

**UNCTAD Multiyear Expert Meeting on Transport,
Trade Logistics and Trade Facilitation**

21-23 November 2018, Geneva

**“Sustainable freight transport in support
of the 2030 Agenda for Sustainable
Development”**

**– Carbon Pricing
for International Maritime Transport –
Fundamentals, Challenges and
Opportunities**

by

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Introduction

Market-based measures in IMO's initial strategy

Candidate mid-term measures

4.8 Measures can be categorized as those the effect of which is to directly reduce GHG emissions from ships and those which support action to reduce GHG emissions from ships. All the following candidate measures represent possible mid-term further action of the Organization on matters related to the reduction of GHG emissions from ships:

(...)

.3 new/innovative emission reduction mechanism(s), possibly including Market-based Measures (MBMs), to incentivize GHG emission reduction;

(...)

1. What are market-based measures?

Carbon pricing as one form of market-based measures

Policies which use markets, price or other economic variables to provide incentives for polluters to reduce environmental externalities (=pollution)



Carbon pricing



- 1 Carbon tax
- 2 Emissions trading

- 3 Offset mechanism
- 4 Results-based carbon finance
- 5 Internal carbon pricing



1. What are market-based measures?

Carbon pricing as a form of market-based measures

Carbon pricing

- 1 Carbon tax

Price **known**
(set by legislator)
Emissions *unknown*
(result of market)

Price instrument



- 2 Emissions trading

Price *unknown*
(result of market)
Emissions **known**
(set by legislator)

Quantity instrument



2. What is the rationale for carbon pricing?

A simple, fair and tested GHG reduction policy



(relatively) simple

fair



existing track record



new source of revenues



high potential for co-benefits

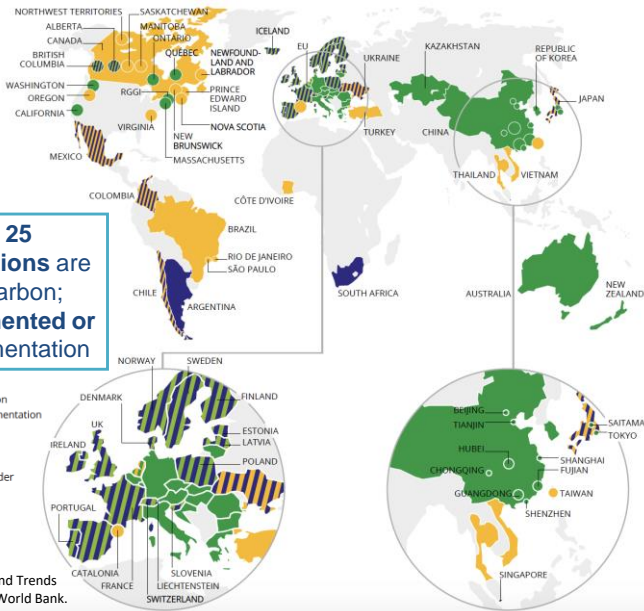


3. What are the global trends in carbon pricing?

Many jurisdictions applying or exploring

45 national and 25 subnational jurisdictions are putting a price on carbon; thereof 51 are implemented or scheduled for implementation

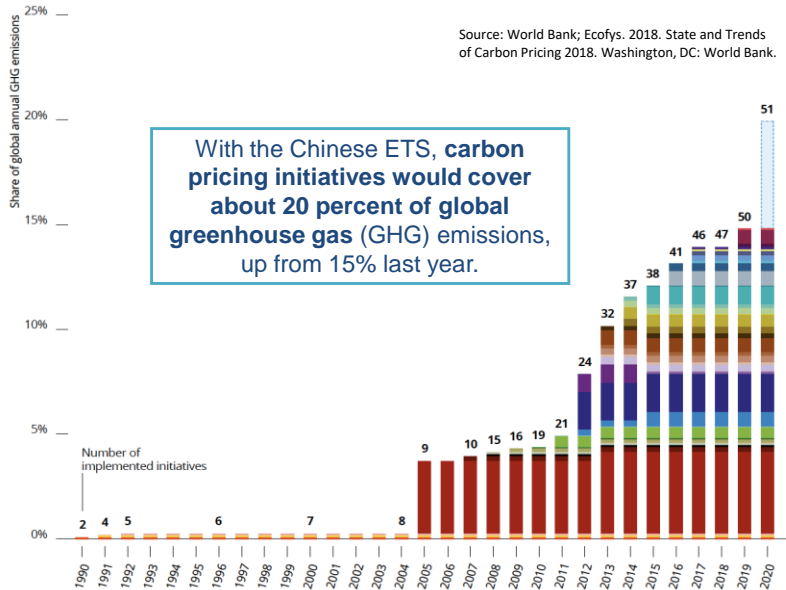
- ETS implemented or scheduled for implementation
- Carbon tax implemented or scheduled for implementation
- ETS or carbon tax under consideration
- ETS and carbon tax implemented or scheduled
- Carbon tax implemented or scheduled, ETS under consideration



Source: World Bank; Ecofys. 2018. State and Trends of Carbon Pricing 2018. Washington, DC: World Bank.

