This chapter provides an overview of important international legal issues, including the commercial law implications of the ongoing COVID-19 pandemic, as well as recent regulatory developments relevant to international maritime transport and

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AND REGULATORY
DEVELOPMENTS

A. COMMERCIAL LAW IMPLICATIONS OF THE COVID-19 PANDEMIC

The ongoing COVID-19 pandemic and related response measures have resulted in significant operational disruptions and delays across global networks, with important implications for the performance of international commercial contracts. In all cases where performance is disrupted, delayed, or has become impossible, legal consequences and claims arise, increasing the need for dispute resolution and giving rise to complex jurisdictional issues. Much global commodity trade is conducted on cost, insurance, freight (CIF) and free on board (FOB) terms and more than 80 per cent of the volume of global merchandise trade is carried by sea. To reduce the need for costly litigation and to help inform commercial contracting practice it is important to understand the legal implications of the pandemic for closely interconnected commercial contracts.

UNCTAD has provided advice and guidance as part of related technical assistance in the context of a multi-agency technical assistance project on transport and trade connectivity in the age of pandemics. This highlights key legal implications for different types of commercial contracts and the need to allocate commercial risks through suitably drafted contractual clauses. Relevant considerations vary, however, depending on the type of contract and the relative bargaining power of the parties.

Time and voyage charterparties involve individually negotiated contracts for the hire of an entire vessel. These contracts offer scope for carefully designed clauses that allocate the commercial risks associated with the pandemic. Line carriage on the other hand is a highly concentrated industry, dominated by few global carriers. In these cases, carriage is on the carrier's standard terms and not subject to negotiation. Typically, they allocate the risk of pandemic-related delay and disruption to the shipper/consignee, subject to the mandatory provisions of any applicable international cargo-liability regime. Further detailed information is available in several reports,³ and as part of related training materials.⁴ Relevant recommendations from UNCTAD's analysis include the following:

- For charterparty contracts, commercial parties should consider including contractual risk allocation clauses. Most standard form clauses shift the risk of delay to the charterer, though ideally relevant risks should be equitably apportioned between the two parties. These clauses can also affect parties to bills of lading and sub-charters, as the clauses mandate their incorporation into these third-party contracts. Relevant clauses should be amended to ensure that any provision which imposes indemnity obligations on the charterer is not subject to incorporation.
- For dispute resolution during the pandemic, parties may contractually agree on jurisdiction or arbitration in a forum that enables hearings to continue online; examples are the United Kingdom, the United States, or Singapore.

Contracting parties may also consider:

- Using amended force majeure clauses which refer to performance being 'hindered' rather than
 'prevented' by the listed force majeure events. Voyage charterers should aim to agree clauses that
 cover both provision of cargo and loading/discharging of cargo. For use of a force majeure clause
 during the pandemic, it is important to be as clear as possible, to ensure that the operation of the
 clause is not limited to force majeure events that 'could not reasonably have been foreseen at the
 time of the conclusion of the contract'.
- Including an infectious diseases clause. In particular, there should be some provision for apportioning
 costs in the event of redirection caused by restrictions in the nominated discharge port. The costs
 of transhipment should not fall wholly on the cargo owner. A good example of a suitably balanced
 clause is the BIMCO Infectious or Contagious Diseases Clause for Time Charterparties, that was
 published in June 2022.⁵
- Including a deviation clause to deal with crew changes, and taking sick crew to a hospital on shore, and a mechanism for apportioning related costs.
- For voyage charters, parties may consider appropriate clauses to share the risk of pandemic-related delay; for instance, by using notice of readiness (NOR) provisions like in *The Linardos* [1994] 1 Lloyd's Rep. 28 (QB), so that time can start upon giving NOR at the relevant place but laytime will cease to count for time lost due to the vessel not actually being ready. Such a clause would place the risk of delay due to congestion on charterers, but with laytime interrupted for any additional delay caused by fault of the owners leading to additional quarantine due to crew testing positive. The risk of delay due to slower working practices at the port in loading and discharging operations would be on the charterer, but this could be assessed in negotiating the amount of laytime available to charterers when the fixture was being negotiated.

- For time charters, the charterers may negotiate for off-hire clauses to have the word 'whatsoever' added after 'any other cause'.
- Bill of lading clauses could be modified to ensure a more equitable distribution of pandemic-related risks, for instance by apportioning transhipment costs in the event of discharge at an alternative port; or by providing a contractual cap on container demurrage, and extension of free time, when the port of discharge is subject to delays in returning containers. Given the significant imbalance in bargaining power of the parties where cargo is carried on the carrier's standard terms, it is unlikely that in practice a carrier would agree to increase its liability beyond the mandatory levels in any applicable international convention. Some commercial pressure could, however, be exerted indirectly by CIF or FOB buyers: these parties could aim to include in their sale contracts a provision that requires the seller to tender a bill of lading which provides for a reasonable allocation of pandemic-related risks. Bill of lading clauses that are considered incompatible with the mandatory provisions on carrier liability contained in any applicable international cargo liability regime could be set aside as invalid by the courts.⁶
- Finally, in the light of the extraordinary circumstances of the ongoing COVID-19 pandemic, it would be hoped that commercial parties, in appropriate cases, also consider showing some restraint in exercising some of their legal rights and claims, so as to limit the need for costly legal disputes.

Related considerations for policymakers include the following:

- Crew changes should be allowed and facilitated at all times, to ensure that no-one is forced to remain
 at sea for longer than the maximum period stipulated in the Maritime Labour Convention 2006.
 Governments, international organizations and the industry need to collaborate and accelerate their
 efforts to address the ongoing crew-change crisis. States should also consider giving seafarers
 priority access to vaccinations, both in the interests of public and seafarer health, and to facilitate
 the logistics of international trade and transport, including in respect of essential goods and medical
 supplies.
- To address the issue of delayed documents and avoid costly legal disputes, the remaining legal and regulatory obstacles to the adoption of electronic documents in international trade need to be removed. Progress has been made with the recognition of electronic documentation in the Montreal Convention 1999, the widespread adoption of the IATA electronic waybill, and the provision for electronic documents in the CMR, but more needs to be done as regards electronic alternatives to sea transport documents such as bills of lading and waybills. The UK Law Commission's report on legislative reform regarding this issue is encouraging and it is possible that its suggested draft bill may be enacted in 2022. Other regulatory developments on electronic trade documents detailed further below (D.4) are also worth highlighting.
- With charges for the delayed return of containers rising significantly as a result of the pandemic, (see chapters 3 and 6), governments could consider mandatory controls on container demurrage accruing at their ports. In March 2020, the Government of India made recommendations to this effect⁷ and in April 2020, the United States Federal Maritime Commission (FMC) issued its amended guidelines under the Shipping Act.⁸ A further industry advisory regarding the assessment of container demurrage and detention charges was published by the FMC in July 2022, following the Ocean Shipping Reform Act of 2022 (Public Law 117–146), which was signed into law in June 2022.⁹ States could also consider extending statutory protection against unfair contract terms, like the Unfair Contract Terms Act 1977 in the United Kingdom, to container demurrage provisions in bills of lading during times of (future) epidemics and pandemics.
- Governments should ensure that cross-border checks applicable to freight transport are kept to a minimum to avoid delay, in particular in the transit of goods by road.
- Finally, governments should consider strengthening institutions and mechanisms for formal and informal dispute resolution, so that these can cope with a likely increase in contractual disputes in the context of the COVID-19 pandemic.

B. REGULATORY DEVELOPMENTS RELATING TO INTERNATIONAL SHIPPING, CLIMATE CHANGE AND OTHER ENVIRONMENTAL ISSUES

1. Reducing greenhouse gas emissions from shipping

With international shipping accounting for around 3 per cent of global greenhouse gas emissions, decarbonization has become an increasingly urgent priority. In autumn 2021, just before the UNFCCC COP26, more than 200 maritime industry organizations signed the "Getting to Zero Coalition's Call to Action for Shipping Decarbonization", ¹⁰ urging the adoption of a sector-wide goal of zero emissions by 2050 and the commercial deployment of zero-emission vessels by 2030.

Among the results of COP26 was the call in the Dhaka-Glasgow Declaration by more than 50 developing countries for the IMO to work on establishing a mandatory GHG levy on international shipping. Another positive outcome was the Clydebank Declaration launched by 19 States with the aim to set zero-emission maritime routes between two or more ports. Building on the Zero-Emissions Shipping Mission He established in July 2021, the initiative is designed to move forward the decarbonization targets set by the IMO in relation to sustainable shipping. The signatories committed to establishing six "green corridors" by 2025 – entirely decarbonized maritime routes (including land-side infrastructure and vessels) between two or more ports – to accelerate the development of zero-emission fuels, low-carbon enabling infrastructure and effective legislation and regulation. The plan is to extend beyond these six pilot corridors. Participation in the Declaration is voluntary, however signatory nations pledge to collaborate to:

- establish partnerships with all stakeholders, including ports and operators along the value chain to accelerate the sector towards a net-zero future.
- address the technical and operational challenges of green corridors, including regulatory frameworks, incentives, intra-network collaboration and infrastructure.
- include green corridor provisions in the development or review of national action plans.
- ensure that sustainability is at the forefront of plans when implementing green corridors.

As of March 2022, two green corridors had been established – one between Los Angeles and Shanghai, the other between Antwerp and Montreal.¹⁵

In addition, a Just Transition Maritime Task Force was launched at COP 26 with the United Nations and social partners and is now being operationalized to drive a people-centred approach to decarbonizing shipping and protecting workers and their communities through the transition to green shipping. It will provide policy recommendations to ensure an equitable, people-centred transition, focusing in particular on developing economies.¹⁶

The IMO MEPC, at its 77th session, in November 2021,¹⁷ recognized the need to strengthen the Initial IMO GHG Strategy,¹⁸ and agreed to initiate its revision, with a final draft to be considered in spring 2023.¹⁹

Also discussed during the MEPC session were several proposals for further mid-term GHG reduction measures. These include market-based measures, as well as a proposal to establish an International Maritime Research and Development Board (IMRB), funded by a mandatory \$2-per-ton levy on ship fuel consumed, and expected to reach \$5 billion (IMRF), which will contribute to research and development that will be available to all countries. The proposal envisages among others, supplementary support to the IMO's Integrated Technical Cooperation Programme and GHG TC-Trust Fund to assist maritime GHG reduction efforts of developing countries, in particular LDCs and SIDS, encouraging funding for joint R&D projects between developed and developing countries, and ensuring differential treatment for companies and institutions in developing countries, as well as addressing concerns raised by governments about intellectual property rights. However, due to lack of time, no decision on the IMRB and IMRF was taken at MEPC in November 2021.

