

Countries have put in place a range of restrictions on the movement of persons across borders, especially for non-essential purposes, as well as export prohibitions on essential goods and food. There has been a proliferation of measures banning the export of essential medical supplies as well as food, paired with measures to facilitate the import of the same types of product (i.e. value added tax and import duty exemptions).

As the COVID-19 pandemic continues, border measures adjust, deepen and become increasingly complex. Although they serve to protect people, they risk triggering trade bottlenecks, leading to a reduction in trade and in access to essential goods. The risk is particularly significant to LLDCs, as their trade is extremely vulnerable to exogenous shocks. LLDCs rely heavily on overland transport and are deeply affected by border measures enforced by transit countries. The sudden shock of the pandemic has exposed cracks in transit corridors and a general absence of international coordination.

Trade bottlenecks and border closures

A significant and popular measure has been to close borders to passenger traffic. The World Tourism Organization (UNWTO) monitors travel restrictions and facilitation measures. It noted that, for the first time in history, all destinations worldwide in April 2020 had imposed travel restrictions, including the full closure of borders in many destinations (UNWTO, 2020; UNECE, 2021). These restrictions can be broadly classified as follows:

- · total or partial border closures;
- total or partial flight suspensions;



- differentiated border closures (e.g. banning entry from specific countries):
- less restrictive measures

 (e.g. quarantine, self-isolation, visa restrictions).

These border closures often have unintended effects on trade bottlenecks, since many border closures also apply to traders and maritime, road and rail transport workers. Restrictions that directly affect their ability to transport goods is particularly relevant to LLDCs, as their services exports are highly concentrated across both travel receipts (40 per cent) and transport services (37 per cent). The lack of services diversification and dependence on international tourism and transport make LLDCs extremely vulnerable to the measures put in place to counteract the COVID-19 pandemic.

Other border closures and trade bottlenecks more specifically affect goods. The simplest and most common is export restrictions, ↑ Temporary closure of the border between Rwanda and the Democratic Republic of the Congo.

Case study: Border-crossing bottlenecks in Paraguay

At the beginning of 2020, most governments established policies to combat the spread of COVID-19, such as closing borders and adopting new border protocols. In Paraguay, these measures exacerbated existing difficulties with regard to the cost of transport and the time needed at border crossings. The bottlenecks which have formed have caused considerable reductions in trade flows.

The COVID-19 pandemic has made it clear that it is vitally important to reduce the transaction costs associated with export processes through, for example, the digitization of certificates of origin, licences and other procedures. With regard to transit countries, there is room for improvement in customs facilitation and international transit.

Despite the pandemic and measures, exports of primary products (e.g. beef, soya beans) to neighbours, mainly Brazil and Chile, have risen compared to 2019. However, excessive bureaucratic procedures at the border continue to represent a trade bottleneck for the potential and competitiveness of export products.

A major trade bottleneck is the delay in import licence approval for the destination country. For exports which require a licence to enter the destination country, exporters need to send to the client the proforma invoice or the commercial export invoice. Companies can experience delays of between 5 business days for Argentina, 15 business days for the Plurinational State of Bolivia and up to 45 business days for meat exports to Brazil.

Without authorization, the merchandise waits at the border, which generates storage costs for exporters in Paraguay. The situation is particular serious for perishable products, such as meat, since delays and trade bottlenecks can result in the products passing their expiration date while held up at the border and the sale – or even the merchandise – can be lost.



↑ Trucks parked at the border between Argentina and Paraguay.

especially on medical items used in the treatment and prevention of COVID-19. Other essential items and food have also faced export prohibitions due to COVID-19 shortages and shipping delays. Another goods-specific measure in both LLDCs and transit countries is mandatory inspection.

Border measures in LLDCs and transit countries have evolved over the course of the pandemic. Border closures to non-essential traffic and export bans were common first responses. This began to vary, often as countries released comprehensive economic support packages, many of which implemented differentiated border measures in response to the pandemic and to ease trade bottlenecks:

 streamlined procedures for clearance of essential items (even items in transit);

- reduced value added tax and duties on a wide variety of goods (in particular essential items);
- fast-tracking procedures;
- increased customs clearance hours;
- increased checks for identifying counterfeit medical goods.

A broad trend in border measures includes testing and sanitation measures. These include not only testing requirements for traders and tourists but also the provision of specific facilities or even routes to ensure that traders do not come into contact with the local population. Sanitation measures make strict provisions for the condition of equipment and facilities used to transport goods to reduce the risk of transmission at border crossings.

Monitoring the scale of the economic impacts of the pandemic is difficult due to the delay in publishing

International Think Tank for Landlocked Developing Countries

The International Think Tank for LLDCs is a relatively new intergovernmental body created to support LLDCs. It was proposed by the Mongolian government with the support of LLDCs to develop and strengthen LLDC analytical capacities. The think tank was established in 2017 in Ulaanbaatar, Mongolia. It is backed by a multilateral agreement¹ and is open to any LLDC.

The overall goal of the think tank is to use high quality research and advocacy to enhance the capacity of LLDCs to benefit from international trade, improve human development and reduce poverty. The Think Tank pursues activities that will:

- produce research on trade-related topics, transport and transit issues of interest to LLDCs;
- promote cooperation between LLDCs, with a focus on strengthening analytical capacity;
- share information between LLDCs to encourage understanding of common challenges;
- stimulate convergent views and approaches among LLDCs on global economic issues;
- develop partnerships with international organizations and development agencies to raise awareness and to attract support.

