumption.
- (iv) Raising awareness of the importance of environmental sustainability throughout society.
- (v) Support long-run energy-efficient systems for the transport and logistics companies, e.g., invest in efficient warehouses with low energy consuming lamps, motion sensors, timers.
- (vi) Promote the use of clean energy sources, that is, solar, wind, hydro and geothermal power in the transport and logistics sector for RVCs and GVCs that would cut operational costs in the long run and promote a clean environment compared to the use of petroleum fuels.
- (vii) Adopt the use of energy-efficient logistic systems and reduce the standby-time of electronic devices.

4.2.12 Meeting Customer needs

There is a serious need to have shifted focus and have customer-driven policies. A transport system that meets customer or user needs is a prerequisite

for promoting trade, economic development, and strengthening regional and global value chains. Features such as efficiency, affordability, and availability characterize customer satisfaction in transport services for trade. In the current competitive environment, customers deserve high service levels hence high transport quality. Implementing financially and physically accessible and sustainable regional transport is challenging due to poor or inadequate funding for an efficient transport system. An important aspect of meeting customer needs is rehabilitation, extension and upgrade of roads that serve the areas of economic activities, such as agriculture, and offer access to border counties and countries. In Kenya, poorly maintained rural feeder roads connecting villages, farming areas and market centers are a significant transport system gap. Thus, since the road network has not met the growing demand in trade for improvement in RVCs and GVCs, its rehabilitation, extension and upgrade is paramount to reduce transport and operational costs and promote competitive trade.

4.2.13 Ensuring a competitive market through increased infrastructural accessibility

Kenya being an important transit country for regional and international markets in East Africa, establishing an efficient, reliable and safe transport system would contribute significantly to the competitiveness of the region's goods and trade services sector. Businesses continually strive to ride on their strengths to grapple with the competition. Considering the road network as the basic mode of transport in policy frameworks, leading to expansion of roads that would link border countries would support RVCs and GVCs, and thus integrate to the international markets. Good road networks will ensure operation cost minimization, transport provision, and other value addition services at low prices. Expansion and provision of adequate airports infrastructure and facilitates will also increase Kenya's strategic position as a market hub for the region and the integration to the international market, which will promote the regional and global value chains.

Annex 1: The Policy Action Matrix and IMPLEMENTATION FRAMEWORK

The policy gap matrix is as indicated in the table below

No	Policy Action	Implementation Measure	Institution Responsible	Time Frame
1.	Prepare an integrated logistics planning to promote seamless transport	<p>a) Promotion of multimodal transport</p> <ul style="list-style-type: none"> Identify connectivity and accessibility gaps among modes of transport and lay infrastructure with good connectivity. Ministry of transport and transport agencies to ensure connectivity and accessibility for promotion of seamless transport is fully articulated in master plans, projects designs, constructions, management and operation of transport infrastructure Roads play a key role, and as such, give emphasis to improve road connectivity and accessibility to other modes of transport and terminals, including by-passes in urban areas to ease the flow of cargo. Ensure single documentation in the cargo clearance processes across all the modes of transport Awareness and sensitization for shippers (cargo owners), clearing and forwarding agents and transport operators on choice for multimodal transport <p>b) Resolve the first and last-mile challenges on railway transport</p> <ul style="list-style-type: none"> Promoting licensed groups through Public-Private Partnerships to provide first and last-mile cargo handling services Improve logistics around the terminals by improving road access, establish truck parking and marshalling yard Engagement of the private agents (e.g. freight clearing agents) in policy formulations on trade logistics helps increase ownership and ease implementation of first and last mile decongestion strategies Improve accessibility and utilization of Nairobi & Naivasha ICDs for first and last mile transport and logistics services 	<p>Ministry of Transport, KRB, KENHA, KURA, KRA,</p> <p>CAA, KCAA</p> <p>KRC,</p> <p>KPC,</p> <p>Ministry of EAC, UNCTAD & UNECA and Development Partners</p>	Short term and Medium Term
2.	Improve on air transport planning and capacity utilization	<p>a) Reduce overconcentration of JKIA by improving infrastructure, accessibility and auxiliary services to Mombasa, Kisumu, Eldoret airports.</p> <p>b) Expand capacity for regional air transport by upgrading facilities and constructing new airports and airstrips that offer connectivity to major airports.</p> <p>c) Improve accessibility and connectivity by road to increase their utilization and enable multimodal transport.</p> <p>d) Partner with the private sector in marketing and provision of logistic services for regional airports and airstrips to increase their utilization.</p>	<p>Ministry of Transport, CAA, KCAA, KRB, KURA</p>	Medium and Long-term
3.	Establishment of the transport logistics Monitoring and Evaluation (M&E) Framework	<p>a) Ministry of Transport, Ministry of Trade establish M&E framework with prioritized list of indicators to be measured, availability and source of data for transport and value chains</p> <p>b) Involve private sector and relevant partners in establishment of transport and value chains performance indicators</p> <p>c) Initially, utilize existing information systems for KRA, KEBS, KRC, KPA, KRC, and Kentrade for source of digitized data.</p> <p>d) Upgrade systems and consider other sources for digitized data where necessary</p> <p>e) Undertake stakeholders training and awareness on M&E</p>	<p>Ministry of Transport, Ministry of Trade, Ministry of EAC,</p> <p>KRA, KEBS, KRC, KPA, KRC, and Kentrade,</p> <p>SCEA, KIFWA, KTA, KEPSA, NCTTCA, UNCTAD & UNECA and Development Partners</p>	Medium and Long-term

