FACT SHEET

High Seas, High Stakes

Pricing Shipping Emissions for Climate Finance

Key facts

- International shipping causes approx. 3% of global greenhouse gas emissions. Without action, this share could rise to 10–17% by 2050.
- To address this, the IMO agreed on the Net-Zero Framework at MEPC83 last April. This framework sets emission reduction targets for international shipping and creates a market-based system to penalise excessive pollution.
- The deal is a major achievement in today's fragmented geopolitical context, although it contains loopholes and unresolved details that could affect ambition and fairness.
- The penalties, resulting from a market-based system, feed into the IMO Net-Zero Fund, which is intended to support cleaner fuels, technologies, and a just transition for vulnerable states and maritime workers.
- Significant uncertainties remain regarding how the Fund's revenues will be spent and which rules will be developed for revenue allocation, creating risks for climate ambition, equity, and fair support for developing countries and seafarers.
- The next key decision is adoption in October 2025, followed by two years of guideline development during which ambition and clarity could be strengthened.
- Some countries threaten to derail the deal but a broad coalition of 63 nations, including the EU, continues to be on board.

1 The shipping loophole – pollute, profit, and pay (close to) nothing

- Shipping generates **3% of global greenhouse gas (GHG) emissions** (Dominioni & Martinez Romera, 2025), projected to rise to 10–17% by 2050 if left unchecked (ICCT, n.d.; Momentum, 2023; T&E, 2021). Decarbonisation is critical for meeting Paris Agreement goals (Dominioni & Martinez Romera, 2025).
- The 139 largest shipping companies earned **approx. USD 330 billion in profits between 2019 and 2023, yet paid only USD 30 billion in taxes – an effective rate of just 9.7%.**

- In the same period, the top ten shipping companies captured 93% of global profits. The four largest OECD-headquartered firms accounted for 51% of all profits but paid only 16% of total taxes, facing **effective tax rates as low as 3.1%.**
- During surges in profits (e.g. post-COVID rebound), effective tax rates often fell, contrary to standard corporate taxation patterns. Shipping companies benefit from a special 'tonnage tax' regime, i.e. paying tax based on fleet size rather than actual profits, **allowing them to minimise taxes even in record-profit years** (Meadway, 2025).
- Undertaxing the shipping industry leads to substantial foregone revenues **– estimated at over EUR 22 billion between 2021 and 2024 in Germany alone –** and functions as an indirect subsidy, with the fiscal shortfall effectively borne by other taxpayers.
- The shipping industry claims such low taxes and subsidies are necessary to stay competitive and protect seafarer jobs. Yet, a recent audit of 2017–2022 shows that the number of German-flagged ships fell by 27% and the number of seafarers dropped by 26%, casting doubt on the effectiveness of these subsidies (Bundesrechnungshof, 2025; ibid., 2024).
- Global oversight from bodies like **the International Maritime Organization (IMO) is essential to enforce the polluter-pays principle** (Opportunity Green, 2025a), ensure the sector's decarbonisation (Allem, 2025), and guarantee that it contributes its fair share, all while maintaining a level playing field (Meadway, 2025).

2 IMO's Net-Zero Framework: The big picture

2.1 The framework at a glance

- The IMO Net-Zero Framework is a **regulatory framework, currently in the process of becoming legally binding**, that sets reduction targets for international shipping emissions relative to 2008 levels: 20–30% by 2030, 70–80% by 2040, and net-zero by around 2050 (Dijkstra, 2025; Opportunity Green, 2025b).
- While the rules apply to **large vessels on international voyages, it is the states' duty to enforce them.** MARPOL (International Convention for the Prevention of Pollution from Ships) Annex VI (Prevention of air pollution from ships) signatories must verify that ships entering their ports are in compliance (Opportunity Green, 2025b).
- Although not yet formally adopted, this deal is a notable achievement given today's fragmented geopolitical context. Its adoption was made possible by **deferring many contentious details to guidelines** – supporting documents that outline the rules and procedures needed to implement the framework (Smith et al., 2025).