In August 2021², the Think Tank in collaboration with UN-OHRLLS, published a report on the impact of COVID-19 and responses in LLDCs, which called for open cross-border transport networks for goods and services, stressing that better transit systems and operations at borders can help LLDCs to build back better and to enhance capacity in dealing with future pandemics and emergencies.

¹ See http://land-locked.org/wp-content/uploads/2013/09/X-19.pdf.

 $^{2 \}quad See \ https://www.un.org/ohrlls/sites/www.un.org.ohrlls/files/impact_of_covid19_and_responses_in_lldcs.pdf.$

macroeconomic indicators, the complexity of untangling impact mechanisms from large scale aggregate data, and the limited data available for LDCs. However, Verschuur et al. (2021) find, for example, a negative relationship between volume of trade and the implementation of COVID-19 school and public transport closures, with the most negative effects being felt by small island developing States (SIDS) and low-income countries.

Challenges caused by trade bottlenecks at borders

According to International Road Transport Union (IRU), revenue decreased by 40 per cent during the 2020 confinement period compared to 2019. This pattern is set to continue with the IRU estimating that global losses for the goods road transport sector will reach US\$ 347 billion in 2021 (IRU, 2021):

- Although this is approximately half of the US\$ 679 billion losses in the sector in 2020, liquidity shortages remain a serious challenge for goods transport operators.
- Mobility services have also been extremely hard hit by the pandemic, particularly international coach and tourism services.
- Revenue losses in the passenger transport industry in 2021 are forecast to climb to US\$ 543 billion, US\$ 43 billion more than in 2020.

Measures introduced worldwide to contain the transmission of COVID-19, which mainly restrict the mobility of people, have significantly affected transport and logistics



services globally from ocean shipping to parcel delivery and led to supply chains disruptions and loss of revenues for transport and logistics operators. According the Shippers Council of Eastern Africa, more than 75 per cent of the transport and logistics businesses in the region have been severely affected (or worse) by the COVID-19 pandemic. In a survey¹ of 20 transport and logistics companies:

- 90 per cent experienced delays leading to increased turnaround time:
- 70 per cent faced more/new clearance procedures;
- 60 per cent experienced system failures;
- 60 per cent faced challenges relating to COVID-19 tests.

The Economic and Social Commission for Asia and the Pacific (ESCAP, 2020a) report that in Asia and the Pacific, transport services "faced export and import declines of 9.6% and 8%, respectively, in the first quarter of 2020, and 25% and ↑ A truck driver has his temperature taken before entering South Africa at the border with Zimbabwe, near Musina. 30.6%, respectively, in the second quarter. This half-year decline in transport service trade for 2020 amounts to a US\$ 25.6 billion reduction in export revenue for regional economies, compared to the first half of 2019."

Given pre-existing trade bottlenecks and dependence on transit countries, LLDCs have been hit harder than countries with access to the sea. There has been a general increase in truck turnaround times between ports and LLDCs. Compounded by the shortage of drivers, the result has been increased transport rates and higher costs (e.g. late return of empty containers lead extra charges).

From the outset of the COVID-19 pandemic, LLDCs responded similarly to other countries, such as declaring states of emergency, curfews and lockdowns in major cities or even country-wide. Most LLDCs have kept borders open for freight transport to ensure the supply of fuel, food and medical supplies, trade bottlenecks have arisen owing to:

- reduced border-crossing points and customs working hours;
- shortage of labour due to social distancing and sanitary measures;
- significant delays in crossing borders.

Tightened tests and checks at borders had the immediate effect of decreased traffic which meant additional costs, customer service failures from, for example, missed pickups and deliveries, and an escalation in transport costs.²

In a report on the Plurinational State of Bolivia and Paraguay, Rivera (2020) notes that: "International inland connectivity was hindered in both countries due to additional costs and time at border-crossing

points, delays with customs and phytosanitary clearances, and limitations on inter-operability with road and rail networks of neighboring countries, specially Argentina and Uruguay."

ESCAP reports on freight transport in the Commonwealth of Independent States (CIS) and notes that Azerbaijan, Kazakhstan and the Kyrgyz Republic experienced a decrease in freight turnover between January to April 2020 (ESCAP, 2020b). In Azerbaijan in 2020, freight turnover declined by almost 20 per cent compared to 2019 (see also Musengele and Kibiru, 2020).

Despite their temporary nature, restrictive border measures taken to contain COVID-19 were mostly introduced by governments without consulting neighbouring countries, at least at the early stage of the pandemic. These measures often lacked clarity and changed rapidly. The United Nations Economic Commission for Europe (UNECE, 2021) notes "the imposing of

→ Railway construction from Poyle to Salakhle in Azerbaijan.



Case study: Does COVID-19 provide an opportunity to realize transit potential for LLDCs in Central Asia?

The Central Asian LLDCs of Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan are strategically located between the two main markets of Europe and East Asia, with China, the European Union, Japan and the Republic of Korea four of the world's top five traders. However, the Central Asian LLDCs have not been able to exploit this huge transit potential, and they all rank poorly in transport connectivity and logistics performance. Despite recent progress, they continue to suffer from inadequate transport infrastructure, high transport costs and inefficient logistics services.