No	Policy Action	Implementation Measure	Institution Responsible	Time Frame
4.	Establishment of logistics transport hub	<p>The hub will incorporate the various logistics institutions and aspects such as intermodal terminals and depots, cargo distribution and consolidation centers, finance and insurance institutions, warehousing services for perishables, transit and transshipments, value addition services (e.g. repackaging and rebranding).</p> <p>a) The Ministry of Transport, Ministry of Trade need to establish clear policies and partnerships with the private sector to identify and develop selected locations as transport and logic hubs for global value chains and regional value chains.</p> <p>b) Follow with government agencies to provide requisite infrastructure and services</p> <p>c) Private sector partnership in provision and operation of the value chains transport and logistic services</p>	Ministry of Trade, Ministry of Transport, Private sector	Medium and Long-term
5.	Improve the facilities at the ports and ICDS for RVCs and GVCs	<p>a) Focus on improving port capacity and productivity at Mombasa port and ICDS by increasing facilities, improve operations to reduce vessel waiting time, vessel shut-out, dwell time and storage</p>	KPA, Ministry of Transport	Medium and Long-term
6.	Tackling congestion and Improve services at the cross-border points	<p>a) Increase personnel for cargo clearance services from various border departments: immigration, customs, bureaus of standards, health (for COVID-19 testing, certification and clearance) to reduce delays at the border points.</p> <p>b) Increase infrastructural facilities such as parking areas and information systems for sharing and data collection.</p> <p>c) Expand and improve access roads to the border points to ease congestion</p> <p>d) Improve the security systems at the border points to facilitate a 24-hour cargo operation</p> <p>e) Identify and merge transport and logistics government agencies that have similar roles to mitigate duplication of duties, reduce corruption, streamline public entities and achieve cargo facilitation rather than intervention</p> <p>f) Establish a system for regular collection of performance data for monitoring and evaluation of cross-border performance. System to draw information from existing border systems. Identify Kentrade as lead agency for data collection and sharing</p>	<p>KRA, KEBS, Ministry of Health, KENHA,</p> <p>KRA, Kentrade,</p> <p>Ministry of Trade, Ministry of Transport</p>	Short term and Medium Term
7.	Pricing and marketing gaps along the value chain	<p>a) Establish the role of intermediaries along the value chain as well as licensed associations to act as interveners to connect farmers to the market, help coordinate transport logistics, pricing and marketing of goods along the value chain.</p> <p>b) Reforms on tax regimes impacting on commodities process and transportation costs e.g. tea for farmers to determine their pricing and marketing.</p>	Ministry of Trade	Short term
8	Covid-19 preparedness and response	<p>a) Reduce physical verification of cargo by investing on automatic verification and security systems at all cargo release points</p> <p>b) Adopt paperless transactions to improve efficiency, reduce interaction, reduce rent-seeking and comply with COVID-19 prevention measures.</p> <p>c) Streamline COVID-19 stimulus packages to target each sector of the transport system to facility trade</p> <p>d) Invite the private sector and development partners to provide COVID-19 response services where funds are limited.</p> <p>e) Increase regional COVID-19 capacity testing, vaccination and certification.</p>	<p>Ministry of Health, Ministry of Trade, Ministry of Transport, Ministry of EAC (and relevant government agencies in transport, trade and logistics), private sector, Development Partners (e.g. TMEA, USAID)</p>	Short-term

