UN Trade and Development (UNCTAD) contribution to Part II of the Report of the Secretary-General on Oceans and the Law of the Sea 2024

I. Developments related to the implementation of General Assembly resolution 78/69, 5 December 2023

1. Conservation and sustainable use of living marine resources

United Nations Trade and Development (UNCTAD) contribution to the implementation of trade-related aspects of SDG 14, building of capacities and strengthening international cooperation

Responding to paragraphs 152, 160, 165, 195, 202, 216, 217, 219, 220, 222, 223, 228, 277, and 282 of the General Assembly resolution 78/69, UNCTAD has continued its contribution to the implementation of trade-related aspects of SDG 14 on biodiversity, sustainable ocean economy sectors development such as fisheries and response measures to the marine plastics pollution challenge, sustainable maritime transport and resilience ports, with particular reference to coastal developing countries and small island developing States (SIDS). UNCTAD has also maintained efforts on strengthening international cooperation in these areas. Relevant work, including research, technical assistance, intergovernmental dialogue, and related capacity building activities, as detailed further below, also contributes to implementation of other relevant of Sustainable Development Goals such as 2, 3, 8, 10, 12, 13 and 17.

a. The Bridgetown Covenant (2021) and the role of UNCTAD on ocean-based capacity building

The Bridgetown Covenant calls for continued support—through policy dialogue and cooperation mechanisms—of international and regional transport networks to ensure their sustainability and resilience. It also calls for promotion of the conservation and sustainable use of the oceans and their resources and support for small island developing States, most notably in addressing their specific vulnerabilities, building resilience and promoting structural economic transformation and productive capacities. UNCTAD also received a new mandate to address the discharge of plastic litter and other waste in oceans, to significantly reduce marine pollution of all kinds, and ensure sustainable consumption and production patterns.

b. UNCTAD's Trade and Development Commission session on sustainable fuels for maritime transport, 22-26 April 2024

The high-level segment of the Trade and Development Commission of UNCTAD, held from 22 to 26 April 2024, examined the Trade and development implications of key aspects of the energy transitions (item 6b). In particular, the segment explored the role of sustainable fuel for maritime transport and for sustainable fisheries— industries jointly generate about 3 per cent of global greenhouse gas emissions. Panellists discussed the potential role of cooperation tool such as green maritime corridors sustainable

fuels such as green hydrogen in facilitating the energy transition of maritime transport and the trade and development implications of an energy transition that rely heavily on such fuels in maritime transport. The session also provided a focus on the challenges and opportunities for the energy transition of fishing fleets, particularly for developing countries.

c. UNCTAD Strategy to support Small Island Developing States

In line with UNCTAD's mandate and mindful of SDG 14.7, in 2023, UNCTAD developed a comprehensive Strategy to support Small Island Developing States (SIDS), with a focus on sustainably building their productive capacities and facilitating respective structural transformation processes as an essential pathway to sustainable development. The UNCTAD SIDS strategy is developed building on the longstanding support and partnership of UNCTAD with SIDS along with its primordial three-pillar functions: policy research and analysis, technical cooperation and capacity building as well as intergovernmental deliberation and advocacy. It is designed to effectively address the multiple and systemic vulnerabilities of SIDS by sustainably harnessing their comparative advantages and unlocking key binding constraints to their development. What is urgently needed is a new development model, combined with a revamped global partnership in support of their development efforts as outlined and discussed in the strategy document.

The strategy aims to maximize synergies and promote a paradigm shift in development policy towards building socioeconomic resilience by fostering productive capacities and structural economic transformation and enhancing SIDS' international economic engagement with an aim to achieve inclusive growth and sustainable development. The new development model, as discussed in the strategy, must blend robust sectoral and economy-wide actions.

The UNCTAD SIDS Strategy is framed along the pillar intervention strategy, which includes: (i) building productive capacities; (ii) enhancing connectivity, reducing transport costs, and promoting sustainable and resilient transport; (iii) facilitating customs modernisation (ASYCUDA); (iv) facilitating digital transformation; (v) supporting investment, including FDI; (vi) taping the potential of the ocean economy; (vii) supporting private sector development; (vii) supporting the mobilisation of external financial resources; and (ix) advancing South-South cooperation to enhance development strategies and economic integration, and (x) implementing trade facilitation reforms. These will be mapped and realigned with sectoral interventions covering tourism, the blue economy, agriculture, manufacturing, and other services sectors, including financial intermediation, banking, ICTs, and real estate, etc., and through a new generation of revamped international support mechanisms (ISMs). The full and effective implementation of this comprehensive strategy also seeks innovative financing mechanisms, clearly defined incentive structures and new development financing models that recognize structural vulnerabilities, systemic risks and the fragility of SIDS. It will be implemented by UNCTAD in areas within its expertise and comparative advantages across different Divisions.

Identified areas of key potential for SIDS include various sectors comprising the Blue Economy, with Marine Spatial Planning as an essential tool to manage its operations, including fisheries and mariculture as well as bioprospecting; and maritime transport. UNCTAD stands ready to provide technical support to

SIDS with a view to optimally harnessing their potential in these sectors, should funding be made available for such activities.

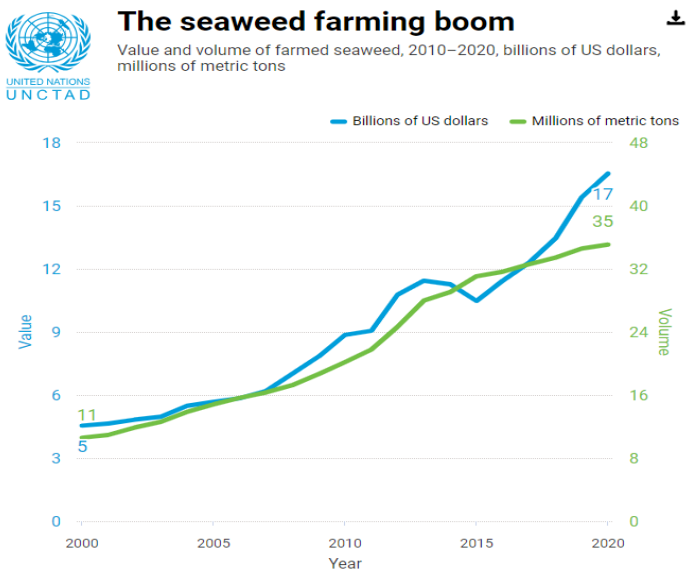
d. Trade agreements, fisheries and aquaculture products

