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COVID-19 impacts and responses on the transport services sector in Ethiopia



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Acronyms

AfCFTA	African Continental Free Trade Area					
COVID-19	Coronavirus disease 2019					
DPFZA	Djibouti Ports and Free Zones Authority					
EAC	East African Community					
ECAA	Ethiopian Civil Aviation Authority					
ECLS	Ethiopian Cargo and Logistics Services					
EDR	Ethio-Djibouti Railway					
EFFSAA	Ethiopia Freight Forwarders and Shipping Agents Associations					
EMAA	Ethiopian Maritime Affairs Authority					
ERC	Ethiopian Railways Corporation					
ESLLSE	Ethiopian Shipping Lines and Logistics Service Enterprise					
ETB	Ethiopian Birr					
FDRE	Federal Democratic Republic of Ethiopia					
FTA	Federal Transport Authority					
GDP	Gross domestic product					
GVC	Global value chain					
IMF	International Monetary Fund					
JCC	Job Creation Commission					
MFIs	Micro financial institutions					
MoFEC	Ethiopia's Ministry of Finance and Economic Cooperation					
МоН	Ethiopia's Ministry of Health					
МоТ	Ethiopia's Ministry of Transport					
ΜοΤΙ	Ethiopia's Ministry of Trade and Industry					
NBE	National Bank of Ethiopia					
REC	Regional Economic Community					
SDG	Sustainable Development Goal					
SME	Small- and medium-sized enterprises					
SOE	State-owned enterprise					
UNCTAD	United Nations Conference on Trade and Development					
UNECA	United Nations Economic Commission for Africa					
WFP	United Nations World Food Programme					

Abstract

The COVID-19 pandemic has caused significant disruptions in the transportation sector. By the end of the first quarter of 2020, the crisis brought transport to an abrupt halt and significantly impacted the industry. For many enterprises, the transportation sector is a major source of employment, fare revenue, and foreign exchange earnings. Without this vital lifeline, many operators experienced a dramatic contraction in liquidity and a rise in layoffs. This was a result of reduced travel demand and service supply, which exacerbated the vulnerability of transport sector workers, particularly drivers, conductors and agents, and ultimately, heightened the risk of a contraction in real economic activity.

Ethiopia acted promptly to put in place preventive measures to protect its people from the spread of COVID-19 and ensure safe transport operations. However, it is evident that companies and operators are struggling financially, and there is no clear strategy or measures for sector recovery by transport modes and firm size. Responses have mainly focused on short-term measures for safe transport and logistics services, not on medium and long-term opportunities for ensuring sector recovery and enhancing sector outcomes to bring Ethiopia to the heart of the global economy. From overall observations based on information from responding firms, small and medium-sized transport enterprises have suffered the most from the crisis and containment measures. The results of this survey prove that they also have the least access to support provided by the government stimulus schemes. On the other hand, the pandemic has accelerated innovative solutions and the use of digital applications, such as contactless ticket selling/buying.

What is more, the concept of resilience should become enshrined into future Ethiopian transport policy by means of reviewing relevant pieces of legislation and directives. Further, this report puts forward policy recommendations for the Government of Ethiopia to avert the worst effects and facilitate quick recovery in the transport sector ahead. The contributions of the report are highly relevant to assess the impacts of possible, continuous COVID-19 waves or similar shocks.

1. INTRODUCTION

The spread of the coronavirus disease 2019 (COVID-19) has affected major sectors and industries worldwide. Those expected to suffer the most are micro, small and medium-sized enterprises¹. The short-run economic conditions can also have long-lasting impacts, particularly output and productivity growth (World Bank, 2020). While the pandemic is still ongoing, the crisis's actual impact scale has yet to be fully revealed.

Mitigation strategies that helped contain the virus and save lives also triggered the worst recession since the Great Depression - a 5.2% contraction in global gross domestic product (GDP) and an 11% drop-off in global trade volumes (IMF, 2020). The International Monetary Fund (IMF) further indicated that the cumulative output loss to the global economy across 2020 and 2021 from the crisis will exceed US \$12 trillion, greater than Japan and Germany's economies combined. This has underscored countries' spatial interconnectedness and the importance of resilient global value chains (GVCs), seamless transport connectivity, and trading system in cases of emergency relief and disaster response (e.g., in times such as COVID-19 and beyond to shorten recovery times).

Due to the pandemic, almost all countries have put in place restrictions of some kind², and no industry has escaped disruption and diversion. Among several sectors, those involving physical contact have been severely affected; the services sector has been the most impacted. While direct contact can sometimes be substituted by remote or online supply, this is not necessarily the case in all service sectors or countries. Notably, COVID-19 hit the service subsector, where transport industry plays a vital role as an input supplier to the other. For instance, the transport services sector has been suspended with exceptions for essential goods. Preserving transport services and trade connectivity is indispensable for the response to the pandemic and subsequent recovery efforts, as rooted in the 2030 Agenda for Sustainable Development Goals (SDGs) and African Union's Agenda 2063 for building resilience to future pandemics and economic shocks.

Mobility restrictions in response to COVID-19 have resulted in drastic changes in travel behaviors and transport services utilization. As a result, trade in certain modes have experienced severe downturns, particularly in aviation, maritime and land transportation, which all heavily rely on inperson interaction, and have experienced severe repercussions and contraction on trade in transport services, especially travel for leisure and transport. In the latter case, given the role transport services play in facilitating supply chain solutions and trade in goods, mobility restrictions have serious problems for many other economic activities that depend on the use of the transport services sector. Accordingly, operational constraints are expected to lead to delivery delays, congestion, higher freight rates, and plugged passenger load factor (PLF); consequently, these constraints impacted competitiveness, economic growth and jobs' reallocation.

There are large heterogeneities across sectors. The regional and local impact of the crisis has also been highly asymmetric. In particular, the economic impact differs across the subregions and countries, based on a region's exposure to tradable sectors, GVC participation, priority lane/trade route maps, guaranteed programmes to ensure supply chain continuity, and type of specialization (e.g., tradein services, such as air transport and tourism, and commodity trade, such as coffee, oil, tea, flora etc.).

To date, the number of confirmed cases of COVID-19 has been relatively low on the continent when compared to other regions. However, the relatively low number of reported cases doesn't necessarily mean that Africa will escape the worst of COVID-19. Mostly, African governments have responded to the crisis by adopting a wide range of measures, with targeted action to cope with the health emergency and its economic impact. Although the policy responses in the initial months of the outbreak appeared to be fragmented and lacked coherence, sub-Saharan African (SSA) countries have shown gradual convergence toward simplifying transport and trade facilitation procedures (AUDA-NEPAD, 2020). While these measures have helped the countries secure essential goods and services, at the same time, some of them have also raised stringent protection measures at points of entry for limiting virus exposure. The typical assortment of government agencies operating on both sides of the same border doubles the bureaucracy at border posts, and results in significant congestion and delay³.

Simultaneously, the COVID-19 crisis has affected Ethiopia through its participation in several value chains – for example, coffee and cut flowers. In both cases, disruptions to the main trading markets have affected prices and volumes traded. Notwithstanding, Addis Ababa Bole International Airport is a travel hub for the continent and a focal point for the Ethiopian economy; the global fall in travel affects its service and limits the supply to other industries. On March 13, 2020, Ethiopia recorded its first case of the novel virus.

Deloitte Insights (2020). Economic impact of the COVID-19 pandemic on East African economies: Summary of government intervention measures and Deloitte Insights. May 2020
 More than 110 countries have stopped incoming travelers, while others only banned travel from areas with a high number of infections (European Central Bank, 2020)

^{3.} It is estimated that the existing cumbersome procedures in customs processing can cost a consignment about US \$185 for each day of delay (AUDA-NEPAD, 2020).

Since then, the number has increased at steady pace 4. Therefore, in order to curb the spread of virus, the government ensured a coherent and bold response by maximizing coordination among public agencies at different levels5. The impacts across the country have been wide-ranging and serious, with the potential to become severe. The severity depends on the combination of the pandemic's trajectory and the effects of countermeasures.

The pandemic is also likely to undermine poverty eradication efforts6. It has never been more critical to address the transport services networks' key elements to keep transmission rates low and livelihoods afloat. Therefore, the crisis highlights the need for urgent policy action to cushion the pandemic's implications on the Ethiopian economy and set the stage for a lasting economic recovery on a more inclusive path. In this context, special attention is placed in the report on taking stock of the impacts of COVID-19 on the transport services sector in Ethiopia, and identify challenges faced and responses made by business enterprises (either privately or publicly owned) on the one hand and policymakers at various levels of government/other stakeholders, such as development partners, on the other hand. Section 2 discusses the impacts of COVID-19 on the transport services sector; Section 3 discusses the transport sector-specific measures; and Section 4 concludes by offering a glimpse of recovery measures to be explored by businesses and government bodies, with recommended actions across the transport chain to cope with the disruption and maintain business continuity, while at the same time, protecting workers and ensuring timely delivery of essential goods and services during the crisis. The report concludes with policy implications and actionable recommendations.

2. COVID-19 Impacts on the Transportation Services Sector

2.1. Methodology

The study's approach is drawn on detailed quantitative sampling, as well as an in-depth qualitative analysis of the sub-components of the transport services sector through interviews, remote data collection, including interactive voice response, on-line and self-administered questionnaire, transport business enterprises site visits (e.g., dry port, cargo/ bus terminals, railways, operators, conductors/ dispatchers) and data collected on a bundle of indicators related to freight/passenger transport services (e.g., freight forwarding and containerisation of goods, cargo consolidation, port calls, sales, capacity utilization, etc.).

The data are collected through the impact surveys, using a representative sample of 86 business enterprises, both from state-owned and private companies, in each participating transport mode (at least N = 100 per transport associations/operators). At the heart of this survey is a jointly developed questionnaire, which was distributed to over 100 respondents. The survey addresses several types of transport businesses, operators, regulators (e.g. small, medium, large, and state-owned enterprises (SOEs)). The themes covered included impacts and related business challenges on the transportation services sector, performance, business outlook, recovery/responses, and support schemes for policy measures. The responses from the private sector were complemented by public sector responses from 9-line ministries, elaborating on measures taken during the COVID-19 crisis to support economic recovery efforts.

