



# COVID-19 AND ITS IMPACT ON SHIPPING AND PORT SECTOR IN ASIA AND THE PACIFIC

## Transport and trade connectivity in the age of pandemics

UN solutions for contactless, seamless and collaborative transport and trade

Technical note  
30 September 2020

# Executive summary

For the most countries in Asia and the Pacific, shipping represents a doorway to the global economy and, for some of them, it is a lifeline for social and economic development. Asia-Pacific countries have made great efforts to maintain their ports operational while protecting transport and port workers.

Still the ongoing and expected contraction of production and consumption due to COVID-19 led to a slowdown in maritime trade, reducing shipping demand and port traffic and turnover. The response strategy of container shipping alliances, i.e. stopping services on certain routes or canceling port calling, makes the supply of shipping services more unstable. In parallel, the COVID-19-related restrictions, have caused port congestion and delays in cargo loading/unloading, undermining region's maritime supply chain and connectivity.

On the other hand, in line with a global trend, the pandemic accelerated digitalization in the shipping sector. It also led to an important, if temporary, reduction in carbon dioxide emissions. However, this decrease may be easily offset as things go back to normal and business as usual practices.

As Asia and the Pacific remains highly dependent on overseas markets and closely connected to the global economy through global value chains, the shipping and logistics sector in Asia-Pacific will need to adjust and prepare for post-pandemic recovery. The economic fallout from the pandemic is likely to strongly impact the small island developing states (SIDS) in the Pacific. . Decreased exports of primary goods due to reduced demand from major importing countries and decreased demand of imports due to the economic downturn in Pacific island countries could further weaken the services of shipping companies in the Pacific region.

As a result, a coordinated regional response is required to ensure the continued smooth operation of global supply chains and the health and safety of shipping-related personnel. The current priorities for regional cooperation include coordination of data collection and analysis of the shipping and port responses to COVID-19, enhancing regional collaboration to meet the special needs SIDS and supporting the establishment of regional cooperation mechanisms for coordinated response to COVID-19 and future disruptions.

## Acknowledgements

This technical note on *COVID-19 and its Impact on Shipping and Port Sector in Asia and the Pacific* has been prepared in line with the ESCAP Framework on Socio-economic response to COVID-19 and as part of the activities of the UNDA project "Transport and trade connectivity in the age of pandemics: Contactless, seamless and collaborative UN solutions".

It was jointly drafted by the ESCAP's Transport Division and UNCTAD's Trade Logistics Branch, Division on Technology and Logistics, in cooperation with the ESCAP sub-regional office for the Pacific. The note has also benefited from substantive contribution from the Pacific Community.

# Introduction:

The COVID-19 Pandemic is unprecedented socio-economic crisis which calls for unparalleled multi-sectoral response in Asia and the Pacific to protect people and enhance resilience, support economic recovery and restore supply chains and support SMEs.<sup>1</sup>

Shipping and ports are a major part of such a response. For most countries in Asia and the Pacific, shipping represents a doorway to global economy. In many cases, especially in SIDS, shipping is a lifeline linking local communities to the regional and global markets and sustaining local social and economic development. Continued and efficient shipping and port operations are, therefore, crucial both for short term policy response to the Pandemic and for speedy and sustainable recovery.

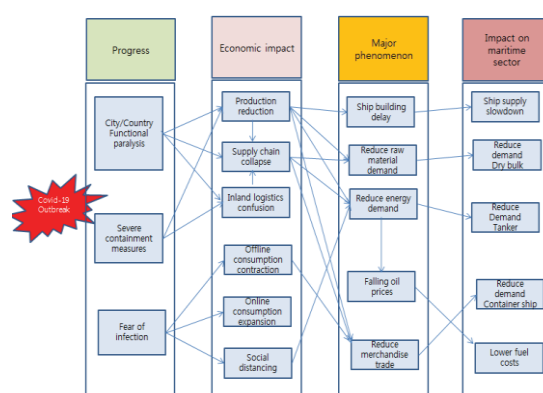
In this context, the current policy brief focuses on the impact of the pandemic on the shipping and port industry and the policy responses on COVID-19 in Asia-Pacific. It also considers the specific vulnerabilities of the Pacific islands. In its conclusion, the brief offers policy recommendations on shipping and port sector in the COVID-19 context.

## I. Impact of the COVID-19 Pandemic on global shipping

Demand for shipping services is a derived demand, directly influenced by economic cycles and international trade. Accordingly, the ongoing and expected contraction of production and consumption due to the spread of COVID-19<sup>2</sup> affects the entire shipping industry.

