

Making international transport pay its climate bill

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Rational for market-based instruments

- Essential to provide the same marginal incentive to reduce emissions in all sectors and countries of the world
- The shipping and aviation sectors should ideally face the **same marginal cost** as other modes of transport and land-based installations
- This requires the use of **market based instruments**

Marked-based instruments

- There are two market based instruments for achieving the objective:
 - **universal CO2 tax/charge/levy,**
 - **emissions trading**

Emission taxes or charges

- Would be effective but it is difficult to know in advance how high the tax needs to be
- The **Chicago Convention** prevents the use of fuel taxes in international aviation
- Agreements on tax rates require a unanimous decision by the 27 member states of the EU, and support may also be difficult to obtain in other countries

Cap-and-trade

- Setting a cap is a guarantee for achieving the target but the price is difficult to predict
- Price volatility may cause problems and complicate investment decisions
- However, the price on crude oil and bunker fuels may also vary considerably

Two conflicting principles

- States have ***common but differentiated responsibilities*** according to the Kyoto Protocol, which is by developing countries interpreted to mean that no mandatory measures can be enforced on them
- However, applying differing rules would, violate the UNCLOS principle of ***no more favorable treatment of ships***

Gradual expansion possible

- An emissions trading scheme would **ideally start as a global scheme**
- But it **could alternatively begin as a regional scheme** and **gradually expand** into global coverage

Emissions trading in the aviation sector

- Domestic and international emissions from routes ending or starting in the EU will become part of the EU Emissions Trading System (EU ETS) from 2012
- The ICAO could design a similar system for all routes starting or ending in Annex 1 countries, **The Civil Aviation Emissions Trading Scheme (CAETS)**

Emissions trading in the shipping sector

- Is under partial geographical coverage **more complicated** than in aviation as ships can carry large volumes of fuel
- Some ships use a lot of fuel at berth
- A route-based system would be complicated as it would require ships to split fuel on different journeys and on port calls

The objective

- To reflect **real emissions** of CO₂, **actual fuel consumption** must be targeted
- This is the only way to provide incentive to retrofitting and sound operational practices
- Improved operational practice, including slow-steaming, is of major importance in the short to medium term

Time-based vs route-based

- A time-based system, covering emissions from all fuel bought during a certain period of time, would reflect real emissions and cover emissions from idling and operations at birth
- Including emissions from **journeys between Annex 1 ports and between Annex 1 and non-annex 1 countries** would make a time-based system feasible

Basic elements

- Emissions trading would be built on an IMO ships register and port State control
- Basic data would be provided in already mandatory bunker delivery notes
- Non-complying ships would be denied the right of making voluntary calls at participating ports
- Therefore the responsible entity should be the ship itself

Allocation of allowances

- Free allocation of allowances should be avoided as it would be very complicated in the shipping industry and might create windfall profits
- Auctioning is non-discriminatory and contributes to transparency and market liquidity which will reduce price volatility

Open systems

- Maritime and aviation emissions trading schemes can be linked to the EU ETS as well as to future national or regional cap-and-trade systems in other parts of the world
- The shipping and aviation industries should in addition be allowed to purchase emission credits (CERs) from projects in developing countries (CDM), perhaps limited to some amount

Effect on fuel cost and prices

- The cost of participating in emissions trading could be expected to raise overall fuel expenditure by **15-30%**
- The effect on consumer prices would be small as shipping makes up only 1 % of total production costs
- The low price elasticity explains why emissions trading will not harm international trade

Uncertainties may argue for gradual introduction

- Number of future links with other trading schemes and the size of the emissions credit market after 2012 are not known
- This may call for **a "soft" start** of the emissions trading scheme – e.g. making ships and airlines liable for 50% of fuel consumption in 2013 to be gradually increased to 100% by 2020

The complexity of shipping

- More than **3/4 of global tonnage** is registered in non-Annex 1 Flag States although most of the ships belong to firms in Annex 1 countries
- Ships can be used in trade between countries belonging to different categories of states (according to the Kyoto Protocol)
- Therefore **all ships must be equally treated**

A better solution

- The revenue from auctioning allowances can be used for **compensating** developing states that accept that shipments between their ports and ports of Annex 1 countries are covered by the scheme
- Journeys between non-Annex 1 countries would be **exempt**
- Developing nations will **benefit** from trade in emission credits from CDM projects

A fair deal

- Full participation of all Annex 1 countries
- Partial participation of non-Annex 1
- Wealthy citizens of developing countries would be affected but not poor people
- Gradual extension to world coverage by 2025 or 2030
- Revenues to be spent on mitigation and adaptation in developing countries

Revenues from auctioning

- Based on 2005 levels and 75% coverage of world traffic and a CO₂ price of €30/ton
- The annual gross revenues would be approx. **€35 billion (USD 48 billion)**
- This is equivalent to **0.13%** of the 2007 GDP of the OECD countries
- May be compared with the 2007 OECD Official Development Assistance of 0.28%

Thanks for your attention!

Detailed information in the workshop paper

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