Moreover, the survey addressed different topics and elements (e.g. demographics, revenue/turnover, demand on services, employment, reduction in investment, capacity utilization, use of digital services/innovative solutions, the African Continental Free Trade Area (AfCFTA), relief measures, job losses, regional dimensions of the impacts), and target's coronavirus subsector response, supply shortage implications and potential risks of market distortions, business opportunities, and collaboration, and measures to be explored by enterprises. Limitations of this survey include the real-time data restrictions due to limited access to transport volumes for different modes and firm-size. The survey discussed differences in the impact of the pandemic across transport firms of different sizes, but also how government and development assistance agencies can support them best in the Ethiopian context. The business survey assessment has generated key findings and identified some lessons and best practices that could be leveraged to develop targeted-measures, guidance and tools, with a view to greater transport chain resilience and preparedness in the face of shocks and disruptions.

Of the 86 respondents, 27% were chief executives or managing directors with diverse qualifications from aviation, railway, road, and maritime subsectors; 13% were operation managers and 19 % were transport dispatch directors. In the other category, there were more government officials, sector and corporate experts. The respondents were mostly senior personnel that fully and accurately recognize the challenges faced by enterprises. They also understand the measures taken by the companies, and are well-aware of government policies. (See Figure 1 for more information on the survey).

2.2. Transportation Services Industry Insights

Companies in this industry are primarily engaged in providing transportation services, including transportation of passengers and freight, support activities to transportation-related services under a universal service obligation (logistics and customs), and air, surface, or combined mode. Major industries within the Ethiopian transportation services sector include airlines, trucking, railroad, waterborne transportation, facilitation, transit and ground passenger transportations, as depicted in Table 1 below.

Strengthening the capacity of Ethiopia to anticipate and recover from disruptions affecting its economy is crucial. This requires a good understanding of how COVID-19 impacted each sub-sector, including the challenges faced and the measures that were adopted by different stakeholders. Therefore, COVID-19 impacts on the transport services industry can be categorized according to the types of stakeholders and enterprise size in the country. The strongest predictor of variation in impact across operators is in fact the combination of country-sector-mode where they operate; in other words, market conditions.

Enterprise size Stakeholders	Micro (1-10)	Small (11-50)	Medium (51-250)	Large (>250)
Transport Operators				Trucks and Public bus owners', Light Rail Transit, Ethiopian Airlines, and Cargo Logistics Services
Transport Users				Customers (passengers, traders and agents)
Transport Regulators				FTA; EMAA; MoT; ERC; DPFZA; ECAA
Border Agencies				Immigration & Nationality Affairs; Federal & Regional Police Commission; One- Stop Border Post (OSBP)
Customs Agents	Brokers; customs clearing agents			
Freight Forwarders/ Shipping Agents		Ethiopia Freight Forwarders and EFFSAA; Federation of Road Trans- porters Associations.		
Line Ministries			Ethiopia Jobs Cre- ation Commission	MoFEC; MoTI; NBE
Trade Corridors		Addis Ababa – Djibouti; Gonder- Gedaref; Moyale- Mombasa; Jijiga – Wajaale; Zalambessa - Burre	Port Authorities & Dry Port Manage- ment	

Table 1: Stakeholders mapping vs. Enterprise size analysis

Source: Author's compilation based on consulation

Figure 1: Survey information







Source: Author's from survey

Surveys Coverage Overwiew



Mode-of-Transport Category



Source: Author calculation from survey

2.3. Government of Ethiopia Main Responses and Mitigating Measures

The Government of Ethiopia put in place several mitigating measures to limit the spread of the COVID-19 virus in the country. These measures included:

1. The government announced that schools, sporting events, public gatherings, entertainment spots, and nightclubs would be suspended (e.g., closures and redesign of markets);

2. The formation of a COVID-19 Task Force/ coordination team and established a 24-hours emergency centre to work on – mass public awareness campaigns, such as cell-phone ringtones to remind and create awareness, etc.;

3. All arriving passengers into Ethiopia after March 20, 2020 were subjected to mandatory 14-day quarantines; all land borders were closed and security forces were deployed to halt the movement of people along the borders;

4. The government pardoned 4,000 prisoners in an effort to prevent the coronavirus spread;

5. Ethiopian Airlines suspended flights to more than 80 countries;

6. The government declared a 5-month state of emergency;

7. The government conducted door-to-door mass COVID-19 screenings across Addis Ababa in a bid to limit the spread of the virus (e.g., isolation of towns/ centres with COVID-19 cases and confinement of sub-city populations);

8. The Ethiopian Government pledged to buy life insurance for health professionals in direct contact with COVID-19 patient; and

9. The Central Bank provided 15 billion ETB (0.45% of the GDP) of additional liquidity to private banks to facilitate debt restructuring and prevent bankruptcies.

2.4. Companies' Main Responses and Mitigating Measures

In alignment with the Ethiopian Government's preventive measures to contain the spread of COVID-19, companies also introduced a wide array of measures to support their businesses and employees, including:

1. COVID-19 Insurance Package (e.g., Sheba Comfort Cover by Ethiopian Airlines);

2. Transport authorities set-up hand-washing basins at bus stations and office entrances, and initiated digitizing transport related payment services to reduce contact;

3. Public transport disruptions/halted, and freight transport allowed/continued minimally;

4. Social distancing guidelines for passenger vehicles, including rail, buses, taxicab services, and air passenger transport; a number of portable hand-wash basins were placed in the open road at bus/ train station/park and office entrances;

5. COVID-19 restriction measures (distancing, team rotation, health measures and sanitary protocols, such as masks, gel, disinfectant);

6. Telecommuting, change in working hours and decreased number of on-site personnel (e.g., bus operators and freight transport dispatchers);

7. Repurposed underutilized passenger aircrafts in order to increase their cargo capacity, as well as repurposed cross-country buses for city bus services;

8. Reduced seating by 50% by tagging seats;

9. Instituted driver relay system to change drivers at the cross-border (Dewele truck stops with resting facilities); and

10. Provided shuttle services (pick-ups) for the staff and distributed toolkits for the drivers.

2.5. Key Challenges Faced by Companies

Top Challenges

The survey reveals that the main challenges faced by companies were largely the same. However, as the small and medium-sized companies were more severely affected by the epidemic, particularly because of higher levels of vulnerability and lower resilience related to their size, large enterprises faced more serious challenges in terms of reduction in capacity utilization and adopting their model to the crisis. In some instances, the reported average capacity utilization rate of Ethiopian Airlines decreased by 90% in Q1 (2020), relative to the same period in 2019. Just under half of the firms (42%) reported cancelled or reduced orders from their customers due to COVID-19-related disruptions. The top four challenges faced by enterprises in aggregate are:

(1) Difficulties accessing financing; lack of operational cash flow (88%);

(2) Underutilized aircraft fleets/vessels/vehicle and equipment imbalance (71%);

(3) Difficulties accessing inputs/logistics and supply chain disruptions (63%); and

(4) Peak travel patterns and demand for services dropped; hence, reduction of opportunities to meet new customers (47%).

In addition, there are five main complex challenges which many companies now face:

1. One such challenge is how to operate both safely and economically at the same time once COVID-19 restrictions are relaxation. For example, health and safety regulations, and social distancing may make it more difficult to get the same efficiencies from companies. This could have an impact on profit margins, even once the demand recovers.

2. Businesses will need to develop more resilient supply and distribution systems as they place greater value on reliability and redundancy – that may also come at a cost.

3. Some companies are concerned with the existing peace and stability situation in the country. They believe in the critical role that the government has to play as "enablers" in Ethiopia's socioeconomic development; otherwise, a quick economic recovery could be hindered. Equally, the government should engage the private sector in facilitating and stimulating

economic recovery and greater resilience to future outbreaks.

4. New clearance guidelines were issued, with priority given to essential goods (food, medicine, and COVID-19 equipment). However, challenges were encountered, whereby some players in the logistics services did not fully embrace the new guidelines.

5. Several interviewees also mentioned challenges related to drivers harassed and attacked due to rumours that drivers are transmitting COVID-19 across some economic corridors.

Threats on Jobs

- Federal authority has deployed crisis management structures; transport operators and transportation businesses have been required to implement protocols and measures.

- Business continuity has been a key objective for a number of transportation companies as they maintain operations to transport essential goods and other key workers. Non-essential freight practically vanished in April 2020, leaving many trucks scrambling to find cargo. Some operators were able to maintain nominal services, in many cases with reduced schedules and frequencies.

- A significant proportion of micro, small and mediumsized

- enterprises (MSMEs) in the transport services sector came under pressure, even had a crisis lasted one quarter, much less two or more successive quarters. For instance, more than one-third of the companies in the survey reported that they could stay operational for only three months with their current cash flow. Moreover, they reported on average 2.3 jobs lost for the same period: 1 permanent jobs and 1.2 temporary-per enterprise size was at risk.

- Based on the demographics of workers, young people and women in particular were set to be disproportionately affected by virus-related layoffs. Additionally, workers in these categories have lower-than-average earnings. From Table 2, it is possible to infer that as transport businesses lose revenue, unemployment is likely to increase sharply, transforming a supply-side shock to a wider demandside shock for the economy in 2020.

Firm Size	Share of employees affected (%)	Share in employment (%)
1-10	42	30
11-50	20	9
51-250	24	12
250 +	14	49
Total	100	100

Table 2: Threatened Jobs in Different Firms

Source: Author's calculations, based on the JCC Job Outlook and Survey (2020).