The COVID-19 pandemic has highlighted the connectivity challenges they face, as border closures and additional border controls introduced to deal with COVID-19 has exacerbated the costs and inefficiency of transport operations.

However, the pandemic has given new opportunities to rail carriers. Strict checks, quarantine and the shortage of drivers have slowed down the speed of delivery by road and have opened new perspectives for rail. The cancellation of passenger trains freed capacity for freight trains. The high volatility in rates on air and sea transport meant volumes were redistributed towards land transportation, especially on Asia-Europe routes. Most recent data show that railway became an important logistics channel for ensuring uninterrupted trade between China and Europe, and in particular the delivery of anti-epidemic medicines and other medical supplies.

According to the Ministry of Commerce of China, freight trains between China and Europe increased significantly in 2020: the China Railway Express to Europe ran a total of 10,108 trips carrying 927,000 TEU (20-foot equivalent unit) of containers, increasing 54 per cent year-on-year as of 5 November 2020.

The United Transport and Logistics Company-Eurasian Rail Alliance (UTLC-ERA), a joint stock company of railways from Belarus, Kazakhstan and the Russian Federation, provides container transit services as part of regular container rail transportation between China and Europe through the three countries. Responsible for 90 per cent of all Eurasian transit freight, its volume grew from 333,000 TEU in 2019 up to 546,900 TEU in 2020, with even stronger growth expected in 2021 (volumes had reached 427,700 TEU in the first eight months of 2021).

Central Asian countries, collaborating with transit countries (e.g. China, Russia Federation), have been actively striving to facilitate railway transit and to strengthen their position as a Eurasian land bridge. Improved capacity enables them to take the opportunity emerging in the context of the COVID-19 pandemic.

One such example is the Khorgos Gateway dry port, near the border to China, which was established in 2015. At nearly 130 hectares, it is the largest dry port in Central Asia, and the most important transport and logistics centre of Kazakhstan. It connects the markets of China and Europe, with routes continuing through Central Asia and on to Turkey in the west and the Persian Gulf to the south. Despite the pandemic, cargo flows have been increasing: working around the clock, the dry port handled 200,000 TEU of goods in 2020 and 102,000 TEU in the first six months of 2021. The port is equipped with modern transhipment equipment, the latest automated accounting system for wagons and containers, and provides a full range of services in processing, storage and transhipment of goods crossing the Kazakh-Chinese border, including:

- · receiving and sending trains;
- · reloading cargo to and from cars of different gauge widths;
- reloading trucks;
 performing operations at warehouses and container sites (e.g. loading, sorting, storage, dispatch of goods, storage of dangerous goods and special goods with temperature requirements).

different measures, restrictions and policies by Governments at different moments in time brought to light the absence of international coordination in the inland transport sector of an agreed protocol to be implemented during pandemics."

The lack of international coordination has revealed the vulnerability of international inland transport systems, which means higher risk for LLDCs in emergency situations given their dependence on transit countries. It is when the COVID-19 pandemic unfolded that the international community gradually realized the necessity of coordinated actions to facilitate cross-border transport to ease trade bottlenecks to keep trade flowing smoothly.

Numerous international and regional organizations have issued guidelines providing a framework for harmonized health measures at borders. In Africa, for example, where half of the LLDCs are located, the Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC), the Economic Community of West African States (ECOWAS) and the Southern African Development Community (SADC) have published a set of standardized regulations to facilitate essential trade among their members amid COVID-19 (see ECA, 2020).

Fortunately, the impact of the pandemic has not all been negative. Many LLDCs have taken the

↓ Cargo being processed at Kality Dry Port, Addis Ababa, Ethiopia.



opportunity to adopt trade and transport facilitation measures to ease both bilateral and transit freight transport across borders (see Table 3). The increased use of ICT and accelerated digitalization in transport and logistics is noteworthy, which will improve connectivity in LLDCs in the long term and ease trade bottlenecks. For example, several countries in Centra Asia have piloted new digital solutions in support of cross-border freight operations and invested efforts in raising the level of coordination during the COVID-19 pandemic (see ESCAP, 2020b).

The pandemic has underscored the regulatory role in improving the efficiency of transport and logistics services in both LLDCs and transit countries. The African Development Bank (AfDB) launched the Trade and Transport Facilitation Due Diligence Tool in 2020 to focus on 'soft' infrastructure aspects of transport, such as the harmonization of transport regulations and policies, and One Stop Border Posts.3 The pandemic has also tested transport corridors which are designed to increase LLDCs' connectivity and promote their trade and economic development.