Aquatic products are among the most highly traded commodities, and they play a vital role in generating export revenue and employment and contributing to global food security. These products, however, still face complex market access requirements and trade barriers. Additionally, regional trade agreements (RTAs) have become an essential component of global trade and increasingly address sustainability, creating specific nuances towards aquatic products. On 28 November 2023, UNCTAD, FAO and the Shanghai Ocean University organized a workshop on RTAs and fisheries and aquaculture products. The webinar promoted a greater understanding of their content and scope, as well as on their role in fostering more competitive trade opportunities for fisheries and aquaculture.

e. Seaweed as a new trade opportunity

In early 2024, UNCTAD published a report entitled An ocean of opportunities: The potential of seaweed to advance food, environmental and gender dimensions of the SDGs. The report explores how seaweed's growing popularity could increase income, promote food security, preserve marine biodiversity, and empower women along value chains. UNCTAD made four key findings. First, the seaweed market has significant market potential; it has more than tripled in the last two decades, growing from US$5 billion in 2000 to US$17 billion in 2021, with global exports representing about US$1 billion in 2021 (see Figure 1 below). Chile, China, Indonesia, Ireland, and the Republic of Korea dominate exports, but many other countries have the potential to produce. Second, seaweed has diverse uses. As food, seaweed can help to tackle common nutritional deficiencies, is eaten in a range of food, and can even be used as aquatic animal feed. Seaweed can also be used in industrial sectors such as pharmaceuticals, cosmetics, fertilizer, and textiles and could be used as a non-plastic substitute. Third, in explorations of the seaweed industry, seaweed could support the economic empowerment of women. In Indonesia, the Philippines, and Tanzania, women provide more than half of production labour. Additionally, women run about 40 percent of startups in the seaweed industry. However, women still frequently face gender-related barriers, such as limited access to resources, technology, and decision-making roles. Fourth, seaweed production is resource-efficient, has a low ecological footprint, and absorbs more carbon than tropical forests and mangroves.

Figure 1 The seaweed farming boom



Source: Source: Prepared by UNCTAD secretariat based on FAO.

Given these findings, UNCTAD called for collaborative efforts to harness the full potential of seaweed and for governments to incorporate seaweed into national development plans, with explicit gender considerations and training efforts. Additionally, regulators should encourage the development of seaweed-based plastic substitutes, integrate seaweed into wastewater treatment facilities, and review regulations, marine tenure rights, and marine spatial planning to support women's participation. Moreover, civil society groups and women's associations should advocate for the harmonization of seaweed standards and encourage the training and adoption of internationally recognized food safety regulations. Finally, academia and research should investigate seaweed's carbon sequestration potential, biosecurity risks, and nutritional benefits.

To further explore seaweed's potential, UNCTAD co-organized an official side event at the UN Environmental Assembly 6 on 26 February 2024, titled "Seaweed as a nature-based solution to tackle the triple planetary crisis: Climate change, biodiversity loss and pollution." This event aimed to increase knowledge and understanding of how seaweed ecosystems can support coastal fisheries, provide food and medicine, mitigate climate change and ocean acidification, and improve water quality.

UNCTAD also co-hosted a session at the WTO Public Forum in September 2023 titled Empowering waves: An ocean of opportunities for women in the blue economy. This event explored the role of women in the ocean economy, focusing on their involvement in fisheries and seaweed cultivation and highlighting best practices and innovative approaches to harness women's potential in these sectors.

f. Making available oceans trade knowledge and data

UNCTAD has developed a dataset on Ocean Trade, which is available in the UNCTADstat Data Center. The database includes data on trade flows on goods and services sectors of the ocean economy, as identified by UNCTAD's sustainable ocean economy (SOE) classification for tradable goods and services. The classification features three categories: goods, services, and energy. The classification and the dataset contribute to enhancing understanding on the ocean economy's reach and importance (including sizes and related trade flows) at the national, regional, and global level.

g. Strengthening international cooperation

UNCTAD has collaborated with the FAO, CITES Secretariat, and Organization of Eastern Caribbean States to enhance the understanding of the interrelationship between CITES and fisheries legal regimes and to build capacity for CITES-compliant trade.

UNCTAD has also continued its collaboration with the World Trade Organization (WTO), such as through the WTO Dialogue on Plastics Pollution (DPP). In 2024, UNCTAD hosted a session at the Thirteenth WTO Ministerial Conference (MC13) on Fostering trade-related cooperation on plastic pollution: The dialogue on plastic pollution beyond MC13.

Similarly, UNCTAD co-hosted with the African Legal Network and Delterra a informal pre-event to the third session of the Intergovernmental Negotiating Committee on Plastics to discuss trade and development aspects of plastic pollution mitigation measures, non-plastic substitutes, and plastic alternatives. Finally, UNCTAD hosted a Pacific workshop on plastic pollution and material substitutes to explore material substitutes and green finance as part of solutions for SDGs 14.1 and 12.

h. Support to sustainable fisheries and mariculture development in the context of the Blue Economy support in Angola and in Haiti

UNCTAD has been providing support to the sustainable use of living marine resources in the framework of the EU-UNCTAD Joint Programme for Angola: Train for Trade II for Angola, and in the context of two complementary UN Joint Programmes (UNJPs) implemented in Haiti, namely the UNJP National SDG Financing Framework implemented jointly with UNDP, and the UNJP *Global Crisis Emergency support for Haiti: sustainable trade and value chain development for diversification of the economy, improved working conditions, rural employment creation and food security*, implemented jointly with the International Labour Organization (ILO).

In late 2023, UNCTAD organised a training workshop under the EU-UNCTAD Joint Programme for Angola, on Adding value sustainability to fisheries and aquaculture products for exports, implemented jointly with UNCTAD's Regional Center of Excellence, Nha Trang University, in Viet Nam, for Angolan fisheries and aquaculture sector stakeholders. The workshop aimed to draw practical and policy lessons for Angola from Vietnam's experience on harnessing fisheries sector potential; discuss the necessary strategies for Angola to transform the fisheries sector; exchange best practices in sustainably harnessing capture

fisheries and addressing the sector's challenges; explore ways to sustainably tap into the potential of the aquaculture sector; and identify approaches and tools to effectively improve the aquaculture products' quality. Relevant field visits complemented the technical sessions. Following the Viet Nam workshop, technical support was provided to the Universidade José Eduardo dos Santos of Huambo, Angola, the country's main aquaculture and mariculture teaching institution, in the form of a review of the university's aquaculture curriculum and suggestions with a view to modernizing its contents to optimally harness the aquaculture and mariculture potential of Angola.