2.6. Actual Impacts of COVID-19 on Transport **Services Sector**

The COVID-19 outbreak has brought profound changes and disruptions to business models in nearly every aspect of the transportation sector in Ethiopia. Impacts were extensive, as the industry was seriously interrupted, and new regulations were rapidly introduced. Furthermore, operational constraints led to delivery delays, congestion and higher freight-passenger rates. However, not all segments/

modes and enterprises were impacted equally, and the degree to which each mode of transport and trade lane is affected depended on its particular commodity mix; for example, companies that serve e-commerce saw increased recovery as consumers opted for online shopping, while those that physically serve other subsectors (such as consumer goods) saw a downturn. An example of business models' disruptions to the transport value chain can be seen in the below figure 2.

Figure 2: An example of business models' disruptions to the transport value chain



The following section examines both the immediate impacts of the pandemic and related disruptions on different transport enterprises and modes, with a focus on large, small and medium-sized transportation companies in Ethiopia.

Survey – Impacts on Large Enterprises

Epidemic outbreaks and governmental restrictions that aspired to slow down the spread of the virus lead to impairments for large companies' operations, which impacted transportation networks and related services comprising the aviation, maritime, rail, trucking, logistics, and dry-port enterprises in the country.

Impact on the Aviation Sector

• Pandemic restrictions resulted in a significant decrease in air travel with Ethiopian Airline sales nearly stopping, and cancellations with refunds being requested. By June 2020, airport traffic dropped by 90%.

• A decision was taken in March (2020) to shift from "growth mode to survival mode", leading to the reallocation of capital and resources away from its passenger business.

• Ethiopia's airline industry supports over 1.1 million jobs and contributed 5.4% to Ethiopia's GDP, estimated at about US \$4.2 billion in 2019.

• Ethiopian Airlines reported that they were working at only 10% of their flight capacity and had lost US \$1 billion in the period between January and mid-June 2020. In that same period, the sector experienced a 2.5 million decline in passenger traffic.

• The airline suspended flights to over 80 destinations and placed some of its staff on leave, while also suspending non-essential staff in an attempt to manage costs.

• As the pandemic continues, Ethiopian Airlines continues to count its losses with most of its aircraft grounded. The worsening situation could lead to significant job losses in the sector that supports over 1 million employees.

• The airline is however taking advantage of its large fleet and destination networks to ferry cargo across

the globe, largely relating to medical aid items and some export cargo, as well. Favourable fuel prices have also been important.

Impact on Logistics Companies

• These firms, which are involved in the movement, storage and flow of goods have been directly affected by the COVID-19 pandemic.

• The impact of COVID-19 on the Ethiopian logistics industry has created ripple effects that were felt across every other industry. For example, some Transit and FF companies (with only 40% of their staff operational) have been able to make barely 55% of its forecasted revenue during Q1, 2020.

• In July, 2020, private limited companies (PLCs) were operating with only 30% of their Addis Ababa and Djibouti staff. This forced some importers and exporters to transport goods hundreds of kilometres away or risk millions in lost revenue, as well as severe reputational damage.

• Overall, the uncertainty exerted downward pressure on revenues (28%) and sales (37%). Therefore, companies are struggling to keep employees on their payroll.

• Moreover, these companies are only operating at 20-30% of their capacity, fueling the fear of eventual closures.

• Some effects might not be anticipated and could leave cargo owners and carriers less insured than they imagined. Consequently, these companies' credit metrics are likely to deteriorate, triggering downgrades, as already seen in the subsector.

Impact on Dry-Port⁴

• According to the Study survey and Ethiopian Shipping Lines and Logistics Service Enterprise (ESLLSE), COVID-19 changed the company's shipping portfolio, with some products declining and others experiencing a boost (e.g., essential medical supplies), which increased shipping costs by 25-50%, mainly because of the equipment shortages and the reduction of vessel capacity.

• In contrast, the Modjo Dry Port and Terminal has been the least volatile, and grew marginally despite the pandemic and its related restrictions.

^{4.} Fana Broadcasting, Capital Ethiopia, and Survey

• The Modjo Dry Port and Terminal, Ethiopia's key import-export hub, announced price discounts on transport and dry port services for the duration of the State of Emergency. For instance, a 50% reduction on dry port services.

Impact on Maritime and Port Calls⁵

• Any disruption to global maritime transportation networks could have far-reaching implications for the Ethiopian economy. With the pandemic having spread in a sequenced manner across regions, keeping maritime transport moving and trade flowing has been challenging.

• Cargo ships are operational, but at limited capacity due to congestion at the Port of Djibouti, which has been caused by the extended lockdown in Djibouti affecting operational hours for shipping lines.

• In the first 24 weeks of 2020, ship calls around the globe diminished by 8.7%, down from 1.1 million calls recorded during the first 24 weeks of 2019. Much of the decline occurred in Week 12 of 2020, when COVID-19 was declared a pandemic.

• Notably, following the COVID-19 outbreak, some African countries, including Djibouti, experienced major challenges in forwarding cargoes to Ethiopia, as hinterland connections (i.e., both trucks moving in/out of the port and cross-border crossings) were heavily congested.

• During the first seven months of 2020, Djibouti's ports handled a total container throughput of 498,000 TEUs, down by 4.2%, compared to the corresponding period last year, while bulk cargo volume increased only by 0.6% during the same period to 3.3 million tons.

• This decline, however, varied by ship and cargo type. Moreover, COVID-19 affected not only maritime cargo flows and port calls, but also liner shipping connectivity levels for the Port of Djibouti, which serves as a gateway to Ethiopia.

• Administrative problems due to the different approaches of neighbouring countries occurred, as cooperation between national administrations during the crisis was rather limited at the initial stage of the virus outbreak. Therefore, as the Port of Djibouti is the main route to Ethiopia's import-export cargo, the two countries agreed to cooperate in xampl against the crisis on the basis of mutual interest. • The Port of Djibouti is fully operational with minor delays. However, extended lockdown in Djibouti affecting operational hours for Shipping Lines such as ESLLA and the storage space shortage in Djibouti port adds costs and time to the clearance of containers at the port.

• Despite access constraints imposed due to COVID-19 prevention measures, Berbera Port has remained operational, providing a lifeline for the United Nations World Food Programme in Somalia and Ethiopia and ensuring the delivery of food assistance. The country's main commercial port, Port Sudan is closed for entry and exit for movement of people and non-essential cargo. Some entry points remain open for the movement of humanitarian supplies. The majority of land border crossing points, as well as the seaports, are closed for entry and exit.

Impact on Road Transport Operations

• All land borders have been closed for passengers;

• The long-haul and cross-country trucking sector which carries more than 90% of the country's goods— illustrates the effects of the lockdown on Ethiopian's logistics. Between March 16-September 26, 2020, the volume for long-haul trucking fell below 15% of 2019 levels before recovering to 50% by the end of September and 72% in October 2020.

• Freight Rail access is currently operational. There is a reduced rail transport availability due to a spike in demand;

• Likewise, public transit ridership has tumbled to an all-time low, particularly, passenger transport activity came to a virtual standstill overnight for hundreds of thousands of small- and medium-sized enterprises (SMEs) upon the introduction of strict COVID-19 containment measures.

• There is a truck shortage due to an importation influx of Ethiopian government Cargo such as fertilizers, and wheat starting January. There is a risk of storage and demurrage charges, and a possibility of increased transport rates.

• The decline in trucking volumes will exacerbate pressures on small trucking companies that haven't built up their own shipping customer base.

^{5.} From Source: Djibouti Ports and Free Zones Authority, World Bank, and Survey

• Strict controls apply for truckers at borders with potential quarantine for drivers.

• According to this survey, turnover losses could range from 50% to almost 75% for some of the public transport associations. And with the closure of schools and work-from-home arrangements, 15 transport associations have seen their activity reduced to zero, with the subsequent impacts on their 45,000 employees.

• However, given that the pandemic and its economic impact are still evolving, it is difficult to extrapolate from these initial indications. In addition, it is difficult to disentangle the causes of revenue declines and their respective magnitudes.

Impact on Railway⁶

• Similar to the airline industry, passenger travel by Ethio-Djibouti Railway significantly decreased due to COVID-19 restrictions. The joint venture saw cancellations increase by 20% and bookings decline by 50% in March 2020. However, in 2021 the monthly revenue of EDR recorded a new high, with an increase 71% over the same period the previous year.

• The company suspended passenger service on Addis-Djibouti routes and only kept the most essential lines running freight (e.g., medical supplies, fertilizer and wheat imports).

• This caused a supply/demand imbalance for large freight and trucking companies, as freight coming into the country was greater than the freight leaving Ethiopia.

• The Share Company must reposition their rolling stock/fleets to serve key sectors, which adds costs and lead time to the supply chain. As a result, carrier transportation networks have been disrupted, creating a domino effect on the national supply chain and economic system.

Impact on small- and medium-sized enterprises (SMEs)

• There are several ways that the pandemic affected the transport sector economy, especially SMEs, on both the supply and demand sides, which connects firms to markets by providing various services, including multimodal transportation, freight forwarding, warehousing, and inventory management.

• Survey evidence on the impacts of the COVID-19 crisis on transport SME services revealed severe disruptions and concerns among small transport businesses regarding liquidity position and business survival. For instance, small trucking businesses were severely affected, as they tend to not have any backup recovery plans or intermittent operational plans.

• On the supply side, transport operators experienced a reduction in the supply of labour, as staff were unwell or needed to look after children or other dependents while schools were closed, and the movements of people were restricted.

• Apart from limited urban services, some companies reported activity decrease of at least 80% for intercity and 100% for tourism. More so, a dramatic slowdown in the taxi subsector was also notable –their revenues fell by 80% and a vast majority of their activities ceased, owing to the transport restrictions adopted in the country.

• Measures taken to contain the disease through lockdowns and quarantines lead to further and more severe declines in capacity (e.g., trucks, passenger buses, equipment). Furthermore, supply chains were interrupted, leading to shortages of parts and intermediate inputs.