The proposals and relevant documents, including associated impact assessments, were referred to the next sessions of the Intersessional Working Group on Reduction of GHG Emissions from Ships ISWG-GHG 11 (14–18 March 2022), and ISWG-GHG 12 (16–20 May 2022), for further assessment. The MEPC also adopted a circular on 2021 Guidance on treatment of innovative energy efficiency technologies for calculation and verification of the attained EEDI and EEXI, particularly accommodating the use of wind propulsion as a complementary source of propulsion. In addition, new pledges were made by governments to support the work of IMO in helping implement the Initial GHG Strategy in developing countries, in particular SIDS and LDCs, through technical cooperation and capacity building through the IMO GHG TC Trust Fund.

A short-term measure to reduce carbon intensity was adopted by way of amendments to MARPOL Annex VI, in June 2021, including the energy efficiency design index for existing ships (EEXI) and the carbon intensity index (CII), which will be introduced from 2023 onwards and are expected to have a stronger impact than the current energy efficiency-related rules, EEDI (energy efficiency design index for new ships) and SEEMP (ship energy efficiency management plan).²¹ The Intersessional Working Group on Reduction of GHG Emissions from Ships at its eleventh session (ISWG-GHG 11),²² held in March 2022, considered proposals on how to keep the impacts of the short-term measure under review and proposals for the revision of the ship fuel oil consumption data collection system. At its twelfth session,²³ held in May 2022, ISWG-GHG finalized guidelines to support implementation of carbon intensity measures and agreed to further develop a "basket of candidate mid-term measures" including technical (for example, a GHG fuel standard and/or enhancement of IMO's carbon intensity measures) and carbon pricing elements.

The 78th MEPC session in June 2022,²⁴ noted the progress made by ISWG-GHG 12, and the need for additional information on the proposed mid-term measures. It also noted that the proposed IMRB/F would be further considered as part of the basket of candidate mid-term measures in the context of phase II of the work plan for the development of mid- and long-term measures. It encouraged proponents of measures to work together intersessionally with a view to exploring how different elements of these proposals could be combined in the context of a basket of mid-term GHG reduction measures. Member States and international organizations were invited to submit new documents to a future session of ISWG-GHG, including refined proposals to that purpose. Given the importance and urgency of the ongoing work on GHG emissions reduction, it is hoped that significant progress on further relevant measures can be achieved soon.

While global efforts are being pursued under the auspices of IMO, some regulatory proposals are also under consideration at the EU level to extend the EU Emission Trading Scheme (ETS) to maritime transport activities, with potentially important implications for intra and extra EU trade. The EU ETS is a cap-and-trade mechanism in operation since 2005 to promote the reduction of greenhouse gases across the EU. In June 2022, the European Parliament adopted its position to extend the scope of the EU ETS to include maritime transport.²⁵ A relevant legislative proposal had been issued by the European Commission in 2021²⁶ and is undergoing consideration and negotiation.²⁷ By mid-2022, the text of the proposed legislation, which is both extensive and complex, had undergone significant revision by the Council and European Parliament, and its final scope and content is therefore not yet clear. However, the latest amendments proposed by the European Parliament in June 202228 suggest that this could include 100 per cent of emissions (CO₂ and CH₄, as well as nitrous oxide (N₂O) from maritime transport within Europe; 50 per cent of emissions from maritime transport between the EU and third countries from 2024-2026, and 100 per cent from 2027. The amended text also acknowledges the international character of shipping as well as efforts to limit global maritime emissions through the IMO; and encourages the acceleration of these efforts to make progress in line with the Paris Agreement. Express reference is also made to a legal commitment under Article 2 of the EU Climate Law,29 in force since July 2021, to take action to reach the Union's climate-neutrality objective by 2050 at the latest and the Union's aim to achieve negative emissions thereafter.

Worth mentioning in this context are contractual approaches to allocating commercial risks associated with GHG emissions-control measures and facilitate compliance with regulatory requirements. To this end, two standard form clauses have been developed by BIMCO for incorporation into time charterparties. The EEXI Transition Clause for Time Charter Parties 2021³⁰ allocates responsibility and costs between the contracting parties where technical modifications are required to comply with the EEXI as from January 2023, in particular where the power output of a ship's engine is limited. The ETS – Emission Trading Scheme Allowances Clause for Time Charter Parties 2022³¹ allocates costs and responsibilities for obtaining, transferring, and surrendering GHG emissions allowances for ships operating under an emissions scheme, such as the EU Emissions Trading System (ETS). A further BIMCO clause is expected to be issued in late 2022, to facilitate compliance with the Carbon Intensity Indicator (CII) regime, as from January 2023.

2. Adapting ports and other critical transport infrastructure to climate change

The year 2022 has been marked by largely unprecedented weather and climate extremes are expected to increase in frequency and/or intensity under climate change. Effective adaptation requires multifaceted approaches, including strong legal and regulatory frameworks, along with strategies, policies and plans to reduce vulnerability. Also required are appropriate standards, guidance and tools to facilitate stakeholder action on the ground, 32 and some relevant progress has been made recently.

Thus, following the adoption of the EU Climate Change Adaptation Strategy,³³ and the EU Climate Law³⁴ in 2021, the European Commission published important new detailed technical guidance on climate-proofing of infrastructure projects for the period 2021–2027,³⁵ which will be relevant for environmental impact assessments required under EU law, and for EU infrastructure project funding. The guidance aims to mainstream climate considerations in future investment and development of infrastructure projects, and help investors make informed decisions on projects, in line with the Paris Agreement and EU climate objectives. In addition, complementing earlier industry guidance on adaptation of waterborne transport infrastructure,³⁶ a Technical Note of the World Association for Waterborne Transport Infrastructure (PIANC), published in 2022,³⁷ aims to help project owners, designers and financiers deal with climate change uncertainties – not only in relation to the selection, design and evaluation of options for new waterborne transport infrastructure, but also the maintenance or modification of existing assets.

While progress on technical guidance is encouraging, significant challenges remain, particularly in respect of port infrastructure finance and investment. Major scaling up of investment and capacity building for developing countries will be critical to 'building back better' after the pandemic and to support sustainable growth strategies.³⁸ Adequate and affordable infrastructure adaptation finance, including in the form of grants, rather than loans will be key for the sustainable development prospects of vulnerable developing countries, including SIDS.³⁹

3. UNCITRAL work on climate change mitigation, adaptation and resilience

The United Nations Commission on International Trade Law (UNCITRAL) could play a key role in the area of climate change mitigation, adaptation and resilience. Existing UNCITRAL texts, do not explicitly refer to climate considerations, but can be interpreted and applied in ways that are beneficial for the climate. This is notably the case with the UNCITRAL texts relating to commercial arbitration, public procurement, and public-private partnerships. To facilitate and encourage the utilization of these texts, guidelines could be adopted to specify how certain provisions could be applied to support the achievement of climate goals.⁴⁰ In addition, legal texts on new topics could be contemplated. The Commission, at its 55th session in July 2022,⁴¹ requested the secretariat to conduct further research in the area.

4. Protecting the marine environment and biodiversity

Recent regulatory actions for the protection of the marine environment and conservation and the sustainable use of marine biodiversity, include the following:

a) Air pollution prevention

To comply with the IMO 0.5 per cent sulphur limit, in effect since 1 January 2020 for ships operating worldwide, vessels can use a compliant fuel which is low enough in sulphur such as VLSFO or MGO, and/or using alternative fuels such as liquefied natural gas (LNG), methanol, liquefied petroleum gas (LPG), hydrogen fuel cells, or biofuels which emit very small amounts of SOx. Another approach adopted by shipowners and charterers is fitting or retrofitting their ships with exhaust gas cleaning systems (EGCS), also known as scrubbers. Scrubbers may be open loop – discharging wash water into the sea – or closed loop - discharging residues to adequate reception facilities ashore.

In November 2021, the IMO's MEPC adopted updated guidelines for exhaust gas cleaning systems which specify the criteria for the testing, survey, certification and verification of such systems, to ensure compliance with MARPOL Annex VI. They cover continuous monitoring requirements and discharge water quality criteria, including minimum pH, maximum PAHs (Polycyclic Aromatic Hydrocarbons) concentration. They also include provisions to minimize suspended particulate matter, including heavy metals and ash, and to prevent discharge of nitrates beyond specified levels. Such criteria should be reviewed in the future as more data becomes available.⁴²

Black carbon emissions – a product of incomplete combustion of carbon-based fuels – contribute to climate change, and as such were a subject to study in the Fourth IMO GHG Study 2020.⁴³ To address these types of emissions, a resolution was adopted by IMO's MEPC in November 2021, which urged Member States and ship operators to voluntarily use distillate or other cleaner alternative fuels or methods of propulsion that could contribute to the reduction of black carbon emissions from ships when operating in or near the Arctic.⁴⁴

In June 2022, MEPC adopted guidelines for risk and impact assessments of the discharge water from exhaust gas cleaning systems that Member States should follow when considering local or regional regulations. It also adopted guidance regarding the delivery of EGCS residues to port reception facilities.⁴⁵

The MEPC also agreed to designate the entire Mediterranean Sea as an emission control area (ECA),⁴⁶ meaning that from 2025, ships will have to comply with more stringent controls on sulphur oxide emissions – the limit for sulphur in fuel oil used on board ships in ECAs areas is 0.10 per cent, while outside these areas the limit is 0.50 per cent. There are currently four designated sulphur oxides ECAs worldwide: the Baltic Sea area; the North Sea area; the North American area (covering designated coastal areas off the United States and Canada); and the United States Caribbean Sea area (around Puerto Rico and the United States Virgin Islands).

b) Addressing plastic pollution

Plastic pollution is a serious and growing problem. About 400 million tons of plastic material are produced each year, a figure that could double by 2040. Following the adoption in 2018 of the IMO Action Plan to address marine litter,⁴⁷ a dedicated strategy to address marine plastic litter from ships,⁴⁸ was adopted by the IMO's MEPC in November 2021. The strategy aims at reducing marine plastic litter generated from, and retrieved by, fishing vessels, reducing shipping's contribution to marine plastic litter, and improving the effectiveness of port reception facilities and treatment in reducing marine plastic litter. The strategy also aims to enhance public awareness, education and seafarer training, improve the understanding of the contribution of ships to marine plastic litter and the associated regulatory framework, strengthen international cooperation, and increase technical cooperation and capacity building.

