

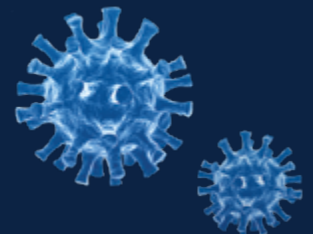
# 4

This chapter highlights selected maritime stakeholder experiences with regard to the COVID-19 pandemic, including challenges faced, related response measures and potential lessons learned. Five stakeholders, from across regions and representing a mix of public authorities and maritime transport industry actors, directly involved in operating and managing maritime transport and logistics, were invited to share their respective experiences. While not exhaustive and only intended as illustrative examples, the reflections received generate additional insights into the implications of the pandemic for maritime transport and trade. Key findings are consistent with the data and analysis detailed in the preceding chapters on the impact of the pandemic on maritime trade; the supply of maritime transport infrastructure and services; and the performance of the sector.<sup>20</sup>

<sup>20</sup> The experiences presented in this chapter are based on the inputs received by UNCTAD from five entities. They are illustrative in nature and may not reflect the experiences of a broader set of stakeholders.

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## THE CORONAVIRUS DISEASE 2019 PANDEMIC: LESSONS LEARNED FROM FIRST-HAND EXPERIENCES



## A. INVITED REFLECTIONS ON THE CORONAVIRUS DISEASE 2019 PANDEMIC IN MARITIME TRANSPORT AND HINTERLAND CONNECTIONS

The COVID-19 pandemic is an unprecedented global challenge with significant consequences for all economies, sectors and industries, including maritime transport and logistics. Data and analysis presented in the preceding chapters have underscored the magnitude of the disruption caused by the pandemic. By tracking changes in maritime trade, port traffic, port calls, liner shipping connectivity levels and deployed vessel capacities, the various data sets, including automatic identification system data, have shown the magnitude of the impact of the pandemic on maritime transport and trade. The disruption triggered a sudden slowdown in seaborne trade and increases in blank sailings, delays at ports and closures of ports, as well as reductions in working hours, shortages of equipment, shortages of labour and capacity constraints in truck and other inland transport systems.

An important takeaway from the research and analysis detailed in the preceding chapters is related to the strategic role of maritime transport and logistics in ensuring the continuity and reliability of global supply chains and cross-border trade. Beyond ensuring the smooth delivery of the essential goods and services required to manage crises, the sector is crucial in keeping trade flows moving. Another conclusion from the analysis concerns the need to ensure the integrity, connectivity and smooth functioning of maritime transport for all economies, both developed and developing, in particular small island developing States and the least developed countries. The latter already have disproportionately high transport costs and low levels of shipping connectivity, which makes their trade uncompetitive, volatile, unpredictable and costly. Finally, risk assessment and management and emergency and disaster response planning have emerged as key for business continuity and robustness.

To complement these findings, UNCTAD sought contributions from the field concerning the experiences of some of the main actors involved in maritime supply chains. Building on synergies arising from ongoing collaboration with UNCTAD, selected stakeholders representing a mix of public authorities and maritime transport industry actors were invited to share their experiences with regard to the impact of the pandemic, the measures applied to date and potential lessons learned and good practices. Stakeholders were also invited to share their perspectives regarding the impact on the maritime supply chain and challenges faced and to elaborate on ways in which they have acted to mitigate risks and address challenges generated by the pandemic.<sup>21</sup>

The contributions received provide further clarity on the immediate impact of the disruptions caused by the pandemic on various stakeholders, while taking into account differences in the functions and roles of each stakeholder in the maritime supply chain. They also specify additional efforts that may be required to build the resilience of the maritime transport system and supply chain in the future. While not exhaustive and not meant to be representative of all public authorities and industry actors, the views and experiences shared by the stakeholders provide useful insights into specific occurrences, the related responses and the lessons to be learned, all with a view to any future disruption. The stakeholders shared the perspectives of small island developing States; landlocked, transit and coastal countries, through the lens of a transit and transport corridor; international maritime passage authorities; port authorities; and global shipping companies. These views cover different regions, namely, Africa, Europe, Latin America and the Pacific. The shared experiences are presented in detail in the subsequent sections in this chapter.

The following overview of the various experiences highlights some key aspects that have been crucial to the stakeholders in navigating the crisis. One trend, identified in the analysis in the preceding chapters and reiterated in the experiences shared, is the importance of keeping trade moving during and beyond crisis conditions through well-functioning and resilient maritime supply chains. Despite the difficulties and challenges faced during the pandemic, most shipping companies, ports and other relevant stakeholders have remained operational and put in place immediate measures to facilitate trade and the movement of goods, in particular vital commodities and products. This was highlighted in the experiences shared. Stakeholders reported that

<sup>21</sup> This chapter is informed by contributions from the following stakeholders: Mediterranean Shipping Company; Micronesia Centre for Sustainable Transport; Northern Corridor Transit and Transport Coordination Authority; Panama Canal Authority; Port Authority of Valencia; and Sailing for Sustainability, Fiji.

while experiences varied depending on pre-existing conditions and levels of preparedness, overall, maritime transport and logistics helped to keep essential goods and trade moving. The digitalization of interactions and information-sharing were also emphasized as critical to the continuity of maritime transport operations during the pandemic, and the stakeholders noted that digitalization would be a key component of resilience-building efforts. Finally, the stakeholders stated that awareness was required of the potential changes in trade patterns resulting from the disruptions caused by the pandemic, along with the need to prepare and adapt infrastructure and operations accordingly and to promote the sustainability and resilience of the sector.

