3.11 Shipping

Key findings

Demand trends

- In 2019, 11 billion tonnes of goods were transported in global maritime trade, with growth stalled at 0.5%; this was down sharply from growth rates of 2.8% in 2018 and 4.7% in 2017.
- The global commercial shipping fleet expanded 4.1% in 2020, the greatest annual growth since 2014, reaching a total of 98,140 commercial ships above 100 gross tonnes in weight.
- Global shipping connectivity (how well countries are connected to global shipping networks) increased more than 25% between 2010 and 2019, with the greatest regional increases in Asia (35%) and Latin America and the Caribbean (25%).

Emission trends

- Carbon dioxide (CO_2) emissions from maritime transport (both freight and passenger activity) increased an estimated 7.2% between 2010 and 2019.
- Improvements in shipping fuel efficiency slowed between 2015 and 2020, with annual progress of 1% to 2%.
- Short-lived climate pollutants from shipping increased sharply between 2012 and 2018, including a 12% increase in black carbon emissions and a 150% increase in methane emissions.

Policy measures

- Processes under the International Maritime Organization (IMO) have had limited impact on meeting emission targets, while regional and national measures show greater levels of ambition and innovation.
- Alternative maritime fuels are increasingly attractive to countries and companies due to recent IMO regulations on conventional fuels, but the mitigation potential varies widely by fuel type.
- Fiscal incentives in combination with enhanced regulations will play an important role in the uptake of sustainable maritime fuels.
- Countries are making considerable investments into electrification of shipping vessels and ports to increase efficiency and reduce emissions and operational costs.
- Shipping emissions could be reduced more than 75% by 2050 through a balanced combination of decarbonisation measures including sustainable biofuels, capacity utilisation and speed optimisation.

Impacts of the COVID-19 pandemic

- International maritime trade dropped an estimated 4.1% in 2020, but trade volumes are expected to recover and grow 4.8% in 2021.
- Global port container volumes fell 7.3% during 2020, and around 12% of the container fleet was assumed to be idle at the peak of initial pandemic lockdowns.
- Growth in emissions from international shipping has been slowed by the pandemic and is not projected to return to pre-COVID-19 levels until 2030.

Overview

Maritime shipping is the backbone of global trade, and international maritime transport caters almost exclusively to freight. Maritime transport accounts for more than 80% of global trade by volume and more than 70% by value.[1] International shipping emits more CO_2 annually than the entire regions of Latin America and the Caribbean, Africa or Oceania.[2] Challenges to decarbonisation of the shipping sector include high initial investment costs for vessels as well as their long life spans.[3]

In 2018, the International Maritime Organization adopted targets to reduce the carbon intensity of shipping at least 40% by 2030 and to at least halve emissions by 2050; the baseline of these targets (2008) represents the historical height of shipping activity and thus a peak in the sector's emissions.[4] The IMO target aims for full decarbonisation as early as possible this century.[5]

In early 2020, the IMO postponed a key session aimed at assessing measures to make progress towards the 2030 target and adopting a resolution urging Member States to develop voluntary National Action Plans.[6] In 2020, the IMO agreed on implementing short-term emission reduction measures to achieve greenhouse gas emissions reductions before 2023.[7]

Despite limited policy action, the shipping industry appears to have overachieved its 2030 carbon intensity target, which was rated "critically insufficient" by Climate Action Tracker even before the onset of the pandemic; however, the industry remains far from meeting its 2050 emission reduction target (which is rated "insufficient").[8]