 On the demand side, a dramatic and sudden loss of demand and revenue for SMEs severely affected their ability to function, and/or caused severe liquidity shortages. Furthermore, customers experienced loss of income, fear of contagion and heightened uncertainty, which in turn, reduced business and consumer confidence in spending more, and travel plummeted to a modern all-time low. These effects were compounded because workers were laid off and companies were not able to pay salaries.

• Generally, SME transport companies were more vulnerable to 'social distancing' than other companies. Whether on the supply-side or market side, businesses have suffered due to predatory pricing.

• Some transport SMEs were particularly vulnerable to the disruption of business networks and supply chains, with connections to larger transport

From China Civil Engineering Construction Corporation; Ethio-Djibouti Railway; and Study survey (2020)

operators (e.g., Multinational Enterprises, such as Ethiopian Airlines, the Ethio-Djibouti Railway (EDR), and outsourced many business services critical to their performance.

• Over the longer term, it may be difficult for many SMEs to re-build connections with former networks once supply chains were disrupted and former partners have established new alliances and business contracts.

• Specific examples already happening include a reduction in coffee exports curtailed because of major European Union market closures, which impacted competitiveness, economic outlook, and job creation.

The ongoing survey shows that restrictions have led to significant impacts on business operations, increased the cost of internal trade and altered the demand for certain commodities and transport services. Furthermore, the changes to the international context yielded a lower demand for Ethiopia's top export commodities and services (fruits, flowers, oilseeds, textiles, and international aviation).

Implications for Informal Operators

- Although Addis Ababa is expanding governmentfunded transportation systems, it frequently fails to keep up with the demands of growing populations and urbanization.

- Ridership on urban mass transport has fallen sharply during the pandemic, yet privately-owned informal transit services are providing much-needed mobility where public services are lacking.

- Nevertheless, the business model makes physical distancing almost impossible. While largely out of the government's control, it is difficult for city officials to now turn around and demand strict pandemic-worthy measures.

- In some sub-cities, for instance, hundreds of informal 3-wheelers and minibus operators have defied government attempts to enforce capacity restrictions, complaining that it would make it impossible for them to earn a living. However, forcing these operators and informal networks to suspend or reduce services could put them out of business for good – threatening a vital source of feeder part of the trip and connectivity well into the aftermath of COVID-19.

- As the pandemic progresses, both formal and informal transit will probably continue to face reduced ridership in the future.

- The survey respondents suggest that reducing accessibility is likely to increase unemployment, weaken access to opportunities, fuel social tension and hurt overall urban productivity. Therefore, it could be a good time to consider reorienting the informal network to provide more reliable and increased coverage.

Restrictions of Transit Countries

As a landlocked country, Ethiopia is additionally affected by border-crossing and port restrictions adopted by its neighbouring countries. Restrictions have affected both the traffic of people and cargo. Transit countries have prohibited entrance by land of nationals from other countries in sub-regions, including Djibouti, Kenya and the Sudan. Also, the transport of cargo was allowed marginally, but only through authorized ports, airports and border points, which has delayed the entire transportation supply chain and logistics process.

Above and beyond these restrictions, there has been a significant reduction of calls for container, break-bulk cargo vessels, and freight-trucks order cancellations. When compared to African trends, Ethiopia has been more impacted by hinterland delays, dockworker shortages, truck driver-assistance availability, and poor road networks than its neighbouring countries. There was a 21% increase in reported delays on trucks crossing borders and a 12% increase at the trucks in/out of ports; however, the highest increases in reported delays were in both rail and inland barge/ charge services (30%) due to last-mile connection problems. All these inland transport issues, in addition to ports' restrictions at transit countries, have drastically reduced the connectivity, efficiency, and timeliness of Ethiopia's trade during COVID-19.

Large and SMEs Transport Services Operators

Breaking down key challenges by enterprise size (large vs. SMEs), the top four challenges are similar, but listed in order of importance in their respective segments. The drop in travel demand, mobility patterns, and liquidity constraints present an economic challenge to operators across all modes and business sizes.





Source: Author from survey

A decreased demand for services is a key challenge faced by over 70% of the interviewed large companies whose primary business is transport and related operations; whereas, the most frequently mentioned key challenge for SMEs is the liquidity crisis that will disproportionally affect the survival rates among these enterprises. As the pandemic takes its course, constrained supply chains, slow sales, and reduced margins add even more pressure on earnings and liquidity. Transport businesses have a habit of projecting optimism; however, they now need a strong dose of realism so that they can free up cash. Companies need all available internal forecasting capabilities to stress test their capital requirements on a weekly and monthly basis.

Supply Shortage Implications and Potential Risks of Market Distortions

The confluence of supply and demand shocks in response to COVID-19 has put considerable pressure

on transport operators and agents (see Figure 4). For instance, the decrease in cargo volumes is threatening the business viability of many transport companies. In April 2020 alone, the Ethiopian Shipping Lines and Logistics Service Enterprise (ESLLSE) cancelled more than half of sailings on routes from Asia to Djibouti, and Europe. Likewise, Ethiopian Airlines suspended air traffic to over 110 countries. The pandemic and its restrictions also created a host of operational challenges. Now, protecting the general public's health and maintaining the stability of the economy is a priority. Nevertheless, in the mid to long-term, operator competitiveness and customer require preserving the market and avoiding a mismatch, which would propagate the temporary shock into a lengthy stagnation.



Figure 4: Effect of Covid-19 on transport services, other service sectors and merchandises

Source: Author from survey and UNSTAT (2020)

2.7. Government Support Measures and Financial Needs

Given the complexity of interactions between the impacts and their incidence across all transport subsectors, modes and agents, the results of the survey indicate that companies' feedback about government's assistance is mixed, with nearly two-thirds of the respondents divided between moderately satisfied and dissatisfied, as there is no emergency funds/preparedness to help the transport services sector so far. Consequentially, 80% of the respondents approached the government or private financial institutions individually (see Figure 5).

The others approached local microcredit agencies and/or their families and business partners, as it affords the client a margin of flexibility to cope with this kind of emergency. Figure 5: Recommendations made by transport companies for governments



Source: Author from survey

Figure 6 above shows that the formal banking sector only services medium-size and large firms: This strongly suggests that liquidity provided to the traditional commercial banking sector is unlikely to find its way to micro-small transport enterprises (MSEs). The only option in this regard would be to channel loans through micro financial institutions (MFIs), which are closer to this category of firms and

more familiar with their specific gender and operating conditions and transport services sector. Of all MSEs in the business survey sample that applied for a loan, the rejection rate was relatively high, mostly due to the inability of MSEs to provide a guarantor and/ or collateral. This has important implications for the design of support measures and the ultimate costs related to the sector's quick recovery.



Figure 6: Approaches to Financial Services

Source: Author calculations

Only 13% of the respondents were moderately satisfied with their financial institutions; among those, 87% were dissatisfied with the way to access bank credit (in terms of collateral eligibility and usage criteria, high-interest rate, risk control measures and delays).

Company Performance

• One of the early lessons learned from the COVID-19 pandemic is the importance of maintaining transport connectivity and the cross-border movement of essential goods, such as basic commodities, agricultural products, foodstuffs, and medical supplies (United Nations et. al., 2020).

• In this regard, Ethiopia took strong steps to maintain their freight transport operations in an endeavour to keep the trade channels active, and to ensure uninterrupted distribution of at least the essential goods and medical supplies.

• During the outbreak of the pandemic, transport companies managed very minimal operations and revenues, as well as offering some job protection, which was attributed to the government's prohibition of laying off workers and terminating employment permanently, which was introduced as part of a state of emergency to stop the spread of the virus.

Outlook

• The outlook is especially sobering for the most vulnerable transport companies. In particular, small and medium-sized transport operators experienced financial distress and a severe decline in demand; for example, freight forwarders, shipping agents, airport/ dockworkers and drivers came under severe financial stress brought on by the lockdown measures taken to contain the outbreak, but the effects cascaded to all sectors of the Ethiopian economy.

• Due to the pandemic, the nation could lose as many as 2 million jobs, though many transport companies are limiting permanent layoffs; 29% of employees could lose their jobs over the next three to six months. However, employment rates have rebounded quickly, and in December 2020, almost reached pre-pandemic levels in some transport modes.

• Conversely, the business survey results show alarming signs of the widening gender gaps in the transport sector – mainly, limited opportunities for women resulting from the pandemic. Often, women-owned businesses have limited access to credit, savings and experience. Accordingly, women and women-owned transport firms have faced far worse economic consequences compared to men, exacerbating the existing gender gaps (see Figure 7).





Source: Author from survey

• As disruptions in transport supply chains affected production nodes, and capacity utilization reduced/ ceased with the crisis, the perceived outlook finds that while the next 3 months is relatively negative, there will be improvements after 6 to 12 months, with SMEs to stabilize operations. Notwithstanding the recent improvements, some transport firms' outlooks about their business's prospects over the next several months remain subdued – both men and women-owned transport businesses have become pessimistic about how soon they can return to pre-COVID-19 operation levels.

• The crisis has laid bare the vulnerabilities of the transport services sector, and some companies used it as an opportunity to address these vulnerabilities to build future resilience. For instance, Ethiopian Cargo

and Logistics Services (ECLS) played a leading role in transporting critical medical supplies across Africa by both scheduled and charter flights by repurposing 45 passenger jets, reaffirming its solidarity with the rest of the world in the fight against the pandemic.

• Now that Addis Ababa's Bole International Airport has been designated a Humanitarian Air Hub by the United Nation's World Food Programme (see the cargo payload graph Figure 8 below). Apart from the Pharma Wing, the airline is also ready to resume suspended flights, focusing on the well being of customers and staff. Currently, the airline is operating to over 40 destinations for passenger flights and shipping cargo to 70 destinations compared to just 10 at the start of the pandemic.



Figure 8: cargo payload in the years 2018, 2019, 2020, and 2021

Source: Author's calculation based on IATA Statistics (2020).