Key findings from the experiences shared include the following:

- **The pandemic directly impacted the maritime supply chain and hinterland connections.** Returning to normal will take time and this normality will likely differ from that expected before the pandemic.
- **Responses and adjustments to pandemic-related disruptions spanned various areas,** including operations; financial and economic areas; sanitary and safety protocols and processes; and working practices and organizational aspects.
- **Some of the responses entailed a substantial reorganization of operations,** including prioritization of essential services; reorganization of operations and working conditions due to sanitary and safety protocols; and advancement of digitalization and communications strategies.
- **Sanitary and safety protocols and related measures had to be urgently implemented in a short time.** The capacity to coordinate with local and/or national authorities and communicate with other actors in the maritime supply chain were critical to responses and coping strategies.
- **Work-related and operational adjustment measures that helped the sector adapt were transformational for maritime supply chain stakeholders.** The digitalization of processes and the use of technology by much of the workforce triggered the need to revisit operations and upgrade knowledge and skills.
- **Challenges related to crew changes highlighted the need to orchestrate an integrated approach by all relevant stakeholders.** This was one of the major issues faced in the maritime supply chain. Stakeholders included ministries of health and third parties, for example with regard to public policies that implemented restrictions on travel.
- **Ports managed to avoid significant disruptions to cargo operations.** This was facilitated by the reduced number of port calls by vessels and maritime trade flows.
- **The revision of capacity management plans and the adaption of services were key.** These were significant features of the adjustment measures introduced by shipping lines.
- **Maintaining landside operations was difficult for transit and transport corridors.** Long queues at borders highlighted the importance of reliable chains during a crisis such as the pandemic. Such difficulties affected not only coastal countries but also landlocked and transit countries, which needed to maintain access to seaports. The pandemic exposed potential limitations in trade facilitation measures applied in the context of cross-border transport by land.
- **Business continuity plans emerged as key to acting swiftly.** Such plans are important and likely to be further developed and revised, to integrate lessons learned and help better prepare for any future disruption from events such as pandemics or those due to climate change-related factors.
- **Responding to pandemic-related challenges required collaboration and coordination, as well exchanges of information among all stakeholders.** Wherever they had been established, collective actions were more effective in combating risks and improving decision-making and resilience. Adjustments to the governance and communications strategies of the parties involved, as well as exchanges of information and the sharing of experiences, were important.
- **Furthering systemic, coordinated responses and building the capacities of staff were important.** In future, for example, there is a need for transboundary disaster management

strategies that are well coordinated including, for transit and transport corridors, a harmonized disaster response mechanism. Coordination and collaboration could also focus on sharing intelligence from early-warning systems, conducting capacity-building for personnel involved in the transport logistics chain and embedding disaster responses into national and regional policies that affect trade, transport and other related infrastructure.

- **The pandemic may have had a less obvious impact on small island developing States in the Pacific.** However, the impact may be longer lasting and more critical, in particular as multiple crises or shocks could occur at the same time. The decision to divert a single ship from some countries, the absence of vessels calling at certain ports or even the availability a single operator, due to reductions in the cargo available at a destination at a key export market, has tested the ability of maritime transport to deliver essential goods. There has also been an increase in shipping costs for small island developing States. Such States need to develop risk mitigation capabilities and resilience-building, including through green shipping solutions, at the national, regional and international levels.
- **Small island developing States remain a vulnerable country grouping.** They often experience a combination of disruptive factors and shocks. For example, in April 2020, small island developing States in the Pacific region also experienced the impact of a tropical cyclone. Losses and damages were significant and the pandemic made the delivery of emergency support and relief more challenging. In this context, climate change mitigation and adaptation remain important priorities and efforts to address the challenge, including under the auspices of IMO, should be further enhanced.

## B. EXPERIENCE OF SMALL ISLAND DEVELOPING STATES: SMALL ISLAND DEVELOPING STATES IN THE PACIFIC

### *The coronavirus disease and Cyclone Harold: Lockdown in the Pacific*

In 2019, Samoa experienced a measles epidemic and when news of COVID-19 first emerged, small island developing States in the Pacific were therefore cautious and some restricted travel as of January 2020, following which a period of lockdown was instituted. As at June 2020, of the 15 small island developing States in the Pacific, only Fiji and Papua New Guinea had recorded cases of COVID-19 (see <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7348597/>). The remoteness of the small island developing States in the Pacific has been beneficial in this instance, as increased case numbers would have put a strain on the limited health-care systems and possibly been further increased by poor sanitation levels and the often overcrowded urban areas.

In April 2020, severe tropical Cyclone Harold struck Fiji, Solomon Islands, Tonga and Vanuatu, causing significant loss of life and damage to crops and buildings. In one instance, 27 lives were lost from an overcrowded interisland vessel leaving Honiara due to the pandemic (see <https://apnews.com/article/f15a56f7b85f79c9f22fc28d055c78ec>). Cyclone Harold caused damage worth millions of dollars to port infrastructure and jetties, and pandemic-related restrictions put additional pressure on responses, with relief goods and teams from abroad having to comply with quarantine requirements; multiple states of emergency impacting international responses; and pandemic-related restrictions on interisland shipping limiting the reshipment of emergency relief to remoter islands and communities.

### *The coronavirus disease: Impact on shipping, food, fishing and tourism*

In the period January–April 2020, the impact on shipping was mixed. Most small island developing States in the Pacific did not have processes or policies in place to deal with a global pandemic. Some countries instituted a total ban on the arrival of ships or certain types of ships, in particular cruise liners. Other countries imposed varying periods of quarantine and still others allowed access to ships only if they had not come from specific countries or ports and had been at sea for varying periods, of 5 to 28 days. This resulted in blank sailings, reductions in cargo throughput, ships being diverted from some countries and trans-shipment mainly through Fiji. The World Food Programme activated a COVID-19 pandemic response team to collect data on the impact on shipping and to

share information with stakeholders among small island developing States in the Pacific, in line with the recommendations of the International Chamber of Shipping, ILO, IMO and others. The Global Logistics Cluster, for which the World Food Programme is the lead agency, provides a weekly update on the international shipping situation in the Pacific, identifying national quarantine requirements, ship schedules and sources of information for advice.<sup>22</sup> Government plans and systems for dealing with the pandemic were put in place and teams of government officials were trained and briefed. Shipping issues were no longer predominantly due to quarantine restrictions, but due to the significant reductions in demand as the international tourism industry slowed down and to the lack of goods in key resupply hubs such as Hawaii.