The economic downturn has weighed down on maritime trade flows which are projected to fall in 2020. The decrease in production and consumption activities leads to a slowdown in maritime trade, which in turn reduces shipping demand and port traffic and turnover. Existing estimates are pointing to significant drops in maritime trade flows in the second quarter of 2020. Bearing in mind the heightened uncertainty surrounding any long-term forecast, some observers are expecting global maritime trade to contract significantly.<sup>3</sup>

**Figure 1: Impact of COVID-19 on shipping**



Source: UNESCAP, compiled from various sources.

The data available gives some preliminary indication of the impact. The Baltic Dry Index (BDI)<sup>4</sup> (January 1985 = 1000 points), recorded 275 points in May, the lowest point in the past four years, falling 89.1 per cent in comparison with September 2019.

Although the recent decline in BDI is due to multiple factors including the January 2020 Chinese lunar new year, it is very likely that the main reason for such a significant decrease is the reduced economic and trade activity caused by COVID-19.

<sup>1</sup> Socio-Economic Response to COVID-19: ESCAP Framework, 20 May 2020, available at: <https://www.unescap.org/resources/socio-economic-response-covid-19-escap-framework>

<sup>2</sup> See relevant forecasts by the World Trade Organization, available at: [https://www.wto.org/english/tratop\\_e/covid19\\_e/covid19\\_e.htm](https://www.wto.org/english/tratop_e/covid19_e/covid19_e.htm)

<sup>3</sup> UNCTAD (2020). Review of Maritime Transport 2020 (forthcoming). New York and Geneva.

<sup>4</sup> The Baltic Dry Index (BDI) is reported daily by the Baltic Exchange in London. The index provides a benchmark for the price of moving the major raw materials by sea. The index, tracks rates for Capesize, Panamax and Supramax vessels that carry dry bulk commodities. The Baltic Dry Index is not restricted to Baltic Sea countries or to a few commodities like crude oil. Instead, the Baltic Dry Index takes into account 23 different shipping routes carrying coal, iron ore, grains and many other commodities.



**Figure 2: 2020 trends of Baltic Dry Index**



Source:

<https://tradingeconomics.com/commodity/baltic>, accessed on 12 August 2020

Trends in the World Container Index (WCI), which reflects the container freight rates of 11 shipping routes around the world, underscore the depressed conditions in the container shipping market over the first half of the year. Container freight rates underperformed earlier in the year before recovering as of mid-May 2020.

Global container shipping volumes fell by 5.1 per cent in the first quarter of the 2020 compared with the first quarter of last year, with volumes down by 2.1m TEU at 38.2m TEU.<sup>5</sup> However, the impact of lower demand on freight rates was moderated by strict ship capacity management by carriers.

As shown in Figure 3, the world container index has been recently on the rise. This may be the result of ship supply capacity removed by shipping carriers to match lower demand in the first half of 2020. Carriers have been slow at reintroducing ship carrying capacity despite some recovery of cargo traffic, including cargo originating and destined to China.

**Figure 3: World container index**

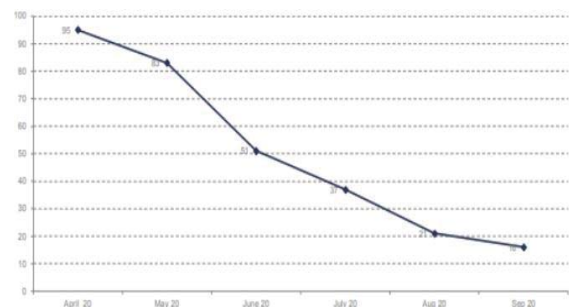


Source: Drewry Maritime Research, September 2020.

With the onset of the Pandemic ship operators have embarked on massive service cancellation, leading to growing numbers of Blank Sailings.<sup>6</sup>

These have increased significantly compared to previous years, with 188 in February/March 2020, of which 85 were on the Asia-North America West Coast trade routes and 49 on the Asia-North Europe trade routes. The trend to blank sail continues with September and October services of three alliances such as 2M, THE and OCEAN's operating on the three major East West routes, being canceled. Meanwhile, however, overall trend suggests a gradual recovery in the world economy.

**Figure 4: Blank sailings world-wide**



Source: Bollore Logistics, COVID-19 Market Outlook, 31 August 2020.

<sup>5</sup> <https://www.shippingherald.com/container-shipping-massive-blanking-of-sailings-has-supported-freight-rates-as-demand-collapses/>

<sup>6</sup> A blank sailing (a void sailing) is a sailing that has been canceled by the carrier. A blank sailing could mean a vessel is skipping one port, or that the entire string is canceled.