In March 2022, the United Nations Environment Assembly adopted a resolution "End plastic pollution: Towards an international legally binding instrument".⁴⁹ Negotiations on the treaty are expected to take between two and three years, under the auspices of the United Nations Environment Programme. A preparatory meeting took place in May 2022.⁵⁰ Scientific evidence-based negotiations have been highlighted as critical for success in developing an effective landmark treaty.⁵¹

c) Ballast water management

One of the greatest threats to the world's oceans and a major threat to biodiversity is discharge of untreated ballast water by ships, which is associated with the introduction of invasive species. Since 2017, MEPC has established an experience-building phase (EBP) associated with the Ballast Water Management (BWM) Convention, 2004,⁵² to carry out a systematic and evidence-based review of this Convention, potentially leading to its review and development of a package of amendments. Following a data analysis report on the EBP, the MEPC in June 2022, agreed in principle to develop a BWM Convention Review Plan. The MEPC also approved revised guidance on methodologies that may be used for enumerating viable organisms for type approval of ballast water management systems, and guidelines for re-evaluations in cases where modifications have been made to a ballast water management system.⁵³ As of 15 July 2022, the BWM Convention had 91 Contracting States representing 92 per cent of the GT of the world's merchant fleet.

d) Liability and compensation for oil pollution from shipping

Bunker oil pollution is a matter of particular concern for vulnerable developing countries, including SIDS, that rely heavily on fisheries, aquaculture and tourism, and may be exposed to an oil spill from ever-larger vessels calling at their ports, or transiting in proximity to their coasts. As evidenced by the 'Wakashio' bunker oil spill, off the coast of Mauritius in 2020,54 bunker oil pollution can have devastating consequences for the economy and tourism industry of the affected coastal States, as well as for ecosystems and biodiversity. From the perspective of those affected, the availability of adequate compensation for any losses sustained is a priority, irrespective of the type of ship that has caused the pollution. However, under the applicable international conventions, the available amount of liability and compensation for bunker oil spills differs significantly, depending on the type of ship involved and its size. The key IMO compensation treaty covering bunker oil spills from ships other than oil tankers is the International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001 (Bunkers Convention). However, the shipowner's liability under the Convention may be limited (Art. 6), in accordance with any applicable national or international regime such as the Convention on Limitation of Liability for Maritime Claims (LLMC), 1976, as amended in 1996.55 As a result, the compensation available to claimants for bunker oil spills may be significantly lower - in some cases by an order of magnitude - than that available under the comprehensive international regime for compensation for oil pollution damage caused by spills from oil tankers. 56

Despite the steady growth in ship sizes and the corresponding risks there is presently no indication that the international liability and compensation framework for ship-source oil pollution damage is likely to be strengthened in favour of the potential victims.

In 2021, three resolutions, providing for a unified interpretation on the statutory test for breaking the owner's right to limit liability under some of the key international conventions were adopted by the respective Parties to these conventions present during the 32nd regular session of the IMO Assembly.⁵⁷ The conventions concerned are the International Convention on Civil Liability for Oil Pollution Damage (CLC), 1992, which applies in cases of tanker oil pollution, and the LLMC 1976 and its 1996 Protocol, which, as noted above, may apply in cases of bunker oil pollution from other types of ship.

The unified interpretation highlights the virtually unbreakable nature of the shipowner's right to limitation of liability. While the resolutions acknowledge that "the courts in States Parties are the final arbiters on the interpretation of the Conventions [...]", the unified interpretation promotes the most restrictive interpretation of the relevant provisions, thus preserving the shipowner's right to limitation of liability in virtually all circumstances. The party entitled to limitation of liability (in the case of the LLMC 1976 and its 1996 Protocol this includes "the owner, charterer, manager and operator of a seagoing ship") would only lose the right to limitation in two sets of circumstances. In case of its own "wilful misconduct" – a level of culpability that is "higher than the concept of gross negligence, since that concept was rejected by the 1976 International Conference on Limitation of Liability for Maritime Claims" and "would deprive the shipowner of the right to be indemnified under their marine insurance policy" – or in case of its own "recklessness", together with knowledge "that such pollution damage, damage or loss would probably result". In this context, "the conduct of parties other than the shipowner, for example the master, crew or servants of the shipowner, is irrelevant and should not be taken into account". Whether the unified interpretation will affect the outcome of legal proceedings remains, however, to be seen, as this depends on the approach to interpretation taken by the competent national courts.

Development of a claims manual for the 2001 Bunkers Convention

For the 1992 Fund Convention,58 which provides a second tier of compensation in cases of tanker oil pollution, there is a Fund Claims Manual⁵⁹ but there is no corresponding manual for the Bunkers Convention. Therefore, since 2020 the IMO Legal Committee has been working on a claims manual for the 2001 Bunkers Convention to guide national courts, claimants, shipowners and insurers in their interpretation of the Convention. An initial draft was considered by the IMO Legal Committee in 2022, but further work will be carried out by a remote intersessional group. 60 As highlighted by UNCTAD, further consideration should be given to some of the key issues that are of particular interest to claimants. This would include matters relating to limitation of shipowner liability under international agreements referred to in Art 6 of the 2001 Bunkers Convention, in particular the 1976 LLMC, and its 1996 Protocol. It would also include differences between direct claims against shipowners or their mutual insurers, and formal legal proceedings under the Bunkers Convention against any of the parties falling within the definition of 'shipowner', as well as related considerations and procedural issues. Moreover, the claims manual should be transparent in respect of issues that may be subject to differing legal interpretation or controversial, such as the question of whether some claims might be considered to fall outside the types of claims subject to limitation under the 1976 LLMC and 1996 Protocol. Further information/guidance relevant to environmental damages and recovery of costs of reinstatement of the environment based on experience of the IOPC Funds would also be particularly valuable for potential claimants. As concerns reliance on the IOPC Funds Manual, due account should be taken of the specific differences highlighted by the IMO Legal Committee at its 108th session in 2021. The 109th session of the IMO Legal Committee noted the comments and suggestions made during the discussion and agreed that they should be considered by the correspondence group. Active participation in the ongoing intersessional work by countries concerned about being affected by a bunker oil spill, including developing countries and SIDS, is strongly encouraged.

Measures to assess the need to amend liability limits

The IMO Legal Committee, in March 2022, discussed proposals to develop methodologies for assessing the need to amend liability limits in a number of liability and compensation treaties, and established an intersessional correspondence group to develop a list of principles and policy considerations that will need to be decided by the Committee and begin developing elements that would need to be included in a draft methodology. The work will focus initially on the Convention on Limitation of Liability for Maritime Claims, 1976, as amended by the 1996 Protocol.⁶¹

C. SEAFARERS

Smooth delivery of trade goods by shipping and efficient handling of cargo by ports depend mainly on the ability of seafarers and labour force to fulfil their roles in an efficient, safe, and sustainable manner. Currently 1.89 million seafarers – most of whom from developing countries – are operating over 74,000 vessels in the global merchant fleet.⁶² They have been at the forefront of the response to the COVID-19 pandemic, ensuring that supplies of food, fuel, medicine and other essential goods continue to reach their destinations.

1. The seafarer crew change crisis

At the height of the pandemic, around 400,000 seafarers were unable to leave or join ships due to COVID-19 restrictions. A significant proportion still remains affected – threatening the wellbeing, health and human rights of seafarers as well as the smooth flow of goods across supply chains. ⁶³ In February 2022, UNCTAD, together with IMO, ILO, and WHO, issued a related Joint Statement, ⁶⁴ urging continued collaboration to address the crew change crisis, safeguard seafarer health and safety, and avoid supply chain disruptions. The four organizations call on governments, national and local authorities, and all relevant stakeholders, including employers, to take the following ten critical actions:

- (a) Provide seafarers with immediate access to medical care as well as facilitate their medical evacuation when the required medical care cannot be provided on board.
- (b) Designate seafarers as "key workers", providing an essential service, to facilitate maritime crew changes and safe movement across borders, and recognize relevant documentation for this purpose.
- (c) Prioritize the vaccination of seafarers, as far as practicable, in national COVID-19 vaccination programmes and exempt them from any national policy requiring proof of COVID-19 vaccination as the only mandatory condition for entry, in accordance with WHO recommendations.
- (d) Provide or administer COVID-19 tests and appropriate PPE to seafarers, including PCR tests where necessary, to facilitate the identification of cases on board or at the port, and to facilitate the movement of seafarers, including shore leave and crew changes.
- (e) Ensure the consistent application of internationally agreed protocols and standards, including those for seafarers' travel and vaccination documents, coordinate appropriately, and avoid punitive measures, fines and excessive costs.
- (f) Adopt the latest legal instruments, including the MLC, 2006 and the Seafarers' Identity Documents Convention (Revised), 2003, as amended (No. 185), and ensure their implementation.
- (g) Implement the recently updated WHO guidance for the management of COVID-19 on board cargo ships and fishing vessels, published in December 2021,65 which, among other issues, highlights the importance of non-medical interventions, such as the use of face masks irrespective of vaccination status.
- (h) Provide public key certificates associated with any health proof to relevant trust networks, such as ICAO for international travel.
- (i) Continue to collaborate to ensure that guidance is regularly updated, in line with developments and evolving scientific insights; and mechanisms are in place to reduce and effectively respond to medical emergencies at sea.
- (j) Undertake concerted collaborative efforts to keep seafarers safe, and limit disruption to supply chains, as well as prevent the unchecked spread of emerging VOCs, which could prolong the pandemic and its wide-ranging socioeconomic consequences.