When the first case of COVID-19 was recorded in Lautoka, Fiji, the international port was closed, as of March 2020, and all ships were diverted to Suva or elsewhere. There has been a significant drop in throughput at international ports in small island developing States in the Pacific and there have been a few instances of food shortages. For example, in June, certain islands in Kiribati began to experience shortages of foodstuffs, as ships had not called there since March 2020 (see <https://logcluster.org/document/pacific-shipping-operations-update-20-may-2020>). As demand for cargo declined, the shipping industry applied measures such as, among others, blank sailings, reduced frequencies of services and alterations to scheduled routes. For example, sailings of the Pacific Direct Line New Zealand feeder service to Fiji were reduced from four to three per month, Mariana Express Lines removed Bairiki Tarawa from its Majuro South Pacific Service schedule until end-2020 and there are blank sailings across the region (see <https://logcluster.org/document/pacific-shipping-operations-update-25-june-2020>). Domestic interisland shipping was initially confined to ports, with interisland travel not allowed; later, commercial interisland vessels began to be allowed to operate, in stages, beginning with cargo only, then with limited numbers of passengers. The Government of the Cook Islands subsidized interisland shipping to the northern islands to ensure that essential cargo was delivered. Other States, such as the Marshall Islands, did not experience an impact on interisland shipping. As at September 2020, ships from Samoa to Tokelau – which does not have an airport and can only be reached by ship – still do not permit passengers.

The economic impact of the pandemic has also included high levels of unemployment in tourism-dependent economies such as Fiji, Vanuatu and the Cook Islands. Governments initiated plans for dealing with the pandemic and many citizens left urban centres and returned to villages to farm. Import and export volumes dropped, but community resilience was seen in self-sufficiency with regard to food and in the increased use of barter systems that helped to reduce the demand for imported goods. Some countries have experienced shortages in fresh food, while others have surpluses due to a drop in demand from the tourism industry and increased use of local gardens.<sup>23</sup> There are thus opportunities for regional trade between States that are free of COVID-19, which are not fully being explored, in part due to the lack of appropriate shipping services.

There has also been a major impact on seafarers, with crew from small island developing States in the Pacific serving on international ships, in particular cruise liners, being stranded abroad. The fishing fleet has been much less affected, with foreign flagged vessels continuing to fish in the region and calling at ports for trans-shipment and resupply, although restrictions are beginning to affect the sector. For example, Samoa restricts the docking of fishing vessels to two per day and crew are not allowed to disembark, while the date since the last port and crew change must not be less than 28 days previously, and compliance with other requirements related to quarantine and notification are also in place. Various surcharges and increases to shipping costs have been put in place by carriers, which have increased the costs of international shipping to the customer, despite significantly lower fuel prices (see table 4.1).

As at September 2020, quarantine restrictions were beginning to be relaxed. For example, in the Marshall Islands, crew with no record of disembarkation and vessels that regularly serviced small island developing States in the Pacific were exempt from the 14-day quarantine period. However, crew changes were still not permitted. Schedules were being altered to reduce quarantine periods in ports, in particular for shorter voyages, for example between Papua New Guinea and Solomon Islands.

<sup>22</sup> See [https://logcluster.org/search?f%5B0%5D=field\\_raw\\_op\\_id%3A33587&f%5B1%5D=field\\_document\\_type%3A156&f%5B2%5D=field\\_logistical\\_category%3A16](https://logcluster.org/search?f%5B0%5D=field_raw_op_id%3A33587&f%5B1%5D=field_document_type%3A156&f%5B2%5D=field_logistical_category%3A16).

<sup>23</sup> See <https://www.fijitimes.com/lautoka-market-sales-plummet/> and <https://pacificfarmers.com/resource/pacific-farmers-have-their-say-survey-report/>.

Shipping line	Additional charges	Application
Neptune Pacific Line	\$349/TEU, \$25/revenue (break bulk)  \$100/TEU	Temporary quarantine surcharge for Pacific ports  Freight cost increase on shipments from Australia and New Zealand to Fiji, from 3 and 5 July 2020, respectively
Pacific Direct Line	\$100/TEU	Rate restoration charge on shipments from Asia to Pacific island ports, from 15 July 2020
China Navigation Company	\$150 (20-foot full container load), \$300 (40-foot full container load) and \$8.50/revenue ton (break bulk)  \$163–285 (20-foot full container load), \$326–570 (40-foot full container load) and \$10–16.75/m <sup>3</sup> (break bulk)	Rate restoration charge on shipments to Fiji  Quarantine surcharge applied to vessels calling at Honiara

Source: Global Logistics Cluster data.

### Conclusion and way forward

The pandemic may have had a less obvious impact on small island developing States in the Pacific. However, the impact may be longer lasting and more critical. The pandemic was a new setback for small island developing States in the Pacific already experiencing climate change-related and extreme weather events, such as severe tropical Cyclone Harold. Building the resilience of small island developing States, including with regard to maritime transport chains, in preparing for, responding to and recovering from significant multi-hazard threats such as pandemics and climate change-related events is therefore critical.

As small island developing States in the Pacific are among the most vulnerable with regard to the impact of climate change, achieving reductions in emissions from international shipping, in line with efforts to limit the global temperature increase to 1.5°C above pre-industrial levels, is essential to the survival of these States in the next few decades and they cannot afford any delay. In 2018, IMO adopted an initial strategy on the reduction of total annual greenhouse gas emissions by at least 50 per cent by 2050 compared with 2008 while, at the same time, pursuing efforts towards phasing them out entirely (see <http://www.imo.org/en/MediaCentre/PressBriefings/Pages/06GHGinitialstrategy.aspx>). The current delay in the adoption of the short-term reduction measures in the strategy will in turn defer debates on the medium-term measures, such as market-based measures and, in particular, a carbon tax, which are key if international shipping is to deliver on the vision of decarbonization as soon as possible. There may also be a delay in the review of the initial targets, agreed prior to the release of the special report by the United Nations Intergovernmental Panel on Climate Change in 2018. More recent data demonstrates that significantly greater emissions reduction levels are required in all sectors if limiting the global temperature increase to 1.5°C is to remain a viable option (see Bullock et al., 2020). The fourth IMO greenhouse gas study was submitted to the Marine Environment Protection Committee in July 2020 and shows that emissions from shipping increased by 9.6 per cent in 2012–2018, with methane emissions increasing by 151 per cent (IMO, 2020). Shipping is not yet on the pathway needed to achieve limiting the global temperature increase to 1.5°C; in fact, the trend is in the opposite direction, with a projected 50 per cent increase in emissions by 2050 (see <https://www.cedelft.eu/en/publications/2488/fourth-imo-greenhouse-gas-study>). As economic recovery and stimulus packages are being put in place worldwide, the inclusion measures related to the decarbonization of shipping is essential if shipping is to meet the emissions reductions targets in the initial strategy.