In the framework of the *Global crisis emergency support for Haiti: Sustainable trade and value chain development for diversification of the economy, improved working conditions, rural employment creation, and food security* UN Joint Programme, implemented by UNCTAD and the ILO, UNCTAD finalized a study on International Fisheries Access Agreements: challenges and opportunities to optimize development impacts. The report provides a comparative analysis of International Fisheries Access Agreements (IFAAs) and related research with a view to identifying gaps and challenges, and synthetizing experiences, success stories and best practices. As such, the publication complements UNCTAD's ongoing work and earlier studies on sustainably harnessing the potential of fisheries and aquaculture resources for socioeconomic development in countries that have rich marine and freshwater resources. Based on the analysis, the report provides recommendations on why, when and how best to use IFAAs to secure income, improve global fisheries sustainability, and support value addition and exports, with a focus on the livelihoods of coastal fishing communities and their access to resources, services and markets. In doing so, the report draws lessons for SIDS and LDC nations where UNCTAD is implementing fisheries development projects, including Haiti, to guide policies on the relevance and opportunities for negotiating international fisheries access arrangements. Under the same UNJP, UNCTAD also completed a needs assessment and action plan on the fisheries and aquaculture sector potential of selected priority zones in Haiti, constraints and gaps with regard to legal frameworks, their implementation and overall productive capacities related to the sector. This can serve as a basis for the development of a comprehensive programme to support the said sectors in Haiti.

2. Climate Change

UNCTAD contribution to the implementation of climate change-related aspects of GA resolution 77/248 and related SDGs

Responding to key issues highlighted in paragraphs 11, 21, 34, 200–210, 291 and 366 of the General Assembly resolution 78/69, and with special reference to para. 228, UNCTAD has continued its work on addressing the multiple challenges posed by climate change, including the need to reduce GHG emissions and the need to adapt to the growing impacts of climate change and extreme weather events – including on seaports and other critical coastal transport infrastructure. Related UNCTAD work seeks to assist in the development of appropriate response measures, in particular with reference to small island developing States (SIDS); as well as strengthening international cooperation in the interrelated areas of disaster risk reduction (DRR), Climate Change Adaptation and Development.

UNCTAD has been working on implications of climate change for maritime transport since 2008, with increasing focus on climate change adaptation and resilience-building for seaports and other key coastal transport infrastructure, particularly in SIDS (https://SIDSport-ClimateAdapt.unctad.org), and more recently, as part of the energy transition of fishing vessels. This work responds directly to UNCTAD's express related mandate in the Maafikiano (paras. 55 (l) and (k)) as reconfirmed in the Bridgetown Covenant (paras. 5 and 127 (v)(iii)) and contributes to implementation of a number of SDGs/targets (e.g. 1.5, 9.1, 9.a, 11.b, 13.1, 13.2, 13.3, 14.1, 14.2, 14.5, 14.7, 14c, 17) as well AAAA, SAMOA Pathway, Paris Agreement (Art. 7) and Sendai Framework (all targets, especially (b)-(f)).

a. Key issues, related capacity building for policymakers and stakeholders

Climate change impacts and adaptation for seaports

Ports and related coastal transport infrastructure in SIDS are particularly affected by the impacts of climate variability and change. Rising mean sea levels, increased frequency and intensity of extreme storm surges and waves, precipitation, droughts and/or river floods, increased mean temperatures and extreme temperature variability constitute some of the climatic changes that pose serious threats to seaports and related coastal transport infrastructure and operations. Associated risks, vulnerabilities and costs may be considerable, in particular for ports and other key coastal transport infrastructure in developing regions, with low adaptive capacity, such as in SIDS. Critical coastal transport infrastructure in these countries, notably ports and airports, are lifelines for external trade, food and energy security, as well as tourism and are crucial in the DRR context. However, these assets are projected to be at high and increasing risk of coastal flooding, from as early as in the 2030s, unless effective adaptation action is taken.

Weather and climate-related economic losses can be extensive both in terms of infrastructure damage but also – and maybe more importantly - in terms of operational disruptions and delays which have important knock-on effects throughout global supply chains and can jeopardize the development gains and prospects of those at greatest risk. However, economic losses can be crippling, particularly in regions affected by tropical cyclones, related storm surges and waves, such as SIDS (Monioudi et al., 2018), with a single extreme event often causing damages and losses amounting to a significant share or a multiple of GDP.

The costs of future damage, delay and disruption are difficult to quantify but could be uninsurable and have major implications for global trade and development, making averting, minimizing and mitigating future loss and damage a key priority.

In the light of long infrastructure lifespans and the cost of inaction, the need for effective response measures is becoming increasingly urgent; for developing countries—often at the frontline of impacts but with low adaptive capacity and facing a worsening debt crisis—better availability and access to infrastructure adaptation finance, including in the form of grants rather than loans will be critical. This issue has been highlighted by UNCTAD member States in the Bridgetown Covenant (at para. 87) and was the subject of a 2022 Policy Brief with a focus on ports and other key transport infrastructure assets.

Drawing on UNCTAD's extensive work on climate change adaptation for ports under the three pillars, substantive technical inputs were provided to the 2023 UNDRR GAR Special Report on Mapping Resilience for the SDGs; as well as the UN Global Compact Practical Guidance for Ports; and Framework for Developing Just and Inclusive Green Shipping Corridors (SSI, Maersk McKinney Centre for Zero Carbon Shipping; Ocean Stewardship Coalition), which were both launched at the COP 28.

Active technical contributions to international meetings and Conferences included: the 6th UNFCCC workshop on the Global Goal on Adaptation; 2023 International Conference on Disaster Resilient Infrastructure; 2023 Santander Port Week; 2023 FAO Science and Innovation Forum; German Association of Maritime Law 125th anniversary event; Kuehne Foundation Climate change adaptation logistics workshop; and DESA/UNECE Expert Group Meeting on Sustainable Transport.