In 2022, the ILO Committee of Experts on the Application of Conventions and Recommendations (CEARC)⁶⁶ reiterated its deep concern for the protection of seafarers' rights as laid out in MLC, 2006, as amended. It welcomed the fact that a number of Contracting States to the Convention have adopted measures to ensure seafarers' rights during the pandemic. These include: (1) ensuring a high number of safe crew changes at their ports; (2) ensuring medical care on board and on shore, including dental care; (3) attending COVID-19 outbreaks on board and providing care in national hospitals when needed; (4) keeping borders open for the transit of seafarers in line with strict national protocols; (5) revising previous temporary guidance on Seafarer Employment Agreement's extensions to comply with the requirements of the Convention; (6) reinitiating rigorous port State control inspections focusing on employment agreements and wages; (7) developing

services online to support shipowners and seafarers; (8) rehabilitating welfare services in port and keeping them open even if with some restrictions, for example, setting up wi-fi in ports to allow seafarers to establish contact with welfare services; and (9) prioritizing seafarers for vaccination within national programmes. The report, however, also expressed deep concern that violations of the Convention may further increase due to new restrictions adopted by governments to contain the variants of COVID-19.

A general observation⁶⁷ adopted earlier by the ILO CEARC, stresses that the notion of force majeure should not be regarded as a valid reason to deprive seafarers of their rights, as there are options available worldwide to comply with the provisions of the MLC 2006. It recalls the resolutions adopted by the Special Tripartite Committee, as well as the ILO Governing Body's Resolution concerning maritime labour issues and the COVID-19 pandemic,⁶⁸ and the UN General Assembly's Resolution on international cooperation to address challenges faced by seafarers as a result of the COVID-19 pandemic to supply global supply chains,⁶⁹ and urges all ILO Member States to designate and treat seafarers as key workers, facilitate crew changes, provide access to medical care ashore when needed, and prioritize seafarers for vaccination. In addition, ratifying States, which have not yet done so, are urged to adopt, without delay, all necessary measures to fully restore the protection of seafarers' rights and fully comply with their obligations under the MLC 2006.

In addition, a recent ILO statement⁷⁰ noted that "despite some countries recognising seafarers as key workers and shipping as an essential asset to the global economy, it is disturbing to note that many port States have again imposed disproportionate quarantine and travel restrictions on seafarers, despite the measures in place for infection control. The crew change situation remains critical and appears to be deteriorating, which jeopardises the safe and uninterrupted delivery of vital supplies. In certain areas of the world, seafarers are systematically denied access to medical facilities when in need of immediate care, causing an imminent renewed humanitarian crisis."

In May 2022, the ILO, at a meeting of the Special Tripartite Committee, agreed on new amendments to strengthen MLC 2006, based on lessons learned from the COVID-19 pandemic. These relate to: bolstering legal requirements for seafarers to be able to access medical care ashore and to facilitate repatriation of the remains of seafarers who have died on board; strengthening health and safety policies on board ships to protect against accidents and ensure that all deaths of seafarers are recorded and reported annually to the ILO and that the relevant data is published; and further facilitate seafarers' communication with their loved ones ashore. The meeting took place against the backdrop of the seafarer crisis in Ukrainian ports and the Sea of Azov. Governments reiterated their support for a related ILO resolution⁷¹ calling for the swift and safe disembarkation and repatriation of the 500 remaining trapped seafarers. They called for the prompt delivery of critical supplies, such as food, water, and medicines to these key global workers caught in the conflict zone.

In advance of the ILO meeting, the International Chamber of Shipping (ICS) also published a report⁷² outlining the impact of COVID-19 on shipping, seafarers, and maritime labour markets, including calls to action, to mitigate future crises. ICS had also released its latest medical guidelines for ship operators and shipping companies, covering seafarer health and wellbeing,⁷³ and vaccination best practices.⁷⁴ The guidance provides updated information on embarking and disembarking seafarers in accordance with relevant COVID-19 regulations, and new advice on the repatriation of deceased seafarers.

Earlier, in December 2021, a resolution⁷⁵ was approved at the IMO on issues related to crew change, access to medical care, "key worker" designation and seafarers' prioritization for COVID-19 vaccination. Also, guidance was approved on seafarers' training and certification during the COVID-19 pandemic, outlining that while States had to resort to the principle of force majeure, which is temporary, they should seek to revert to performing their obligations under the STCW Convention and Code as soon as possible.

In addition, in October 2021, a seafarers' rights and welfare Code of Conduct,⁷⁶ was published, which brings together shipowners, ship operators, charterers and cargo owners to drive positive change in the industry, through individual and collective action and increased transparency to deliver on seafarers' rights. Based on international labour and human rights standards and principles, the Code of Conduct focuses on the full spectrum of seafarers' rights and welfare, from fair terms of employment and crew protection to availability and appropriate management of grievance mechanisms.

As regards developments at the World Health Organization (WHO), in December 2021, the World Health Assembly established an intergovernmental negotiating body to start drafting and negotiating a convention, agreement or other international instrument on pandemic preparedness and response. Related meetings and public hearings have already started, and the work outcome is expected to be submitted for consideration by the 77th World Health Assembly in 2024.⁷⁷

Furthermore, a Joint Action Group to review the impact of the COVID-19 pandemic on the world's transport workers and the global supply chain (JAG-TSC) was established at the meeting of the Director-Generals of ILO and WHO with the heads of international transport organizations on 6 December 2021. An Ad hoc virtual UN inter-agency Task Force on the impact of COVID-19 on seafarers, was established on 14 January 2022 by the UN Secretary-General's Executive Committee in response to a request by the Director-General, in keeping with the Resolution concerning the implementation and practical application of the MLC, 2006 during the COVID-19 pandemic, which had been adopted in 2021 by the Fourth Meeting of the Special Tripartite Committee of the MLC, 2006 – Part I.80 Both groups are to finish their work by the end of 2022.

2. Seafarer abandonment

As of March 2022, an increase in abandonment cases as a result of the COVID-19 pandemic had been observed. According to information from the IMO/ILO joint database, 78 cases of abandonment had already been reported as of 15 August 2022. During 2021, a record 95 new cases had been reported. Of these, only 31 had been resolved. During 2020, the total number of reported cases was 85. Of these, 43 cases had so far been resolved. Of the cases reported since 2020, 21 were related to the COVID-19 pandemic. Discussion relating to a solution to this situation, was encouraged at IMO. Member States were reminded to ratify and implement the relevant international instruments, and to report incidents of abandonment to the relevant database. Flag States and port States were urged to take further action to ensure the presence of financial security, as required by the MLC 2006, Standard A2.5.2, and to take appropriate action when financial security is not in place.⁸¹

3. Seafarer issues related to the war in Ukraine

The war in Ukraine is also taking a toll on merchant shipping, with a growing number of ships being detained or remaining stuck in war-torn areas. This raises concerns for the wellbeing of thousands of seafarers, both at sea and ashore, who were already suffering the consequences of the COVID-19 crisis.

In April 2022, a resolution was adopted by the IMO's Maritime Safety Committee on actions to facilitate the urgent evacuation of seafarers from the war zone in and around the Black Sea and the Sea of Azov. IMO also encouraged continuing efforts to establish safe maritime corridors and the safe evacuation of seafarers from the affected area.⁸² Earlier guidance had covered insurance and other financial security certificates.⁸³

On 8 April 2022, the Director-General of the ILO and the Secretary-General of the IMO called for urgent action to protect seafarers and vessels stranded in Ukrainian ports and reached out to humanitarian agencies requesting urgent action to assist in the reprovisioning of the ships concerned.⁸⁴

According to the 2021 Seafarer Workforce Report,⁸⁵ of the 1.89 million seafarers in the global merchant fleet, 198,123 (10.5 per cent) were Russian, of whom 71,652 were officers and 126,471 were ratings. Another 76,441 (4 per cent) were Ukrainian, of whom 47,058 were officers and 29,383 were ratings. Together, Russian and Ukrainian seafarers represent 14.5 per cent of the global workforce.

Also worth noting in this context is the establishment, in July 2022, of the Joint Coordination Centre (JCC) for the Black Sea Grain Initiative, to monitor implementation of this Initiative to establish a humanitarian maritime corridor to allow ships to export grain, other foodstuffs and fertilizers from Ukraine. The JCC comprises representatives of the Russian Federation, Türkiye, Ukraine, and the United Nations. Two related United Nations task forces were established in parallel; one of which focuses on facilitating exports of Russian food and fertilizers and is headed by the Secretary-General of UNCTAD.

4. Women in shipping

The first IMO International Day for Women in Maritime on 18 May 2022,⁸⁷ provided a special platform to highlight and celebrate the achievements of women in maritime trade and transport in particular and identify areas for improvement of gender balance and diversity.

A 2021 IMO-WISTA (Women's International Shipping & Trading Association) Women in Maritime Survey Report, 88 found that women accounted for only 29 per cent of the overall workforce in the general industry and 20 per cent of the workforce of national maritime authorities in Member States. The report highlighted great variation amongst individual sub-sectors. According to data gathered from Member States, search and rescue teams in national maritime authorities account for significantly fewer women staff (just 10 per cent) as compared to female diplomats (33 per cent) and training staff (30 per cent).

Women seafarers make up just 2 per cent of the crewing workforce and are predominately found in the cruise sector, while in ship-owning companies, they made up 34 per cent of the workforce. This survey is a good first attempt, but a lot of work still needs to be done.