Note: Cargo payload for the week commencing January 11, 2021, is 25,612,564 in total, and the percentage market share of Ethiopian Airlines is 3.6% compared to other carriers.

Business Opportunities, Collaboration and Digital Transformation

• The potential for technology during the pandemic is vast. While for the majority of transport businesses, COVID-19 represented a major obstacle, operators also considered the pandemic an eye-opener to the untapped potential offered by the automation of simple transport, warehousing, value-added logistics processes, and digitizing back-office operations could present.

• The survey results showed that leaders of the industry are experiencing pressure from their customers, employees, business partners, and competition, including of the emergence of new competitors, to pursue digital transformation. However, certain challenges and bottlenecks have surfaced that are specific to the digitalization.

• Throughout the survey, companies exhibited a very similar understanding of digital transformation. All interviewees emphasized the need for being technology-oriented; notwithstanding multiple obstacles, some players have already taken steps toward developing, implementing and diffusing different technologies which helped them progress in their digital maturity; for example, the most digitally advanced transport service providers, ECLS, undertook a strategic approach to automate the entire cargo business process using the latest technologies and e-tools for data, warehouse management systems and market intelligence.

• For its part, the Ministry of Transport has prepared a 10-year transport sector perspective plan, summariyed in figure 9, with various stakeholders that requires state-of-the-art information and communication technology (ICT) to pave the way to make Ethiopia an African beacon of prosperity.

Figure 9: cargo payload in the years 2018, 2019, 2020, and 2021



• Looking on the bright side, nearly half of the companies have identified steps to reinvent/shift their business models in reaction to the outbreak; consequently, new business opportunities have also emerged with remarkably higher dividends for those companies mainly involved in creating value for different groups of stakeholders, i.e., customers, business partners, employees, and society.

• The pandemic has increased costs for many transportation businesses, while customers have increased their requirements and expectations. In this context, firms that don't implement effective ways and improve operations may not survive this crisis. With a clear objective of growth and operational efficiency practices in their transport modes segment, operational planning exercises on a regular basis and a shift towards new technologies as a means of identifying the most relevant digital-enabled pathways for the industry, including smooth e-payment experience and setting up online platforms, is seen as the top priority.

• Long-term solutions to transport services challenges will need to blend private sector aptitudes to lead the way by deploying relevant technologies and manage resources efficiently with government agencies, including optimal use of both market and funding instruments, as well as of digitalisation. Interestingly, nearly all the leaders of the surveyed companies are planning to move towards innovative solutions and technology deployment through collaboration and partnerships with/between different entities. It's worth noting that this partnership would be most noticeable in SMEs (70%), as they have fewer resources and capacities to innovate on their own, compared with large-sized enterprises. However, the respondents mentioned that the MoT needs to prepare the necessary legal and institutional frameworks related to public private partnership, Joint Ventures and other possible mechanisms so that the private sector could work seamlessly with the Ministry.

2.8. The Regional Dimensions of COVID-19 Impacts

• The impacts of the outbreak In Africa and its regional trading blocks are not yet fully visible in most trade services data, but some timely and leading indicators may already yield clues about the extent of the slowdown.

• The regional and local impact of the crisis is highly heterogeneous, with significant implications for crisis management and policy responses. The medium and long-term impacts will differ across the region's countries, depending on factors, such as exposure to tradable sectors, global/regional value chains, and type of specialization – 47xample.g., trade in services, such as air transport; commodity trade, such as coffee; cut-flowers; oils; and others.

• The major regional economic communities acted swiftly in response to the outbreak and adopted guidelines for coordinated measures in their respective regions. There are, of course, broad similarities between the recommended actions in the various communities, as summarized in Table 3 below, and salient features of these actions are highlighted under each community.

	Re	Regional Economic Communities				
Area of Policy Action	EAC	COMESA	SADC	ECCAS	ECOWAS	Total Score
1. Closure or near closure of all international borders to passenger transport (air, sea, land, inland water)		\checkmark				5
2. Keeping all borders open to cargo transport and fa- cilitating the movement of goods and services				V	\checkmark	5
3. Designation of relevant internal border- crossing points on international and regional routes						n/a
4. Preparation, approval or revision of regional guide- lines to ease cross-border trade and transport oper- ations		\checkmark	V			3
5. Harmonization and grad- ual reopening of land, air and sea borders to restore cross- border trade						4
6. Establishment of regional or sectoral coordination committee and establish- ment of a joint task force		\checkmark				3
7. Ensuring the right of transit and improved transit terms for landlocked and island countries			V			3

Table 3: cargo payload in the years 2018, 2019, 2020, and 2021

Source: (ECA, 2021) Impact of COVID-19 on Transport and Trade in Africa, Economic Commission for Africa

• Cross-border movement is one of the essential services that needs to be sustained and facilitated during the pandemic to ensure the timely delivery of essential supplies and commodities in member countries.

More than 80% of imported and exported goods in most sub-regions are transported via the road

network. However, COVID-19-related lockdowns and the associated public health measures resulted in significant delays in the movement of cargo vehicles, and subsequently, in the delivery of essential supplies to the point of delivery and use. Similar trends were also observed in other African ports, as shown in Table 4

Table 4: Impact of Covid-19 in the delivery of essential supplies to the point of delivery and use in African ports

	Shipping	Services	Weekly P	ort Calls	Ship Opera		Max	TEU	Deplo Capa		Direct	Calls
	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2
Tanger Med	18,9%	0%	18,3%	-0,5%	-7,1%	-7,1%	15,5%	23,7%	27,8%	19,1%	6,1%	-4,2%
Durban	0%	-5,0%	0,0%	-6,2%	7,1%	7,1%	2,1%	14,5%	-6,6%	-2,8%	-1,3%	-2,5%
Lagos	-12,5%	0%	11,9%	33,9%	0%	28,6%	25,1%	32,4%	50,8%	113%	2,4%	14,3%
Mombasa	-11,8%	-12,5%	-12,4%	-11,0%	0%	-7,1%	-42,3%	0%	-6,0%	-6,8%	-14,9%	-13,0%

Source: Author's calculation based on data provided by MDS Transmodal, 2020. https://www.mdst.co.uk/

• For example, container dwell time hovered between 80 and 90 hours for most of the months until a major spike in October, when it reached 120 hours; it then declined in December 2019 to 102 hours; in January 2020 to 107 hours; and in February 2020 to 92 hours, but remained above the target of 72 hours.

AfCFTA and Resilience in the Transport Businesses Sector

There is optimism that the outbreak presents game-changing opportunities to transform Africa's

economy and boost prosperity on the back of the AfCFTA. The survey respondents recognized that the AfCFTA presents opportunities for African countries to build back better and cushion the effects of the pandemic. In the longer-term, the pact will increase the continent's resilience to future shocks. In terms of the transport services sector, it will have a geometric effect, as depicted in Figure 10.

Figure 10: the promise of the African Continental Free Trade Area (AfCFTA) in the Transport Sector



Source: Author's elaboration based on the survey.

3. Transport Sector-Specific Measures

3.1. Transport Businesses response measures

Public passenger services across the country have continued to operate while ensuring the safety of drivers and passengers, albeit with reduced operating schedules. Increased the cleaning of commonly touched surfaces in vehicles. Repurposed long-distance buses for public transit

Uptake of e-commerce and digital solutions – cognizant of the social distancing, work from home order, and other measures that require a reduction of physical contact between individuals, a number of cab/taxi enterprises have increased online service provisions through ride hailing platforms.

Ethiopian Airlines temporarily closed all of their ticket offices in Ethiopia effective March 30, 2020 and made all the necessary preparations to deliver services (via Ethiopian Mobile App, their website, Chabot, e-mail, social media, and their contact center) with enhanced flexibility, choice and value.

In response to the current situation, Ethiopian Cargo has extended its reach to 74 destinations globally and caters to charter flight needs anywhere in the world boundlessly, transporting needed medical supplies in the ongoing fight against COVID-19.

The Djibouti Ports and Free Zones Authority (DPFZA) introduced an online payment gateway facility for the port community. Only commercial traffic to/from Ethiopia was allowed through the Galafi border. Identifying qualified employees (i.e., operational staff/assistance) who could be used as back-up drivers, if required; introducing rear-door boarding to reduce contact between passengers and drivers; and only allowing a maximum of 50% passenger capacity to avoid close human contact. Ensure the availability of face masks to staff.

To minimize heavy transport queues, which have become common everywhere due to restrictions put in place to limit impacts of COVID-19, Addis Ababa's City Administration rented 479 cross-country buses from private owners for 63 million ETB to relieve the public transportation shortage in the city.

While 90% of its passenger fleet remains grounded, an earlier decision to repurpose and switch to transporting cargo helped Ethiopian Airlines avert financial ruin by maintaining half of its income; and has also generated income through repatriation flights and aircraft maintenance services.

Ethiopian Airlines unveiled COVID-19 Global Insurance Cover, which includes repatriation, evacuation and overseas medical costs (up to €100,000). The Sheba Comfort insurance scheme is valid for 90 days for round trips and 31 days for one-way trips.

Ethiopian Customs Commission facilitated the continuity of business by implementing e-documents and e-payments, pre-arrival clearance procedures, and exempted some required documents, such as certificates of origin.

Ethiopian Shipping and Logistics Services Enterprise (ESLSE), and Ethio-Djibouti Railway (EDR) announced price discounts on transport and dry port services. Despite the adverse impacts of the pandemic that hit the marine industry globally, the enterprise registered a remarkable performance, earning a profit of 2.5

In response to the concerns posed by COVID-19, terminal operators temporarily closed some bus station facilities. Cross-country buses continue to operate service to and from these stations, but operate as passenger pick-up and drop-off locations (bus stops only).

3.2. Government Intervention – Transport Based Measures

The government has put in place several policies and responses in combating the COVID-19 pandemic.