2.2 The framework's building blocks

- The framework consists of two key elements. The **technical element** is a fuel standard that gradually lowers GHG fuel intensity (GFI). The **economic element** introduces a pricing system that makes it more costly to pollute and rewards cleaner choices (IMO, 2025a; ibid., 2025b).
- To comply, ships must meet annual targets for fuel-related emissions (i.e. GFI). If a ship performs better than required, it earns surplus units (SUs) that can be kept or traded. If it falls short, it can use banked SUs, obtain transferred SUs from other ships, or buy **remedial units 'by means of GHG emissions pricing contributions to the IMO Net-Zero Fund' (NZF)** to cover the gap (IMO, 2025a; Opportunity Green, 2025b).
- **The IMO Secretary General is mandated to establish the NZF**, which 'will be subject to all relevant IMO Financial Regulations and Financial Rules' on oversight, audits, controls and procurement. The Secretary General must also **ensure the Fund is operational by 2029** to receive contributions covering compliance deficits from the 2028 reporting period (IMO Secretariat, 2025, p. 5, annex p. 4; IMO, 2025a, Regulation 40, pp. 62–63).
- Revenues collected by the NZF will be used to reward ships using zero- or near-zero GHG technologies, fuels, or energy sources (ZNZ) and to support a just and equitable transition (Smith et al., 2025; Dominioni, 2025; IMO, 2025a, Regulation 41, pp. 63–64).

2.3 What remains to be done to seal the deal?

- The IMO Net-Zero Framework is set to be adopted at an extraordinary Marine Environment Protection Committee (MEPC) session **from 14 to 17 October 2025** (Opportunity Green, 2025c). If approved, shipping would lead the way as **the first global sector to price its GHG emissions** (Allem, 2025).
- *Guidelines* detailing rules and procedures will be negotiated over the next two years and adopted before the framework comes into force in 2028. The full implications for risks, opportunities, and investments will only become evident once these guidelines are finalised (Opportunity Green, 2025b; Smith et al., 2025).
- Governments can **strengthen the Net-Zero Framework before and after it becomes operationalised in 2028** by enacting rigorous guidelines on crucial policy matters (Opportunity Green, 2025c).
- Under the IMO's Net-Zero Framework, nearly 90% of shipping emissions go unpriced. Including all emissions could raise NZF revenues to USD 71.1 billion in 2028 and USD 64.6 billion in 2035 (Dijkstra, 2025).

3 Can the Net-Zero Framework deliver on its promises?

- The IMO Net-Zero Framework aims **to cut GHG emissions from international shipping** by promoting the sector's energy transition, incentivising the global fleet, **and fostering a level playing field that ensures a just and equitable transition** (IMO, 2025a).

3.1 Can it cut GHG emissions?

- The approved Net-Zero Framework is **insufficient to achieve the IMO's own 2023 GHG reduction targets**, let alone to align with a 1.5°C compatible decarbonisation pathway. It achieves only about half of the reductions required (Dijkstra, 2025; Opportunity Green, 2025b).
- **Total GHG savings are conservatively estimated at approx. 10% (±2%) by 2030**, way below the IMO's 20–30% reduction targets. Actual reductions could be substantially lower, and emissions could even rise (Smith et al., 2025).
- The deal's shortcomings stem from limited emissions coverage (only about 10% of all shipping emissions) (Dijkstra, 2025), weak GFI reduction targets, and insufficient incentives for early adoption of zero-emission fuels and technologies (Opportunity Green, 2025b).
- Tougher (base and direct) compliance targets would penalise more emissions and boost incentives to adopt zero- and near-zero fuels (ZNZs).
- Additional GFI guidelines, including annual GFI calculations, compliance methods, reporting and verification, and data submission instructions, will be adopted in 2026, presenting an opportunity to introduce stricter rules (Opportunity Green, 2025c).

3.2 Can it bring about a just and equitable transition (JET)?

a. Limited and uncertain Net-Zero Fund revenues risk undermining a JET

- Early estimates suggest the NZF could raise **USD 10–15 billion annually, which is likely to be insufficient to both fully support ZNZ fuel incentives and enable a JET** (Dominioni, 2025; Smith et al., 2025; Dijkstra, 2025).
- The NZF also **lacks clear rules for how revenues should be allocated to different purposes**, adding uncertainty to its impact (Dominioni, 2025).
    - o **ZNZ uptake rewards:** Guidelines for how ships earn rewards are still being developed. Reward prices and methodology will be set by **March 2027** and updated every five years, shaping how funds will be spent.
    - o **JET:** Rules for using funds to support vulnerable countries are still unclear. Non-binding guidelines will apply from **October 2025**, with full rules expected in **2028** (Opportunity Green, 2025c).
- Without transparent allocation guidelines, developing countries, especially SIDS and LDCs, may not get the assistance they need for the transition, deepening prevailing inequalities (Opportunity Green, 2025b).

b. Ambiguity in Net-Zero Fund disbursement rules threatens just and equitable transition

- The IMO Net-Zero Framework allows revenues to be **used 'within the boundaries of the energy transition in shipping,'** but **these boundaries are not defined**.
- *(Disproportionately negative) Impact on States:*