In addition, The Mission to Seafarers published the Women Seafarers Report 2022.89 The report considers the unique challenges faced by women at sea and how organisations can tailor their support to contribute towards a better future for female seafarers.

The Fourth Meeting (Part II) of the Special Tripartite Committee of the MLC, 2006 (May 2022) adopted a Resolution on Harassment and Bullying, including Sexual Assault and Sexual Harassment, in the Maritime Sector⁹⁰ and, in a related matter, issued a statement on ensuring a safe working environment on board vessels where seafarers can live without fear of discrimination and physical or mental abuse.⁹¹

D. OTHER LEGAL AND REGULATORY DEVELOPMENTS AFFECTING TRANSPORTATION

1. Combating fraudulent registration and registries of ships

In 2021, the IMO Assembly, following earlier work on measures to prevent fraudulent ship registration and registries to which UNCTAD had contributed, ⁹² adopted a related Resolution to promote actions for the prevention and suppression of fraudulent registration and fraudulent registries, and other fraudulent acts in the maritime sector. ⁹³ In March 2022, the IMO Legal Committee agreed to establish a study group on fraudulent registration and fraudulent registries of ships, and possible measures to prevent them. The study group will include UNCTAD, the World Maritime University, the IMO International Maritime Law Institute and other interested parties and is expected to present its final findings in 2024. In addition, agreement was reached on a definition of "forged/false documents". ⁹⁴

2. Encouraging ratification of the 2010 HNS Convention

The 2010 HNS Convention is the key IMO compensation treaty covering the maritime transport of hazardous and noxious substances (HNS) by ships. Its entry into force would bridge an important gap in the international liability and compensation framework for maritime transport. Following ratification by Estonia in 2022, only six further ratifications with the required contributing cargo are needed for the Convention to enter into force. ⁹⁵ Once in force, the treaty will provide a regime of liability and compensation for damage caused by HNS carried by sea, including non-persistent oil and chemicals, and covering not only pollution damage, but also the risks of fire and explosion, including loss of life or personal injury as well as loss of or damage to property. An HNS Fund will be established to pay compensation once a shipowner's liability is exhausted. This Fund will be financed through contributions paid post incident by receivers of HNS cargoes. All countries are encouraged to ratify the Convention.

3. Multimodal transport: developments at UNCITRAL and UNESCAP

Despite numerous attempts, no uniform legal regime on multimodal transport has entered into force internationally. Instead, the existing framework consists of a complex jigsaw of international conventions designed for unimodal carriage, regional and sub-regional agreements, national laws, and standard term contracts. This is associated with a lack of legal certainty and a need for costly evidentiary enquiries and litigation.

UNESCAP - Harmonizing multimodal legal frameworks in Asia and the Pacific

Based on the recommendations of expert group meetings held during 2020–2022, in which UNCTAD participated, and taking into account the results of a region-wide survey in 2021, UNESCAP has prepared guidelines for harmonizing the key common provisions for multimodal transport within national legal systems. Given that only a few countries of the region have national laws on multimodal transport, such a model instrument could help promote a unified approach to multimodal transport through relevant acts of national legislation.⁹⁷

UNCITRAL - Negotiable multimodal transport documents

To facilitate the preparation of a new instrument on negotiable multimodal transport documents (NMTDs), two expert group meetings were held by UNCITRAL. In November 2021, experts discussed Part I of the Preliminary Draft Provisions on Negotiable Cargo Documents which mainly dealt with the negotiability aspects of a new instrument. At the meeting in March 2022, experts discussed the dematerialization aspects of NMTDs with Preliminary Draft Provisions (Part II) serving as basis for the discussion. Since the proposed new instrument is intended to operate in parallel with existing international conventions, which are still structured on the premise of the issuance of a "document" rather than on a system of information management, the secretariat has taken a cautious approach.

A number of concerns were voiced with respect to the "safety" issue regarding electronic documents as well as the relationship between government intervention and market choice. A concern was raised by UNCTAD as to how to address any potential implications that may arise in relation to liability issues, given that no international mandatory liability regime is in force for multimodal transport. If and when a multimodal transport bill of lading attains full legal recognition as a negotiable document/electronic record and can be traded in the same way as a marine bill of lading, along a string of buyers, there is a potential for unfair contract terms which could unduly affect the rights of a third-party consignee (such as

a CIF or FOB buyer) in a cargo claim. Therefore, the issue of liability should be considered as part of the negotiations of a new international instrument.

Given the broad substantive scope of the proposed future legal instrument on negotiable multimodal transport documents at UNCITRAL, public and private stakeholders in both multimodal transport and in all the different modes are encouraged to participate in any related further work. For small traders in developing countries, a key concern will be adequate liability for cargo loss or damage. UNCTAD will continue to participate in any related work under the auspices of UNCITRAL.

4. Other regulatory developments on electronic trade documents

A project on electronic trade documents initiated by the England and Wales Law Commission was implemented in 2021. Its outcome took the form of a report and a draft Bill⁹⁸ containing recommendations for legislative reform in the jurisdiction to allow for electronic trade documents to be recognized as possessable and to have the same legal recognition and functionality as their paper counterparts. The draft legislation on Electronic Trade Documents has been included in the UK legislative calendar.⁹⁹ If and when the legislation enters into force, it is expected to provide a significant boost to the use of electronic equivalents to traditional paper bills of lading, reducing the potential of delay in transmission of documents and associated problems.

Relevant legislation was also adopted in Singapore in 2021, to ensure legal recognition of electronic trade documents. ¹⁰⁰ In the meantime, industry associations have been collaborating on the development and adoption of relevant standards to facilitate the use of electronic bills of lading. For instance the Digital Container Shipping Association (DCSA), the Baltic and International Maritime Council (BIMCO), the International Federation of Freight Forwarders (FIATA), the International Chamber of Commerce (ICC) and the Society for Worldwide Interbank Financial Telecommunication (SWIFT) in February 2022, formed the Future International Trade Alliance and signed a memorandum of understanding to standardise digitalization of international trade, aimed at raising awareness about the importance of common and interoperable data standards and common legislative conditions across international jurisdictions and platforms. ¹⁰¹

The use of electronic trade documents including electronic bills of lading in the shipping industry, is on the rise as confidence in the platforms increases, and as more countries start to adopt national legislation, including legislation based on the UNCITRAL Model Law on Electronic Transferable Records (MLETR), thus ensuring greater international harmonization of laws. The benefits of electronic trade documents including electronic bill of lading equivalents were brought into sharp focus during the COVID-19 pandemic when delays caused by difficulties in presenting paper documents have arisen. Their use is expected to result in faster transactions, lower transportation costs, better financing, cargo holding and document processing, as well as reduced fraud risks due to digital authentication, and increased trust among businesses. However, with increasing reliance on electronic interactions, stakeholders will also have to manage any associated cyber-risks and enhance their security in the use of ICT systems.

5. Negotiations on a legally binding instrument on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction

In 2022, under the auspices of the United Nations, negotiations continued on an international legally binding instrument under the United Nations Convention on the Law of Sea (UNCLOS), 1982 on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction. (BBNJ) Negotiations focus on "the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, in particular, together and as a whole, marine genetic resources, including questions on the sharing of benefits, measures such as area-based management tools, including marine protected areas, environmental impact assessments and capacity building and the transfer of marine technology."¹⁰²

The fourth session, which was postponed due to the COVID-19 pandemic, was convened in March 2022. Many delegations stressed that the new legal regime should be guided and underpinned by the principle of the common heritage of humankind. Several delegations recalled that it should not undermine relevant legal instruments and frameworks and relevant global, regional, and sectoral bodies. Some delegations emphasized the need to ensure the universality of the agreement, recalling that neither participation in the negotiations nor their outcome may affect the legal status of non-parties to the Convention or any other related agreements.

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With regard to capacity building and the transfer of marine technology, further discussions would be needed on the obligation to provide those, and on how to overcome the binary division between provision on a mandatory and a voluntary basis. Other issues to be resolved, included: how to frame the obligations on capacity building and the transfer of marine technology; how cooperation with other stakeholders might be referenced; the terms on which the transfer of marine technology would be undertaken; and whether, and if so how, to provide an indicative and non-exhaustive list of types of capacity building and transfer of marine technology.

As regards marine genetic resources, including questions on the sharing of benefits, there appeared to be a general trend towards the development of a notification system for the collection of, or access to, marine genetic resources of areas beyond national jurisdiction, with delegations expressing flexibility. While there was general support for the understanding that the sharing of certain benefits should be mandatory, more engagement would be needed on the sharing of other benefits, including monetary benefits, and on benefit-sharing modalities.

With respect to measures such as area-based management tools, including marine protected areas, further consultations would be required, including concerning the relative roles of States parties and the conference of the parties in promoting coherence and complementarity in their establishment.

With regard to environmental impact assessments, continued engagement would be required on issues such as the trigger for the conduct of such assessments and which threshold should be used.

As regards cross-cutting issues, further effort would be needed to close the gap in respect of institutional arrangements. Also, further work was needed on the sources of funding to assist States parties in their implementation of the agreement, including on the question of mandatory contributions from States parties. In addition, common ground would still be needed on which dispute settlement procedures are to be employed under the agreement, and on the issue of the scope, if any, to seek advisory opinions from the International Tribunal for the Law of the Sea. There was, however, general interest in a joint proposal on an additional procedure for the settlement of disputes of a technical nature.¹⁰⁴

The fifth session was held in August 2022 but was suspended without any agreement being reached. Discussions are expected to resume at a later date.¹⁰⁵

5. Status of conventions

A number of international conventions in the field of maritime transport have been prepared or adopted under the auspices of UNCTAD. During the current reporting period, only the status of the International Convention on Arrest of Ships, 1999 has changed with one additional accession (Peru) in March 2022.¹⁰⁶

E. SUMMARY AND POLICY CONSIDERATIONS

Commercial law implications of the pandemic

The legal implications of the pandemic for the closely interconnected commercial contracts involved need to be better understood, to avoid costly litigation and to help inform commercial contracting practice. UNCTAD has highlighted key legal implications for different types of commercial contracts and the need for commercial risk allocation through suitably drafted contractual clauses. Considerations vary, however, depending on the type of contract concerned and the relative bargaining power of the parties. Areas for policy intervention include possible mandatory controls on container demurrage at ports as well as stronger dispute resolution mechanisms, facilitating crew changes, and removing remaining legal and regulatory obstacles to the adoption of electronic documents.

