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Challenges and opportunities for a maritime fuel standard

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Low carbon fuel standard

• Uniqueness of maritime transport?

International nature, longer transition timelines, range of political/economic considerations

• What challenges to take into account? Disruptions, risk on fleet and infrastructure development.





Current precedents...1

MARPOL , Annex VI Regulation 18: fuel quality, sampling and delivery requirements

- In place since 2002, (MEPC 47), but limited enforcement.
- Similar requirements to the ISO 8217 international marine fuel standard
- Focus on bunker suppliers, but in practice compliance could be done through looking at ships.



Current precedents...2 HFO ban in Antarctica

- MARPOL Annex I (Regulations for the prevention of pollution by oil)
- Regulation 43 prohibits HFO carriage as cargo and use as fuel
- Parallels in ECAs and Arctic (potentially)- i.e.
 'Arctic Commitment'





Current precedents...3 DIRECTIVE 2009/30/EC – Fuel quality directive

• Emphasis on suppliers:

"Suppliers should, by 31 December 2020, gradually reduce life cycle greenhouse gas emissions by up to 10 % per unit of energy from fuel and energy supplied. This reduction should amount to at least 6 % by 31 December 2020..."





Low carbon fuel standard

- Standard can be developed and implemented. However, faces difficulties due to:
- 1. Increase of transport costs and impact on states (specifically SIDS/LDCs)
- **2. Implementation costs** fleet development, infrastructure, administration, training, etc.
- 3. Enforcement and political issues- flag approval, class approval, enforcement likelihood...



Potential impacts:

- Impacts of fuel standard (i.e. increased transport costs) should be assessed and taken into account before adoption of the measure.
- Attention should be paid to the needs of developing countries, especially SIDS and LDCs.
- Disproportionately negative impacts should be assessed and addressed, as appropriate.



Reduce negative impacts, incl. increase in

transport costs:





However, TRANSPORT Costs are a small COMPONENT OF TRADE



- Diverse share of maritime transport costs in product values e.g. 5% (manufactory) vs. 11% (agriculture) vs. 24% (raw materials industry)
- Wide range of transport costs across products and countries of origin and destination

Source: Rojon et al.(2018)



1. Solutions for SIDS/LDCs impact and transport costs:

- Phased implementation
- Support RD&D and deployment
- Investment in ports/infrastructure
- Technology transfer and capacity building
- Exemptions: certain routes/ports, cargo types, ship types/size/ag- could limit diffusion?



2. Solutions for implementation and adoption costs:

 Private sector: class rules - fuel safety/ bunkering standards (e.g. LNG safety rules), voluntary agreements (e.g. 1995 0.5% voluntary sulphur cap b Scandinavian cruise ferry operators).





- National : support cost effectiveness- GHG funds for early adopters, standardization between states (procedures, safety rules)(e.g. NOx fund)
- Transnational: development of financial support mechanism for bunkering infrastructure (e.g. Directive 2014/94/EU) or support for early adopters (TEN-T, H2020, CEF)
- IMO complimentary policy: IGF-like code, but wider scope; expansion of MARPOL





4 options to achieve adoption of new low carbon fuel whilst tackling...

- 1. Increased transport costs and impact on SIDS/LDCs
- 2. Implementation costs/challenges



Option 1:

- Fund (from 2023)- industry contribution, initially for RD&D, later potentially for deployment.
- Fuel standard: ratcheting up from 2023

How to manage impacts on states ?(fund could be used for tech capacity building)

- Perhaps exemption/phase-in for SIDS/LDCsdifficult to implement?
- Is fund sufficient to tackle impact on states?



Option 2:

- Carbon pricing (e.g. from 2025/6): higher prices, more coordinated reinvestment to tackle challenges (in-sector but also to address any negative impacts)
- -+ fuel standard: to help provide certainty on the required rate of change and investment





Option 3:

- Fuel standard only (how do you tackle impacts on states?)
- With investment certainty (timeline?) provided before justifying taking a fuel standard further?

Option 4:

• Carbon price/levy only (implementation, politics, sufficient?)



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Thank you! Questions and discussion?

Option 1: FUND+ FUEL STANDARD Option 2: CARBON PRICING+FUEL STANDARD Option 3: FUEL STANDARD ONLY Option 4: CARBON PRICE/LEVY ONLY