Decreasing demand for container transport has reduced the activity in container ports. Volume handled at major container ports fell by 6 per cent in both February and March 2020 compared with the previous year.<sup>7</sup>

Container cargo handled at Chinese ports, fell by 5 per cent in January, 17 per cent in February and of 2 per cent in March.<sup>8</sup>

On the Transpacific East-West container trade route, volumes between Asia and North America fell d by 4.3 per cent year-on-year (19.1Q/20.1Q) and 11.1 per cent quarter-on-quarter (19.4Q/20.1Q).

Volumes on the Asia- North Europe route declined by 6.6 per cent year-on-year (19.1Q/20.1Q) and 4.8 per cent (19.4Q/20.1Q).

According to Drewry, the global container port traffic was expected to grow at an average annual of 3.5 per cent over the next five years. Europe and North America were projected to grow 2.3 per cent and Asia 3.9 per cent.

In short, the year 2020 is a challenging year for the shipping sector, with maritime cargo flows expected to contract over the full year, as compared with 2019.

**Table 1: Container trade volume in two major East-West routes (Ten thousand TEU)**

Route	'19.1Q	'19.2Q	'19.3Q	'19.4Q	'20.1Q	YoY 19.1Q/20.1Q	QoQ 19.4Q/20.1Q
Trans-Pacific Eastbound	4,684	4,915	5,608	5,043	4,483	▽201 TEU (▽4.3%)	▽560 TEU (▽11.1%)
Trans-Pacific Westbound	1859	1901	1833	1826	1818	▽41 TEU (▽2.2%)	▽8 TEU (▽0.4%)
Asia-North Europe Westbound	2,534	2,732	2,731	2,485	2,365	▽169 TEU (▽6.6%)	▽120 TEU (▽4.8%)
Asia-North Europe Eastbound	1266	1404	1415	1368	1315	49 TEU (3.8%)	▽53 TEU (▽3.8%)

Source: Drewry Maritime Research (2020), Container Forecaster. First Quarter. March 2020.

**Figure 5: Projected regional container handling and average annual growth, 2019-24**



Source: Drewry, Global Container Terminal Operators Annual Review and Forecast 2020/21, June 2020

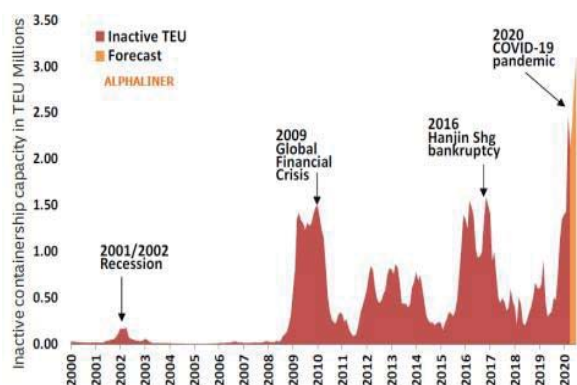
<sup>7</sup> Source: International Transport Forum, COVID-19 Transport Brief, April. 2020.

The debate over the recovery of the world economy is currently unfolding with varying forecasts put forward being tentative and subjective to a high degree of uncertainty. The unpredictability of the pandemic's trajectory and

uncertainty about the effectiveness of relevant policy response measures, including the varied stimulus packages announced or introduced, make any prediction about the timing and scale of the recovery a difficult task. That being said, some existing estimates are pointing to some recovery in 2021. Careful reopening of the world economy and government support provided to impacted industries, are likely to contribute to the recovery. as the views vary however as to the precise timing of the full recovery.

Meanwhile, strict ship capacity management by shipping carriers, is likely to result in making the supply of shipping services more and more unstable, and, potentially drive up freight rates as supply and demand balance is disrupted. Figure 6 below highlights the rise in the idled ship capacity observed in 2020 resulting from the pandemic.

**Figure 6: Inactive containership capacity 2000-2020(F)**



Source: Ocean Freight Market Update, DHL. May 2020.

## II. Asia-Pacific Policy responses on COVID-19 in the shipping and port sector

The need to contain COVID-19 has led to restrictions on the entry and exit of major transport corridors through land, sea, and air, as well as restricted or controlled movement within the countries.<sup>9</sup>

Passenger transport faced particularly great difficulties due to containment and strict quarantine measures implemented for passengers and transport workers. Restricted entry was allowed only if safety was ensured and, accordingly, in most countries, yachts, leisure boats and passenger ships have been suspended, with a particularly striking impact on the cruise ship industry. Freight transport, especially by road has experienced severe interruptions in the delivery of its services.