Reducing greenhouse gas emissions from shipping and adapting ports to the impacts of climate change

Both mitigation and adaptation to global climate change are becoming increasingly urgent imperatives for policymakers and industry alike. Timely and effective climate change adaptation of seaports and other key transport infrastructure will be critical for vulnerable developing countries, including SIDS. However, securing adequate and affordable infrastructure adaptation finance remains a major challenge for developing countries.

At COP26 in Glasgow, some positive outcomes related to shipping include the Clydebank Declaration aiming to initially establish six zero-emission "green corridors"— entirely decarbonized maritime routes between two or more ports, by 2025. At IMO, work is underway on a revised IMO GHG Strategy, to be submitted for consideration in 2023, as well as on proposals for further mid-term GHG reduction measures, including market-based measures (MBMs).

Reducing pollution from shipping

As well as emitting CO_2 ships are a major sources of air pollution. From 2020, to comply with the International Convention for the Prevention of Pollution from Ships, ships operating worldwide, have had to use fuels that contain less than 0.5 per cent sulphur. In 2021, the IMO's Marine Environment Protection Committee adopted updated guidelines for exhaust cleaning systems, as well as a resolution urging the voluntary use of cleaner alternative fuels and alternative methods of propulsion for ships operating in or near the Arctic.

Another major form of maritime pollution is bunker oil spills. Risks are growing and the need to ensure the availability of adequate compensation deserves renewed attention. While work continues at the IMO on developing a claims manual for the Bunker Oil Pollution Convention, 2001, it will be important to ensure that the manual effectively responds to the needs and concerns of claimants, including in vulnerable developing countries.

In November 2021, reacting to the ever-growing crisis of plastic pollution the IMO adopted a strategy on marine plastic litter from ships. And in March 2022, UNEP adopted a resolution for an international legally binding instrument to end plastic pollution.

Seafarers

Many port States have again imposed disproportionate quarantine and travel restrictions on seafarers. Thus, the crew change crisis remains an important priority for further collective action by governments and industry stakeholders alike. ¹⁰⁷ Based on lessons from the COVID-19 pandemic, amendments to the MLC 2006 were agreed at ILO to strengthen ship health and safety policies and improve seafarer access to medical care ashore and to communications lines. In addition, WHO has issued guidance for the management of COVID-19 on board cargo ships and fishing vessels and has started work on a convention, agreement or other international instrument on pandemic preparedness and response.

REFERENCES

- Asariotis R (2021). Climate change impacts on seaports: A growing threat to sustainable trade and development. 4 June. Available at https://unctad.org/news/climate-change-impacts-seaports-growing-threat-sustainable-trade-and-development.
- Asariotis R, Premti A (2020). Mauritius oil spill highlights importance of adopting latest international legal instruments in the field. 14 August. Available at https://unctad.org/news/mauritius-oil-spill-highlights-importance-adopting-latest-international-legal-instruments.
- BIMCO (2021). EEXI Transition Clause for Time Charter Parties 2021. Available at https://www.bimco.org/contracts-and-clauses/bimco-clauses/current/2021_eexi_transition_clause.
- BIMCO (2022a). Infectious or contagious disease clause for time charter parties 2022. Available at https://www.bimco.org/contracts-and-clauses/bimco-clauses/current/infectious_or_contagious_diseases_clause_for_time_charter_parties_2022.
- BIMCO (2022b). ETS Emission Trading Scheme Allowances Clause for Time Charter Parties 2022. Available at https://www.bimco.org/contracts-and-clauses/bimco-clauses/current/etsa_clause.
- Booth K, Tutrone J, Bilge K (2020). FMC Issues Final Guidance on Unreasonable Demurrage and Detention Practices to Improve Ocean Freight Fluidity. Available at https://www.lexology.com/library/detail.aspx?g=0b639d0b-d340-4ecc-b450-d977edb2feb7.
- CVF (2021). Dhaka Glasgow Declaration. Climate Vulnerable Forum, 2 November 2021. Available at https://thecvf.org/our-voice/statements/dhaka-glasgow-declaration-of-the-cvf/.
- DCSA (2022). Future International Trade (FIT) Alliance. 15 February. Available at https://dcsa.org/newsroom/resources/future-international-trade-alliance/.
- European Commission (2021a). Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union, Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and Regulation (EU) 2015/757. COM/2021/551 final. Available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0551.
- European Commission (2021b). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Forging a climate-resilient Europe the new EU Strategy on Adaptation to Climate Change. Available at https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021DC0082&from=EN.
- European Commission (2021c). Technical guidance on climate-proofing of infrastructure the period 2021–2027. Available at https://op.europa.eu/en/publication-detail/-/publication/23a24b21-16d0-11ec-b4fe-01aa75ed71a1/language-en.
- European Parliament (2022a). Legislative Train Schedule: Revision of the EU Emission Trading System (ETS). Available at https://www.europarl.europa.eu/legislative-train/package-fit-for-55/file-revision-of-the-eu-emission-trading-system-(ets).
- European Parliament (2022b). Amendments adopted by the European Parliament on 22 June 2022 on the proposal for a directive of the European Parliament and of the Council amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union, Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and Regulation (EU) 2015/757 (COM(2021)0551 C9-0318/2021 2021/0211(COD). Available at https://www.europarl.europa.eu/RegData/seance_pleniere/textes_adoptes/definitif/2022/06-22/0246/P9_TA(2022)0246_EN.pdf.
- European Union (2021). Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law'). Available at https://eur-lex.europa.eu/eli/reg/2021/1119/oj.
- Federal Maritime Commission (2022). Industry Advisory Demurrage and Detention Billing Practices. Available at https://www.fmc.gov/industry-advisory-demurrage-detention-billing-practices/.

- GMF (2021a). Call to Action for Shipping Decarbonization. Available at https://www.globalmaritimeforum.org/content/2021/09/Call-to-Action-for-Shipping-Decarbonization.pdf.
- GMF (2021b). The Next Wave: Green Corridors. Available at https://www.globalmaritimeforum.org/content/2021/11/The-Next-Wave-Green-Corridors.pdf.
- Gov.uk (2022). COP26: Clydebank Declaration for green shipping corridors. Available at https://www.gov.uk/government/publications/cop-26-clydebank-declaration-for-green-shipping-corridors.
- Government of India, Ministry of Ports, Shipping and waterways (2020). Shipping Lines advised not to impose container detention charges on import and export shipments at Ports. Available at http://sagarmala.gov.in/sites/default/files/PR%20Shipping%20lines%20advised%20not%20to%20 imposed%20container%20detention%20charges%20%26%20Exports%20at%20all%20ports-converted.pdf.
- ICS (2021). Seafarer Workforce Report, 2021 Edition. Available at https://cts.lmsslsecure.com/t/6225321/96092702/77605/26/.
- ICS (2022a). The Perfect Storm. The Impact of COVID-19 on Shipping, Seafarers and Maritime Labour Markets. Available at https://www.ics-shipping.org/wp-content/uploads/2022/04/The-Perfect-Storm_HSBA-and-ICS.pdf.
- ICS (2022b). Coronavirus (COVID-19): Guidance for Ship Operators for the Protection of the Health of Seafarers, Fifth Edition. Available at https://cts.lmsslsecure.com/t/6225321/96092702/77603/23/.
- ICS (2022c). Coronavirus (COVID-19): Vaccination for Seafarers and Shipping Companies: A Practical Guide, Third Edition. Available at https://cts.lmsslsecure.com/t/6225321/96092702/77604/24/.
- IHRB, SSI, RSFTO (2021). Delivering on seafarers' rights. Code of Conduct. Available at https://safety4sea.com/wp-content/uploads/2021/10/Seafarers-rights-Code-of-Conduct-2021_10.pdf.
- ILO (2020). General observation on matters arising from the application of the Maritime Labour Convention, 2006, as amended (MLC, 2006) during the COVID-19 pandemic. Available at https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---normes/documents/publication/wcms_764384.pdf.
- ILO (2021a). UN agencies and other international organizations establish Joint Action Group to protect transport workers and secure supply chains during the COVID-19 pandemic Press Release. Available at https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_831672/lang--en/index.htm.
- ILO (2021b). Resolution concerning the implementation and practical application of the MLC, 2006 during the COVID-19 pandemic. Available at https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---normes/documents/genericdocument/wcms_782881.pdf.
- ILO (2022a). COVID-19 and maritime labour issues. Extracts from the General report of the 2022 Report of the Committee of Experts on the Application of Conventions and Recommendations. Available at https://cts.lmsslsecure.com/t/6248613/96092702/80014/16/.
- ILO (2022b). Resolution concerning maritime labour issues and the COVID-19 pandemic. Available at https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_760649.pdf.
- ILO (2022c). Statement of the Officers of the Special Tripartite Committee: the continuing negative impact of the pandemic on seafarers' rights. 11 February. Available at https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---normes/documents/statement/wcms_836896.pdf.
- ILO (2022d). ILO and IMO call for urgent action on seafarers stranded in Ukraine following Russian aggression Press Release. Available at https://www.ilo.org/global/WCMS_841806/lang--en/index.htm. ILO (2022e). Resolution on Harassment and Bullying, including Sexual Assault and Sexual Harassment, in the Maritime Sector. Available at https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---normes/documents/genericdocument/wcms_845215.pdf.
- ILO (2022f). Statement of the Officers of the Special Tripartite Committee on ensuring a safe working environment on board vessels where seafarers can live without fear of discrimination and physical or mental abuse. Available at https://www.ilo.org/global/standards/maritime-labour-convention/special-tripartite-committee/WCMS_853146/lang--en/index.htm.