Table 3: Examples of inland transport and logistics facilitation measures adopted by LLDCs to ease trade bottlenecks

	Transport and logistics facilitation measures				
Armenia	Green corridor for cargo of members of the Eurasian Economic Union Separate cargo area allocated across from Georgia and at border-crossing point Verkhniy Lar				
Azerbaijan	Transit corridor for freight vehicles Special priority for the movement of goods required for the treatment of COVID-19				
Bhutan	Contactless customs clearance procedure Fast track clearance for all essential cargo relating to COVID-19				
Botswana	Online processing of declarations and e-payment for cross-border movement of essential goods				
Kazakhstan	Green corridors for road freight movement of medical and socially significant goods				
Kyrgyz Republic	Special permits for trucks were cancelled Green corridor for all freight vehicles that transport medicines and essential goods No fees or penalties for storing cargo on the container site and on the wagon located at Kyrgyz Temir Zholy railway stations				
Rwanda	A 24/7 dry port established near the border to facilitate faster clearance of essential and relief goods Priority and immediate release of relief goods based on pre-clearance mechanisms of essential goods with help of WCO tools and instruments Online services provided in the Rwanda Electronic Single Window, including online payment Engagement with the private stakeholders (e.g. clearing agencies, importers, exporters, warehouse operators) to facilitate clearance of essential goods				
Uzbekistan	Operational headquarter set up to ensure expedited passage of goods Uninterrupted customs clearance Expedited customs clearance of imported food products by issuing permits before arrival Software developed for processing and providing preliminary electronic information to customs authorities on goods transported by rail				
Zambia	One Stop Border Posts established to guarantee the smooth flow of transport and decongest borders Cargo registration with the Zambia Revenue Authority before arrival				

Source: UNECE and ESCAP.

Border measures in LLDCs

A total of 94 border measures across 32 LLDCs were recorded by the UNECE Observatory on Border Crossings Status due to COVID-19. Many of these measures are broad and include both trade facilitating and trade restrictive elements. For example, some measures restrict the export of food and essential medicines, while at the same time increasing customs operating hours to ease trade bottlenecks by speeding up the processing of goods and borders.

Measures included elements requiring disease testing and detailed sanitation procedures. These are the most common requirements for entry at borders not completely closed to passenger traffic. Such measures also include detailed sanitation procedures for

customs facilities and equipment involved in transhipment. In Azerbaijan, for example, the government has set aside a zone in which all drivers must be tested before continuing into the country.

Measures also include procedures for exchanging drivers at border points as well as requirements that only local drivers are allowed to transport goods. Measures for trade in goods vary greatly and include provisions for expediting the release of essential medical supplies and food or facilitating the shipment and clearance of humanitarian and donated goods. However, restrictive measures such as export prohibitions on medical goods and food are also commonplace. Of the measures affecting trade in services, the vast majority are restrictions on passenger traffic and social

Observatory on Border Crossings Status due to COVID-19

Established in March 2020 by the UNECE, United Nations Regional Commissions and partner organizations¹, this online platform collects and provides information on the status of inland-freight border crossings, including policies and regulatory requirements in place. While its use has decreased in recent months, the observatory remains a useful library of measures taken during the pandemic.

There is a rich tapestry of interlocking border measures and wider economic support programmes. Many governments closed their borders to non-citizens and non-residents through measures such as visa suspensions. There have also been difficulties in obtaining health certificates and following extensive self-isolation requirements.

With tens of thousands of trucks and ships stuck at borders around the world, essential goods such as fuel, food and medical supplies face delivery delays.

Social distancing and working from home policies has created a massive drive toward e-business and remote consumption. The patchwork and everchanging nature of the measures combined with the lack of international coordination has created nigh unsurpassable disruptions to international supply chains.

1 United Nations Economic Commission for Africa; Economic and Social Commission for Asia and the Pacific; Economic Commission for Latin America and the Caribbean; United Nations Economic and Social Commission for Western Asia; International Civil Aviation Organization; World Customs Organization; International Transport Forum; International Road Transport Union; Fédération Internationale de l'Automobile; Economic Cooperation Organization; International Union of Railways. Available at https://wiki.unece.org/display/CTRBSBC/Observatory+on+Border+Crossings+Status+due+to+COVID-19+Home.

distancing measures, which in many cases severely curtail the trade of services within borders. For international passengers, there are testing requirements and quarantine procedures, as well as the suspension of tourist visa regimes.

Although there were no border measures recorded for several LLDCs (Burundi, Chad, South Sudan), this means that none had reported to the UNECE Observatory and not that these countries have not implemented any border measures.

Border measures in transit countries

A total of 103 border measures were recorded by the UNECE Observatory across 34 transit countries, with the exception of Eritrea and Somalia, (As before, this means only that there were no border measures recorded by the UNECE observatory.) A total of 22 measures explicitly outlined procedures for both testing and sanitation. Others include outright bans of shore leave for maritime crew and detailed procedures for no-contact exchange of goods and customs paperwork. There were 25 measures directly affecting traders. In the case of maritime crew, this can be restrictions on shore leave. In Pakistan, cargo ships are subject to mandatory inspections, and crew rotations and shore leave are not permitted.

The measures explicitly affecting goods numbered 42. In India, for example, all major ports are not to levy penalties, demurrage, charges, fee, rental on any port user for any delay in berthing, loading/unloading operations or evacuation/arrival of cargo caused by reasons attributable to lockdown measures. There were

62 measures affecting trade in services, largely due to the closure of borders to non-essential travel and tourism, as well as more generalized social distancing measures.