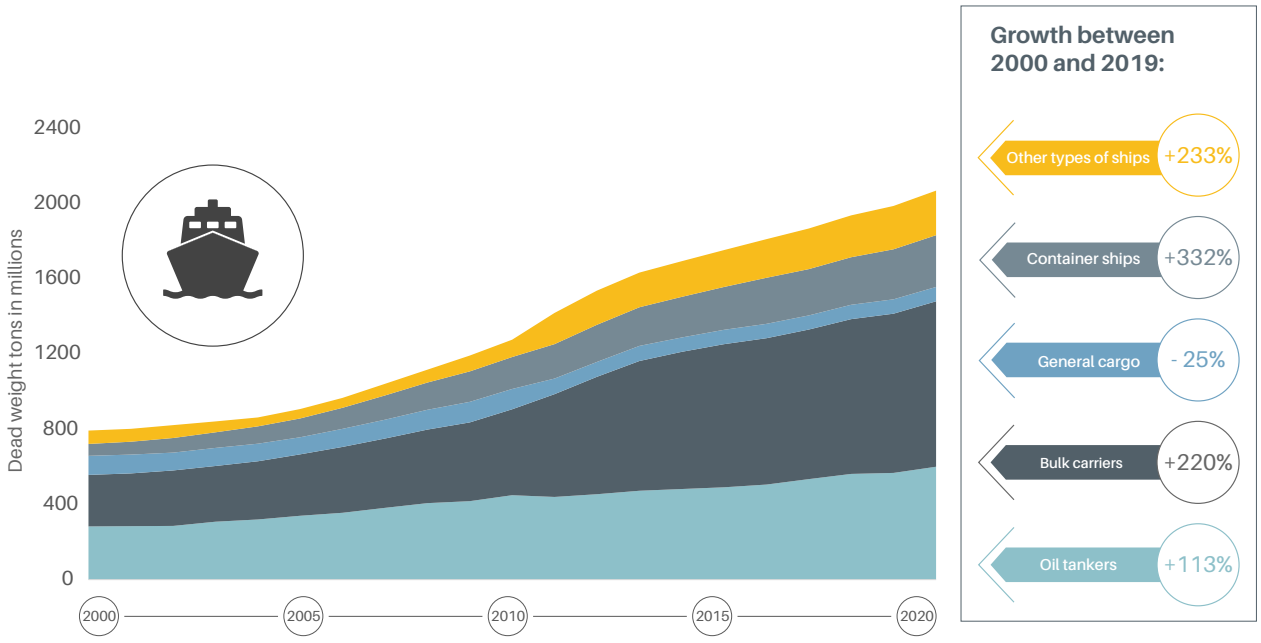
The COVID-19 pandemic led to a brief halt in international maritime trade, and in the first six months of 2020 major routes experienced sharp declines in container-based trade. CO_2 emissions from shipping declined between 18% and 35% for the year and are expected to only slowly return to pre-COVID-19 levels (*see Box 1*).[9]

Demand trends

In 2019, 11 billion tonnes of goods were transported in global maritime trade, with growth stalled at 0.5%; this was down sharply from growth rates of 2.8% in 2018 and 4.7% in 2017.[10] Trade tensions between China and the United States of America (including tariff hikes in 2018 and 2019) are estimated to have affected nearly 2% of world maritime trade volume.[11] Other factors for the slow growth include lingering impacts from the United Kingdom's (UK) exit from the European Union (EU), recessions in some emerging economies, and supply-side disruptions to petroleum and other sectors.[12]

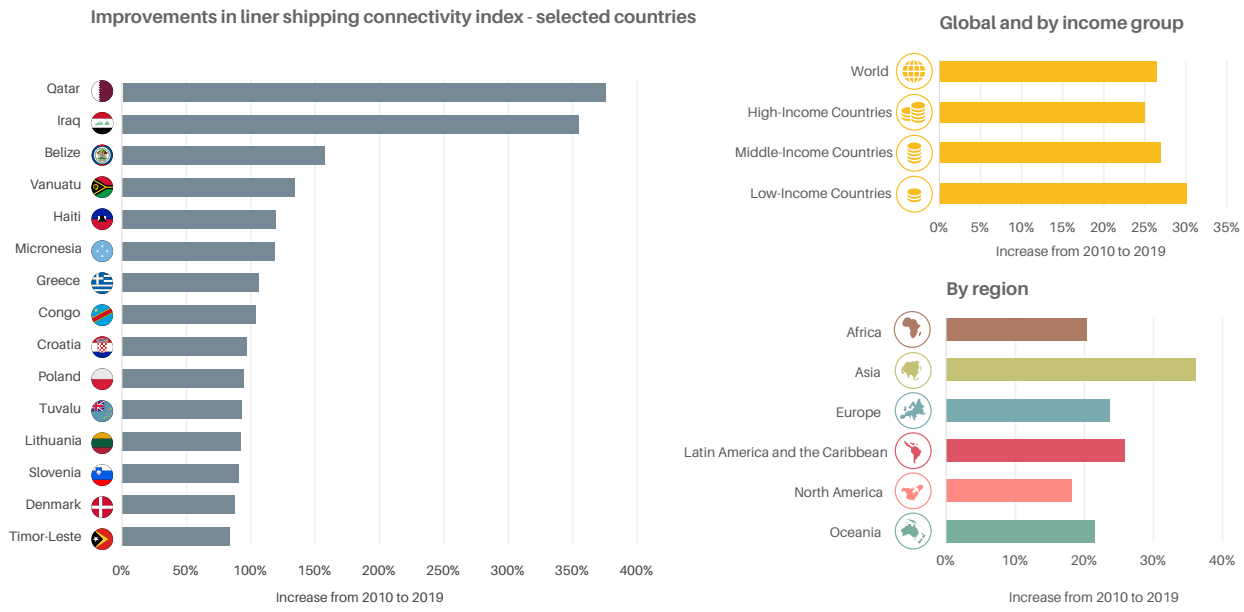
The global commercial shipping fleet expanded 4.1% in 2020, the greatest annual growth since 2014, reaching a total of 98,140 commercial ships above 100 gross tonnes in weight.[13] Maritime transport witnessed a trend towards larger vessels from 2010 to 2020, led by 332% growth in the capacity of container ships and 220% growth in bulk carriers (*see Figure 1*).[14] For the first time in

Figure 1. World shipping fleet by principal vessel type, 2000-2020



Source: See endnote 14 for this section.