- ILO, IMO, UNCTAD, WHO (2022). Joint Statement urging continued collaboration to address the crew change crisis, safeguard seafarer health and safety, and avoid supply chain disruptions during the ongoing COVID-19 pandemic. Available at https://unctad.org/system/files/non-official-document/un-joint-statement-on-crewing-crisis_en.pdf.
- IMO (2018a). Report of the Maritime Environmental Protection Committee on its 72nd Session. MEPC 72/17/Add.1, London.
- IMO (2018b). Report of the Maritime Environmental Protection Committee on its 73rd Session. MEPC 73/19/Add.1. London.
- IMO (2020). Fourth IMO GHG Study 2020. Available at https://www.cdn.imo.org/localresources/en/OurWork/Environment/Documents/Fourth%20IMO%20GHG%20Study%202020%20Executive-Summary.pdf.
- IMO (2021a). Report of the Maritime Environmental Protection Committee on its 77th Session. MEPC 77/16. London.
- IMO (2021b). Establishment of an International Maritime Research and Development Board and IMO Maritime Research Fund. MEPC 77/7/6. London.
- IMO (2021c). International Maritime Organization (IMO) adopts key mandatory measures to reduce ships' carbon intensity; establishes ship rating system. Available at https://www.imo.org/en/MediaCentre/PressBriefings/pages/MEPC76.aspx.
- IMO (2021d). IMO Assembly Resolution on the Interpretation of Article 4 of the Convention on Limitation of Liability for Maritime Claims, 1976 (resolution A.1163(32)). Available at https://docs.imo.org/.
- IMO (2021e). IMO Assembly Resolution on the Interpretation of Article 4 of the Convention on Limitation of Liability for Maritime Claims, 1976 (resolution A.1164(32)). Available at https://docs.imo.org/.
- IMO (2021f). IMO Assembly Resolution on Interpretation of Article 6 of the Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution Damage, 1969 amending Article V(2) of the International Convention On Civil Liability For Oil Pollution Damage, 1969 (resolution A.1165(32)). Available at https://docs.imo.org/.
- IMO (2021g). IMO Assembly Resolution on Comprehensive action to address seafarers' challenges during the COVID-19 pandemic (resolution A.1160(32)). Available at https://docs.imo.org/.
- IMO (2022a). Report of the Maritime Safety Committee on its 105th Session. MSC 105/20. London.
- IMO (2022b). Report of the eleventh meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 11). MEPC 78/WP.5. London.
- IMO (2022c). Report of the eleventh meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 12). MEPC 78/WP.6. London.
- IMO (2022d). Report of the Maritime Environmental Protection Committee on its 78th Session. MEPC 78/17. London.
- IMO (2022e). Report of the Legal Committee on the work of its 109th Session. LEG 109/16/1. London.
- IMO (2022f). The first International Day for Women in Maritime focuses on the theme "Training-Visibility-Recognition: Supporting a barrier-free working environment". 18 May. Available at https://www.imo.org/en/MediaCentre/PressBriefings/pages/IDWIM-2022.aspx#:~:text=The%20first%20International%20 Day%20for%20Women%20in%20Maritime%20on%2018,maritime%20%E2%80%93%20but%20 times%20are%20changing.
- IMO (2022g). Encouragement of Member States and all relevant stakeholders to promote actions for the prevention and suppression of fraudulent registration and fraudulent registries, and other fraudulent acts in the maritime sector. A 32/Res.1162. Available at https://docs.imo.org/Shared/Download.aspx?did=134258.
- IOPC (2019). IOPC Funds Claims Manual. Available at https://iopcfunds.org/wp-content/uploads/2018/12/2019-Claims-Manual_e-2.pdf.
- Law Commission (2022). Electronic trade documents: Report and Bill. Available at https://s3-eu-west-2.amazonaws.com/lawcom-prod-storage-11jsxou24uy7q/uploads/2022/03/ Electronic-Trade-Documents-final-report-ACCESSIBLE-1.pdf.

- Mission Innovation (2021). Available at http://mission-innovation.net/missions/shipping/.
- MSC (2017). Bill of lading. Available at https://www.msc.com/-/media/files/legal-files/bill-of-lading.pdf.
- Nature (2022). Landmark treaty on plastic pollution must put scientific evidence front and centre. 22 March. Available at https://www.nature.com/articles/d41586-022-00648-9?WT.ec_id=NATURE-20220310&utm_source=nature_etoc&utm_medium=email&utm_campaign=20220310&sapoutbound-id=06F8DAA594E55034F0CF460B7696587A927F4B3F.
- Offshore Energy (2022). EU Parliament wants to include shipping emissions in the EU ETS. 24 June. Available at https://www.offshore-energy.biz/eu-parliament-wants-to-include-shipping-emissions-in-the-eu-ets/.
- Parker S, Shaw A, Rojon I, Smith T (2021). Harnessing the EU ETS to reduce international shipping emissions: assessing the effectiveness of the proposed policy inclusion of shipping in the EU ETS to reduce international shipping emissions. Harnessing the EU ETS to reduce international shipping emissions. Environmental Defense Fund, London. Available at https://cts.lmsslsecure.com/t/6199941/96092702/74358/32/.
- PIANC (2020). PIANC [World Association for Waterborne Transport Infrastructure] Climate change adaptation planning for ports and inland waterways. Available at https://www.pianc.org/publications/envicom/wg178.
- PIANC (2022). PTGCC Technical Note 1: Managing Climate Change Uncertainties in Selecting, Designing and Evaluating Options for Resilient Navigation Infrastructure (2022). Available at https://www.pianc.org/publications/envicom/ptgcc-1.
- Republic of Singapore (2021). Electronic Transactions (Amendment) Act 2021. Available at https://sso.agc.gov.sg/Acts-Supp/5-2021/Published/20210312?DocDate=20210312.
- Seatrade Maritime News (2021). Nineteen countries have signed a declaration to set up "green shipping corridors" between two or more ports. 10 November. Available at https://www.seatrade-maritime.com/environmental/19-countries-sign-declaration-green-shipping-corridors-0.
- Splash (2021). Task force established at COP26 to support seafarers through green transition. 12 November. Available at https://splash247.com/task-force-established-at-cop26-to-support-seafarers-through-green-transition/.
- TechUK (2022). Government plans to introduce Electronic Trade Documents Bill. 12 May. Available at https://www.techuk.org/resource/government-plans-to-introduce-electronic-trade-documents-bill.html.
- The Maritime Executive (2021). IMO MEPC Resolves to Discuss Carbon Policy for Two More Years. November. Available at https://www.maritime-executive.com/article/imo-mepc-agrees-to-discuss-carbon-policy-for-two-more-years.
- The Mission to Seafarers (2022). Beyond the 2%, Women Seafarers and their Lives at Sea: Reflecting on Our Call to Care. Available at https://www.missiontoseafarers.org/wp-content/uploads/The-Mission-to-Seafarers-Women-Seafarers-Report-2022.pdf.
- UNCITRAL (2022a). Possible future work on climate change mitigation, adaptation and resilience. A/CN.9/1120/Add.1. Available at http://undocs.org/en/a/cn.9/1120/Add.1.
- UNCITRAL (2022b). Report of the United Nations Commission on International Trade Law, 55th Session. A/77/17. Available at https://documents-dds-ny.un.org/doc/UNDOC/GEN/221/088/8E/PDF/2210888E.pdf?OpenElement.
- UNCTAD (2003). Multimodal Transport: the Feasibility of an International Legal Instrument. UNCTAD/SDTE/TLB/2003/1 13 January. Available at https://unctad.org/system/files/official-document/sdtetlb20031_en.pdf.
- UNCTAD (2012). Liability and Compensation for Ship-Source Oil Pollution: An Overview of the International Legal Framework for Oil Pollution Damage from Tankers. Available at https://unctad.org/system/files/official-document/dtltlb20114_en.pdf.
- UNCTAD (2019). *Review of Maritime Transport 2019* (United Nations publication. Sales No. E.19.II.D.20. New York and Geneva.
- UNCTAD (2020a). Climate Change Impacts and Adaptation for Coastal Transport Infrastructure: A Compilation of Policies and Practices. UNCTAD/DTL/TLB/2019/1. 29 Jan 2020. Available at https://unctad.org/system/files/official-document/dtltlb2019d1_en.pdf.