The global investment opportunity and initiatives in greener shipping, both nationally and internationally, are available now, and the small island developing States in the Pacific cannot afford to be left behind. The pandemic has demonstrated their resilience, but also their dependence on shipping. In this regard, for example, the Pacific Blue Shipping Partnership is a country-driven initiative for large-scale blended finance investments, to catalyse a multi-country transition to sustainable, resilient and low-carbon shipping, including in appropriate low-carbon domestic and interregional shipping driven by small island developing States in the Pacific (see: [www.mcst-rmiusp.org/index.php/projects/current-projects/pacific-blue-shipping-partnership](http://www.mcst-rmiusp.org/index.php/projects/current-projects/pacific-blue-shipping-partnership)).

## C. EXPERIENCE OF AN AUTHORITY COORDINATING A TRANSIT AND TRANSPORT CORRIDOR: NORTHERN CORRIDOR TRANSIT AND TRANSPORT COORDINATION AUTHORITY, EAST AFRICA

### *Importance of maritime transport for regional and international trade*

The importance of maritime transport and the role of international shipping cannot be underestimated in current global economic and market conditions, with transport by sea becoming ever more prominent. Maritime shipping connects suppliers and producers, buyers and sellers. It is therefore one of the most important transport activities for the northern corridor and the continent of Africa as a whole. Current issues related to the status of regional maritime shipping should therefore be discussed in relation to the rest of the world, and factors crucial in sustaining the industry should be analysed.

### *Port of Mombasa: Gateway to regional trade*

Ports serve as important transportation hubs that facilitate the movement of goods to regional markets, businesses and, in particular, landlocked countries. The port of Mombasa, for example, connects goods to consumers through the northern corridor, which includes road networks, railways, inland waterways and pipelines. The port is a gateway to East Africa and Central Africa and is one of the busiest and largest ports in East Africa. It provides direct connectivity to over 80 ports worldwide and is linked to Burundi, the Democratic Republic of the Congo, Ethiopia, Rwanda, Somalia, South Sudan, Uganda and the United Republic of Tanzania. The port comprises Kilindini Harbour, Port Reitz, Old Port, Port Tudor and the whole of the tidal waters encircling Mombasa Island and has a capacity of 2.65 million TEUs (Kenya Port Authority Strategic Plan 2018-2022). Kilindini Harbour is a natural deep-water inlet with a depth of 45–55 meters at its deepest; the controlling depth is the outer channel, with a dredged depth of 17.5 meters.

### *The coronavirus disease: Impact on port and northern corridor performance*

The COVID-19 pandemic has had profound effects on transport and the entire logistics sector. The pandemic, a situation that was sudden and unanticipated, exposed the vulnerability of trade facilitation in the northern corridor region. Key challenges in facilitating cross-border trade included a lack of preparation and a lack of transboundary disaster management strategies. The abrupt nature of the pandemic coupled with the absence of tailored strategies affected, and to some extent continue to affect, the performance of the port of Mombasa and the northern corridor.

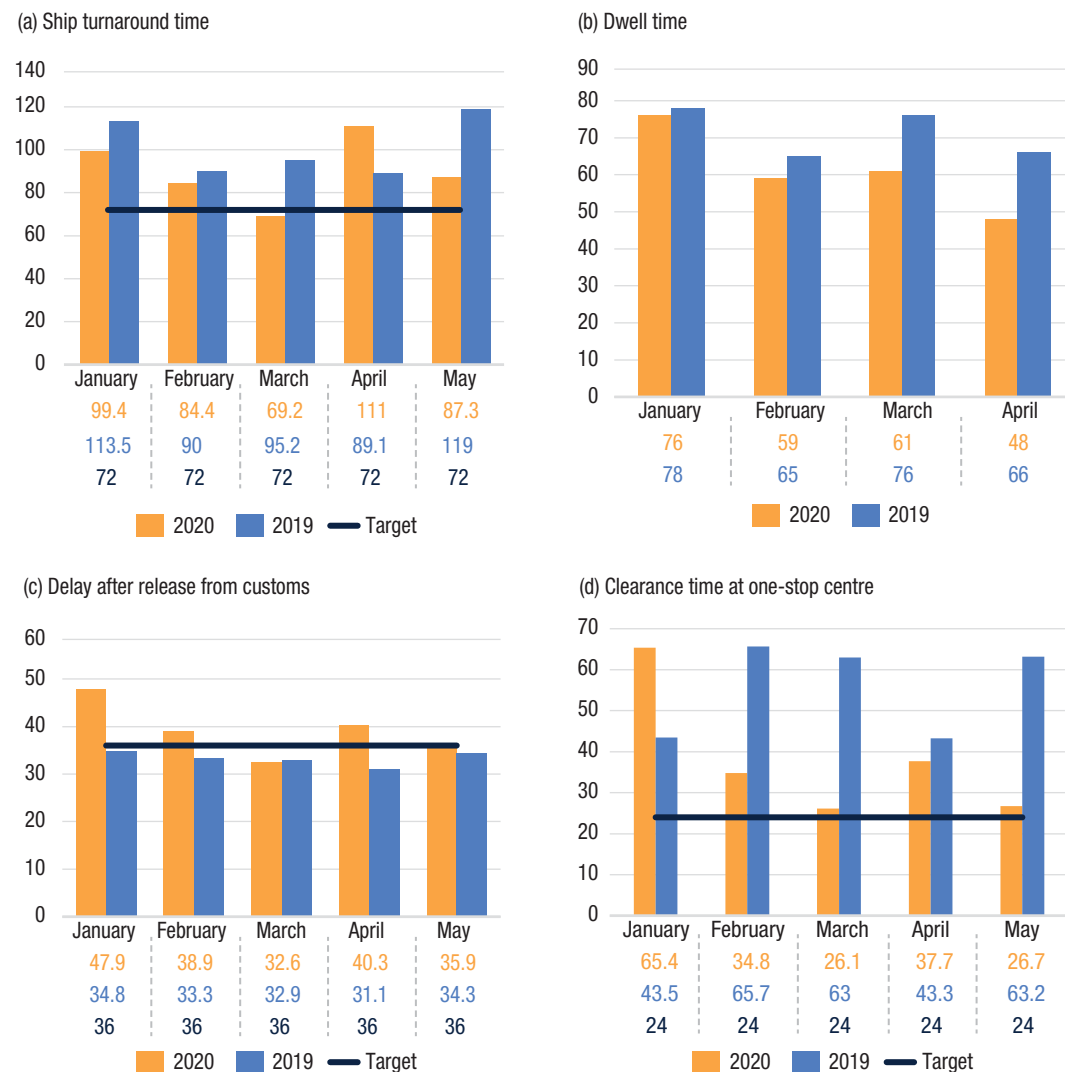
Declines were noted during the pandemic with regard to performance indicators for the northern corridor, with border crossing time affected the most. By May 2020, queues of trucks awaiting clearance at common border crossing points were reported to have stretched to over 50 kilometres (see <http://www.ttcanc.org/documents.php>). Congestion was also experienced at various crossing points due to some of the measures put in place for testing drivers for the virus. For example, transit time between two crossing points at a distance of 948 kilometres increased from an average of 3 days to 8 days. Such disruptions led to delays, in particular in the return of empty containers to the port of Mombasa, and the delays often led to retention charges set by shipping lines, posing a burden on the cost of doing business.