Although COVID-19 has weighed down on shipping demand and port traffic, shipping continued to play a key role in the global supply chain, transporting all goods, including essential goods, quarantine supplies, daily necessities and industrial products. This was crucial in the situations where land logistics were not functioning properly due to land border closures and containment and quarantine procedures.

As many countries introduced restrictions to land transport and border crossings, keeping maritime transport and ports operational became crucial to preserving the well-functioning of international supply chain.

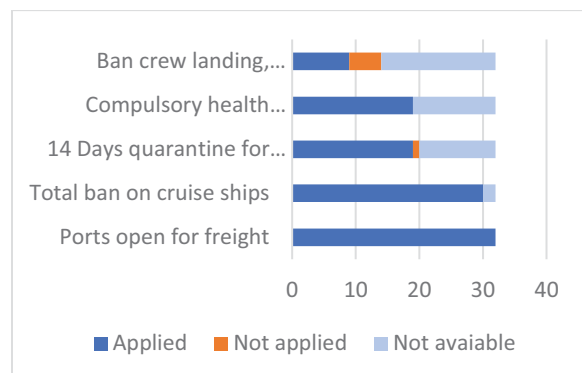
An initial analysis of Asia-Pacific countries' responses to COVID-19, shows a great similarity in the responses, as countries have strengthened the quarantine and control over entry and disembarkation of freight ship by such measures as disallowing crew shifts in their own ports, prohibiting crews from landing, prohibiting contact with unloading personnel, and quarantine of crews and ships for 14 days at anchorages. In addition to the measures that aim to prevent the spread of COVID-19 as described above,

sector and country.

<sup>9</sup> <https://www.unescap.org/covid19/policy-briefs>. ESCAP provides policy brief and related data in response to COVID-19 in Asia and the Pacific by

countries introduced measures to facilitate the clearance of goods, especially of essential goods and medical supplies.

**Figure 7: Implemented measures by number of countries**



Source: UNESCAP, compiled from various sources for the repository of COVID-19 transport measures, April 2020

As can be observed, most of the ESCAP member countries have taken steps to prohibit the entry of cruise ships with large numbers of people on and off, except for countries where cruise ships do not call.<sup>10</sup> In addition, most countries require 14 days quarantine period for ships, as well as various additional requirements, including compulsory health certificates to prevent infection of port workers.

In accordance with most common practices, if the cargo ship proves its compliance with the quarantine measures and there is no problem with the health of the crew, it can call at ports of other countries. At the same time, while in some cruise terminals entry was permitted and passengers managed to disembark and be repatriated, this was not possible for the crew of the shipping vessels crew, who had to remain on board.

Some of these measures, together with the country lockdowns, have caused port congestion and delay of unloading of cargo in ports, as well as adversely affected the seafarer's working

<sup>10</sup>. Due to the strict application of these measures, the loading and unloading of some ports has been delayed, but in most countries, port operations are normal.

conditions. For example, quarantine of most ships, including those departing from strongly affected countries, is carried out in anchorage area and berthing is permitted only if there are no health problems. Therefore, ships operating on short-distance routes with a voyage distance of less than 14 days often must wait the completion of the 14 days period in the outer port, causing additional costs and delays.

**Table 2: COVID-19 related measures in the ports of Asia and the Pacific**

- Keeping cargo ports operational, while closing cruise ports
- 14-day quarantine, since the day of departure, for vessels arriving from countries affected by the pandemic
- Additional safety measures for seafarers who have traveled to affected areas
- Allowing cargo to be transported directly to manufacturing plants without entry into the terminal to avoid delayed unloading and shortage of storage space at seaports driven by the concentration of imports
- Prohibiting disembarkation and change of sea crews
- Strict quarantine measures if the crew disembarkation is allowed

Source: UNESCAP, compiled from various sources for the repository of COVID-19 transport measures, April 2020.

In line with a global trend, the pandemic prompted accelerated digitalization in the public and private sector. It boosted the use of new technologies such as container terminal automation, use of Big Data, Artificial Intelligence, Internet of Things, Digital Twin technologies, 5G telecommunication network and Block-chain.<sup>11</sup>

<sup>11</sup> See: [https://www.joc.com/international-logistics/covid-19-accelerate-digitalization-automation-container-shipping\\_20200326.html](https://www.joc.com/international-logistics/covid-19-accelerate-digitalization-automation-container-shipping_20200326.html)

