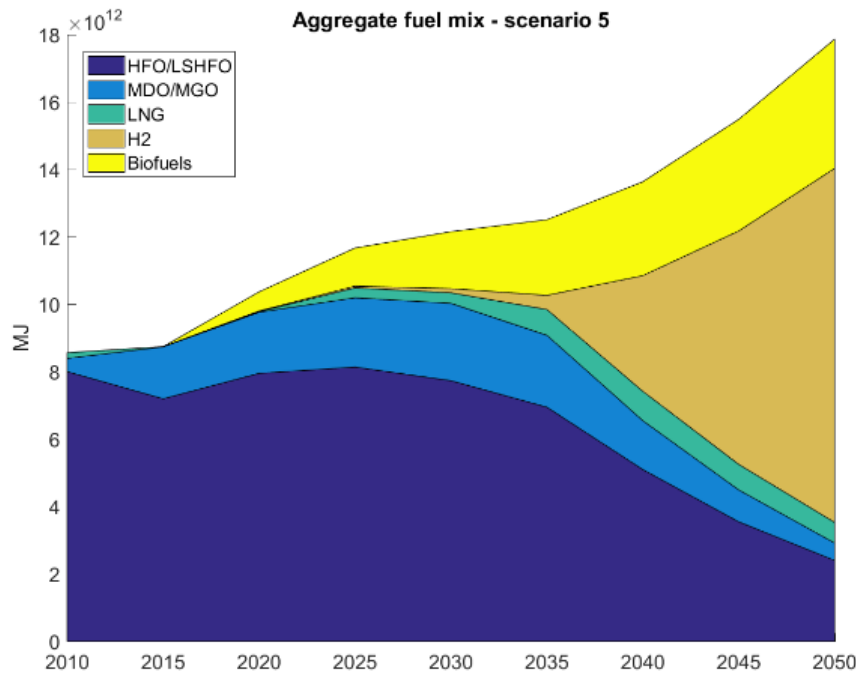
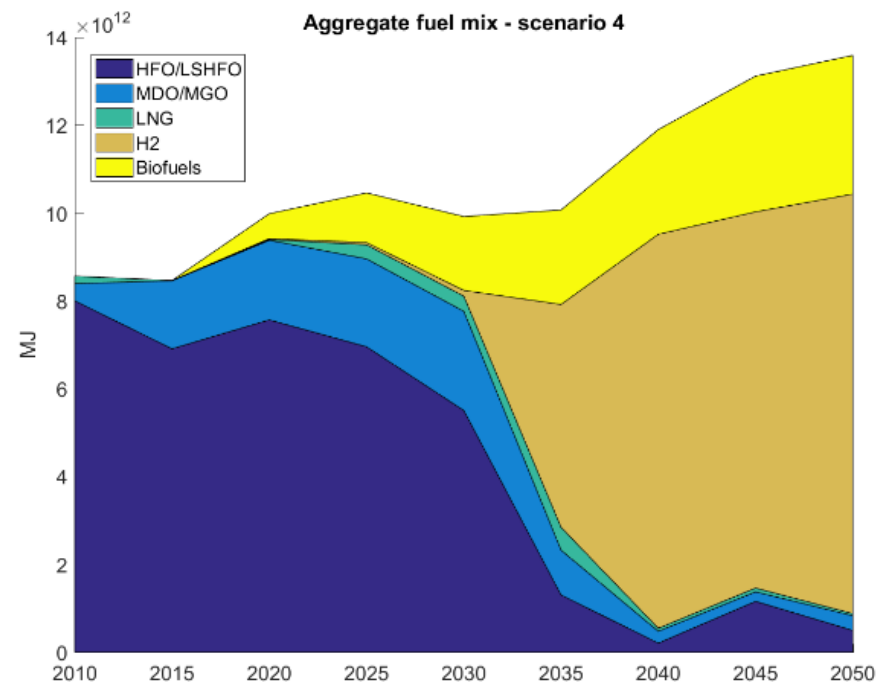


Fuel Mix – possible scenarios for 1.5 and 2 degrees



2 degrees



1.5 degrees

Source: Shipping In Changing Climates

Impact on GDP and shift from sea mode is mostly modest:


- GDP of individual countries (-0.02% to -1%)
- Mode shift from sea to land based transport (-0.16%)

Literature	GHG mitigation measures	Economic Indicators	Findings
Lee et al. (2013)	Carbon price 30, 60, 90 USD/ton CO ₂ for the year 2007	Real GDP	-0.002% to +0.004%, Global average : -0.0003%
		Volume of container flows	Reduction of 925 KTEU (Twenty-Foot Equivalent Units) globally
Sheng et al. (2018)	Carbon price 40 USD/ton CO ₂ by 2030	Real GDP	-0.06% to +0.001%
		GDP growth	-0.17% to +0.01%
L.A. Tavasszy et al. (2014)	Carbon price 49 euros/ton CO ₂ by 2040	Global trade flows	- 0.9% in total trade flows
		Commodity trade flows	-0.2% (food) to- 4.2% (agriculture)
Anger et al. (2013)	Carbon price 10,30,50 euros/ton CO ₂ by 2025	Real GDP	<-0.01% in global GDP
		real GDP changes for developing countries	-1% GDP for one country <-0.2% for majority
Halim et al. (2018)	Slow steaming (25-65% speed reduction), and carbon price on maritime transport with 100% increase in maritime transport by 2030	Volume of international maritime transport	-34 Mtonnes in demand for maritime transport
		Shift to freight rail mode (e.g. Eurasian railways)	-0.16% in modal share of maritime transport.

Source: Halim et al. forthcoming

Options to address disproportionately negative impacts on states

- Capacity development and technology transfer
- Exemption or phase in (by route/cargo/ship)
- Use funds to:
 - reduce negative impacts, incl. increase in transport costs
 - support countries' general climate change mitigation & adaptation plans
 - support the decarbonisation of the maritime industry

A large, thin, black bracket on the right side of the slide, grouping the three sub-points under 'Use funds to:'.

Enabled by
carbon
pricing