No	Policy Action	Implementation Measure	Institution Responsible	Time Frame
9.	Promotion of Information Technology	<ul style="list-style-type: none"> a) Improve the stability of border posts systems to avoid downtimes and slow processing. b) Adopt integration of border information systems for efficiency in transport services delivery and cargo clearance. c) Introducing the Cloud Transport System, which can provide users with value-added smart and green trip plan services according to a multi-modal transport connectivity. d) Establish and use ICT systems for regular collection of data for monitoring and evaluation of cross-border performance. e) Digitalization of logistics processes that promote adherence to COVID-19 preventive measures 	KRA, KEBS, Ken-trade, Immigration, Ministry of ICT, ICT Authority, Ministry of Trade, Ministry of Transport, Ministry of Health, UNCTAD & UNECA and Development Partners	Short, Medium and Long-term
10.	Environmental sustainability	<p>Promotion of de-carbonization policies such as</p> <ul style="list-style-type: none"> a) Establish a modal shift policy from road to rail through measures taken to address cost, efficiency and policies that would enable rail to ride on the economies of scale b) Ensures environmental aspects are adequately accommodated and monitored in project planning, execution, and management for transport infrastructures and operations. c) Raising awareness of the importance of environmental sustainability throughout the society d) Support long-run energy-efficient systems for the transport and logistics companies e.g. investing in efficient warehouses with low energy consuming lamps, motion sensors and timers. e) Promote use of clean sources of energy i.e. solar, wind, hydro and geothermal power in the transport and logistics sector in RVCs and GVCs. This would cut down operational costs in the long run and promote a clean environment compared to the use of petroleum fuels. f) Adopt the use of energy-efficient logistic systems and reduce standby-time of electronic devices. 	<p>Ministry of Transport, Ministry of Environment, NEMA, NTSA, KENHA, KURA, KRB,</p> <p>KPA, KRC, KCAA, KEBS, private sector (KTA, KEPSA),</p> <p>UNCTAD & UNECA and Development Partners</p>	Short, Medium and Long-term
11.	Training and Capacity Building	<ul style="list-style-type: none"> a) Training skills on the M&E framework b) Refresher and awareness courses on trade and transport regulations and requirements in the regional and global value chains, including International Commercial Terms (INCOTERMS). c) Diplomas and certificates in clearing and forwarding, safety, management and administration to promote efficiency in value chains for transport and trade. d) Enhancing knowledge on COVID-19 preparedness and response tactics along the value chain. e) Training on data collection, management and management tools like TIVA – Input-Output Tables (IOTs) for better policy making 	<p>Ministry of Trade, Ministry of Transport, development partners, private sector (KEPSA, KIFWA, KTA, SCEA, KAM);</p> <p>UNCTAD & UNECA and Development Partners</p>	Medium and Long-term

No	Policy Action	Implementation Measure	Institution Responsible	Time Frame
12.	Meeting Customer needs	<ul style="list-style-type: none"> a) Shift and refocus on policies that are customer driven - a transport system that meets customer or user needs - as a prerequisite for promoting trade, economic development and strengthening regional and global value chains. b) Rehabilitate, extend and upgrade roads that serve the areas of economic activities such as agriculture and offer access to border counties and countries - paramount to reduce transport and operational costs and promote competitive trade. c) Maintain rural feeder roads connecting villages, farming areas and market centers 	Ministry of Transport, KRB, KENHA, KeRRA, KURA, County Governments	Short, Medium and Long-term
13	Ensuring a competitive market through increased infrastructural accessibility	<ul style="list-style-type: none"> a) Expansion and provision of adequate airports infrastructure b) expansion of roads that would link to border countries and support RVC and GVC c) integrate local markets and produce into the international markets 	All stakeholders in the transport and trade sector	Medium and Long-term

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