## COVID-19 and Port Digitalization in India

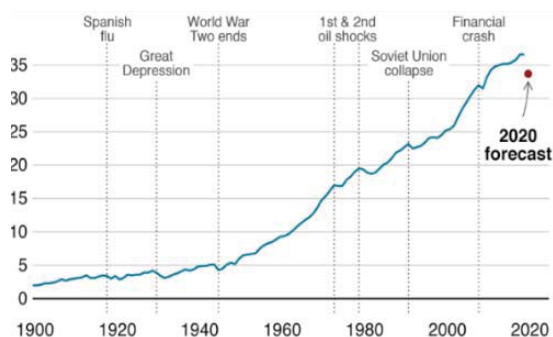
India's Port Community System (PCS) could be a game changer as the Indian Ports Association (IPA) under the aegis of the Ministry of Shipping has taken steps towards digitizing some of trade related process through PCS. The PCS is intended to integrate the electronic flow of trade related document/information and function as the centralized hub for the ports of India and all concerned stakeholders like Shipping Lines/Agents, Surveyors, Stevedores, Banks, Container Freight Stations, Inland Container Depots, Customs Brokers, Importers, Exporters, Railways/CONCOR, Government regulatory agencies, etc.

Source: The Economic Times, 22 May 2020.

In addition to improving operational efficiency and reducing operating costs, digitalization helped ensure uninterrupted functions in the conditions of the reduced port personnel and the need to limit physical contacts.

Finally, the contraction of economic activity led to important carbon emission reductions that would not have been possible under normal circumstances. Reduced industrial activity and energy demand resulted in reduced greenhouse gas emissions (GHG) in all industries, including the transport sector.

**Figure 8: Global carbon dioxide (CO<sub>2</sub>) emissions, 1900-present (Billion tonnes of CO<sub>2</sub> per year)**



Source: Global Carbon Project, CDIAC & IEA, May 2020

it should be noted that during recession or downturns, GHG emissions from ships tend to decrease as ship operations are reduced in line with reduction in economic activity and trade. However, these environmental sustainability gains are very likely to be offset once things go back to normal and *business as usual* practices resume.

In addition, there are signs that some companies are reviewing new investments, such as investments in LNG fueled ships due to financial deterioration.<sup>12</sup> While shipping companies, in particular in container shipping may have effectively managed supply and maintained profitability, there remains a risk, depending on how trends continue to evolve, that the financial situation in shipping may deteriorate (e.g. a second hit of the pandemic or a protracted recovery). It may therefore be argued that if negative trends persist, investment in eco-friendly equipment and solution and, generally, the environmental sustainability agenda, may be undermined.

### III. COVID-19 and maritime connectivity in the Pacific

All the Pacific island countries, connected to other regions and global markets solely through air and maritime transport, have declared a state of emergency and stopped the actual operation of passenger aircraft and ships in order to contain the spread of COVID-19.

These proactive actions have resulted in moderate level of the COVID-19 infections in the sub-region, but the economic fallout from the pandemic have had a strong impact in the Pacific countries. As recently recalled in the ESCAP Theme Study *on Changing Sails: Accelerating Regional Actions for Sustainable Oceans in Asia and the Pacific*<sup>13</sup>, the Pacific islands continue to struggle with low levels of maritime connectivity, i.e. more expensive and less frequent and reliable shipping services.

<sup>12</sup>

<https://energy.economictimes.indiatimes.com/news/oil-and-gas/saudi-aramcos-bahri-puts-lng-tanker-plan-on-hold/75890510>

<sup>13</sup> <https://www.unescap.org/publications/changing-sails-accelerating-regional-action-sustainable-oceans-asia-and-pacific>



The COVID-19 pandemic further amplified the instability of shipping services in the Pacific, due to the delays caused by strict quarantine procedures and other COVID-19 related measures. In particular, the 14-day quarantine rule imposed by most Pacific Island countries on arriving international ships created disruptions to the normal operation of cargo liner shipping services to the region. The extended duration for completion of a round trip led to reduction in the frequency of port calls and increases in shipping costs.

Even if in the case of the Pacific countries, the 14-day quarantine for crews was resolved naturally

**Table 3: Maritime Transport Facilitation measures in the Pacific**

<ul style="list-style-type: none"> <li>○ Ships and ferries continue to operate for essential freight and to move essential workers.</li> <li>○ For imported supplies, all local Customs are required to open exclusive counters and green lanes 24/7 to ensure fast clearance in the ports.</li> <li>○ Cargo ships carrying goods and petrol will be granted port access.</li> <li>○ Exempted fishing vessels, container vessels and fuel tankers are required to spend 14 days at sea prior to entry to continue to allow food and supplies to enter the country.</li> <li>○ Due to the limited number of port officials, essential goods such as pharmaceuticals and COVID-19 related goods are of higher priority.</li> </ul>
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Source: UNESCAP, compiled from various sources for the repository of COVID-19 transport measures, April 2020.

due to the long transport period, further efforts were made by the countries to prioritize the entry of cargo ships. In addition to facilitation measures for the transport of priority goods, port authorities have been trying to operate ports normally under limited conditions.

