# Shipping industry faces urgent overhaul to meet decarbonisation targets amid rising emissions



In the contemporary global economy, the shipping industry plays a crucial role, facilitating approximately 90% of international trade. This vast and complex system delivers essential goods such as food, fuel, and medical supplies, effectively binding economies together. However, despite its significance, the industry faces mounting scrutiny due to its substantial environmental footprint, particularly in terms of greenhouse gas emissions.

The shipping sector is responsible for more annual carbon dioxide emissions than the entire nation of Germany. Furthermore, projections indicate that these emissions are set to rise significantly unless prompt actions towards decarbonisation are undertaken. A major contributor to this emissions problem is the predominance of heavy fuel oil (HFO), which accounts for roughly 60% of shipping fuel consumption. This type of fuel is cheaper than alternatives like diesel, making it a popular choice; however, its environmental and health costs are considerable, as it emits harmful substances, including cancer-causing polycyclic aromatic hydrocarbons (PAHs).

The ramifications of these emissions extend beyond air pollution. Environmental degradation within marine ecosystems and the exacerbation of climate change are critical issues, as emissions accumulate in the atmosphere, reinforcing global warming. This in turn leads to severe weather phenomena, affecting global shipping routes and operations. Recently, for instance, severe drought conditions in 2023 impacted the Panama Canal, a vital artery for international maritime trade, resulting in reduced crossing numbers and supply chain disruptions.

As climate change intensifies, the shipping industry is predicted to face significant financial implications; estimated losses could reach $10 billion annually by 2050 just from the effects of climate change on ports, escalating to $25 billion by 2100. To counter these threats, industry leaders and governments are being urged to reevaluate their approaches, including the implementation of climate-resilient maritime infrastructure to safeguard against unpredictable weather patterns.

Internationally, the International Maritime Organization (IMO) is spearheading efforts to mitigate emissions within the shipping sector. In 2023, the IMO outlined a goal to eliminate greenhouse gas emissions from maritime transport by 2050, with intermediate targets aiming for at least a 20% reduction by 2030 and 70% by 2040. However, despite these ambitious goals, critics note that the commitments are non-binding. Discussions held during the negotiations revealed that representatives from countries with vested economic interests were reluctant to support stricter measures, potentially undermining collective progress.

In the short term, experts are piloting a strategy known as 'slow steaming', which involves imposing speed limits on vessels. Studies demonstrate that a mere reduction in speed can decrease emissions by up to 30%. Such regulations could be enforced through existing tracking systems, helping to reduce pressure on already congested ports while contributing to emissions reductions.

Looking towards the future, the industry is beginning to adopt innovative technologies aimed at enhancing sustainability. Wind-assisted propulsion systems, such as those developed by Cargill and the Airseas Seawing, show promise in reducing fuel consumption significantly. Meanwhile, advancements in electric and hybrid vessels are emerging, exemplified by the launch of the world’s largest electric container ship by COSCO Shipping in 2024, which operates without fossil fuels.

While these pioneering developments constitute only a fraction of the global shipping fleet, they embody the essential transition required for achieving long-term sustainability in maritime transport. The shift away from heavily polluting HFO is crucial, and industry stakeholders are encouraged to embrace greener technologies, alongside the enforcement of significant policy changes.

As these discussions continue, the implications of shipping's environmental impact will remain a pivotal issue in global climate negotiations and actions. The role of consumers also carries weight; advocacy for local purchasing and reduced consumption can support calls for accountability within the industry, encouraging a more sustainable approach to modern trade. As the shipping sector grapples with the challenges of climate change, the integration of strategic planning, innovative technologies, and coordinated international action will be vital in steering the future of global commerce toward a more sustainable trajectory.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

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3. <https://www.cleanenergywire.org/factsheets/germanys-maritime-freight-emissions> - This source provides data on the shipping industry's reliance on heavy fuel oil (HFO), stating that the global marine transport sector emits as many greenhouse gases per year as Germany, underscoring the environmental concerns associated with HFO usage.
4. <https://www.helmholtz-klima.de/en/aktuelles/maritime-transport-climate-protection-and-global-significance> - This article highlights the environmental degradation caused by shipping emissions, noting that maritime transport contributes significantly to climate change, with around 2.5% of global greenhouse gas emissions.
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