A number of measures have been put in place at the port of Mombasa to help curb the spread of the virus, including, among others, fumigation of key equipment, operational areas, offices and workshops; temperature checks of all individuals accessing the port; and sanitization and hand washing at gates and entrances to all buildings. The port health authority ensures that all necessary protocols are observed by ships scheduled to call at the Port. Such measures cannot be implemented without affecting normal port operations. The new interventions, coupled with the blank sailings and vessel cancellations, explain in part the changes with regard to performance indicators for both the port and the northern corridor.

The directives executed by various Governments to allow people to remain at home or telecommute also affected performances at both the port and along the northern corridor by

disrupting working systems. Many adjustments had to be made and, as coping mechanisms were instituted to mitigate negative impacts, improvements began to be made in delivering services at both the port and along the northern corridor. The impact of the pandemic on transport and trade patterns along the northern corridor was apparent, as fewer cargo trucks were in operation. In addition, there were shortages of staff to operate equipment at the Port, which caused delays in the transfer of cargo. This may help explain variations in ship turnaround time and other performance indicators, as noted by the Northern Corridor Transport Observatory (see <http://www.kandalakaskazini.or.ke>). Some positive trends during the pandemic have been noted with regard to indicators such as vessel waiting time before berth, ship turnaround time and port dwell time. This may be attributed to decreased volumes and the reduced number of vessels calling at the Port, compared with in 2019. Time taken to pick up cargo after release from customs has increased in 2020, compared with in 2019, mainly due to the length of time taken by trucks to return from their destinations due to pandemic-related measures. The increase in transit time in January–May 2020 with regard to various destinations may also be attributed to such measures, implemented by various member States of the Northern Corridor Transit and Transport Coordination Authority (see figure 4.1).

**Figure 4.1 Port of Mombasa: Performance indicators, 2020 (Hours)**



Source: UNCTAD calculations, based on data from the Northern Corridor Transport Observatory, available at <http://top.ttcanc.org/downloads.php>.



### ***Northern Corridor Transit and Transport Coordination Authority and East African Community: Current interventions***

In an attempt to address the numerous challenges affecting transport and trade logistics due to the pandemic, the secretariat of the Northern Corridor Transit and Transport Coordination Authority initiated an online platform for key stakeholders to meet and discuss issues related to the corridor and trade facilitation. Meetings bring together stakeholders from all member States of the Authority, with the aim of sharing experiences, challenges and opportunities. The platform also provides real-time updates on events in each member State, in particular at transit or transport nodes along the corridor, including ports, weighbridges, border crossing points, inland container depots and truck transit parking yards.

The East African Community is putting in place a surveillance tracker, to contribute towards dealing with the pandemic (see <http://www.ttcanc.org/news.php?newsid=117>). The initiative, currently in pilot testing, will provide a platform for the exchange of information in real time about tests taken by drivers and crew and about the transit movements of drivers and trucks. It will also support the tracking and tracing of drivers and their contacts.

Advocacy is being made for mutual recognition of COVID-19 testing certificates between member States of the East African Community and efforts are being made to establish testing centres at all points of origin of cargo and in other locations along the northern corridor.

### ***Conclusion and way forward***

Member States of the Northern Corridor Transit and Transport Coordination Authority have ratified various protocols and strategic responses, at both the national and international levels, aimed at enhancing safe trade in the region. However, there is a need for a detailed assessment of regional vulnerability, so that national and transboundary disaster mitigation measures may be put in place. Member States therefore need to adopt a harmonized disaster response mechanism to safeguard the transport corridor; share intelligence from early-warning systems; conduct capacity-building for personnel involved in the transport logistics chain; and embed disaster responses into national and regional policies that affect trade, transport and other related infrastructure.

## **D. EXPERIENCE OF AN AUTHORITY MANAGING AN INTERNATIONAL MARITIME PASSAGE: PANAMA CANAL AUTHORITY**

### ***First stage of the pandemic***

On 25 March 2020, the Government of Panama declared a full quarantine and lockdown in the country. At that time, the Panama Canal Authority identified 3,700 employees as a critical minimum to maintain safe and continuous operations along the waterway and efficient services for clients. Physical distancing was enforced to protect the well-being of employees, and technology played a key role in enabling critical administrative personnel to telecommute. Systems were adapted for remote access, in a secure and stable manner. One positive aspect for the Panama Canal was that, as operations relied heavily on a culture of safety first, protocols were already in place to handle infectious diseases, such as the Regulation on Sanitation and Prevention of Communicable Diseases, last updated in 2016, which noted several diseases that required a period of quarantine and procedures to handle crews, passengers and vessels under such conditions. This regulation was the basis of the initial approach of the Panama Canal Authority to dealing with the pandemic, since it established the procedures to follow prior to the arrival of a vessel and general requirements upon its arrival, as well as protocols for inspections and health measures that included procedures designed for infectious diseases.