Figure 2. Liner Shipping Connectivity Index, improvements by country and region, 2010-2019



Source: See endnote 18 for this section.

history, the global shipping fleet surpassed a total capacity of 2 billion dead weight tonnes in 2020.[15] Larger vessels create greater challenges for incorporating sustainable technologies and fuels.[16]

Global shipping connectivity (how well countries are connected to global shipping networks) increased more than 25% between 2010 and 2019, with the greatest regional increases in Asia (35%) and Latin America and the Caribbean (25%).[17] The Liner Shipping Connectivity Index measures the total number and capacity of vessels deployed in a country, as well as the number of shipping lines servicing a country and connecting to other countries. The greatest national increases occurred in **Qatar** (374%), **Iraq** (355%), **Belize** (157%), **Vanuatu** (134%) and **Haiti** (119%) (*see Figure 2*).[18]

Emission trends

CO_2 emissions from maritime transport (both freight and passenger activity) increased an estimated 7.2% between 2010 and 2019.[19] As global maritime shipping demand has increased, so have CO_2 emissions, totalling 730 million tonnes in 2019.[20] However, emissions from maritime shipping have risen more slowly than those from aviation: between 2010 and 2019, CO_2 emissions from international shipping grew 1.8% annually on average, whereas emissions from international aviation grew 3.8%, reaching 627 million tonnes.[21]

Improvements in shipping fuel efficiency slowed between 2015 and 2020, with annual progress of 1% to 2%.[22] The IMO developed the Energy Efficiency Operational Indicator (EEOI) in 2009 to measure the efficiency of ships. The EEOI can be improved by increasing the amount of cargo transported and by reducing a vessel's fuel consumption (i.e., reducing the speed of operation or making modifications to the vessel). Additional policy actions are needed to accelerate fuel-efficiency technologies such as wind-assist and hull air lubrication, along with low- and zero-emission fuels.[23]

Short-lived climate pollutants from shipping increased sharply between 2012 and 2018, including a 12% increase in black carbon emissions and a 150% increase in methane emissions.[24] In 2019, major container operation companies rejected proposals for mandatory 20% slower speed limits, which could reduce CO_2 emissions an estimated 34% and black carbon emissions an estimated 20%.[25] In 2020, the IMO reduced the allowable sulphur content in shipping fuel oil to 0.5% (from 3.5%).[26] However, new fuel blends have the potential to increase black carbon emissions by up to 85%.[27]

Policy measures

Processes under the IMO have had limited impact on meeting emission targets, while regional and national measures show greater levels of ambition and innovation.[28] IMO actions have focused primarily on energy efficiency measures.[29] The IMO's 2020 regulations on low-sulphur and cleaner fuels are expected to raise fuel costs around 50%, with shipping operators likely to pass these costs to customers through the supply chain, which may have indirect impacts on demand.[30]

- Several Pacific countries have submitted position papers to the IMO to increase ambition on decarbonising the shipping sector.[31]
- Shipping and water-borne projects are eligible for funding through the **2020 EU Innovation Fund** if they demonstrate low-carbon-energy propulsion.[32]
- In 2019, the **UK** released its Maritime 2050 strategy to transition to zero emission shipping and a plan to deploy zero emission-capable ships by 2025.[33]
- In 2020, the **Marshall Islands** demanded a carbon pricing measure from the IMO as the most effective way to cut shipping emissions and to restore the confidence of the international community.[34]
- The governments of **Fiji**, **Marshall Islands**, **Samoa**, **Solomon Islands**, **Tuvalu** and **Vanuatu** jointly called for USD 500 million in 2019 to increase the sustainable development of maritime transport.[35]

Alternative maritime fuels are increasingly attractive to countries and companies due to recent IMO regulations on conventional fuels, but the mitigation potential varies widely by fuel type.[36] Following the adoption of the IMO's sulphur regulations in 2020, there has been a shift towards liquefied natural gas (LNG) as a cleaner fuel alternative, along with biofuels, e-methanol and hydrogen.[37] However, continued investments in LNG ships and onshore facilities could slow a broader transition to low carbon fuels.[38]

- In 2019, **IKEA** Transport & Logistics Services and partners completed a biofuel trial, the first to blend heavy fuel oil-equivalent biofuel and fossil fuel.[39]
- Finnish company **Wärtsilä** is engaging in large-scale testing of ammonia as an alternative fuel for use in shipping vessels to reduce the emissions of the industry, with tests planned for 2022.[40]
- The use of "drop-in" liquid biofuels for large marine diesel engines with minimal modifications may reduce shipping emissions in the short run.[41]
- Studies show that adopting LNG as a bridging fuel is likely to increase the life-cycle climate impacts of international shipping.[42]

Fiscal incentives in combination with enhanced regulations will play an important role in the uptake of sustainable maritime fuels.[43]