There have also been positive developments with regard to several countries who have made special efforts toward directly addressing their roles as transit countries for LLDCs, with specific facilitating procedures toward LLDCs:

- Cameroon: foreign trade continues, in particular for landlocked countries for which it serves as a transit country.
- Côte d'Ivoire: customs clearance for goods in transit streamlined from seven stages to five.
- Namibia: a series of guidelines facilitate the free movement of essential and transit goods through appointed routes.
- Senegal and Viet Nam: blanket exemptions to goods in transit.
- Turkey: GPS tracking systems to ensure that vehicles in transit follow designated isolated routes as well as adhere to strict timelines, and that truckers do not come into contact with the local population.

Quantitative analysis of the interventions

The COVID-19 pandemic has impacted international trade and global economic development at an unprecedented rate. While the advent of COVID-19 vaccines and myriad support measures taken by governments have been useful in reaffirming social and economic stability, there remains a growing disparity in the rate of recovery between the global north and global south. The forecasted recovery

increased use of ICT and accelerated digitalization in transport and logistics will improve connectivity in LLDCs in the long term and ease trade bottlenecks.

Measures adopted by LLDCs and transit countries

LLDC: Border measures in Azerbaijan

Foreign drivers of freight vehicles can enter or transit through Azerbaijan without obstacles.

Maritime transport (including trucks and container transhipment) is open and ongoing, with certain restrictions with neighbouring countries (Kazakhstan, Turkmenistan).

All drivers are to test at the Port of Baku (Caspian Sea) before loading. Only the drivers with negative test result certificates can leave for Kazakhstan and Turkmenistan. The test results are made available within 6-8 hours. Truck drivers wait for the ship in dedicated clean zones and food is provided.

All border-crossing points (Georgia, Iran, Russian Federation, Turkey) are open for road transport (freight only). Accompanied (police escort) freight vehicles from Iran and the Port of Baku, heading in the Georgia direction, are allowed to cross the borders of Azerbaijan.

Free food and resting places are provided for international truck drivers.

Source: International Road Transport Union; Azerbaijan Ministry of Transport, Communications and High Technologies.

Transit country: Measures adopted by Senegal to protect the public

Temporary suspension of re-exports of foodstuffs (rice, oil, dairy products, pasta) and strategic products (soap, hand sanitizers) – does not apply to Exceptional Temporary Admission operations arising out of a binding order from abroad or an international transit arrangement.

Publication of information about COVID-19 on the Customs official website (https://www.douanes.sn).

Increase of surveillance throughout Senegal to combat all types of fraud.

Source: WCO.

Transit country: Border measures in Turkey

Foreign drivers showing symptoms of COVID-19 cannot enter and Turkish drivers are quarantined.

Transit through Turkey:

- · vehicles will be equipped with GPS;
- allowed to enter and exit within 24/36 hours, based on distance to border gate;
- extensions up to 48 hours dependent on road and weather conditions;
- · vehicles will use designated routes and stations.

Transport operations to and from Turkey:

- foreign drivers can enter without 14-day quarantine if exiting Turkey within 72 hours;
- extensions of 24 hours, depending on road, weather and border conditions.

Turkish drivers can leave Turkey without waiting 14 days.

Medical supplies and food for the Turkey will be given priority.

Roll on roll off operations are carried out without drivers (only semi-trailers/trailers are accepted).

Source: Ministry of Interior.

will be guided by the particular conditions within each country and the specifics of each policy response.

Trade bottlenecks place LLDCs at a distinct disadvantage, as some had already been operating within limited fiscal space among other challenges even before the COVID-19 pandemic. The added burden of socio-economic stimulus, and the bolstering of health and medical capacities means that such countries are now faced with growing public debt amidst continuing uncertainty surrounding the course of the pandemic. LLDCs have experienced lower rates of recovery compared to other WTO members. While there has been significant progress in

reducing such barriers, the ongoing pandemic has served to exacerbate pre-existing issues and further places LLDCs at a disadvantage.

Since the start of the pandemic, WTO members have experienced increased trading costs, time delays and barriers to trade on two fronts:

- measures within their own borders, including self-imposed logistics adjustments, export prohibitions and restrictions, and other technical barriers to trade (TBT);
- new protective measures imposed by direct trading partners, including heightened sanitary and phytosanitary (SPS) controls, quantitative restrictions, and other related TBT.

Success in the postpandemic era will reflect a constellation of policies and capacities peculiar to each country, including national vaccination rates, integration into major economic blocks, the ability to provide fiscal and monetary stimulus, and the restoration of solvency in the private sector."4



Police officers wearing protective suits check drivers at Erenhot Port, on the border between China and Mongolia.

However, LLDCs face a third layer of complexity from the COVID-19 protective measures and restrictions implemented by the transit countries upon which they rely. The WTO Secretariat has compiled a quantitative analysis of the measure and interventions on LLDCs and transit countries across five regions (see Table 4).

The analysis of the triple tiered interventions shows no distinct pattern or evolution. Measures taken at each level are largely based on individual concerns of the LLDC or transit country. Motivations are not specific trade strategies but rather a domestic response to

COVID-19 related concerns. Table 5 indicates LLDC interventions and their respective transit countries as a share of all reports from WTO members and was updated in August 2021.

A regional analysis of these interventions suggests that notifications and other measures taken were more closely aligned to infection rates and other regional and country specific health concerns as opposed to solely trade and trade strategy. Figures 3 and 4 provide an analysis of interventions reported by LLDCs and their transit country partners respectively based on their region.