### ***First challenge to transit operations***

With regard to the COVID-19 pandemic, the Regulation on Sanitation and Prevention of Communicable Diseases was first applied following the notice that the cruise ship *Zaandam*, owned by Holland America Line, was on its way to Panama, carrying a number of passengers and crew that had fallen ill. The vessel had been denied entry at other ports and needed to transit the Panama Canal in order to proceed to Port Everglades, United States. The transit operation was led by the Ministry of Health of Panama, which issues recommendations on whether to allow

vessels to transit based on health conditions. One key aspect in the operation was the constant communications among all parties concerned, namely, the Ministry of Health, the captain of the vessel, the local agent and head office of Holland America Line and the different offices of the Panama Canal Authority, including port captain, marine traffic control, market analysis and customer relations. Holland America Line sent a second vessel, the *Rotterdam*, and, in coordination with the Ministry of Health, COVID-19 tests were administered to the crew and passengers of the *Zaandam*; those who tested negative were transferred to the *Rotterdam*, from which oxygen tanks and medical supplies were moved to the *Zaandam*. The transfer was executed following the protocols agreed upon between the Ministry of Health, the Panama Canal Authority and Holland America Line. The transit of both vessels was approved for humanitarian reasons. Panama Canal Authority personnel only boarded the vessels after the thorough sanitation and disinfection of all of the areas to which they would have access. They wore full personal protective equipment, under the supervision of the Ministry of Health. The transit of both vessels was successfully completed on 29 March 2020. This experience raised the standards for handling similar situations in the future.

### *Internal protection*

With the increasing number of cases in Panama, the main concern of the administration was the well-being of the workforce of the Panama Canal Authority. During the lockdown period, procedures were put in place to reduce the exposure of essential personnel. Working periods were changed to 12-hour shifts, over seven consecutive days, to help reduce contagion and secure physical distancing, and the Authority reserved hotel rooms for personnel who lived at a certain distance from working stations, to ensure their safety and availability. Private transportation was also provided, in order to maintain a group of Panama Canal Authority personnel with close contacts. At the same time, vessel arrivals were still high and putting in place such measures was key in ensuring the safety and availability of the workforce, while maintaining efficient and seamless operations for clients.

When normal operations were resumed in May 2020, all offices were cleaned and disinfected, following the recommendations of the World Health Organization and the Ministry of Health of Panama. The administration established a centre for crisis management as the official point of contact for all consultations with regard to the pandemic; the section for health, well-being and occupational safety handles questions related to health and the safety of equipment and installations. The administration issued a protocol on industrial hygiene and occupational health, a protocol on cleaning and ensuring the safety of equipment and installations and a protocol on administering COVID-19 tests. As part of the plan for a safe return to work, all employees were tested before they could return to their working stations. Employees who could telecommute were allowed to do so and, as at September 2020, there remained a number of Panama Canal Authority teams that were telecommuting.

### *Impact on traffic*

The first impact of the COVID-19 pandemic on the Panama Canal was experienced in March 2020, when the cruise ship season was cut short. The impact with regard to commercial cargo was experienced later. In the period April–June 2020, 2,707 transits through the Panama Canal were registered, compared with 3,013 transits in 2019, a difference of 10.2 per cent. Passenger vessels, vehicle carriers, refrigerated containers, tankers and liquefied natural gas carriers were affected the most (see table 4.2).

The Panama Canal Authority, in its annual traffic projections for container ships, takes into account the blank sailings associated with the low season that generally takes place in February. In January–June 2020, the canal registered 51 blank sailings linked to the pandemic not included in the canal forecasts. With regard to container traffic, this represented a decline of around 3 per cent in April–June 2020, compared with the same period in 2019. Vehicle carriers were significantly impacted by the pandemic as car manufactures in Asia were shut down and demand in the United States soared. Similar patterns were observed in refrigerated products and the demand for oil and oil products was significantly reduced because of lockdown measures and consequent declines in the need for electricity generation. The traffic of liquefied natural gas carriers had already been affected because of the oversupplied market, but the pandemic exacerbated the situation. Of note, in the period April–June 2020, traffic through the locks for Neo-Panamax ships continued

Vessel type	April–June 2019	April–June 2020	Percentage change
Container	629	611	-2.9
Dry bulk	643	630	-2.0
Roll-on, roll-off vehicle carrier	217	111	-48.8
Tanker and/or chemical tanker	699	549	-21.5
Liquefied petroleum gas carrier	281	341	21.4
Liquefied natural gas carrier	95	89	-6.3
Refrigerated containers	163	126	-22.7
Passenger	35	6	-82.9
General cargo	163	160	-1.8
Other	88	84	-4.5
<b>Total</b>	<b>3 013</b>	<b>2 707</b>	<b>-10.2</b>

Source: Panama Canal Authority.

to increase slightly, while traffic through the locks for Panamax ships decreased compared with traffic in the period April–June 2019. An overall reduction of 10 per cent in transits did not have a significant impact on the operations of the canal and crew continued to work as usual, with adjustments to schedules and provisions for private transportation and shelter due to the extended lengths of shifts. The reduction in transits also helped the canal to recover the water levels necessary for operations. A drought at the start of 2020, with rain levels below historical averages, had led the Panama Canal Authority to institute water conservation measures. As traffic slowed down, water usage declined, and fewer transits were favourable for water availability purposes in the short term, while the Authority worked on implementing solutions for the long term. The Panama Canal fiscal year runs from 1 October through 30 September. It is expected that the last quarter, July–September, will behave similarly to the last quarter of 2019. However, as traffic in the first half of the fiscal year was strong, at the time of writing, performance for the full fiscal year 2020 is expected to be positive.

### *Lessons learned*

The Panama Canal Authority maintained regular communications with customers to keep them up to date with the situation in Panama and used diverse channels to send information to employees with regard to both operational and administrative matters, to share methods and tips on preventing community transmission and to provide psychological support. Innovation also contributed to the maintenance of operations and the upkeep of morale. This involved, for example, the sharing of physical exercise routines and virtual concerts via social media, as well as the development of a number of applications, including a travel application that helped the Authority to keep track of employees using the internal transport system.

The pandemic has been anything but predictable. All procedures and measures have had to be constantly reviewed for improvement and strong and humane leadership has been necessary in order to make difficult and timely decisions with limited information. Collaboration and solidarity within as well as outside the Authority have proven helpful in decision-making processes, bringing in support and different experiences and benchmarks. Shared information and experiences have also been key for port authorities and shipping companies and communications and technology have played a key role.