Related issues were also discussed in some depth during three consecutive sessions on Climate change adaptation, resilience-building and DRR at the United Nations Global Supply Chain Forum, held in Bridgetown on 20-24 May 2024 and organized by UNCTAD, in collaboration with the Government of Barbados. Noteworthy observations from the sessions included the recognition of the economic implications of climate change impacts on ports, and the urgent need for adaptation in the light of infrastructure planning horizons and lifespans and the potentially devastating cost of inaction; as well as the recognition of the need for capacity building in climate expertise, technology and investment. Discussions highlighted the critical need for collaboration among stakeholders, overcoming institutional barriers and the importance of long-term planning for infrastructure resilience. Discussions on DRR emphasised the importance of understanding risks, fostering partnerships, and integrating disaster risk reduction proactively into broader policy frameworks to mitigate the impacts of disasters and ensure sustainable development and the need to prioritize DRR and climate change adaptation to avoid the unfathomable social, economic, and developmental costs of inaction. The sessions concluded with a call for a paradigm shift in how we approach long-term planning and investment in resilience, highlighting the role of good planning and collaborative engagement in making sound decisions for the future; and a call to action for all stakeholders to recognize the urgency of disaster preparedness and to work collaboratively towards a more resilient future.

Finally, an important issue which deserves further consideration is the growing nexus between the increasing risks associated with climate change impacts on maritime transport, in particular ports and the application and further development of commercial maritime law and related contracts. Among others, increasing climate and weather-related risks and impacts may lead to greater incidence of cargo loss/damage, heightened risks for the carriage of deck cargo, and pose particular challenges for the safety of berthing, loading and discharge operations; as well as increase the risks of maritime accidents, environmental pollution, groundings and bunker oil spills – in all cases with potential implications for commercial contracts, including in terms of liability and compensation and related disputes. The risks of climate-related damage, disruption and delay to port infrastructure, port and ship-operations and their safety and the related implications for contractual rights and obligations deserve particular attention and need to be better understood, to minimize losses and help inform commercial contracting practice into the future. An analytical overview of some of the issues arising for key commercial contracts involved in

international seaborne trade is provided in Chapter 5 of the Review of Maritime Transport 2024, highlighting related considerations and recommendations for commercial parties and the further development of maritime law.

Energy transition in the fisheries sector

With international shipping responsible for around 3 per cent of global greenhouse gas (GHG) emissions, the industry's decarbonization remains an urgent priority that needs to be addressed in order to achieve the ambitions of the Paris Agreement, which include 'pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels', by 2100 (Art. 2(1)(a)). However, as highlighted in the IPCC 6th Assessment Report (AR6), this threshold is likely to be reached by 2040, or earlier, if emissions are not slashed in the next few years, giving rise to rapidly growing risks of increasingly extreme heatwaves, droughts and flooding that could have devastating consequences.

While efforts are underway to address GHG emissions from international shipping, so far, little attention has been paid in this context to vessels in the global fishing fleets. These vessels, powered mainly by fossil fuels such as marine diesel, emit between 0.1% to 0.5% of global carbon emissions, or up to 159 million tons annually, according to the latest available data by UNCTAD. The fisheries sector, crucial for the livelihoods of more than 40 million people worldwide, faces escalating threats from climate change. These include rising sea levels and warming waters that jeopardize fishing ports and deplete fish stocks. The risks are particularly high for developing countries, where small-scale and artisanal fishing prevails. There is a need to explore options for the just transition and decarbonization of fishing fleets and the fisheries sector specifically.

In January 2024, UNCTAD published the report Energy transition of fishing fleets: Opportunities and challenges for developing countries. This study explored the interface between climate change, CO_2 emissions and fishing fleets by analyzing data and ocean and fisheries commitments in NDCs under the Paris Agreement. UNCTAD found that the most significant reduction in CO_2 emissions in the fisheries sector has come from reducing fleet sizes, improving the energy efficiency of vessels, and introducing smarter vessel navigation and fishing methods. The technological alternatives for the transition in terms of fuels, engines, vessels, and port infrastructure are not mature yet and most of them are only on prototype or product development phase, except for energy efficient measures and green biofuels produced from seaweed, fish waste and other agricultural wastes. Also worth noting in this context is that existing energy efficiency measures and regulations adopted by the International Maritime Organization for global shipping are of only limited application to fishing vessels, primarily due to their size and operational patterns existing energy efficiency measures and regulations adopted by the International Maritime Organization for global shipping are of only limited application to fishing vessels, primarily due to their size and operational patterns.

UNCTAD also hosted an event on the Energy transition of fishing fleets: Opportunities and challenges for developing countries at the Global Supply Chain Forum in Bridgetown Barbados, on the 22 May 2024. The discussion aimed to identify main strategies for decarbonization in place, relevant multilateral and

regional policy, regulatory and data gaps, and most promising technologies and incentives that could speed up a renewable energy transition for the fisheries sector.

While there is currently no global plan for GHG reduction in the fisheries sector, some economic, trade, social, regulatory and environmental considerations were discussed that could form elements of a global roadmap. In order to achieve this, there needs to be greater access to alternative energy because although technological solutions exist such as experimentation with biogas and biodiesel, they are not yet fully mature. Climate-resilient port infrastructures will also be needed to enable the storage and delivery of future renewable energy fuels. A fair energy transition in this sector will requires a holistic approach to greening the entire fisheries value chain without decoupling sustainability objectives while providing incentives, transfer of technology, compliance, and greater co-investment in R&D. Finally, Regional and South-South cooperation will have a significant role to play in a just energy transition of the entire fisheries value chain.

b. Strengthening international cooperation

UNCTAD work on climate change and related issues benefits from close cooperation and synergies with a wide range of partners and a multidisciplinary network of collaborators, including international and regional academic experts. Among others, UNCTAD collaborates with other UN agencies in the context of UN-OCEANS and UN-DRR, including through contribution to the development and implementation of recommendations of the 2030 Recommendations of the United Nations Senior Leadership Group on Disaster Risk Reduction for Resilience, adopted in 2023; as well as contributions to UNFCCC processes, such the *6th Workshop, Glasgow–Sharm el-Sheikh Work Programme on the Global Goal on Adaptation*, the 1st workshop on loss and damage and the ongoing work of the Marrakech Partnership for Global Climate Action.