The use of biofuels for shipping raises concerns, as verifying sustainability criteria is challenging. Generating liquid ammonia or hydrogen shipping fuels requires only half the amount of renewable electricity as generating fuels such as synthetic methane or synthetic diesel, but cost remains a factor.[44]

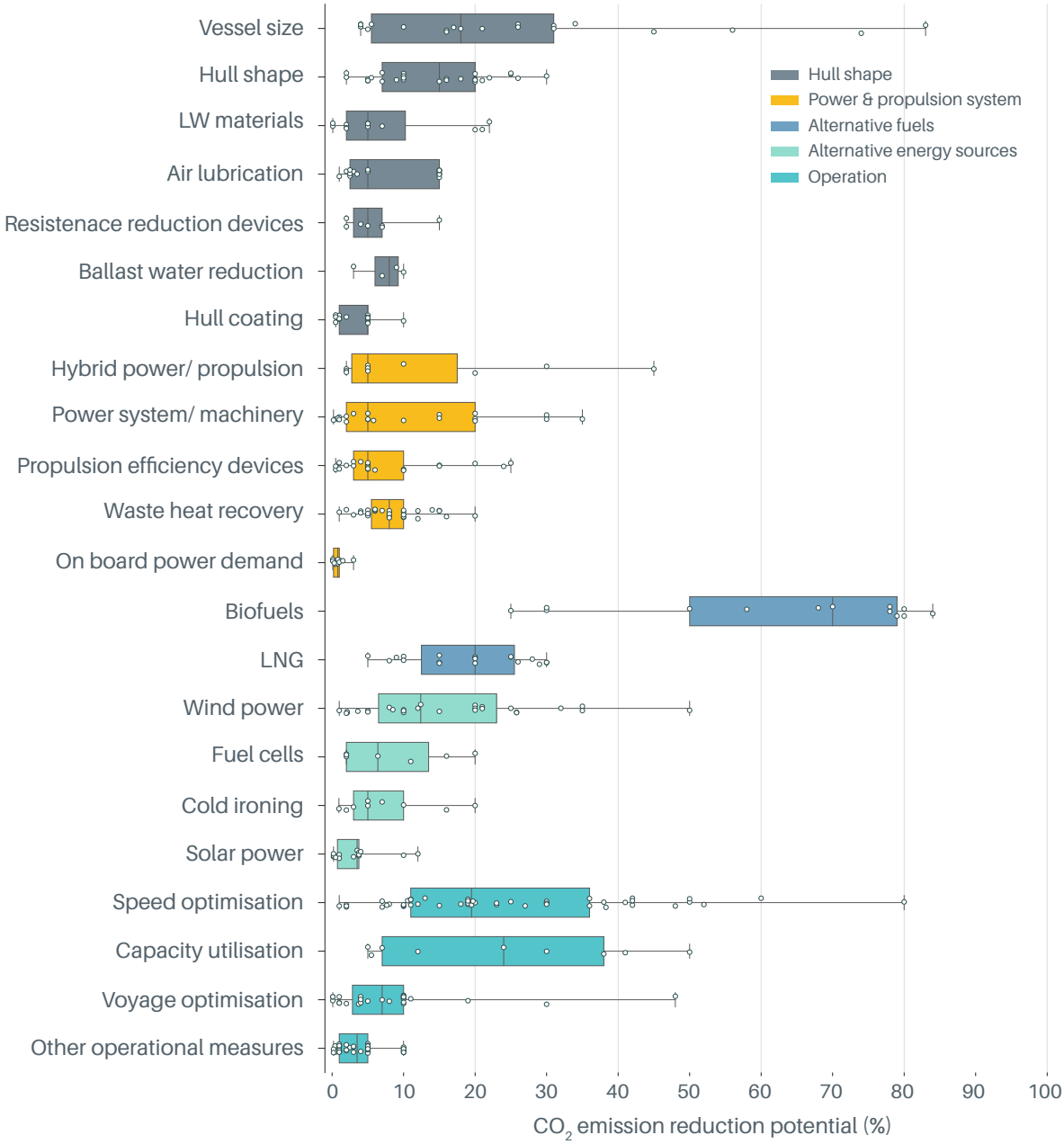
- The **European Parliament** approved a proposal in 2020 to extend the EU Emissions Trading System to the maritime sector, setting binding targets to reduce annual shipping emissions 40% by 2030, starting with ships of at least 5,000 tonnes gross.[45]
- Through the European Green Deal, introduced in 2019, the **European Commission** proposes to examine current tax exemptions for maritime fuels and to determine how best to close any loopholes.[46]
- **Germany**'s national hydrogen strategy, updated in June 2020, includes around EUR 25 million (USD 30 million) in funding for a Maritime Research Programme from 2020 to 2024, a share of which will support hydrogen-powered shipping applications.[47]