The Panama Canal Authority is as resilient as its personnel, and they adapted to the new normal quickly, including the new safety protocols, the challenges related to telecommuting and, in particular, the uncertainty. One important lesson learned to date is that everything is subject to constant and ongoing improvement. A fluid situation requires frequent adjustments.

## E. EXPERIENCE OF A PORT AUTHORITY: PORT AUTHORITY OF VALENCIA

The operation of ports is of vital importance in dealing with the COVID-19 crisis, as it helps to ensure that essential goods such as food, medical supplies and fuel, as well as raw materials and manufactured goods, continue to reach their intended destinations. This section provides details on the experience of a port authority in handling the crisis and the early measures applied.

The Port Authority of Valencia is a public body responsible for the management of three State-owned ports in eastern Spain, namely, Valencia, Sagunto and Gandía. To help minimize the impact of the COVID-19 pandemic, the Port Authority of Valencia applied a set of measures with regard to internal activity at the ports as well as in connection with the activity of the entire logistics chain. These measures comprised four fundamental aspects, namely, operational, sanitary, economic and social.

### *Operations*

The Port Authority of Valencia distinguished between internal and external operations. To ensure the continuous internal operations of the ports managed by the Authority, a contingency plan was developed involving three progressive levels of emergency. Essential and non-essential jobs were clarified according to their roles in the continuity of port operations. Non-essential workers were progressively transferred to telecommuting, with over 200 employees telecommuting during the national state of alarm declared in Spain. The information technology department prepared a protocol to ensure broader, secure access to the digital resources of the Authority. Electronic data interchanges through the port community system were enhanced to ensure information management in all operating procedures (see <https://www.valenciaportpcs.com/en/>). Essential workers were expected to comply with strict measures concerning the use of personal protective equipment and other protocols when interacting with other employees and third parties while conducting their duties at ports. An appropriate frequency of disinfection of working areas was also maintained.

With regard to terminal operations, similar recommendations were made with regard to port services, including using personal protective equipment; maintaining physical distancing in the working environment, including on board vessels; disinfecting working spaces; and ensuring that more vulnerable employees could remain at home. Pilots followed protocols with regard to access to vessels and requirements when on board to help ensure protection from infection. Stevedores were encouraged to form stable groups with the same members to help limit community transmission. Port services were considered essential services; companies were therefore permitted to continue operations under national regulations in accordance with the national state of alarm. Port personnel were considered essential workers and therefore permitted to participate in daily operations. During the period of the state of alarm, ports managed by the Port Authority of Valencia remained fully operational. The adapted measures caused a reduction in productivity in the first few weeks, until the procedures and protocols had been adjusted to. Port services recovered ground, with productivity reaching the same maximum levels recorded before the pandemic. All measures were coordinated through the Ports of the State, the State-owned company responsible for the management of State-owned ports in Spain.

### *Sanitation*

The Port Authority of Valencia applied the rules and recommendations established by the Ministry of Health when defining the protocols for both internal and external operations. A key recommendation related to the use of personal protective equipment, the maintenance of physical distancing and the disinfection of all installations, as well as the establishment of protocols for interactions between personnel.

### *Economy*

With regard to the economic impact of the pandemic, the Port Authority of Valencia provided support to ports by facilitating around €10 million (\$11.24 million) as an urgent compensatory measure to mitigate the impact. Since such support was implemented, in March 2020, the Authority has streamlined the payment of €7.33 million (around \$8.24 million) to provide liquidity to 250 suppliers and service providers working for the ports managed by the Authority. The Authority anticipates that total advance payments to suppliers in 2020 will amount to €51 million (around

\$57.3 million). The objective was to provide weekly payments until the end of the national state of alarm period, to minimize treasury-related difficulties that suppliers might be facing. This measure required the Authority to establish internal mechanisms to process invoices as quickly as possible. The Authority also provided to port clients an advance of €2.64 million (around \$2.97 million) for rebates (that is, discounts on port taxes) pending from 2019, in order to reduce the impact of port taxes on both customers and port operators.

### Social

The Port Authority of Valencia set up a solidarity campaign titled *Al pie del cañon*, an initiative launched after the declaration of the national state of alarm, which sought to shed light on the important work carried out by port personnel to guarantee the supply of goods and the smooth functioning of supply chains during the pandemic. The campaign resulted in the sharing of over 100 videos by people from all along the transport logistics chain, in Spain and worldwide, who wished to explain their work and send messages of encouragement and solidarity.<sup>24</sup>

### Conclusion

It is too early to determine the full impact of the pandemic on trade and the economy; returning to normal will take time and this normality will likely differ from that expected before the pandemic. The Port Authority of Valencia witnessed declines traffic as lockdown measures were instituted worldwide; in January–May 2020, total accumulated traffic by volume for the ports managed by the Authority had dropped by 7.92 per cent, compared with in the same period in 2019. With regard to operational matters, the pandemic has had an impact on the way port operations are carried out, in particular with regard to passenger ships and cruise liners. Sanitary measures continue to be applied, along with new border control procedures. These processes will shape port infrastructure and operations in the coming years. Resilience will become an even more relevant concept with regard to supply chain management and the development of business continuity plans will be critical, to help better prepare for any future disruption from events such as pandemics or those due to climate change-related factors. Digitalization has been a driving force in the sustainability of business during the pandemic. The integration of port community systems along supply chains may be a development to pursue in the future, to foster resilience and innovation based on new technologies, which is a key element of competitiveness in an environment of traffic scarcity. Ports should also be aware of new trade patterns that will emerge and prepare infrastructure and operations accordingly. In this regard, the Authority has launched a new strategy that considers such changes in order to be better prepared for a new normal centred on a more digital, more innovative, more responsible, more resilient and carbon neutral port world. With regard to contributions to achieving the Sustainable Development Goals, this crisis could provide an opportunity to achieve more sustainable and inclusive development.

## F. EXPERIENCE OF A GLOBAL SHIPPING COMPANY: MEDITERRANEAN SHIPPING COMPANY

The spread of COVID-19 is an unprecedented global health issue, that has triggered unexpected shocks for societies and economies. The Mediterranean Shipping Company has continued to implement health protection measures to mitigate the risk to its crew and its employees worldwide and to help curb the spread of the virus. The Company has enacted established business continuity plans and switched to telecommuting for office-based employees in most countries, all of which has helped to limit disruptions to global supply chains.