Shipping companies responded to the pandemic by revising both their schedules and routes in order to comply with the 14-day requirement while optimizing the new routes to minimize inefficiency. One shipping company introduced a quarantine surcharge to recover this cost while another company was expecting financial assistance from the Government to account for the costs of delay due to quarantine requirement. Others sought to offset this cost with the drop in oil price in the short run but planned to increase freight rate if quarantine requirement will continue in the long run.

When Pacific Countries declared state of emergency, most of them issued the quarantine rule to ships with short notice and immediate effect. This resulted in ships skipping some of their scheduled port calls either to minimize delays in their schedule or because they did not have sufficient fuel on board to cater for the extra waiting time in ports. Following a couple of skipped calls some of the ports reduced their quarantine requirement from 14 days to a much shorter period and in some cases allowed exemption of quarantine for the shipment of urgent cargo. Together with better preparation by shipping companies, this move resulted in cases of fewer ships skipping port calls.

The condition of the 14-day quarantine requirement differs from country to country but generally, ports without the 14-day requirement were the least affected in terms of delays and loss of port calls. Ships would prioritize calling at those ports first as this would compensate for the 14 days of quarantine elsewhere. Cargo liner services for Fiji, Tonga, Tuvalu and Wallis and Futuna were hardly affected while Samoa, Kiribati, Marshall Islands and Nauru experienced more delays and skipping of port calls.

In parallel, tropical cyclone Harold affected Vanuatu, Fiji and Tonga in the first half of April together with the total lockdown of Lautoka City including the Lautoka Port for more than two weeks. As Lautoka is a key transshipment port, it affected cargo destined to other Pacific Islands. This resulted in one of the island nations not receiving a ship call for a period of almost three months causing shortages in the supply of goods.

In terms of cargo volume, the slowdown in production activity in China at the beginning of 2020 and the close down of many businesses in New Zealand and Australia resulted in a drop in volume to the Pacific islands in March and April 2020 as compared with March and April 2019. Importers faced difficulties when ordering products as purchasing agents found some items completely out of stock while other items had limited quantity for exports. Matson South Pacific in May 2020 moved from three vessels on a 9-day frequency to two vessels at a 15-day frequency in one of its routes as a temporary response to this drop in freight volumes.

Data collected from shipping companies and ports in the Pacific confirms that freight volumes bounced back to normal in May and June. Shipping schedules have mostly returned to normal as shipping companies now adapt to the new arrangements and some Governments have started to relax some of the quarantine requirement. The ship/port interface operations were mostly normal throughout and ship turnaround time were largely not affected despite the additional requirements for personal protective equipment and social distancing for port workers, stevedores, seafarers and border agencies.

Still, the maritime connectivity in the Pacific region has suffered a significant setback due to the Pandemic. The 14-day quarantine rules imposed in some Pacific Island countries and the decline in demand for exports from Pacific countries led to stability of the service on the Pacific route and the decrease in port calls at some ports. Moreover, temporary suspension of shipping services has affected import of essential goods such as energy, medical products and food rather than export cargo of raw materials. As exports of primary goods are decreasing due to a decline in demand from major importing countries, including China, maritime services in the Pacific Islands remain vulnerable to the shipping industry's decisions to stop or skip shipping services. Finally, vulnerability to natural events and related disruptions compound the negative impact of the

COVID-19 and undermine the maritime trade and shipping connectivity of countries in the Pacific

#### IV. COVID-19: implications for maritime connectivity

The Asia-Pacific region faces a transformed business environment due to the economic fallout of the pandemic, including the disruption to global production and manufacturing activity as well as changes to consumption and demand patterns. The Asia-Pacific region, which has established itself not only as a factory of the world but also as a consumer market, is at the forefront of debate on global supply chain reconfiguration that may result from the COVID-19 experience.

The immediate impact of the pandemic on shipping and ports includes factors at both the downside and upside.