3. What are the global trends in carbon pricing?

Proliferation of carbon pricing schemes



3. What are the global trends in carbon pricing?

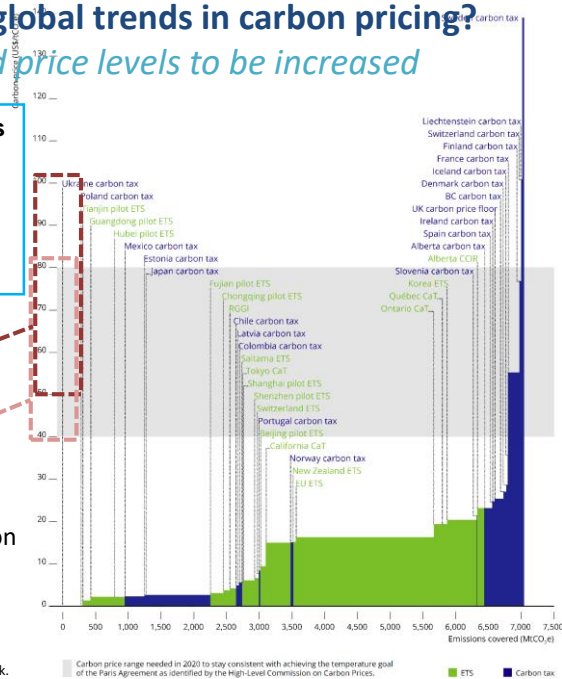
Coverage and Price levels to be increased

About **half of the emissions** are now covered by carbon pricing initiatives priced at **over US\$10/tCO₂** (compared to one-quarter of emissions covered in 2017).

\$50-80/tCO₂ by 2030

\$40-80/tCO₂ by 2020

Recommendations by the High-Level Commission on Carbon Prices (2017)



Source: World Bank; Ecofys. 2018. State and Trends of Carbon Pricing 2018. Washington, DC: World Bank.

4. How could carbon pricing be applied to shipping?

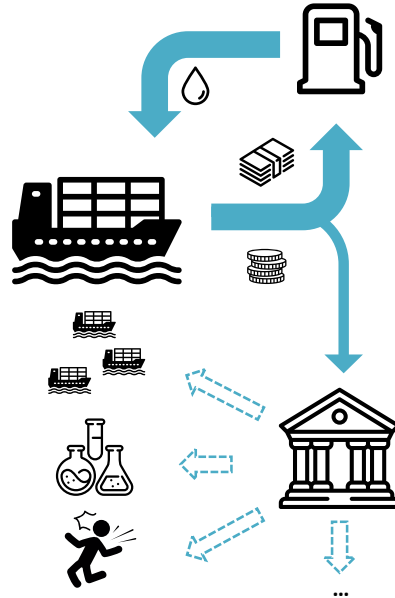
Putting a carbon price on shipping fuels

A carbon price is applied to shipping fuels

Behavioral change will be induced Revenues can be recycled strategically

R&D can bring zero-emission vessels to life, unwanted impacts on LDCs/SIDS can be mitigated, etc.

GHG emissions and air pollutants from ships will be reduced/eliminated

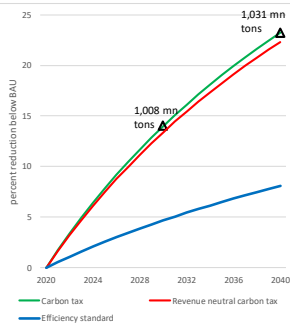


4. How could carbon pricing be applied to shipping?

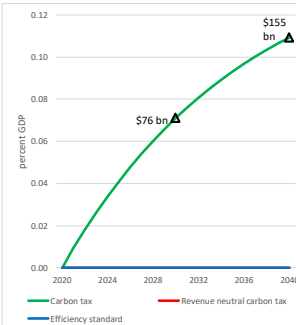
An illustrative case of a hypothetical carbon tax on shipping fuel

Assumption: Carbon tax at \$75/tCO₂ until 2030, \$150/tCO₂ until 2040

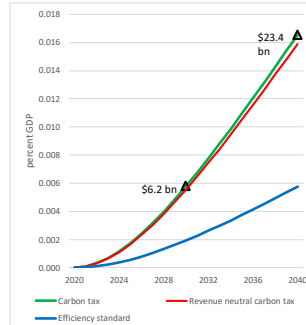
CO₂, % below BAU



Revenue, % GDP



Econ. cost, % GDP



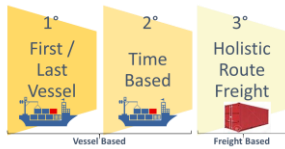
Source: Parry, I; Heine, D.; Kizzier, K. & Smith T. (2018). Carbon Taxation for International Maritime Fuels: Assessing the Options. IMF Working Paper No. 18/203 .

5. What is the CPLC's role in carbon pricing for shipping?

Awareness raising – stakeholder engagement - analysis



Regional carbon pricing



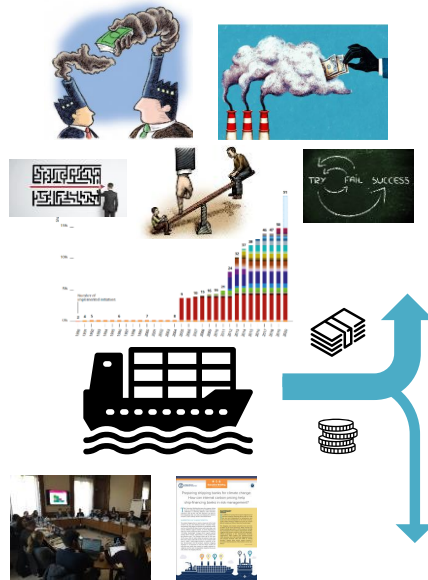
Low-carbon shipping: Will 2018 be the turning point?



Summary

Potential application of carbon pricing in shipping

1. What are market-based measures?
2. What is the rationale for carbon pricing?
3. What are the global trends in carbon pricing?
4. How could carbon pricing be applied to shipping?
5. What is the CPLC's role in carbon pricing for shipping?



- Carbon Pricing for International Maritime Transport -

Fundamentals, Challenges and Opportunities

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