### Speed of reaction

One of the biggest lessons from the first half of 2020 was the importance of acting quickly and with conviction. As soon as reports of the outbreak were received in January 2020, the Mediterranean

<sup>24</sup> The Chair of the Authority stated as follows: “These weeks that we have been experiencing a major crisis have brought to mind various elements for reflection... There is a change in the scale of values of the professions and also an update of values. Solidarity has come to play a fundamental role in these days. The crisis has unfortunately brought about job losses and dramatic situations for many families. Solidarity is vital.” The President of the Authority highlighted that “the logistics sector has lived up to what was expected of it, has responded by contributing what it knows, bringing goods, arranging it for citizens” and conveyed a message of optimism by stating that “it is worth thinking that these lived experiences can help us plan for a better future”.

Shipping Company immediately implemented robust health protection measures across its ships, infrastructure and offices, in line with guidance from the World Health Organization and in compliance with the recommendations of national authorities. The Company was also swift to implement a global ban on business travel and to cancel visits to headquarters from colleagues, customers and suppliers from end-January 2020.

### *Telecommuting*

According to a new instruction from headquarters, international meetings would be held via videoconferencing and this instruction has remained in place since then. Since the start of the pandemic, the Mediterranean Shipping Company has seen a record number of staff working in an agile way using technology and, in many instances, telecommuting. This began in January in offices in China, then extended to headquarters in Geneva and many locations worldwide. Shifting to telecommuting is part of the established business continuity plans, and this experience demonstrated, to some extent, that these processes worked. However, this form of staff deployment resulted in new experiences in implementing company plans. There has been some new understanding of the value of videoconferencing. For many, the crisis triggered an advancement in skills and knowledge with regard to videoconferencing and the efficient use of online workspaces. Guidance on taking care of one's health, while keeping up productivity levels, was regularly shared across all company agencies. In addition, the global intranet was used to disseminate information and news about the pandemic. The Mediterranean Shipping Company aims to emerge from the pandemic with a heightened internal awareness of the benefits of the use of digital tools and, as a result, greater resilience given any business continuity shocks in future.

### *Operational flexibility*

Implementing existing business continuity plans ensured that operations and customer service could continue, while company staff avoided travel and practiced confinement or physical distancing. In China, for example, the Mediterranean Shipping Company maintained operations by shifting certain functions to other offices and relying on the support of shared services centres in other regions, as part of a plan determined before the pandemic. Preserving close contacts and relationships with customers was essential. The challenge of maintaining contact with customers without face-to-face meetings was easily overcome, as most customers were in the same situation in terms of telecommuting. In addition, the Company worked continuously to adapt contingency plans and regularly advise customers of the online booking platform myMSC on how to manage changes, relying on its internal information sharing system to collect data from 155 countries. Digitalization has been slow to be adopted in container shipping. Only recently have significant changes begun to take place in documentation and booking processes, the incorporation of electronic business tools and the online connectivity of equipment. The case for investing in digital platforms and processes has become clearer and more compelling, even if the availability of funds for such investments may be affected in the short term by the impact of the pandemic on trade.

### *Essential workers*

In addition to maintaining services to support cargo flows, supporting employees that could not easily telecommute was a challenge. Seafarers were among the groups of workers most significantly affected by the pandemic, due to border closures and other restrictions on movement, which led to long shifts at sea. Among the necessary measures introduced at the height of the crisis in certain countries, ships in the Mediterranean Shipping Company fleet of 550 vessels were equipped with personal protective equipment. In addition, new company policies restricted crew from going ashore at ports. The most significant impact on seafarers were the restrictions by Governments that limited crew changes on ships in many ports worldwide. In this regard, the Company extended contracts for container shipping crew and provided social and financial support in relevant cases to help mitigate the challenges for crew at sea and to facilitate crew changes in support of seafarers and their families. Governments that took steps to designate seafarers as key workers, in line with a request from IMO, made a positive difference to the situation (see <http://www.imo.org/en/MediaCentre/HotTopics/Pages/Coronavirus.aspx>). As a company founded by a ship captain, the Company places a high value on the contribution of seafarers to its business and aims to ensure that the key role of seafarers in the economy and their contribution to well-functioning societies may be better understood. A similar label of importance and expression of gratitude should be directed, by policymakers and the general public, to employees at port terminal

depots and warehouses, as well as the drivers of trucks, trains and barges carrying containers, who have continued to work during the pandemic as and when permitted under national rules.

### *Adapting services*

To help ensure the minimum level of disruption to customers, the Mediterranean Shipping Company adapted its shipping services networks to help companies ship goods more easily. The sudden slowdown in trade resulted in necessary reductions in the capacities of container shipping networks in order to match the lower level of demand for cargo shipments. However, subsequent rebounds in trade flows following the easing of lockdown measures underscored the importance of flexible network management. In the first half of 2020, the Company helped shippers use its short-sea shipping networks, in Europe in particular, as a reliable alternative to road transport. This helped mitigate later delays at border crossing points on land that were due to restrictions on movement. The Company also introduced a suspension of transit programme for container shipping at dedicated trans-shipment hubs, as follows: Bremerhaven, Germany; PSA Panama International Terminal; Port of Busan, Republic of Korea; King Abdullah Port, Saudi Arabia; Port of Lomé, Togo; Asyaport, Tekirdağ, Turkey. This programme provided for flexibility and substantial cost savings as it enabled shippers to better control storage costs at the point of booking, while allowing them to adapt the delivery date to their needs. It also helped minimize congestion at ports of discharge and improve efficiency, as products were placed closer to distribution networks. One of the lessons learned from the crisis is to innovate not only through the provision of new services and storage solutions, but also by employing solutions from past incidents, such as reintroducing a discontinued service to help enable the partial recovery of cargo volumes on a particular route.

### *Keeping the world moving*

Despite the difficult operating conditions during the pandemic, the Mediterranean Shipping Company, as a major shipping and logistics services provider, has contributed to ensuring the high priority transport of essential goods such as food, agricultural products, raw materials and medical equipment. Container shipping lines and their customers have a crucial role in the global economy and in enabling well-functioning societies. In future, the Company aims to strengthen business continuity planning and the technology and processes related to telecommuting and digitalization, as well as to raise awareness of the essential role of all personnel in container supply chains, in particular at sea, to keep the blood flowing in these arteries of the global economy.

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