Relevant engagement in support of dialogue and consensus building on oceans and climate action during the UNFCCC COP 28 in Dubai and SB 60 (Bonn) include contribution to and co-organization of a number of side events:

- Global leaders join forces on trade and climate change, organized by UNCTAD, ICC, ITC, and the WTO, on 1 December 2023 (online and in Dubai, United Arab Emirates).
- A positive agenda for trade, climate and development goals, sponsored by CECG, on 2 December 2023 (online and in Dubai, United Arab Emirates).
- Expanding South-South trade in low carbon technologies for development and resilience , organized by IRENA, South Centre and TESS, on 3 December 2023 (online and in Dubai, United Arab Emirates).
- Coordinating for greater ocean-based climate change ambition: A UN-Oceans perspective, organized by UNCTAD and other UN-Oceans Member agencies, on 4 December 2024 (online and in Dubai, United Arab Emirates).
- Stock exchanges and climate action - Financing the net zero transition, organized by Sustainable Stock Exchanges initiative (a UN partnership program with UNCTAD), Global Compact, UNEP, and PRI, on 4 December 2023 (online and in Dubai, United Arab Emirates).

- Shaping ministerial leadership and collective action for trade and climate change, organized by UNCTAD, ICC, ITC, and WTO with Coalition of Trade Ministers on Climate, on 4 December 2023 (online and in Dubai, United Arab Emirates).
- Mitigating climate change with trade-related regulations, organized by WTO, IISD, and TESS Forum, on 5 December 2023 (online and in Dubai, United Arab Emirates)
- Key elements of a just transition that leave no one behind on 5 December 2024 (online and in Dubai, United Arab Emirates).
- Trade House event at COP28: Harnessing services trade for the energy transition on 6 December 2023 (online and in Dubai, United Arab Emirates).
- How sustainable trade and waste management can support climate mitigation through addressing plastic pollution, organized by Secretariat of the Basel, Rotterdam and Stockholm conventions and the WTO Secretariat, on 8 December 2023 (online and in Dubai, United Arab Emirates).
- Trade and fiscal space - The finance question, sponsored by CECG, on 8 December 2023 (online and in Dubai, United Arab Emirates).
- Decarbonizing ocean-based sectors through trade, investment, and technology policies, organized by FAO, IMO, UNWTO, OECS and IOI on 9 December 2023 (online and in Dubai, United Arab Emirates).
- Trade and investment policy to advance the implementation of climate goals, organized by UNCTAD, Green Climate Fund, and WTO Secretariat, on 10 December 2023 (online and in Dubai, United Arab Emirates).
- Remaking the global trade system for a sustainable future: From COP28 to MC13, organized by UNCTAD and IRENA/Shridath Ramphal Centre for Trade (UWI), on 10 December 2023 (online and in Dubai, United Arab Emirates).
- The contribution of social and solidarity economy to the SDGs: the role of trade policy on 11 December 2023 (online and in Dubai, United Arab Emirates).
- Bonn Climate Change Conference (SB60) side event: NCQG: Bringing accountability, trust and developing country needs to climate finance, on 6 June 2024.

In addition, UNCTAD continues to collaborate extensively with the UNECE Group of Experts on Climate Change Impacts and Adaptation, which had first been established in 2011, following a joint UNCTAD-UNECE workshop on the issue.

Worth highlighting is also the inaugural United Nations Global Supply Chain Forum, hosted by UN Trade and Development (UNCTAD) and the Government of Barbados, convened from 21 to 24 May 2024. The event brought together over 1,000 participants from around the globe to address escalating disruptions in global supply chains, with emphasis on Small Island Developing States. The forum addressed the compounded effects of climate change, geopolitical tensions, and the COVID-19 pandemic on global supply chains, for which UN Trade and Development has provided critical analysis. Key outcomes include a Ministerial Statement for Enhancing Transport and Logistics in Small Island Developing States (SIDS) in which participating ministers from SIDS called for international financial institutions, development banks,

and donor countries to prioritize funding and investment in their transport and logistics sector, focusing on projects that promote resilience, sustainability, and inclusivity.

At the margins of the Global Supply Chain Forum, UNCTAD held consultations with the University of the West Indies and Shridath Rampal Centre on the integration of (SIDS) under the Paris Agreement. In doing so, it highlighted the significant role that healthy marine ecosystems play in the environment and economic stability of these states and the dedicated effort by SIDS to integrate ocean sustainability and conservation measures into their climate action strategies. UNCTAD also brought together parliamentarians from ten Southeast Asian nations to discuss and find solutions to the pressing issue of marine debris in Southeast Asia.

3. Other important developments and issues with regard to ocean affairs and the law of the sea

Relevant developments in maritime transport

a. Legal and Regulatory issues

As part of its work on legal and regulatory issues in the field of transport, UNCTAD engages in a number of different fora and collaborates with a broad range of organizations. This includes active participation in the ongoing work of the IMO Legal Committee on issues such as bunker oil pollution, and liability issues (see paras. 169 and 242 of GA resolution 78/69), as well as combating fraudulent registration of ships (paras. 123, 130 and 181 of GA resolution 78/69), an issue of growing global concern.

As a matter of public policy, the development and enforcement of measures to prevent and combat crime, including all forms of fraudulent practices, is in the interests of the global community as a whole. This is also reflected in some of the goals of the 2030 Sustainable Development Agenda, which are "integrated and indivisible, global in nature and universally applicable", notably SDG 16 (Promote just, peaceful and inclusive societies), and SDG 14 (Conserve and sustainably use the oceans, seas and marine resources for sustainable development), which is of particular relevance in the context of maritime transport, ship-source pollution control, and ship safety and includes a dedicated target 14(c), focusing on implementation of "*international law as reflected in UNCLOS, which provides the legal framework for the conservation and sustainable use of oceans and their resources* (…)".

Fraudulent ship registration and fraudulent ship registries is a matter of global concern, given its far-reaching implications, including for maritime safety and security, pollution, seafarers' welfare, and effective ocean governance. Relevant concerns have been increasing over recent years with recorded incidents rising and are reflected paras. 123, 130 and 181 of GA resolution 78/69.