Table 4: Transit countries

	Main transit countries				
Africa					
Botswana, Eswatini, Lesotho, Zambia, Zimbabwe	Angola, Mozambique, Namibia, South Africa				
Burkina Faso, Mali, Niger	Benin, Côte d'Ivoire, Ghana, Guinea, Nigeria, Senegal, Togo				
Burundi, Ethiopia, Malawi, Rwanda, South Sudan, Uganda	Djibouti, Eritrea, Kenya, Somalia, Tanzania				
Central African Republic, Chad	Cameroon, Democratic Republic of Congo				
Asia					
Afghanistan, Bhutan, Nepal	Bangladesh, India, Iran, Pakistan				
Mongolia	China				
Lao People's Democratic Republic	Cambodia, Myanmar, Thailand, Viet Nam				
Commonwealth of Independent States					
Armenia, Azerbaijan, Kazakhstan, Kyrgyz Republic, Republic of Moldova, Tajikistan, Turkmenistan, Uzbekistan	Belarus, Russian Federation, Ukraine				
Europe					
North Macedonia	Albania, Bulgaria, Greece, Romania				
South America					
Plurinational State of Bolivia, Paraguay	Argentina, Brazil, Chile, Peru, Uruguay				

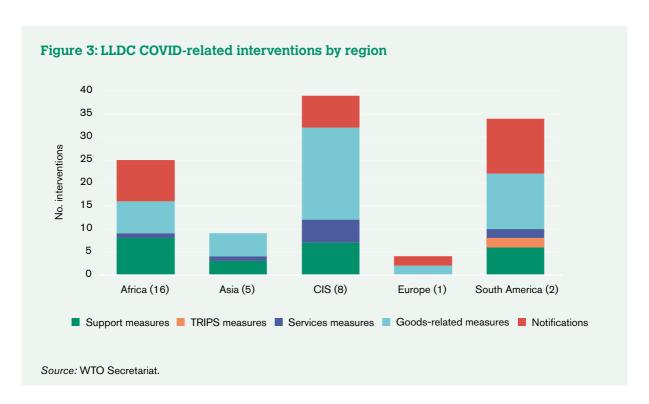
Source: UNECE and ESCAP.

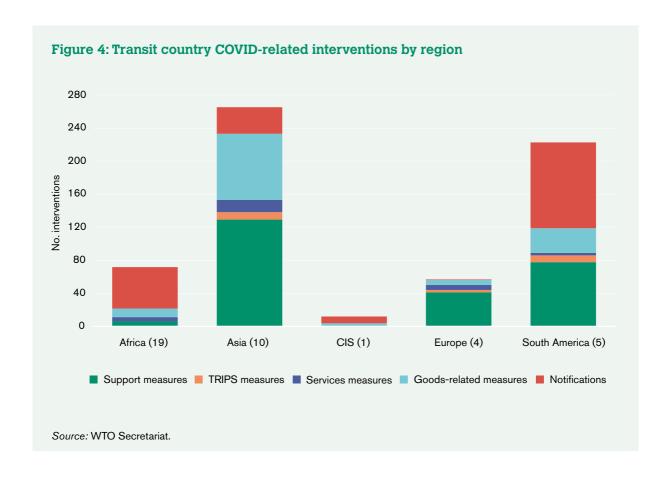
Table 5: Reported COVID-related interventions

	Total – reported	LLDC reports		Transit country reports	
Interventions		No.	Share of total (%)	No.	Share of total (%)
Notifications*	409	30	10	195	50
Goods related measures	352	46	13	131	37
Agriculture measures (subset of goods trade)	101	22	22	27	27
Services measures	147	9	6	30	20
TRIPS measures	74	2	3	20	27
Support measures	962	24	2	254	26

^{*} Notifications reported jointly by several members are counted as one notification.

In Figure 3, LLDCs in South America (Plurinational State of Bolivia, Paraguay) had more interventions in most categories than African (represented by 16 WTO members). This may coincide with the higher COVID-19 infection rates and other economic impacts associated with South America compared to the impact on Africa. LLDCs in the CIS reported a higher number of goods-related measures during the early stages of the pandemic, most of which focused





on securing relevant medical supplies and maintaining food security.

With regard to transit countries, a similar trend is seen in Figure 4, with South America recording a higher number of interventions in comparison to Africa. With regard to Asia, the most significant number of interventions were reported by transit countries: India with 43 goods-related measures; and China with 55 support measures (albeit spread across various trade regions). With only four European transit countries included in the study, the interventions recorded form only a small part of the total interventions across Europe.

Notwithstanding the above quantitative analyses, more in-depth research would be needed in order to grasp the full qualitative impacts of each measure on the implementing member, its direct trading and transit partners as well as other third-party partners along international value chains. While one region may have a greater occurrence of COVID related interventions to navigate, others may be more heavily impacted by a single or a few measures. This can be due to several causes, including the economic and other conditions within the respective regions and members, the category of goods being traded and factors relating to the targeted consumer and market segments.