On the negative side, the shipping and logistics market is directly affected by negative trends in the world economy and the decline maritime trade and port traffic volumes. While the burden on the shipping industry will be somewhat eased due to the lower oil price and bunker fuel levels, ship and port investment can be expected to be negatively affected as activity and revenues come under pressure due to some ongoing developments, including:

- **Lower global trade and greater supply chain uncertainty:** Growth in trade volume can be expected to decelerate. The primary economic impact of COVID-19 infections stems from the prohibition of labor movement<sup>14</sup> and production shutdowns due to infection expansion or infection control measures. The primary shock adds a secondary shock to the supply of products or the procurement of intermediate goods across the global economy, leading to a decrease in production and consumption in major countries, which can paralyze the global supply chain for a period of time.<sup>15</sup>

<sup>14</sup> As of 22 April 2020, 81 per cent of employers and 66 per cent of own-account workers lived and worked in countries affected by recommended or required workplace closures, with severe impacts on incomes

and jobs ILO (2020) ILO Monitor: COVID-19 and the world of work. Third edition 29 April.

<sup>15</sup> According to IMF, forecast issued in June 2020, global gross domestic product is projected to fall by

Trade could also be negatively impacted if protectionism sentiment and trade tensions are amplified.

- **Impact on profits of some shipping companies:** Low oil prices are advantageous for operating costs, but the profits of container carrier vary from carrier to carrier depending on reduced demand, management of idling vessels, and freight rates by route. Although it is a challenges time due to the COVID-19 pandemic, it is necessary to recognize that the container division's profits are recovering from the initial shock, and there are differences depending on the shipping company's strategy, services routes and fleet composition.
- **Slower port growth:** As predicted by many organizations, this year's port volume will decline due to reduced demand. Strict quarantine measures have had some effect on detention and congestion at the port, but most of them are currently resolved. On a more positive side, the pandemic prompted or underscored the need for:
- **Greater integration of transport services:** The COVID-19 crisis highlighted once again the direct impact of the hinterland connectivity on ports' resilience. The supply chain is strengthened around the port and logistics centers, as a core element of the multimodal transport system.
- **Acceleration of digital logistics & smart port:** Promoting smart logistics and port through the convergence of 4th industrial technologies such as Block-chain, Big data, Artificial intelligence, Automation and robot. The smart port's cargo handling ultimately facilitates unmanned operations in ports and associated logistics chain. However, there are issues such as unemployment, education and training for the relocation of existing employees.
- **Proliferation of comprehensive logistics service providers:** Shipping lines have changed from a single mode operator in charge of ocean sector to a platform integrator that provide transportation,

logistics consulting, risk management and so on as the Third-Party and the Fourth Party Logistics.

In the **longer** term, the shipping sector and associated logistics services may need to deal with a series of trends, including:

- **Restructuring of the global supply chain and spread of re-shoring:** Many global companies are considering restructuring their supply chains at the risk management level as fragmented production strategies showed vulnerability in the COVID-19 crisis. However, diversification of suppliers and re-shoring requires additional investments and changes in logistics methods and routes, so companies are contemplating multiple options. It is possible that many manufacturing companies withdraw from the Asian continent and relocate, including to the countries promoting re-shoring by providing corporate tax cuts and other incentives.
- **Increased importance of global supply chain risk management:** Infectious diseases are less addressed in the Business Continuity Planning (BCP) than natural disasters or other risks. In the event of a similar epidemic in the future, a business continuity planning is needed at the national level as well as at the enterprise level to smoothly operate the global supply chain and minimize its impact.
- **Expansion of contactless and digital services:** The proliferation of contactless services, which have rapidly emerged during the pandemic, is expected to further accelerate the digitalization process. Face-to-face and paper-based business processes have been shown to be vulnerable to disruptions caused by pandemics and health risks and require investment in digital infrastructure for uninterrupted logistics and rapid business process including efficient communication among stakeholders. However, as information technology advances and the network society proliferate, security threats such as cyber terrorism, hacking, or leakage of sensitive information

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4.9 per cent in 2020. .

will increase. such as encryption, strict and transparent information management, and Block-chain will be required

In short, the COVID-19 pandemic should result in significant changes in the shipping and port services, with lasting impact on nature and the structure of the industry.