Countries are making considerable investments into electrification of shipping vessels and ports to increase efficiency and reduce emissions and operational costs.[48] Policy measures implemented in recent years show that maritime decarbonisation trends are shifting towards renewable electricity for shorter distances and towards electro-fuels (e.g., ammonia, e-methanol, hydrogen) for longer distances.[49]

- The European Green Deal proposed obliging docked ships to use shore-side electricity.[50]
- In 2020, **Norway** announced plans to launch a prototype vessel powered by zero-emission hydrogen in the coming years, with the aim of ferrying cargo and delivering hydrogen supplies to strategic areas. The EU's research and innovation fund has allocated EUR 8 million (USD 9.8 million) to this pilot project.[51]
- In June 2020, **Denmark** completed a successful trial of the world's largest battery electric ferry boat, which is nearly twice as energy efficient as diesel boats.[52] This service complements a battery-powered ferry service launched in November between **Denmark** and **Sweden**, which is powered by renewable energy and prevents an estimated 28,000 tonnes of carbon emissions per year.[53]
- In early 2020, a ferry service in **Estonia** introduced a fleet of battery-hybrid vessels that reduce diesel fuel consumption 20%.[54]

Shipping emissions could be reduced more than 75% by 2050 through a balanced combination of decarbonisation measures including sustainable biofuels, capacity utilisation and speed optimisation.[55] Although biofuels appear to hold great potential for decarbonisation in the shipping sector, assumptions of carbon-neutrality depend strongly on the location and harvesting of source crops. Factors such as competition for land resources for food and fuel reveal that a broader set of evaluation parameters is needed to capture relevant sustainable development concerns.[56] A balanced set of emission reduction measures is likely an optimal path towards decarbonising shipping (*see Figure 3*).[57]

Figure 3. Emission mitigation potential of major maritime transport measures



Source: See endnote 57 for this section.

Box 1. Impacts of the COVID-19 pandemic on maritime shipping

International maritime trade dropped an estimated 4.1% in 2020, but trade volumes are expected to recover and grow 4.8% in 2021. In the first six months of 2020, container-based trade on major routes experienced significant reductions compared to the same period in 2019: for instance, the Europe-North America corridor saw 13% to 16% less trade activity in the second quarter of 2020 than a year prior.

Global port container volumes fell 7.3% during 2020, and around 12% of the container fleet was assumed to be idle at the peak of initial pandemic lockdowns. In May 2020, ports recorded cancellations of sailing operations of 10% in **Hamburg** (Germany) and **Rotterdam** (the Netherlands); 20% in **Beirut** (Lebanon) and **Visakhapatnam** (India); and up to 25% in **Manila** (Philippines) and **Odessa** (Ukraine). Meanwhile, maritime passenger transport came to a near halt in 2020, with many countries imposing travel restrictions and tourist arrivals dropping an estimated 60-80%.

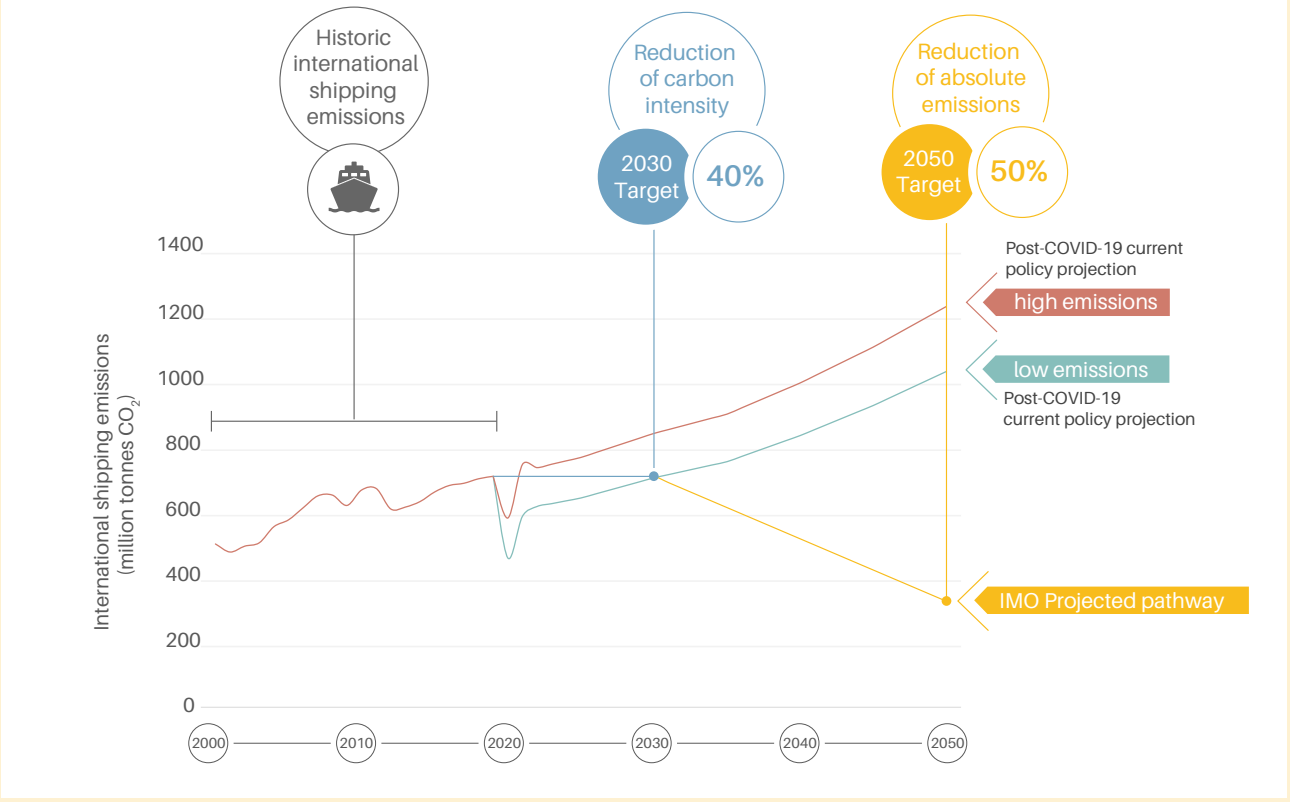
Growth in emissions from international shipping has been slowed by the pandemic and is not projected to return to pre-COVID-19 levels until 2030. Shipping emissions in 2020 dropped an estimated 18-35% from 2019 levels. Emission growth for 2030 is projected to range between two scenarios: a low-emission scenario showing a 13% decline from pre-COVID projections (i.e., international shipping emissions to stay at 2019 levels until 2030), and a high-emission scenario showing a return to pre-COVID projections (i.e., emissions regain strong growth and reach original projections for 2030).