LLDCs lost US\$ 15.7 billion

in export revenue in 2020

LLDC imports down by 24%

US\$ 68.3 billion in 2019 to US\$ 52.0 billion in 2020

Impact of COVID-19 on LLDC trade in services

Figure 5 shows that LLDC commercial services exports dropped 36 per cent last year to US\$ 27.7 billion from a peak of US\$ 43.4 billion in 2019. This was a significantly sharper decline than in the rest of the world (-20 per cent).

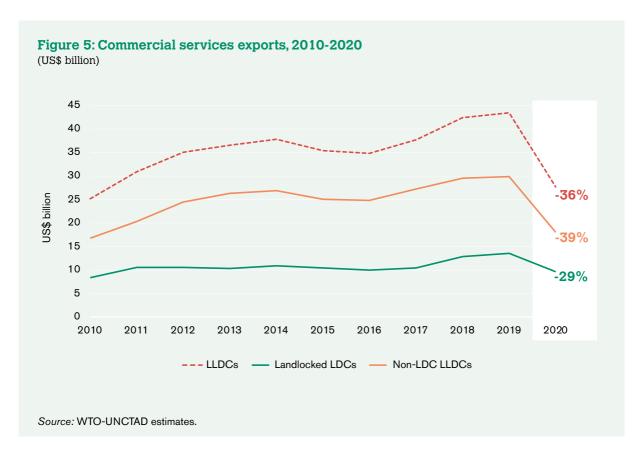
Services trade is dominated by a few LLDCs. Kazakhstan, Ethiopia, Azerbaijan, Turkmenistan and Uzbekistan rank as the leading services exporters and importers. In 2020, they accounted for 75.5 per cent of commercial services exports and 70.4 per cent of imports.

LLDC world services imports fell

> 1.17% in 2019 to 1.13% in 2020

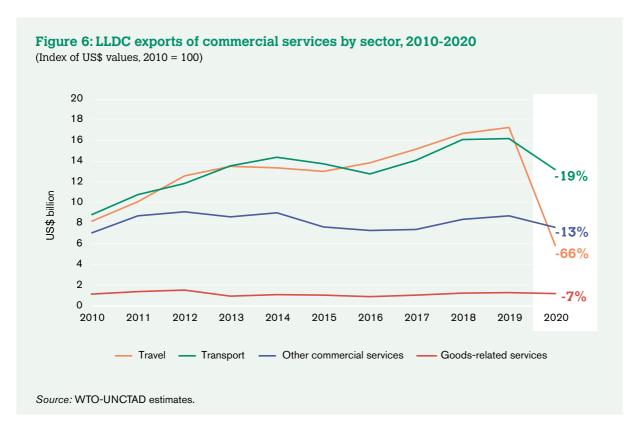
LLDCs net services importers 2020 trade balance

-US\$ 24.3 billion



LLDCs services exports are very concentrated. Prior to the pandemic, the travel sector accounted for almost 40 per cent of services exports. Transport services held a similar high share (37 per cent). Other commercial services represented only 20 per cent, less than the half the share than in the rest of the world (56 per cent). The lack of services diversification and dependence on international tourism and transport as main export sectors makes LLDCs extremely vulnerable to this global health crisis. The COVID-19 pandemic and associated restrictions to cross-border mobility resulted in a 66 per cent drop in LLDCs travel exports, and a 19 per cent fall in transport services exports in 2020, which returned to 2015-2016 levels (see Figure 6).

LLDCs were hit harder than other economies in most sub-sectors of other commercial services, which fell by 13 per cent. Exports of personal, cultural and recreational services experienced the steepest decline (see Figure 7). Similarly, construction was profoundly impacted by COVID-19 restrictions: LLDCs suffered a 30 per cent drop compared to 17 per cent for the world. LLDCs also lagged in technical, trade-related and other business services, as well as in financial services. On a positive note, the shift during the pandemic toward remote working and digitalization boosted computer services exports. LLDC computer services grew by 10 per cent in 2020, more rapidly than in the rest of the world.



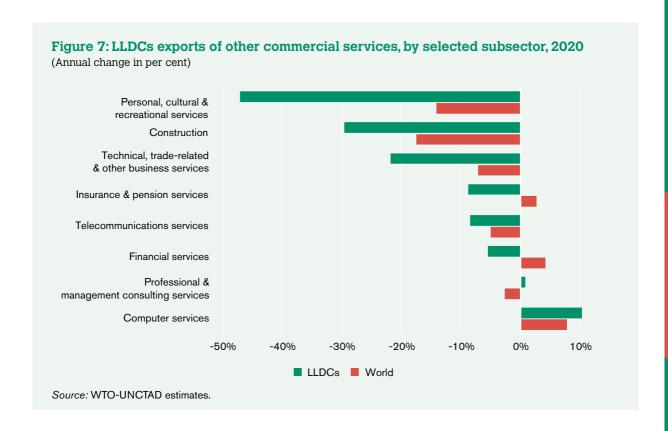
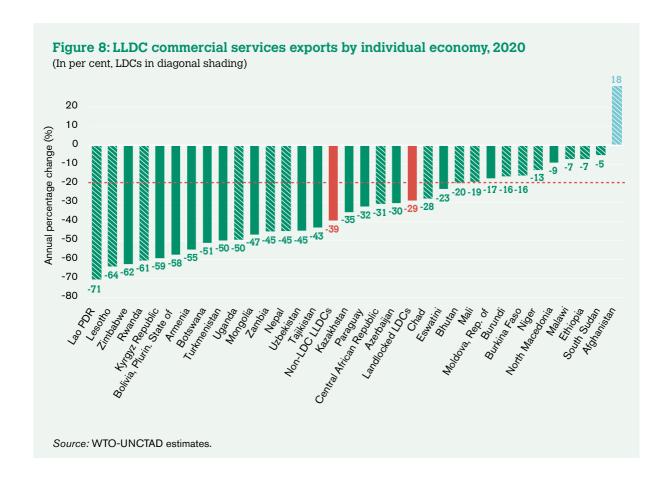