- UNCTAD (2020b). Report of the Multi-year Expert Meeting on Transport, Trade Logistics and Trade Facilitation on its eighth session. Available at https://unctad.org/system/files/official-document/cimem7d24_en.pdf.
- UNCTAD (2021a). Review of Maritime Transport 2021. UNCTAD/RMT/2021. Chapter 6.
- UNCTAD (2021b). UNCTAD15 pre-event: Harnessing the benefits of the ocean economy for sustainable development. 9 June. Available at https://unctad.org/meeting/unctad15-pre-event-harnessing-benefits-ocean-economy-sustainable-development.
- UNCTAD (2021c). Leading the push for a sustainable ocean economy. 22 June. Available at https://unctad.org/news/leading-push-sustainable-ocean-economy.
- UNCTAD (2021d). UNCTAD Policy Brief No.91. Strengthening international response and cooperation to address the seafarer crisis and keep global supply chains open during the ongoing COVID-19 pandemic. Available at https://unctad.org/webflyer/strengthening-international-response-and-cooperation-address-seafarer-crisis-and-keep.
- UNCTAD (2021e). COVID-19 implications for commercial contracts: carriage of goods by sea and related cargo claims. Available at https://unctad.org/system/files/official-document/dtltlbinf2021d1_en.pdf.
- UNCTAD (2021f). COVID-19 implications for commercial contracts: International sale of goods on CIF and FOB terms. Available at https://unctad.org/system/files/official-document/dtltlbinf2021d2_en.pdf.
- UNCTAD (2022a). UNCTAD Policy Brief No. 103. Climate-resilience of seaports: Adequate finance is critical for developing countries but remains a major challenge. Available at https://unctad.org/webflyer/climate-resilience-seaports-adequate-finance-critical-developing-countries-remains-major.
- UNCTAD (2022b). Contracts for the carriage of goods by sea and multimodal transport Key issues arising from the impacts of the COVID-19 pandemic. Available at https://unctad.org/webflyer/contracts-carriage-goods-sea-and-multimodal-transport.
- UNCTAD (2022c). Training course on implications of the COVID-19 pandemic for commercial contracts. Available at https://unctad.org/meeting/training-course-implications-covid-19-pandemic-commercial-contracts.
- UNCTAD (2022d). Transport and trade connectivity in the age of pandemics: Closing project meeting. 20/24 June 2022. Available at https://unttc.org/activities/save-date-transport-and-trade-connectivity-age-pandemics-closing-project-meeting.
- UNCTAD (2022e). The Least Developed Countries Report 2022. Available at https://unctad.org/topic/vulnerable-economies/least-developed-countries/ldc-report.
- UNEP (2022a). End plastic pollution: towards an international legally binding instrument. UNEP/EA.5/Res.14. Available at https://wedocs.unep.org/bitstream/handle/20.500.11822/39764/END%20 PLASTIC%20POLLUTION%20-%20TOWARDS%20AN%20INTERNATIONAL%20LEGALLY%20 BINDING%20INSTRUMENT%20-%20English.pdf?sequence=1&isAllowed=y.
- UNEP (2022b). Fifth session of the United Nations Environment Assembly. Available at https://www.unep.org/environmentassembly/.
- UNESCAP (2022a). Third Virtual Expert Group Meeting on Legal Frameworks for Multimodal Transport Operations in Asia and the Pacific. 2–3 March. Available at https://www.unescap.org/events/2022/third-virtual-expert-meeting-legal-frameworks-multimodal-transport-operations-asia-and.
- UNESCAP (2022b). Final Virtual Expert Group Meeting on Legal Frameworks for Multimodal Transport Operations in Asia and the Pacific. 15 June. Available at https://www.unescap.org/events/2022/final-virtual-expert-meeting-legal-frameworks-multimodal-transport-operations-asia-and.
- United Nations (2017). International legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction. A/RES/72/249. Available at http://undocs.org/en/a/res/72/249.
- United Nations (2020). International cooperation to address challenges faced by seafarers as a result of the COVID-19 pandemic to support global supply chains. A/RES/75/17. Available at https://documents-dds-ny.un.org/doc/UNDOC/GEN/N20/341/37/PDF/N2034137.pdf?.

- United Nations (2022). Report of the intergovernmental conference on an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction. A/CONF.232/2022/4. Available at https://documents-dds-ny.un.org/doc/UNDOC/GEN/N22/319/34/PDF/N2231934. pdf?OpenElement.
- WEF et al (2022). The Next Wave: Green Corridors. Available at https://www3.weforum.org/docs/WEF_GtZ_report_The_Next_Wave_Green_Corridors_2021.pdf.
- WFW (2022). The Clydebank Declaration: Green corridors kickstarting the adoption of long-term solutions. 28 March. Available at https://www.wfw.com/articles/the-clydebank-declaration-green-corridors-kickstarting-the-adoption-of-long-term-solutions/.
- WHO (2021a). WHO implementation guide for the management of COVID-19 on board cargo ships and fishing vessels. Available at https://apps.who.int/iris/handle/10665/350941.
- WHO (2021b). The World Together: Establishment of an intergovernmental negotiating body to strengthen pandemic prevention, preparedness and response. Available at https://apps.who.int/gb/ebwha/pdf_files/WHASS2-REC1/WHASS2_REC1-en.pdf#page=11.
- WISTA (2022). Women in Maritime. Available at http://wistainternational.com/wp-content/uploads/ Women-in-maritime_survey-report_high-res.pdf.

END NOTES

- ¹ See the project website https://UNTTC.org.
- For analytical briefing notes and reports, as well as targeted training courses and related materials, see UNCTAD (2021e), UNCTAD (2021f), UNCTAD (2022b), UNCTAD (2022c) and UNCTAD (2022d).
- ³ UNCTAD (2021e), (2021f) and (2022b), available at https://unctad.org/ttl/legal.
- 4 UNCTAD (2022c) available at https://unctad. org/ttl/legal.
- ⁵ BIMCO (2022a).
- For an example of very extensive wording, the validity of which may need to be tested in the courts, see clauses 9 and 19 of the MSC Bill of lading MSC (2017).
- See, Shipping Lines advised not to impose container detention charges on import and export shipments at Ports. Government of India, Ministry of Ports, Shipping and waterways (2020).
- See Booth K, Tutrone J, Bilge K (2020). The Federal Maritime Commission (FMC) issued its final "Docket No. 19-05, Interpretive Rule on Demurrage and Detention Under the Shipping Act," effective upon its publication date of May 18, 2020. The Final Rule applies to practices and regulations relating to demurrage and detention for containerized cargo.
- ⁹ See Federal Maritime Commission (2022).
- 10 GMF (2021a).
- 11 CVF (2021).

- ¹² Gov.uk (2022).
- ¹³ Seatrade Maritime News (2021), GMF (2021b).
- ¹⁴ Mission Innovation (2021).
- ¹⁵ WFW (2022), WEF et al (2022).
- ¹⁶ Splash (2021).
- 17 IMO (2021a).
- ¹⁸ IMO (2018a) UNCTAD (2019).
- ¹⁹ IMO (2021a), The Maritime Executive (2021).
- ²⁰ IMO (2021b).
- ²¹ IMO (2021c), UNCTAD (2021a).
- ²² IMO (2022b).
- ²³ IMO (2022c).
- ²⁴ IMO (2022d).
- ²⁵ Offshore Energy (2022).
- ²⁶ European Commission (2021a).
- The first trilogue on this was held in July (European Parliament (2022a)) For an assessment of the European Commission proposal see Parker et.al (2021), a recent report for the EDF, which stresses the need to refine the design of the EU Emission Trading System's inclusion of shipping to effectively reduce GHG emissions from maritime transport and advance zero-carbon alternative fuels.
- ²⁸ European Parliament (2022b).
- ²⁹ European Union (2021).
- 30 BIMCO (2021).
- 31 BIMCO (2022b).
- ³² UNCTAD (2020a), UNCTAD (2020b).

- European Commission (2021b).
- ³⁴ European Union (2021).
- ³⁵ European Commission (2021c).
- 36 PIANC (2020).
- ³⁷ PIANC (2022).
- ³⁸ UNCTAD (2022a). See also UNCTAD (2022e).
- 39 UNCTAD (2022a) See also UNCTAD (2021b), UNCTAD (2021c).
- 40 UNCITRAL (2022a).
- ⁴¹ UNCITRAL (2022b).
- 42 IMO (2021a).
- 43 IMO (2020).
- 44 IMO (2021a).
- 45 IMO (2022d).
- 46 Ibid.
- 47 IMO (2018b).
- 48 IMO (2021a).
- 49 UNEP (2022a).
- ⁵⁰ UNEP (2022b).
- ⁵¹ Nature (2022).
- International Convention for the Control and Management of Ships' Ballast Water and Sediments (the Ballast Water Management Convention), 2004.
- ⁵³ IMO (2022d).
- ⁵⁴ Asariotis (2021); Asariotis R, Premti A (2020).
- ⁵⁵ For an overview of the relevant limitation amounts, see https://www.imo.org/en/About/Conventions/Pages/Convention-on-Limitation-of-Liability-for-Maritime-Claims-(LLMC).aspx.
- https://www.iopcfunds.org/. The International Convention on Civil Liability for Oil Pollution Damage, 1992; International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992; and Protocol of 2003 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992. See also UNCTAD (2012). Asariotis R, Premti A (2020).
- ⁵⁷ IMO (2021d), IMO (2021e) and IMO (2021f).
- International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992.
- ⁵⁹ IOPC (2019).
- 60 IMO (2022e).
- 61 Ibid.
- 62 ICS (2021).
- 63 UNCTAD (2021a); UNCTAD (2021d).
- 64 ILO, IMO, UNCTAD, WHO (2022).

- 65 WHO (2021a).
- 66 ILO (2022a).
- 67 ILO (2020).
- 68 ILO (2022b).
- ⁶⁹ United Nations (2020).
- 70 ILO (2022b).
- 71 ILO (2022c).
- 72 ICS (2022a).
- ⁷³ ICS (2022b).
- ⁷⁴ ICS (2022c).
- ⁷⁵ IMO (2021g).
- ⁷⁶ IHRB, SSI, RSFTO (2021).
- 77 WHO (2021b).
- 78 ILO (2021a).
- ⁷⁹ ILO (2021b).
- 80 See UNCTAD (2021a), chapter 5.
- 81 IMO, (2022e).
- 82 IMO (2022e).
- 83 IMO (2022a).
- 84 ILO (2022d).
- 85 ICS (2021).
- https://www.un.org/en/black-sea-graininitiative.
- ⁷ IMO (2022f).
- 8 WISTA (2022).
- ⁸⁹ The Mission to Seafarers (2022).
- 90 ILO (2022e).
- 91 ILO (2022f).
- ⁹² See UNCTAD (2021a), chapter 6.
- 93 IMO (2022g).
- 94 IMO (2022e).
- 95 IMO (2022a).
- 96 UNCTAD (2003).
- 97 UNESCAP (2022a), UNESCAP (2022b).
- 98 Law Commission (2022).
- 99 TechUK (2022).
- ¹⁰⁰ Republic of Singapore (2021).
- 101 DCSA (2022).
- ¹⁰² United Nations (2017).
- ¹⁰³ United Nations (2022).
- 104 Ibid.
- ¹⁰⁵ For further information, see Fifth substantive session (un.org).
- For additional information, see https://unctad.org/ ttl/legal. For official status information, see the United Nations Treaty Collection, available at https://treaties.un.org.
- ¹⁰⁷ UNCTAD (2021d).