Under the low-emission scenario, the estimated emission reduction still remains 600 million tonnes short of the IMO's 2050 target for a 40% reduction below 2008 levels (*see Figure 4*). The IMO target also remains insufficient to achieve levels compatible with the Paris Agreement, which requires net zero emissions in all sectors by 2050.

Although the decline in demand has reduced emissions from shipping, the COVID-19 pandemic may also stifle efforts to adopt low carbon shipping operations and technologies.

Source: See endnote 9 for this section.

Figure 4. Historic and projected emissions from international shipping, 2000-2050



Initiatives supporting low carbon shipping

- The World Economic Forum's **Friends of Ocean Action** is a coalition of more than 50 ocean leaders from business, civil society, international organisations, science and technology that are fast-tracking solutions to the most pressing challenges facing the oceans.[58] Their action to decarbonise the maritime and shipping sector focuses on testing technology and innovations to advance the 50-70% emission reduction target by 2050.[59]
- The **Getting to Zero Coalition**, led by the Global Maritime Forum, is committed to getting commercially viable deep-sea vessels powered by zero-emission fuels into operation by 2030.[60] The coalition unites more than 140 public and private organisations and has been endorsed by governments in 14 countries across Africa, Asia, Europe, Latin America and the Caribbean, and Oceania.[61]
- The **High Ambition Coalition** (**HAC**) was created under the leadership of the Marshall Islands in the run-up negotiations to the Paris Agreement, helping to secure key elements of the deal (including the goal of keeping global temperature rise below 1.5 degrees Celsius and reaching net zero global emissions).[62] The HAC co-ordinates with the Shipping High Ambition Coalition within the IMO.[63]
- In 2019, the **Pacific Blue Shipping Partnership** announced that the governments of Fiji, Marshall Islands, Samoa, Solomon Islands, Tuvalu and Vanuatu had set targets for 40% emission reduction by 2030 and full decarbonisation by 2050.[64]
- The **Sea Cargo Charter** is a global framework aligning chartering activities to promote decarbonisation in the shipping sector. It provides a benchmark defining a responsible charterer in the maritime sector and guidance on how to achieve it.[65]
- **Transport & Environment** (T&E) works with other members of the Clean Shipping Coalition to reduce the air pollution and climate impacts of shipping globally and in Europe, by advocating for stricter sulphur limits in maritime fuels at the regional and global levels and for the inclusion of shipping in emission trading schemes.[66]

Key indicators

	2017*	2018*	% change
Market Development Indicators			
Energy Efficiency Operational Indicator (grams of CO_2 per tonne per nautical mile)			
• Vessel-based	11.87	11.67	+1.7%
• Voyage-based	10.88	10.70	+1.6%
Container port traffic (million TEU)	795.7 (2018)	811.2 (2019)	+1.9%
World fleet (million dead weight tonnes)	1,937,777 (2018)	2,068,970 (2020)	+6.8%
• Oil tankers	563,188 (2018)	601,544 (2020)	+6.8%
• Bulk carriers	822,905 (2018)	879,330 (2020)	+6.9%
• General cargo	75,701 (2018)	76,139 (2020)	+0.6%
• Container ships	253,632 (2018)	274,856 (2020)	+8.4%
• Other types of ships	222,348 (2018)	237,099 (2020)	+6.6%

(*) Data are for the indicated year unless noted otherwise. TEU = twenty-foot equivalent unit

Source: See endnote 67 for this section.