UNCTAD continued contributes actively to ongoing work under the auspices of the IMO Legal Committee on measures to combat fraudulent ship registration and registries. During the current reporting period, this includes UNCTAD's contribution to the preparation of a substantive study on fraudulent ship registration and fraudulent ship registries, together with the World Maritime University and the IMO

International Maritime Law Institute (IMLI). The study was prepared at the request of the IMO Legal Committee and was considered by the Committee at its 111th session in March 2024. The study report, which has also been made available on the IMO website, presents the final results of a survey questionnaire, which had been re-circulated to increase participation, together with some statistical analysis, a section on the impacts of fraudulent ship registration, and a detailed analytical overview of the relevant international legal framework, as well as related conclusions and recommendations.

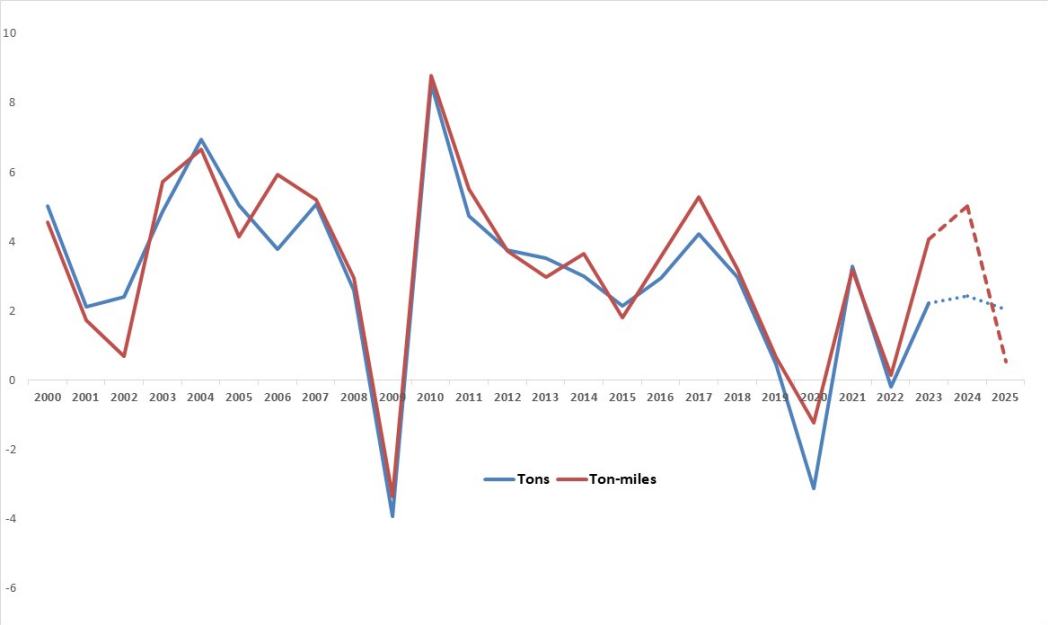
Following extensive discussions, with many delegations highlighting relevant experiences and expressing support for the report and some of its key recommendations, the Committee decided, among others, to initiate work towards the development of guidelines or best practices on ship registration. The Committee also agreed to give further consideration to specific proposed measures identified in the study group report, including improvements to the Global Integrated Shipping Information System (GISIS). In line with one of the study group's recommendations, the Committee "strongly encouraged Member States to act on their commitments as reflected in Assembly Resolution A.1162(32) and, in collaboration with all relevant stakeholders, take the necessary measures, individually and collectively, to promote effective actions for the prevention and suppression of fraudulent registration and fraudulent registries and other fraudulent acts in the maritime sector". Further relevant information is available as part of a dedicated chapter on legal issues and regulatory developments in the Review of Maritime Transport 2024.

b. Relevant developments in the maritime transport sector

In 2023 and the first half of 2024, shipping and ports which underpin global maritime transportation and trade continued to face a highly disrupted operating landscape. Intensified geo-political tensions and more frequent extreme climatic factors have further laid bare the vulnerability of maritime transport to external shocks that upend shipping routes and their configuration with wide-ranging implications including for service reliability, shipping costs and freight rates as well as ports and their performance. As shipping continues to carry more than 80 per cent of world merchandise trade by volume while connecting world economies and linking global supply chains, building the sector's sustainability and resilience are emerging even more prominently as the sector's leading priority for many years to come.

As reported in the UNCTAD annual Review of Maritime Transport, 2023 was a positive year for global maritime trade. While volumes contracted marginally by 0.4 per cent in 2022, they expanded by an estimated 2.5 per cent in 2023. Global maritime trade in terms of ton-miles that is trade adjusted for the distance travelled, expanded by a firmer 4.4 per cent i.e. faster than trade in tons (Figure 2).

Figure 2 Maritime trade growth, annual percentage change in tons and ton-miles, 2000–2024



Source: UNCTAD calculations based on data from Clarksons Research 2024.
2024: estimate; 2025: forecast.

Growth in distance-adjusted trade is driven by shifts in trade patterns whereby ships are diverted onto longer journeys amid the ongoing war in Ukraine, drought in the Panama Canal that reduced water levels and cut ship transits and the Red Sea crisis where ship entering the Gulf of Aden and crossing the Suez Canal reduced significantly with the decision to reroute vessels around Africa's Cape of Good Hope to avoid attacks on ships in the region. At the end of May 2024 and compared to mid-December 2023, ship tonnage arriving at the Gulf of Aden declined 73 per cent (transits via the Suez Canal were down 64 per cent). Arrivals by crude tankers, product tankers, bulkers, containerships, and gas carriers fell by 76 per cent, 64 per cent, 90 per cent and 100 per cent, respectively. Tonnage arrival at the Cape increased by 69 per cent over the same period.