Public passenger services across the country have continued to operate while ensuring the safety of drivers and passengers, albeit with reduced operating schedules. Increased the cleaning of commonly touched surfaces in vehicles. Repurposed long-distance buses for public transit

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In response to the concerns posed by COVID-19, terminal operators temporarily closed some bus station facilities. Cross-country buses continue to operate service to and from these stations, but operate as passenger pick-up and drop-off locations (bus stops only). The Ethiopian Government strengthened its preparedness and response efforts to combat COVID-19 and has set up a well-organized national preparedness and response coordination mechanism through an Emergency Operation Center. At the Moyale border with Kenya, passenger transport is not permitted; cargo trucks are also not allowed. Transhipment therefore continues to be done at the respective destination country's yard, i.e., for Ethiopian consignments, Kenyan trucks are offloading at the Ethiopian yard and vice versa, for those holding a valid negative COVID-19 certificate. Drivers must undergo quarantine upon entering Kenya.

Major restrictions apply at the border with Sudan and South Sudan. The route from Gadarif to Galabat is operating as normal; however, the Galabat border bridge is closed from both sides, with exemptions granted for cargo and fuel tanks from South Sudan. Strict controls for truck drivers at the borders apply, with potential quarantine for affected drivers. Galabat bridge can be operated for humanitarian cargo, following the obtaining of clearance and approval from the Sudanese and Ethiopian Governments.

The Ministry of Revenues (MoR) to expedite VAT returns to support companies with cash flows.

The government allowed business repurposing schemes; public buses are availed free of charge to help control crowding in public transport, and private transporters were asked to follow suit.

Transit services are cleaning all vehicles daily and disinfecting commonly touched surfaces multiple times a day, i.e., transit buses being disinfected with chemical solutions.

Source: Author Compilations from different FDRE measures Datasets"

In order to help struggling businesses repay their loans, the National Bank of Ethiopia (NBE) injected 15 billion ETB in liquidity into the banking sector on March 27, 2020 and was meant to provide debt relief to businesses, help reschedule debt repayments, and reduce interest rates.

To help curb the spread of COVID, transport authorities/bureaus have set up hand-washing basins at bus stations. A number of portable basins have been placed on the open road at bus parks, and residents have been seen making use of them. There has also been regular cleaning and sanitation of the bus stops and terminals.

Regional guidelines were prepared, approved and revised to ease cross-border trade and transport operations; have tried to ensure the right of transit; improved transit terms for Ethiopian transporters; designated safe and secure parking facilities with training (with the help of WFP, MoT and FTA); and designated truck stops and checkpoints. The MoT defined immediate measures to ensure a seamless process and facilitated the movement of personnel, as well as the supply of medical equipment, and essential goods.

3.3. Development Partners

There is a strong partnership among key development partners in Ethiopia's socio-economic sectors, including recent COVID- 19 response efforts.

Under the COVID-19 Fast Track Facility Multiphase Programmatic Approach, the World Bank's International Development Association's (IDA) financing (US \$82.6 million), aims to fill critical gaps in the health sector within the government's national response efforts

Success Stories/Potential Best Practices

1. A joint committee co-chaired by the Ethiopian Deputy Minister of Transport and the President of Djibouti Ports and Free Zones Authority has been set up to ensure that there is no supply chain interruption, eliminate port congestion, and limit the risk of the pandemic spreading. The two countries also established a taskforce to use and equip the Tajura Port with the required facilities to avoid congestion and diversify outlets.

2. To address the numerous challenges resulting from the pandemic and affecting trade and transport logistics in the region, the Northern Corridor and the EAC Secretariat initiated an online platform for key stakeholders to meet and discuss issues related to the Corridor and Trade Facilitation, and associated disruptions. The meetings logistics-related brought together stakeholders from all Northern Corridor Member States, with an aim of sharing experiences and exchange views about challenges and opportunities arising from the pandemic. The platform also provides real-time updates on what is happening in each of the member States, especially at each transit or transport node along the Corridor.

3. Besides trying to tackle border issues, some RECs encouraged its member States to procure essential medical supplies and equipment from one another, rather than trying to import them at an inflated cost.

4. The major regional economic communities acted swiftly in responding to the outbreak and adopted guidelines for coordinated measures in their respective regions. While there were broad similarities among the recommended actions in the various communities, harmonizing border protocols during lockdowns, with restrictions and quarantine measures differing from country to country, was easier said than done. Under the COVID-19 Fast Track Facility Multiphase Programmatic Approach, the World Bank's International Development Association's (IDA) financing (US \$82.6 million), aims to fill critical gaps in the health sector within the government's national response efforts

3.4. Summary and Classification of the Measures to be Explored by Businesses

A classification of all measures according to the main transport mode businesses/beneficiary enterprises and their time horizon according to their planning horizon:

• Short-term measures: immediate measures that should be implemented until the end of 2021 that are aimed at sustaining the transport services industry. It is important to note that some of these might have already been applied. The period during which these measures are necessary will vary depending on the evolution of the crisis in the market and on the recovery pace of every transportation mode in which the enterprise operates.

• Mid/long-term measures: Measures required to recover and sustain the long-term viability of transport businesses, and to create an adequate framework to establish/target the Ministry of Transport's 10-year perspective plan. The goals consist of structural changes that should act as catalysts during the post-crisis recovery stages.

In the short-term, the severity of the crisis requires prompt actions, and any delay in the implementation of various measures, or the inclusion of very restrictive conditions, could lead to the potential collapse of several transportation companies. On the other side, recovery measures implemented in the medium/longterm will allow more restrictiveness, evaluating their long-term sustainability on a case-by-case basis, and focusing efforts on those companies that present feasible and realistic business models could be in a better position for a quick recovery (see Table 5).

Beneficiary enterprises/ transport Short-term measures Mid/Long-term measures mode **Objective of the measures: Objective of the measures:** Support the continuity of the business; guarantee air Create a framework to sustain the long-term viability connectivity of Ethiopian Airlines Measures to explore: Measures to explore: - Support the reduction of operational expenses, - Harmonize regulations Aviation including tax waivers - Grant interim traffic rights - Fully implement the Single African Air Transport Market (SAATM) - A coordinate approach to open borders Relax visa requirements between African countries Economic incentives for traffic recovery - Liberalize airport services - Implement structural measures to reduce exogenous operational expenses **Objective of the measures:** Objective of the measures: Support the continuity of the business; maintain Guarantee the financial sustainability of road transessential mobility for people and the transport of port businesses with improved connectivity critical goods Measures to explore: Measures to explore: - Support the immediate financial needs of small - Leverage innovative forms of mobility transport operators - Activate capabilities of the road transport sector in - Keep transport personnel safe non-traditional areas and ways Road - Relax restrictions on operating trucks - Modernize the governance of the subsector - Keep borders open for freight, with priority lane/ - Improve technologies and the operational frametrade routes/green lanes work - Channel cross-border travel via dedicated entry - Use transport operator data to inform policy repoints sponses - Exempt transport workers, such as truck drivers/sea-- Ensure the short-term financial viability of the farers/crews in international freight transport, from subsector entry prohibitions - Reduce crowding in public transport and pivot to supporting critical functions **Objective of the measures: Objective of the measures:** Prioritize and guarantee the continuity of core port Safeguard the health and safety of the port comactivities and the ports' resilience and ability to conmunity, as well as maintaining port operations and business continuity tinue to move cargo Measures to explore: Measures to explore: - Provide fast-track authorizations for trucks leaving - Prioritize the "essential port activities" to preserve freight transport and logistics chain ports (or arriving) to deliver goods Maritime (ports) - Provide both safe and swift cargo handling and Port terminal operators reorganize their work to nautical services allow for longer shift changeover times - Collaborate with users and stakeholders to ensure a - Establish an additional standby team of workers coordinated response - "Fast lanes" for medical cargo, foodstuff and other - Optimize the use of existing anchorage areas and types of essentials (wheat, fuel, fertilizer handling, examine options for extra temporary anchorage space to accommodate growth in demand etc.) - Clean equipment and operational vehicles (ship-to-- - Coordination of labour, as well as coordination of shore cranes, vans, side and front loaders) gate operations, with truck and rail operations

Table 5: Summary of the measures to be explored by business

	Objective of the measures:	Objective of the measures:		
	Restore confidence in rail travel during and after the pandemic, and business continuity	Ensuring competitiveness in EDR during and post-pandemic		
Rail	Measures to explore: - Direct financial contribution	Measures to explore: - Recover economic losses		
	- Guarantee loans	- Continuation of capacity		
	- Reductions in operating costs for all rail freight un- dertakings	 Introduce smart measures (decreased access charge, future-ready designs, digitalization) 		
	- Improve the quality of rail freight rolling stock	 New routines/technology to mitigate the spread of the virus 		
	Objective of the measures:	Objective of the measures:		
	Facilitate trade and commerce, and help businesses get their products to customers	Stabilize the business amid the crisis, along with lon- ger-term strategic measures to prepare for recovery		
	Measures to explore:	Measures to explore:		
Logistics and re- lated- transport	- Become highly agile and nimble in their operations to respond effectively to rapidly changing market conditions	- Capture more value, expand and build capabilities to handle the entire process for global inbound transport – from departure to destination		
services	- Exempt the movement of cargo through ports, sup- ply chains and the transport of essential commodities from lockdown rules	- Adapt service offerings to current demand and safety protocols		
	- Closer collaboration between government and third-party logistics companies to address supply chain bottlenecks and facilitate clearances	- Digital transformation initiatives for the sector		
	- Alternative modes of transport	- Create resilient supply chains		
	- Identify the most promising trade lanes and markets	- Increased cargo inspections and cross-border control protocols		

3.5. Classification of the Recovery Measures to be Explored by the Federal Government bodies

The Federal Democratic Republic of Ethiopia (FDRE) has played an important role in tackling the crisis caused by the coronavirus pandemic (Table 6). For instance, the government has responded by designating airports, logistics and trucking services as essential -- thereby exempting them from lockdown measures. However, as the government faces unprecedented challenges, the pandemic has uncovered gaps in both government coordination and the use of evidence for policy making, which directly affected the nature and quality of the recovery measures adopted to tackle the crisis and its aftermath in the transport services sector. These challenges have led to numerous quick fixes and agile responses, which will need to be assessed when the worst of the crisis is over.