Figure 8 shows the significant but different impact of the COVID-19 pandemic on individual LLDCs. Among landlocked LDCs, the Lao People's Democratic Republic experienced a 71 per cent drop as its intra-regional travel exports fell 85 per cent (Ministry of Information, Culture and Tourism, 2020). The 50 per cent and 45 per cent contractions in Uganda and Zambia, respectively, also reflect the lack of international tourists, especially from Europe. By contrast, Afghanistan's commercial services exports expanded by 18 per cent due to a doubling exports of business services. Ethiopia, the second largest LLDC services exporter after Kazakhstan, recorded only a 5 per cent decline. The steep fall in exports following the drop in air passenger

traffic – its main service sector – was partly offset by an 87 per cent increase in air freight services, and a more than tripling of exports of airport supporting services such as cargo handling, storage and warehousing. Air cargo has been essential to ship rapidly personal protection equipment (PPE) and other medical goods during the pandemic. In addition, global demand in many goods has been fostered by e-commerce.

The same uneven export performance was observed in non-LDC LLDCs:

 North Macedonia was the least affected, with commercial services exports down by 9 per cent, sustained by computer services, which were up 17 per cent. computer services grew by 10 per cent in 2020, more rapidly than in the rest of the world.



- Zimbabwe's services exports fell by 62 per cent owing to low travel receipts as international tourist arrivals dropped by 82 per cent (ZTA, 2021).
- A lack of tourists is the main reason for the 58 per cent contraction in the Plurinational State of Bolivia.
- A lack of tourists to Botswana also meant exports declined by 51 per cent. Prior to the pandemic, Botswana's travel receipts accounted for almost two thirds of services exports, almost the same share as Armenia.
- Armenia experienced a 55 per cent decrease in commercial services exports – not only accommodation and food serving services exports plummeted following restrictions to crossborder movement, but also health services and education services.
- Kazakhstan, the leading LLDC trader, recorded a 35 per cent decline in services exports. More than half of Kazakhstan's services exports relate to transport services (including pipeline transport) which fell overall by 16 per cent.

Available data show that LLDCs services exports remained severely depressed in the first quarter of 2021. While world services exports were down on average 7 per cent year-on-year, several LLDCs recorded sharper drops:

- Plurinational State of Bolivia,
 -59 per cent;
- Nepal, -48 per cent;
- · Armenia, -46 per cent;
- Rwanda, -42 per cent;
- · Uzbekistan, -30 per cent;
- Kazakhstan, -17 per cent;
- Uganda, -14 per cent.

In LLDCs, services trade recovery will take longer, as they continue to experience productivity capacity and connectivity challenges. In some cases, while drivers of other nationalities have not been allowed to cross international borders, countries have made facilities available and allowances for transhipment at border crossings.

International responses and best practices

These differentiated responses have also targeted traders and transit goods specifically, creating COVID-19 testing requirements for traders and strict sanitation protocols for customs areas. sometimes including the creation of special facilities for traders crossing national borders. As vaccines became more widespread and countries began to determine their national health system capabilities and individual risk tolerance levels, there has also been an increase in non-essential passenger traffic, usually with COVID-19 requirements and medical isolation.

While an internationally coordinated transit response to global health crises and the resulting trade

bottlenecks remains far away, there are some positive signs, including evolving best practices from international as well as rail transport inland waterway transport, aviation and maritime sector responses. Given the interconnected nature of today's world and global economy as well as the increasing likelihood of emerging communicable diseases, it is now abundantly clear that disease resilient, seamless and efficient transport and logistics systems with strong elements of international coordination are necessary. The international community has taken efforts to formulate responses and best practices to specific transit issues, including efforts by the WTO as well as the WHO, the World Customs Organization (WCO) and the United Nations. Moreover, an analysis of country measures reveals an increasing awareness of the role of transit countries in LLDC access to global economies, as well as the importance of easing trade bottlenecks.

Endnotes

- See https://unctad.org/system/files/ non-official-document/tlb_20210415_ webinar_gilbert_en.pdf.
- 2 See https://www.un.org/ohrlls/sites/ www.un.org.ohrlls/files/impact_of_ covid19 and responses in Ildcs.pdf.
- 3 See https://www.un.org/ohrlls/sites/ www.un.org.ohrlls/files/session_3_ zodwa_mabuza_final_-_addressing_soft_ infrastructure_-zodwa.pdf.
- 4 https://blogs.worldbank.org/ developmenttalk/uneven-globaleconomic-recovery-2021-promisesinvert-longstanding-principle-success.



↑ Border checkpoint in the Lao People's Democratic Republic, Mekong River, before entering Thailand.