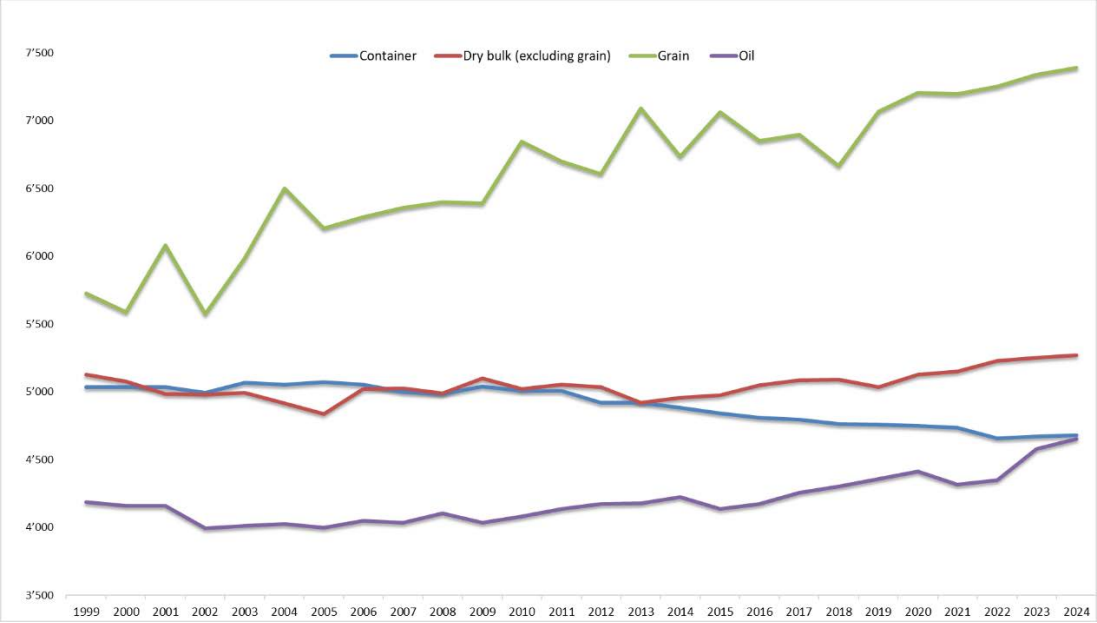
The Suez Canal facilitates the passage of about 10 per cent of global maritime trade volume and 22 per cent of containerized trade. The ship diversion away from the Suez Canal has boosted average distances travelled, caused operational shifts, triggered market inefficiencies (off schedule ship arrivals cause congestion and challenges for ports), and created additional costs in the form of threats to seafarers' safety, heightened piracy and challenging capacity management. Vessel rerouting has also added costs relating to crew wages, chartering, insurance, and fuel consumption. Additional costs are reflecting in increased shipping costs and delays. The Red Sea disruption and the rerouting of ships away from the Suez Canal via the Cape of Good Hope is estimated to be adding about 3 per cent to global vessel demand, equivalent to another full year of maritime trade growth. At the country level, the impact varies depending on the extent to which the countries' trade relies on the two canals.

Diverting ships onto longer journeys is currently overwhelming ports as off-schedule arrivals cause logistical complexities and strain port capacity. Rerouting has also boosted ship sailing speeds as

operators aim to improve schedule reliability. This entails additional fuel consumption and more carbon emissions which undermine ships' environmental performance and regulatory compliance.

The latest disruptions in the Red Sea and the Panama canals have reinforced a key trend that has been accelerated by the war in COVID-19 pandemic and the war in Ukraine, namely the shift in trade patterns, the reconfiguration of maritime shipping networks and the rise distances travelled by international shipping (Figure 3).

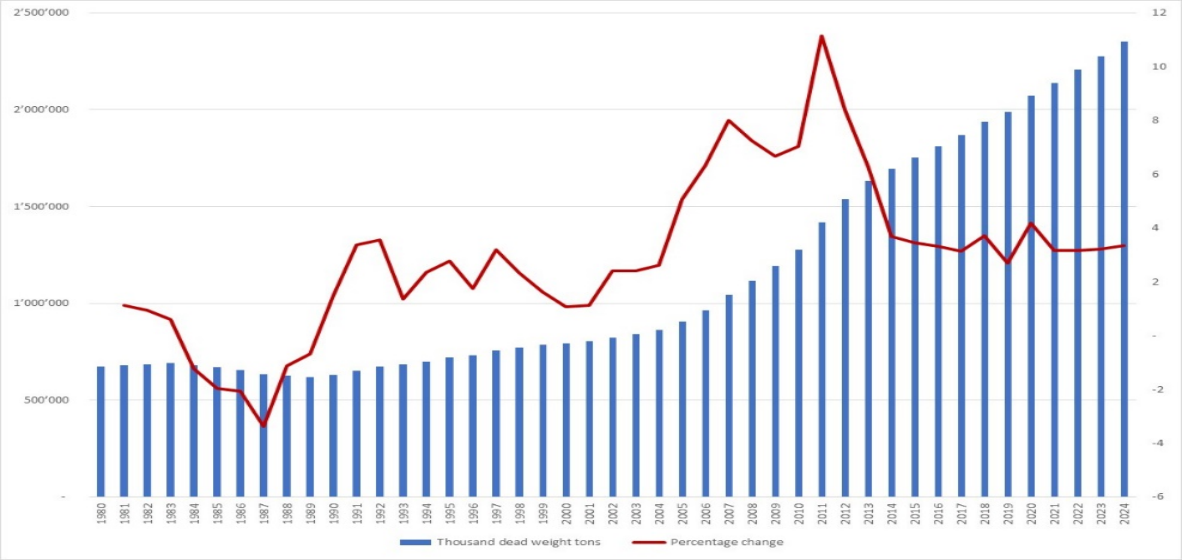
Figure 3 Average distance travelled, by cargo type, 1999–2024 (Nautical mile)



Source: UNCTAD *Review of Maritime Transport 2023*, based on data from Clarksons Research.

Against this backdrop, the global shipping fleet expanded at a moderate 3.4 per cent at the start of 2024 year-on-year, a rate below the long-term average of 2005–2023. Total capacity reached about 2.4 billion dead weight tons driven by firm growth in the container and the liquified natural gas segments. Bulker carriers and oil tankers remained the largest fleet segments within the total (Figure 4).

Figure 4 World shipping fleet, capacity in dead weight tons and annual percentage change, 1980–2024



Source: UNCTAD calculations, based on data from Clarksons Research 2024.

Although, so far, the impact of these combined disruptions has not reached the level of the disruption caused by the pandemic or the consequent global logistical crunch of 2021–2022, UNCTAD is monitoring the evolving situation. The war in Ukraine had already shown the impact of longer distances on freight rates on food prices. Going forward, it will be important to continue to track key developments and assess their potential implications for transport and trade, especially for developing countries.

Meanwhile, about 40 per cent of seaborne trade volume are energy commodities, including coal, oil and gas. The sector also contributes around 3 per cent of global greenhouse (GHG) emissions. Although emissions per cargo unit and per distance travelled (ton-mile) declined over recent years – partly due to economies of scale – the sector's global total emissions increased by 20 per cent in the past decade.