Moreover, given the rapid pace of developments, an overview of Ethiopia's responses is not comprehensive for the subsector and, in some cases, has included intended policy responses that remain a work in progress, or simply at the stage of public announcement. It is evident from the survey that operators are struggling financially, and respondents are aware of the immediate financial implications on both formal and informal transit operators. However, there is no clear strategy or measures for sector recovery. Responses have mainly focused on shortterm measures for safe transport, not on medium and long-term opportunities for ensuring sector recovery and enhancing sector outcomes. The key challenge ahead is to enable the transport services sector to serve its economic and social role, while ensuring the safety of transport users and enhancing the resilience of transport systems, so they are better prepared to respond to any future pandemics.

Table 6: Recovery measures taken by the Ethiopian Government

Government bodies	Short-term measures	Medium /Long-term measures		
	Objective of the measures:	Objective of the measures:		
	Restore the basic movement of people while containing the spread of the virus, and ensure that transport oper- ators are equipped to recover from the immediate after- math of the financial crisis.	Sustainable transport options while ensuring the financial viability and sustainability of the transportation sector		
	Measures to explore:	Measures to explore:		
	 Immediate financial support to transport companies, with a focus on SME transport operators 	- Consolidate, formalize and structure the infor- mal sector to increase resilience		
	 Provision of equipment, such as mandatory facemasks, cashless payment systems and automated hand sanitiz- ers 	- Improve governance, funding and build capacity		
FDRE – MoT/ FTA/NBE	- Awareness campaigns on the need for physical distanc- ing and sanitary measures	- Setting up specific institutional mechanisms for evidence uptake, and share advice to feed into the decision- making process		
	- Support decision-making bodies and coordination mechanisms to be adapt quickly and ensure that appro- priate capacity for coordination is in place	- Develop measures to ensure effective and coher- ent communication to the public		
	 Restore user confidence in all transport modes, mitigate risks of further social exclusion and ensure minimum public service operations 	- Accelerate innovative solutions and the use of digital applications (e-mobility/e- payments)		
	- Encourage investment in freight transport through fa- cilitation of credit for companies to buy or attract foreign investors to solve trucks shortage	- Support for non-motorized transport (NMT) and active modes (i.e., pedestrianization, bikes)		
		- Support the modal shift from private vehicles to high-capacity transport systems		

3.6. Ethiopian Government and the Transport Businesses Sector: COVID-19 Response framework framework has been developed to summarize the responses of the transport businesses sector to the COVID-19 crisis (see table 7):

- Derived from the survey data, the following

Table 7: Recovery measures taken by the Ethiopian Government

Serial Number	Description	Recommended action	Responsible institutions & Time Framework
1	Mitigate liquidity short- ages and avoid unnec- essary bankruptcies that may arise from the pandemic	Provide access to capital for micro- and small firms through the provision of direct or indirect state support measures (grants/soft loans/debt refinance or postponement of payments) Ensure that funding is rapidly available with little administrative complexity Avoid market distortions, ensure a level playing field between the transport companies that re- ceive support and competitor that do not; As foreign companies are now allowed to engage in local public transport operations, the Ministry should continue preparing equal platforms to bring the attention of private firms.	NBE, MoFEC, MoT,FTA (immediate/short-term)
2	Coordinated approach to open borders and expedite region-wide implementation of the AfCFTA	A more systematic approach for managing border closures and openings, and capacitate the already inaugurated border freight terminals both in Ethio- pia and Djibouti Take the opportunity to boost the harmonization of regulations at a regional level The government and regional state authorities should build upon this momentum to translate these temporary trends and positive side- effects into new and more permanent habits.	MoFA, Ministry of trade, MS, RECs, Corridors Management Institutions (medium to long-term)
3	Leverage the power of digital tools and data systems to fight the con- sequences of COVID-19	Bring additional electronic services to the 30 online services introduced by the MoT;Develop an information-sharing tool among key actors, and mobile phone solutions to facilitate contact tracing and trackability Cashless fare collection, fleet management, e- booking/ticketing platforms Invest in passenger information and vehicle track- ing systems (e-cargo)	Ministry of trade, Ministry of indus- try, Ethio-Telecom, private sectors (medium to long-term)
4	Protect jobs and reduce shocks on vulnerable transport sector work groups (drivers, assis- tance, custom agents, brokers, freight-for- warders, small logistics companies, women operators/conductors in the paratransit system, etc.)	Cover operational costs, such as those related to utilities Provide financial liquidity through freezing loan payments for the next 6-12 months Trade finance (e- commerce, supply chain, LC and PO financing)	JCC, NBE, Development Part- ners, FTA (medium to long-term)
5	Develop institutional frameworks that pro- mote private operators' participation	Corporatize informal operators to professionalize transport operations and boost resilience Re-engineer transit to factor in some of the new normal measures in public/freight transport	Private-Public Transport Enter- prise Associations /FTA/MoT (short to medium-term)
6	Targeted measures to support self-employed women that could support other women in restarting their transport businesses; the MoT should continue its ef- forts to work closely with international/regional organizations, countries, donors & partners	Women should be at the forefront in the govern- ment response-recovery plan to offset the nega- tive effects of pandemic The Ministry should proactively bring resilient and sustainable modes of infrastructure development and transport operation schemes in line with the new 10-year perspective development plan	MoSLA, MoT, MFIs, MoFEC, Development Partners, ERA, FTA, RECs, African Union Commission (medium to long-term)

- Similarly, without targeted government support, the crisis is likely to be regressive. Hence, the government has developed a bounce-back strategy and framework to assist its economy, as illustrated in the Figure 10 below.

Figure 11: A bounce-back strategy and framework to Exit a Lockdown



4. Recommended Actions

Transport firms of all sizes, large and small, have been severely affected. These recommendations are based on the findings of the business survey and on consultations with stakeholders, such the as the MoT, the Ministry of Finance and Economic Cooperation (MoFEC), the Ministry of Trade and Industry (MoTI), the Federal Transport Authority (FTA), the Job Creation Commission (JCC), large/stateowned enterprises (SOEs), SMEs, and commercial and development partners. Table 8 below outlines actions recommended to be undertaken by the government to pull the transport services sector out of the crisis quickly.

From a whole-of-government perspective, it is important to see these recommendation measures in the context of a cascading approach, where the federal government and its agencies can make successive or parallel use of different interacting tools and measures. Accordingly, delivering these requires rapid efforts from key actors to build partnerships and prepare additional policies and relevant strategies and guidelines/standards in places where targeted assistance has been limited in the past response framework.

Although support is needed urgently, a thorough analysis of the costs and benefits of assistance to specific transport modes by which companies-sizeclass approach classification is required. The survey data have shown that the effects are not only directly in the transport network, but have spread across many socio-economic sectors. Yet, the Ethiopian COVID-19 experience provides valuable lessons to other African countries in the sector that could be enhanced with coordinated and timely responses to future disruptions similar to the current pandemic.

Table 8: Matrix of Recommended Actions

Serial Number	Description	Recommended action	Responsible institutions & Time Framework
1	Mitigate liquidity shortages and avoid unnecessary bankruptcies that may arise from the pandemic	Provide access to capital for micro- and small firms through the provision of direct or indirect state support measures (grants/ soft loans/debt refinance or postponement of payments) Ensure that funding is rapidly available with little administrative complexity Avoid market distortions, ensure a level playing field between the transport compa- nies that receive support and competitor that do not; As foreign companies are now allowed to engage in local public transport operations, the Ministry should continue preparing equal platforms to bring the attention of private firms.	NBE, MoFEC, MoT,FTA (immediate/short-term)
2	Coordinated approach to open borders and expedite region-wide implementation of the AfCFTA	A more systematic approach for managing border closures and openings, and capac- itate the already inaugurated border freight terminals both in Ethiopia and Djibouti Take the opportunity to boost the harmoni- zation of regulations at a regional level The government and regional state author- ities should build upon this momentum to translate these temporary trends and posi- tive side- effects into new and more perma- nent habits.	MoFA, Ministry of trade, MS, RECs, Corridors Management Institutions (medium to long- term)
3	Leverage the pow- er of digital tools and data systems to fight the con- sequences of COVID-19	Bring additional electronic services to the 30 online services introduced by the MoT;Develop an informa- tion-sharing tool among key actors, and mobile phone solutions to facili- tate contact tracing and trackability Cashless fare collection, fleet management, e- booking/ticketing platforms Invest in passenger information and vehicle tracking systems (e-cargo)	Ministry of trade, Ministry of industry, Ethio-Telecom, private sectors (medium to long-term)
4	Protect jobs and reduce shocks on vulnerable transport sector work groups (drivers, assistance, custom agents, brokers, freight-forwarders, small logistics companies, wom- en operators/conductors in the paratransit system, etc.)	Cover operational costs, such as those related to utilities Provide financial liquidity through freezing loan payments for the next 6-12 months Trade finance (e- commerce, supply chain, LC and PO financing)	JCC, NBE, Development Partners, FTA (medium to long-term)

5	Develop institutional frame- works that promote private operators' participation	Corporatize informal operators to pro- fessionalize transport operations and boost resilience Re-engineer transit to factor in some of the new normal measures in public/ freight transport	Private-Public Transport Enterprise Associations /FTA/MoT (short to medium-term)
6	Targeted measures to sup- port self-employed women that could support other women in restarting their transport businesses; the MoT should continue its efforts to work closely with international/regional orga- nizations, countries, donors & partners	Women should be at the forefront in the government response-recovery plan to offset the negative effects of pandemic The Ministry should proactively bring resilient and sustainable modes of in- frastructure development and transport operation schemes in line with the new 10-year perspective development plan	MoSLA, MoT, MFIs, MoFEC, De- velopment Partners, ERA, FTA, RECs, African Union Commission (medium to long-term)

Expanded Policy Recommendations

The COVID-19 pandemic has brought about unprecedented challenges for the Ethiopian transport services sector. Mobility-related measures have created significant disruptions in aviation, maritime (indirect) connectivity through seaports in neighboring countries, and inland transportation networks, with severe repercussions on goods and services trade, logistics performance, and supply chains. While the country has been successful in stemming the tide of infection over the last 11 months, the impact has been severe on the transportation services sector; the output from the point of sustainability and the obvious gaps indicate that more measures need to be taken.