**Table 4: Changes in the shipping and port sector due to COVID-19**

	Short term changes	Potential Long term/Structural change
<b>Shipping &amp; logistics</b>	<ul style="list-style-type: none"> <li>Decreased maritime trade</li> <li>Vulnerable in ports with low trade volume due to fleet adjustment including blank sailing</li> <li>Delayed customs and port clearance</li> <li>Increased ship waiting time and delaying crew shift</li> <li>Relatively high freight rates that could further increase if capacity continues to be constrained and demand/supply mismatch occurs.</li> </ul>	<ul style="list-style-type: none"> <li>Facilitated digitalization</li> <li>Increased risk management costs</li> <li>Intensified merger and acquisitions and competition among companies</li> <li>Increased demand for digital professionals</li> <li>Supply chain reconfiguration and design</li> </ul>
<b>Ports</b>	<ul style="list-style-type: none"> <li>Increased workload due to the quarantine and health controls</li> <li>Increased port volume volatility</li> <li>Shortage of container stacking yard during congestion</li> <li>Slowdown of port economy</li> <li>Challenges to smooth inland transport operations and hinterland connections</li> <li>Changes in port calls and port connectivity</li> <li>Challenges to yard operations due to peak port calls (i.e. less frequent calls but larger port call exchanges)</li> <li>Storage and warehousing capacity constraints</li> </ul>	<ul style="list-style-type: none"> <li>Greater use of technology and digital tools to build smart port and automated ports</li> <li>More focus on increasing resilience and robustness of operations to wide-ranging risks, including from pandemics</li> <li>Higher focus on port safety and security</li> <li>Greater use of integrated transport services and inland transport operations</li> <li>Supply chain reconfiguration and design that may change port network configuration</li> </ul>

Source: Authors, 2020.



## V. Opportunities for regional cooperation

The COVID-19 pandemic is a strong reminder of the need for greater regional cooperation and its benefits. As a result of the crisis, a coordinated regional response is required to ensure continued smooth operation of global supply chains.

While maritime shipping and ports played a key role in helping societies and economies remain afloat at the height of the unprecedented disruption caused by COVID-19, the crisis exposed some of their vulnerabilities and the need for a more sustainable and resilient shipping and port systems in the aftermath of COVID-19.

Regional cooperation in the field of sustainable maritime connectivity in Asia and the Pacific would need to focus on the following key areas:

**Area 1: Coordination of data collection and analysis of the shipping and port responses to COVID-19 and their effectiveness:** As many international organizations, research institutes and academia have begun to analyze the economic and social impacts of COVID-19, coordination and cooperation are keys for coherent and solid analysis. An example of such cooperation is the ongoing UN rapid response project on “Transport and trade connectivity in the age of pandemics: Contactless, seamless and collaborative UN solutions”, which brings together UNESCAP, UNCTAD and four other UN regional commissions to help governments and businesses keep transport networks and borders operational and facilitate the flow of goods and services, while containing the spread of the coronavirus.

**Area 2: Supporting the establishment of regional cooperation and coordination mechanisms for joint responses to COVID-19 and future disruptions:** In the early days of COVID-19, confusion arose as many countries individually closed borders and restricted access without coordination with neighboring countries. Confusions arose over different quarantine

procedures in ports, creating congestion or sending ships wondering over high seas. With time, regional and sectoral coordination has started to emerge, as the need for coordinated response become apparent.<sup>16</sup> A unified, standardized process at the global and/or regional level, should be established, which can be applied in situations such as COVID-19, to prevent unnecessary delays of vessels carrying essential goods and supporting international trade and to bring a social safety net for transport workers (especially crew), who continue to be directly affected by the crisis.<sup>17</sup>

### One UN action on protecting seafarers

On 13 August 2020, the United Nations Secretary-General recommended issuing a joint UN statement, under the leadership of IMO and ILO, calling on Governments to recognize seafarers as “key workers”.

On 10 September, 8 UN agencies, led by IMO, issued a joint Statement calling on all Governments to immediately recognize seafarers as key workers, and to take swift and effective action to eliminate obstacles to crew changes, so as to address the humanitarian crisis faced by the shipping sector, ensure maritime safety and facilitate economic recovery from the COVID-19 pandemic

For more information:

<http://www.imo.org/en/MediaCentre/HotTopics/Pages/Coronavirus.aspx>

**Area 3: Enhancing regional collaboration to help address the special situation of SIDs:** The Pacific countries, which are experiencing severe economic and social shocks due to the COVID-19 pandemic, are suffering additional challenges through shrinking of maritime tourism industry and reduced maritime transport connectivity. Cooperation and support from the international community are essential for their rapid recovery.

<sup>16</sup> For instance, 20 port authorities have signed a Declaration to Keep Ports Open to Seaborne Trade to Support Fight Against the COVID-19 Pandemic. (<https://www.oceanplus.gr/ports/61-20-port-authorities-signed-declaration-to-keep-ports-open-to->

seaborne-trade-to-support-fight-against-the-covid-19-pandemic)

<sup>17</sup> International Chamber of Shipping (2020). “Coronavirus (COVID-19) Guidance for Ship Operators for the Protection of the Health of Seafarers”, March .

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