- The Net-Zero Framework **does not clearly define what counts as a 'disproportionately negative impact,'** and the unclear interpretation of what falls 'within the boundaries of the energy transition in shipping' creates uncertainty over which activities can receive funding to address these impacts.
- Food security is the only impact explicitly mentioned. The Framework mandates that MEPC continuously monitor and mitigate related risks (Dominioni, 2025; Dominioni & Martinez Romera, 2025).
- Many IMO member states have raised concerns that **decarbonisation policies could raise transport costs, potentially curtailing GDP, altering trade prices, and threatening food security,** especially in SIDS and LDCs (Bullock et al., 2025; Dominioni & Martinez Romera, 2025; Fricaudet et al., 2025; Petrus et al., 2025).

- *Just and Equitable Transition:*
  - The 2023 Strategy and ensuing Net-Zero Framework frame 'just and equitable transition' around two key concepts:
    - **Equitable transition** including alignment with 1.5°C, fair participation of developing countries, access to economic benefits from new fuels, and revenue allocation to developing countries affected by climate change.
    - **Just transition** including seafarers' rights and safety, risks of alternative fuels (e.g. hydrogen, ammonia), and training and protection for maritime workers (Dominioni, 2025; Dominioni & Martinez Romera, 2025; IMO 2025, Regulation 41.2.2, p. 63).
  - Activities eligible for funding to support the *just transition* of seafarers and the maritime workforce are still unclear. The 'narrow' wording of the IMO Net-Zero Framework could create challenges in determining eligibility (Dominioni, 2025; Dominioni & Martinez Romera, 2025).
- A narrow interpretation could limit funding for projects that address **disproportionately negative impacts on states**, particularly related to food security, and **funding to support a just transition for the maritime workforce** (Dominioni, 2025).
- A broad interpretation could include complementary initiatives, such as agricultural or infrastructure projects, that mitigate food security risks linked to the energy transition in shipping (Dominioni, 2025).

C. Credit trading design threatens to increase global inequities in shipping

- The Net-Zero Framework functions as a credit trading system whereby higher-emitting ships can purchase credits from lower-emitting ones.
- Ships in wealthier nations or with more developed shipping industries generally have better access to capital, technology, and regulatory support, enabling them to reduce emissions more easily and sell excess credits.
- In contrast, ships in countries with less capital or weaker industries often cannot invest in cleaner technologies as quickly. Therefore, they must buy credits to comply.
- As a result, through the credit trading mechanism, financial flows move from under-resourced operators to well-resourced ones, reinforcing existing geographical inequities.

- Targeted revenue investments from the NZF could mitigate the effects of a credit trading system, but the limited funds available and unclear spending priorities make this uncertain (Opportunity Green, 2025b; Smith et al., 2025).

4 October 2025: A key deadline to bring the deal over the finish line

4.1 Countdown to adoption – hurdles ahead

- Eight oil-exporting countries – Saudi Arabia, UAE, Iran, Bahrain, Iraq, Kuwait, Yemen, and Venezuela – are campaigning against the IMO's Net-Zero Framework ahead of its October 2025 adoption, claiming its emission reduction targets are too ambitious and costly for shipowners (Lo, 2025).
- The U.S. tried to block the IMO Net-Zero Framework in April but failed. It is now intensifying its campaign outside IMO channels, lobbying governments directly. Firstly, by framing the deal as a costly global carbon tax for citizens, businesses, and energy providers. Secondly, by threatening retaliation against countries that support the deal ahead of the October vote (Kuehne+Nagel, 2025; Baertlein, Volcovici & Tunagur 2025; Meade, 2025).

4.2 Finalising the deal and raising ambition

- According to experts, these objections are probably scare tactics aimed at protecting fossil fuel sales. The framework is expected to proceed, given strong support in prior IMO talks from 63 countries, including China, Brazil and the European Union, versus 16 opposing (Lo, 2025).
- For the deal to succeed and deliver meaningful climate action, **it must be formally adopted** in October. **Guidelines developed over the following two years should strengthen ambition** through more robust fuel standards, clearer rules for ZNZ fuel rewards, and robust mechanisms to ensure a just and equitable transition, particularly for developing countries and the maritime workforce (Opportunity Green, 2025c).

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Edited by: Jakob Borchers

Suggested citation: Zaki, N., 2025, High Seas, High Stakes: Pricing Shipping Emissions for Climate Finance.

Download this document at: https://www.germanwatch.org/de/93262

September 2025

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