Understanding Maritime Shipping Companies' Engagement with Efforts to Decarbonize

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Context

- IMO 2050 Target: Reduce absolute GHG emissions by 50% and carbon intensity by least 70% compared to 2008 levels (1)
- Due to increasing global trade, maritime shipping GHG emissions may increase between 50% and 250% by 2050 despite efforts to improve energy efficiency of ships (2)
- Current policies and measures from the IMO lack ambition and will not be enough for the shipping sector to decarbonize
- Decarbonization of the maritime shipping sector is only possible with the development and commercialization of zero-carbon fuels

Research Question

How are environmentally committed shipping companies engaging with efforts reduce their current and future GHG emissions?

Methods

- Decarbonization efforts of 40 maritime shipping companies selected from the Getting to Zero Coalition were scored with weighted indicators
- Companies were divided into 4 tiers based on decarbonization effort
- Results and trends from shipping company scores and the sector were analyzed

Indicator	Intensity of Weight	
	Current	Future
International Engagement	1	1
Sustainability Report & Framework	3	1
Emissions Disclosure	3	1
GHG Emission Reduction Targets	3	5
Carbon Offsets	7	1
Fuel Efficiency Measures	9	5
Low-Carbon Fuel R&D	5	9

Results

Companies

- Average company score: 26.3/54
- Strong decarbonization efforts: engagement with reporting, fuel efficiency, low-carbon fuel R&D, and offsets
- Highest scoring shipping company is not engaged with IMO
- 75% of companies demonstrating weak decarbonization efforts are engaged with fuel efficiency
- Significant relationships were found between companies' engagement with carbon offsets and investment in low-carbon fuel R&D ($p = 0.02$) and between setting GHG emission reduction targets and investing in low-carbon fuel R&D ($p = 0.003$).

Maritime Shipping Sector

Indicator		Companies (%)
International Engagement		65%
Sustainability Report & Framework		68%
Emissions Disclosure	Intensity	8%
	Absolute	48%
GHG Reduction Targets	Intensity	33%
	Absolute	20%
	Net-Zero	15%
Carbon Offsets	Considering	8%
	Purchasing	13%
Fuel Efficiency Measures		75%
Low-Carbon R&D		45%

Key Findings and Recommendations

- There is a significant gap between engagement with current and future efforts to decarbonize and the required actions to meet the IMO targets
- The shipping sector cannot rely on complying with IMO regulations to achieve their decarbonization targets – private action is needed
- Important to increase the climate ambition of shipping companies and provide guidance for decarbonization strategies
- Promoting the purchase of real and verifiable carbon offsets may be an effective first-step to increase shipping companies' engagement with efforts to decarbonize and mitigate GHG emissions in the short-term
- An international MBM to finance the development and deployment of low-carbon fuels and technologies may be an effective long-term solution

1 IMO. (2014). *Third IMO GHG Study*; International Maritime Organization (IMO): London, UK, 2014.
2 MEPC. (2018). Initial IMO Strategy on Reduction of GHG Emissions from Ships. *Annex 11 Resolution MECP.304(72).* IMO: London, UK.