The COVID-19 impact on Ethiopia's transport connectivity is multi-dimensional. The foregoing survey clearly indicates that with several impacts and response measures, preserving transport services and trade connectivity is indispensable, not only in the immediate response to the pandemic, but also for subsequent recovery efforts, as the country aspires to be an African beacon of prosperity. In this regard, the key elements for a better recovery towards a stronger, faster and more reliable transport services sector are the right policies, finance, and/or investment plans and potential changes to the usage of transport modes and networks in the country.

To summarize, the following policy recommendations are suggested for mitigating the adverse effects of this situation:

First, widespread and indiscriminate setbacks perpetrated by COVID-19 across the sub-regional transport systems call for an even more resolute approach to regional cooperation. Hence, the responses to the pandemic suggest a greater scope of regional cooperation among the countries in the sub-region, namely, Djibouti, Kenya, Somalia, the Sudan, South Sudan, Ethiopia and Eritrea. Moreover, in the event of a prolonged economic recession, the case for regional cooperation becomes stronger. This cooperation may be helpful not only to reduce overlaps in transport systems and trade facilitation measures, but to also share best practices and offer a springboard for the successful implementation of the AfCFTA. Return to normalcy for transport corridors' operations also requires international cooperation. However, a number of overlapping transport services initiatives correspondingly are underway in the subregion, which need to be synergized for optimal outcomes.

Second, transport operators – particularly SMEs – face very specific and unique problems regarding access to external capital. This is related to their informational opacity and ownership structure. These problems are often compounded by a lack of physical and tangible assets that can be used as collateral against loans. This means that many SMEs are overly reliant on internally generated funds to capitalize on their operations and provide the necessary liquidity to fund their day-to-day operations during a crisis. Therefore, policy measures should be adapted that aim to address urgent short-term liquidity challenges, but also contribute to strengthening the resilience of SMEs in a more structural way and support their further growth, in terms of acquiring new fleet vehicles and digitalization of logistics workflow. Such measures include support for: finding new alternative market routes; digitalisation; innovation; and (re) training of the workforce (drivers, conductors, operators, agents, logistics service providers, etc.). These policies are of particular importance, as SMEs may be less able to adopt such new technologies and methods.

Most of the National Bank of Ethiopia's (NBE) policy instruments used in the COVID-19 response are debt finance through bank loans. However, more direct support, in the form of grants and loan guarantees, should be implemented for transport companies to cushion the impact of economic shocks. Moreover, these intermediary banks should simplify administrative procedures to ease access to loan guarantees. A fast-track measure should be introduced to enable guarantees to be granted immediately, as well as extend the scope and coverage according to the classification of transport modes and enterprise sizes. Supportive government policies that recognize informal transport as a vital part of urban mobility is also needed, particularly by leveraging technology to make informal transit safer and economically viable to provide more reliable and increased services. In this regard, the survey revealed that the awareness-raising and capacity building for small and medium-sized transport operator associations are of great importance, and a comprehensive programme addressing all issues that's adaptable to the needs of these enterprises, is required from the MoT and Development Partners.

Third, as the pandemic recedes, transport-related infrastructure development and investment in transportation equipment are essential to keep up with improving service delivery standards; for instance, in terms of containerized cargo movement enabled with e-sealing, electronic cargo tracking systems and automated custom clearances.

Throughout the study, respondents emphasized the importance of trade and transport digitalization for minimizing physical contact during the pandemic. COVID-19 has accelerated the digitalization of trade, while bringing greater attention to associated challenges and regulatory needs. In recognition of this, the report argues that: (1) further development of digitalization for transport systems, logistics

services and trade procedures are crucial for sustained domestic and regional trade in goods and services; (2) temporary paperless trade and transport facilitation measures should be converted into permanent measures for effective documents and data transactions along the corridors; and (3) capacity building in this area would be particularly important.

Similarly, a cross-border sub-regional protocol would help strengthen the preparedness to fight different waves of the pandemic, or similar disasters, such as potential future locust outbreaks. East African countries have already reintroduced national protocols for trade and transport facilitation. However, these protocols do not cover the cross-border aspects of trade and transport facilitation. It is, therefore, recommended that United Nations Conference on Trade and Development (UNCTAD) designs a regional protocol for the trade and transport facilitation purpose that is applicable for the entire ECA region in emergencies like the current COVID-19 pandemic. This protocol should consider transport and trade-related actions, including facilitation of movement of goods and services, coordinated measures for enhanced controls of public/urban mobility system, inter-modal shifts, and trucks carrying goods and surveillance systems for monitoring the health of transport crew, and enable contact tracing, electronic tracking of goods and vehicles, digital freight corridors, among others. Such a unique initiative, led by UNCTAD and United Nations Economic Commission for Africa (UNECA), could help mitigate the impact of the pandemic on the cross-border transport services arena.

Fourth, while transport is an essential service, an economic downturn as a result of COVID-19 protocols ultimately impacted freight, passenger and logistic companies, as activity in this sector is heavily dependent on the performance of other sectors in the economy. Additionally, the transport sector in Ethiopia is deeply fragmented with a large number of small players that would struggle to survive a long-term economic downturn. This could result in a consolidation of the industry with larger companies that have greater financial resources to weather the storm. In this regard, a private-public mobility partnership seems to be the right way forward. Improve governance, funding and build capacity by designing funding mechanisms to ensure the longterm financial sustainability of transport company operators and affordability for users and leveraging big data to improve transport management efficiency. There are other opportunities, such as innovative application of emerging technologies and support the modal shift and consolidate the informal sector to increase resilience among others.

Nevertheless, digitalisation cannot be an isolated exercise on the part of each chain actor. The full benefit of digitalisation can only be exploited by coordinating the disparate digitalisation efforts of the different players: Regulators, infrastructure managers, logistics service providers, passengers, shippers, transport associations and public authorities – clearly, a systemic view is in order here. Indeed, supporting a coherent Ethiopian digital response to COVID-19, both by applying financial recovery measures and by conditioning, would undoubtedly make the transport system more resilient and efficient for future shocks.

Lack of resources and expertise connected to the use of more advanced technological solutions and equipment could also play a role; this should be taken into account by policymakers within the Federal and regional administration states when defining new policies related to future support measures. It is important to avoid further delays and resolve current inefficiencies caused by government interventions. This will make improving the processes of transport operators and logistics service providers easier, save time and help them to be more competitive in domestic and international markets, making the pandemic recovery faster.

The current crisis is also a good opportunity to accelerate data sharing if properly supported, conditioned and regulated. Among other things, COVID-19 has helped expose some of the shortcomings of existing transport business models and regulatory approaches vis-à-vis mobility, connectivity and widening gender gaps. For instance, the main burden of the pandemic has been on drivers and their assistants, including women, where there has been limited accommodation availability and most roadside facilities have been closed. Needless to say, the preparedness and response plan for COVID-19 has an important role to play with respect to the roll-out of the above countercyclical policies and assistance programmes for small and medium-scale transport operators and companies in particular. Yet, the vast disparity in financial support and institutional means, and the lack thereof in Ethiopia (whose government is facing more pronounced socio-economic risks impacted by hinterland delays), inevitably calls for bolstered international support to avoid an outcome whose inland transport issue costs could be exorbitant. In this aspect, Ethiopia has been working actively with the international community and has obtained loans and funds from regional and international institutions (e.g., the World Bank Group, the International Monetary Fund, the European Union and the United Nations). The focus at this stage should be shifted to promoting sustainable transportation and viable transport business in the post-pandemic era.

To conclude, COVID-19 has caused multi-directional pressures that affect all transport services and chain actors, some with seemingly conflicting interests. At the same time, lessons learned from pandemic policy responses should prepare future policies for resilient recovery of the sector and help align response measures with an ongoing home-grown economic development plan (PDP-10), Sustainable Development Goals (SDGs), and Africa's Agenda 2063 including the AfCFTA. The post-COVID period can be an opportunity to attend to these specific issues mentioned above and ensure they do not solidify as the new status quo.

References

AUDA-NEPAD (2020). COVID-19 in Africa: Alternative to Current Confinement Approaches. African Union Development Agency. Midrand. April. Available at: https://www.nepad.org/publication/covid-19-africaalternative-current-confinement-approaches.

Deloitte Insights (2020). Economic impact of the COVID-19 pandemic on East African economies: Summary of government intervention measures and Deloitte Insights. May 2020

ECA (2021) Impact of COVID-19 on Transport and Trade in Africa, Economic Commission for Africa

European Central Bank (ECB), Economic Bulletin, Issue 4/2020. Available at https://www.ecb.europa. eu/pub/economic-bulletin/focus/2020/html/ecb. ebbox202004_01~d1a38decec.en.html IATA (2020). Impact of COVID-19 on African Aviation. International Air Transport Association. Montreal. July. Available at: https://www.iata.org/en/pressroom/ pr/2020-07-02-01/

IMF (2020). World Economic Outlook Update: A Crisis Like No Other, An Uncertain Recovery. International Monetary Fund. Washington DC. June. Available at: https://www.imf.org/en/Publications/ WEO/Issues/2020/06/24/WEOUpdateJune2020

Northern Corridor Transit and Transport Coordination Authority (2020). Northern Corridor Roadside Stations, Project Information Papers. Mombasa. Available at: www.roadsidestations.org/?page_id=5711.