GHG emissions from shipping are the focus of ongoing IMO negotiations, the United Nations agency responsible for regulating many aspects of international shipping. Today, negotiations at IMO are focusing on Candidate mid-term GHG measures that comprise both a technical element, namely a goal-based marine fuel standard regulating the reduction of the marine fuel's GHG intensity, and an economic element such as a levy on fuel or price on GHG emissions from shipping. In this context, shipping needs to replace as soon as possible fossil fuels with alternatives that do not emit GHGs across their entire life cycle (well-to-wake). However, at present, there is no readily available, one-size-fts-all fuel solution, and shipping's transition to low- or zero-carbon alternative fuels is still in its infancy.

Alternative fuels show promise, but their adoption remains in the early stages. At the start of 2024, more ships that can run on dual fuels including low carbon fuels were being ordered by shipowners. Liquefied natural gas (LNG) dominated the energy mix but methanol has been increasing in 2023-2024.

While LNG dual fuel remains the most popular choice, this fuel is considered a "transition fuel" while shipping seeks longer term, sustainable alternatives.

While a must, decarbonizing shipping and switching fuels is not without challenges. These include high transition costs and uncertainty about which will be the alternative fuels of the future and whether these will be readily availability. Decarbonization measures and related costs are expected to drive up transport and logistics costs. Impacts are likely to be stronger for many small island developing states (SIDS) and least developed countries (LDCs), who already pay more for transport in international trade and have little capacity to mitigate higher maritime logistics costs. In 2021, UNCTAD conducted a Comprehensive Impact Assessment of the proposed IMO short-term GHG reduction measures, namely the Energy Efficiency Existing Ship Index (EEXI) and Carbon Intensity Indicator (CII). Main findings were reported in the UNCTAD report assessing the impact of the short-term measure agreed in 2021 at the International Maritime Organization (IMO). UNCTAD estimated an increase in maritime logistics costs of 2.7 per cent under the median scenario, with an increase of time at sea of 2.8 per cent and an increase in average maritime shipping costs of 1.5 per cent in 2030. Developing coastal countries, including SIDS and LDCs, are shown to experience a bigger decline in their gross domestic product (GDP) and in their import and export flows, when compared with developed coastal countries. A second UNCTAD assessment revealed that hypothetical rises of 10, 30 and 50 per cent in maritime logistics costs would produce negative changes in trade (0.11, 0.32 and 0.60 per cent median reduction) and in GDP (0.01, 0.04 and 0.08 per cent median reduction, respectively). Based on the global GDP of $104 trillion in 2022, a reduction of 0.08 per cent would be equivalent to a reduction of global GDP of about US$80 billion. At the request of the IMO, UNCTAD is currently conducting a Comprehensive Impact Assessment of the Basket of Candidate Mid-Term GHG Reduction Measures which comprise both a technical element, namely a goal-based marine fuel standard regulating the reduction of the marine fuel's GHG intensity, and an economic element such as a levy on fuel or price on GHG emissions from shipping. The main findings will be considered by the IMO at its 82nd Marine Environment Protection meeting to be held in October 2024.

UNCTAD's work on sustainable and resilience transportation and logistics including maritime transport, recognizes that sustainability and resilience are interlinked and involve a mix of synergies and trade-offs. Increasing maritime transport sustainability can unequivocally yield resilience benefits and vice versa. In addition to its analytical work and research which main findings are widely disseminated through recurrent publications such as the annual Review of Maritime Transport, UNCTAD compiles and makes available to countries comprehensive data packages and statistical tools including relevant KPIs as well as maritime country profile. Building on its knowledge products and in-house subject matter expertise, UNCTAD helps to build capacity and empower countries and their maritime transport industries through dedicated and tailored technical assistance and capacity building activities. Furthermore, by fostering consensus building and intergovernmental deliberations on key issues including maritime transport sustainability and resilience, UNCTAD is supporting countries in formulating sound and informed policies. Relevant tools and instruments developed by UNCTAD in the field include knowledge products and capacity building material on sustainable, low-carbon, smart and resilient maritime logistics including shipping and ports.

UNCTAD's intervention across its three pillars of work namely research and analysis, technical assistance and capacity building and intergovernmental machinery is underpinned by strengthened

partnerships and networks that contribute expertise, knowledge, data, and support that together help to inform work on sustainable and resilient maritime transport. Collaboration involves partners from within and outside the UN system, including industry players from the shipping and port industries (UN agencies such as UNDESA, UNESCAP, UNESCWA, UNECA, UNECLAC, IMO; Academia and research institutions such as the International Ocean Institute, the International Maritime Law Institute, the World Maritime University, Korea Maritime Institute, University of Antwerp and the University of South Pacific; Think-tanks and multi-stakeholder grouping such as the Global Maritime Forum the and Getting to Zero Coalition, Sum4All, SLOCAT; and industry associations such as the International Chamber of Shipping and the International Association of Ports and Harbors; and development banks (e.g., World Bank, Inter-American Development Bank, African Development Bank, and the Islamic Development Bank).

A recent example illustrating the strategic importance of partnerships and collaboration for UNCTAD's work in the field of sustainable and resilient maritime transportation is the Global Supply Chain Forum of May 2024 held in Barbados. The event, a joint UNCTAD and the Government of Barbados initiative, has benefited from the strong collaboration with the Government of Barbados as well as with over 100 partners from involving international organizations, Government, academia, development bank, among others. The Forum served as a platform for knowledge exchange, collaboration and the development of innovative strategies to optimize supply chain operations in a rapidly changing global operating landscape. In addition to a high-level segment, the Forum convened several technical sessions on sustainable and resilient maritime transport, low-carbon shipping, energy transition in ports, the shifting geography of maritime trade, regional transport connectivity, performance indicator measurement in ports, and other thematic areas. In these sessions many partners acted as co-organizers, speakers or moderators as well as advocates and champions (e.g. Kühne Foundation, World Bank, IMO, Korea Maritime Institute, Inter-American Development Bank, UN Global Compact, UNECLAC, Maersk, Port Management Association of the Caribbean, etc.). Substantive outcomes include the adoption of a Ministerial Declaration and the launch of activities under a new UNDA technical assistance project jointly implemented by UNCTAD, UNECLAC and UNESCWA and focusing on Harnessing Trade Policy and Transport and Logistics to Build Sustainable and Resilient Food Supply Chains in the Caribbean and the Arab Region.