In Practice: Additional Policy Measures

Policy targets set

General measures

- **Norway** released its Action Plan for Green Shipping in 2018, which aims to halve domestic emissions by 2030 and to promote zero-emission solutions.[68]
- In 2019, the Swedish shipping association started work on a roadmap towards a fossil-free shipping industry by 2045 in accordance with national plans.69
- Maersk announced in 2018 plans to reach carbon neutrality by 2050 and to support efforts to make carbon-neutral vessels commercially viable by 2030.[70]

"Improve" measures

- In 2020, **Mitsubishi** announced plans to develop a carbon capture system for vessels, with the aim of reducing emissions up to 90% and producing raw materials for new fuels.[71]
- In 2020, a consortium of industry partners (including **Lloyd's Register, MAN Energy Solutions, MISC Berhad** and **Samsung Heavy Industries**) announced a joint development project for an ammonia-fuelled tanker, with the first ammonia engine estimated to be in operation by 2022.[72]

Policy measures implemented

Port construction and operation

- The **European** Green Deal, introduced in 2019, includes a plan to develop multi-modal freight operations for rail and waterborne transport, including short-sea (coastal) shipping.[73]
- In early 2020, **Nigeria** commenced service at its upgraded eastern ports to facilitate more shipping activity, which is expected to increase emissions from the sector.[74]

Carbon-neutral facilities

- In 2019, **Houston**, Texas became the first USA port to use renewable energy, reducing its annual CO_2 emissions an estimated 25,000 tonnes.[75]
- The Sustainable and Climate-Resilient Connectivity Project, launched in 2019, aims to improve port operations in **Nauru**, decrease vessel wait times and reduce CO_2 emissions an estimated 11,000 tonnes annually.[76]

Annex: Methodological Note

Data usage

Time period for data:
The report strives to utilise the most recent publicly available data and information just prior to the time of publication (as of 31 May 2021). The figures in the report were developed between September and December 2020 using the most recent data available.

Secondary data:
SLOCAT relies on secondary data and information collected and provided by SLOCAT partners and other entities and does not make use of any internal modelling tools.

Data on sustainable mobility: A call to action

The report benefits directly from data collected by a wide range of stakeholders working in different areas of transport.

Data are important for providing a comprehensive picture of the status of sustainable, low carbon transport and are essential for both policy and investment decision making. In these times of change, it is critical to upgrade data and policy collection and interpretation capacities to better understand progress and the hurdles that must be addressed.

The data limitations mentioned below are not new. Obtaining regular, reliable and public data across regions and transport modes remains an outstanding issue. When an increasing number of stakeholders are collecting data and policy information, more and better open-access data and capacity building efforts for data interpretation are supported by many multi-stakeholder partnerships in the sustainable, low carbon movement.

If you share our passion for open-access data and knowledge towards greater impact on policy and investment decision making worldwide and/or would like to contribute data or knowledge to our collective efforts on this report, **please reach out to the research team in the SLOCAT Secretariat at tcc-gsr@slocatpartnership.org**.

Specific data used in this report

Data on emissions

The data in this edition of the report point to the direct carbon emissions from transport activity; they do not cover the indirect emissions and land-use impacts associated with certain modes of transport. The report primarily utilises CO_2 emission data compiled in the Emissions Database for Global Atmospheric Research (EDGAR) from the Joint Research Centre of the European Commission, as this represents the most recent, comprehensive dataset on transport CO_2 emissions. However, this global dataset does not convey in full detail the unique situations of individual countries.

EDGAR provides estimates for fossil CO_2 emissions from all anthropogenic activities with the exception of land use, land-use change, forestry and the large-scale burning of biomass. The main activities covered are CO_2 emissions emitted by the power sector (i.e., power and heat genertion plants), by other industrial combustion (i.e., combustion for industrial manufacturing and fuel production) and by buildings and other activities such as industrial process emissions, agricultural soils and waste. Transport activities covered within EDGAR include road transport, non-road transport, domestic aviation, and inland waterways on a country level, as well as international aviation and shipping.[1]

For the world, regions and countries, the CO_2 emission data (provided by EDGAR) span through 2019. In a few places in the report, CO_2 data for 2020 are shown to illustrate the impact of the COVID-19 pandemic; however, these data are based on a different methodology than the EDGAR dataset and should not be compared directly with the data from previous years.

The latest CO_2 emission data for individual transport modes are for 2018 and have been compiled only at the global level. For passenger and freight transport, the data on global CO_2 emissions are for 2017, as this is the latest year with robust data. Data on passenger activity (passenger-kilometres) and freight activity (tonne-kilometres) – provided mainly in the country fact sheets – are based on the latest available year, as indicated in the report analysis.

Information on greenhouse gas emissions – provided in CO_2 equivalent (CO_{2eq}) – include not only CO_2 but also methane, nitrous oxide, and industrial gases such as hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and nitrogen trifluoride.[2] These data are less up-to-date. As of 31 May 2021, data on greenhouse gas emissions were not readily available for the period 2019-2020. In some cases, additional data sources were used to provide detailed information about other climate pollutants besides CO_2.

All data on CO_2 and other greenhouse gas emissions, as well as CO_{2eq}, are provided in metric tonnes.

Data on car ownership

Information on car ownership rates is based on a global dataset from the International Organization of Motor Vehicle Manufacturers (OICA), with the latest release (as of 31 May 2021) dating from 2015.[3] Although newer information is available for some individual countries, using these data would hinder accurate global comparisons. Data on passenger and commercial vehicle sales were available only up to 2019.

Policy landscape data

The policy-related information presented in this report is not intended to be comprehensive. The data for the policy landscape indicators provided in Section 3 were gathered through desk research unless otherwise indicated. Barriers to accessing such information include language and limited availability of information through online media (e.g., websites, press releases and news articles).

Data in country fact sheets

Information in the fact sheets is based on desk research and on contributions from the national focal points. The data were collected to the best of the authors' knowledge and based on data availability, and thus may not be complete or show the most recent status. When no information was available for a given indicator, the term "Not available" is used.

Data gaps

Major data gaps exist in areas where there is no globally accepted data collection methodology. For example, the mapping of cycling and walking infrastructure is not currently done in all regions. Also, the modal share can be surveyed through different methods, leading to inconsistencies in available data. In addition, data on paratransit (informal transport), a predominant form of transport in many parts of the world, are largely lacking. This results in an incomplete picture of the impact of transport on climate change and sustainable development.

Methodological approach

Countries and regions

The report follows the M49 Standard of the United Nations Statistics Division.[4] In total, 196 countries have official United Nations membership and are also party to the United Nations Framework Convention on Climate Change. The available data have been put in a common structure for the United Nations member countries, regions and income groups to enable a consistent assessment. Income groups are based on the World Bank's classification of 2019.[5]

Economic calculations

The per capita and gross domestic product (GDP) calculations are based on the United Nations World Population Prospects 2019 and on World Bank GDP data using constant 2010 USD.[6]

Spatial and temporal scales

The geographic scale (global, national, city-level, etc.) as well as time scale (annual, monthly, daily) used in this report depends largely on the available dataset, as noted in the relevant figures and text. The detailed data forming the basis of the calculations and analysis are provided in the SLOCAT Transport Knowledge Base.[7]

Criteria for selection

The report covers policies, targets, emission reductions (achieved or envisioned) and market measures. To merit inclusion in the analysis, the policies, projects and trends must have been announced or completed between 2018 and 2020. Significant developments from January through May 2021 were included when deemed relevant, with the understanding that the next edition of the *Transport and Climate Change Global Status Report* will cover a period starting in 2021.

Pre- and post-COVID-19 pandemic trends

The year 2020 was pivotal for the world, and the COVID-19 pandemic has had substantial impacts on many of the transport trends monitored in this report. This edition attempts to differentiate between long-term trends and impacts due to the pandemic. To the extent possible, the analysis notes "pre-pandemic" (up to the end of 2019 or latest by February 2020) and "during pandemic" trends (starting in March 2020 until the end of 2020), as in some cases the pandemic led to reversals in long-term trends, at least for a specific period of time. In each section, a box describes the impacts that the pandemic has had on specific regions and sub-sectors.

Assembling the report

Global Strategy Team

This edition of the report was guided by a global strategy team consisting of 20 experts in the field who provided inputs over the span of six meetings between September 2019 and October 2020. Additionally, small group consultations were organised in February 2021, following the peer review process.

Authors and contributors

The report was collaboratively drafted by 22 authors and contributors from 16 organisations, led by the SLOCAT Secretariat. This includes additions and high-level inputs from the copy editor and from the special advisor who also co-authored the Executive Summary. Authors researched and compiled relevant facts and figures for the five sections of the report, including the Focus Features, with supporting review and inputs from several other organisations.

Peer review: A peer review process was carried out from 18 December 2020 to 20 January 2021 with 1,700 comments received from 74 reviewers. Each comment was individually reviewed by the SLOCAT Secretariat and considered in finalising the report.

National focal points: The report benefited from the contributions of voluntary national focal points, or experts from various regions and countries who have been essential to overcome language and information barriers. A public call for participation to provide information on policies and data resulted in several hundred initial registrations. Out of these registrations, 78 national focal points provided inputs through a first survey from 24 January to 3 February 2020; and through a second survey (focused on the country fact sheets) from 6 to 30 August 2020. All national focal points that contributed to the surveys are listed in the Acknowledgements.

Endnotes

3.11 Shipping

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