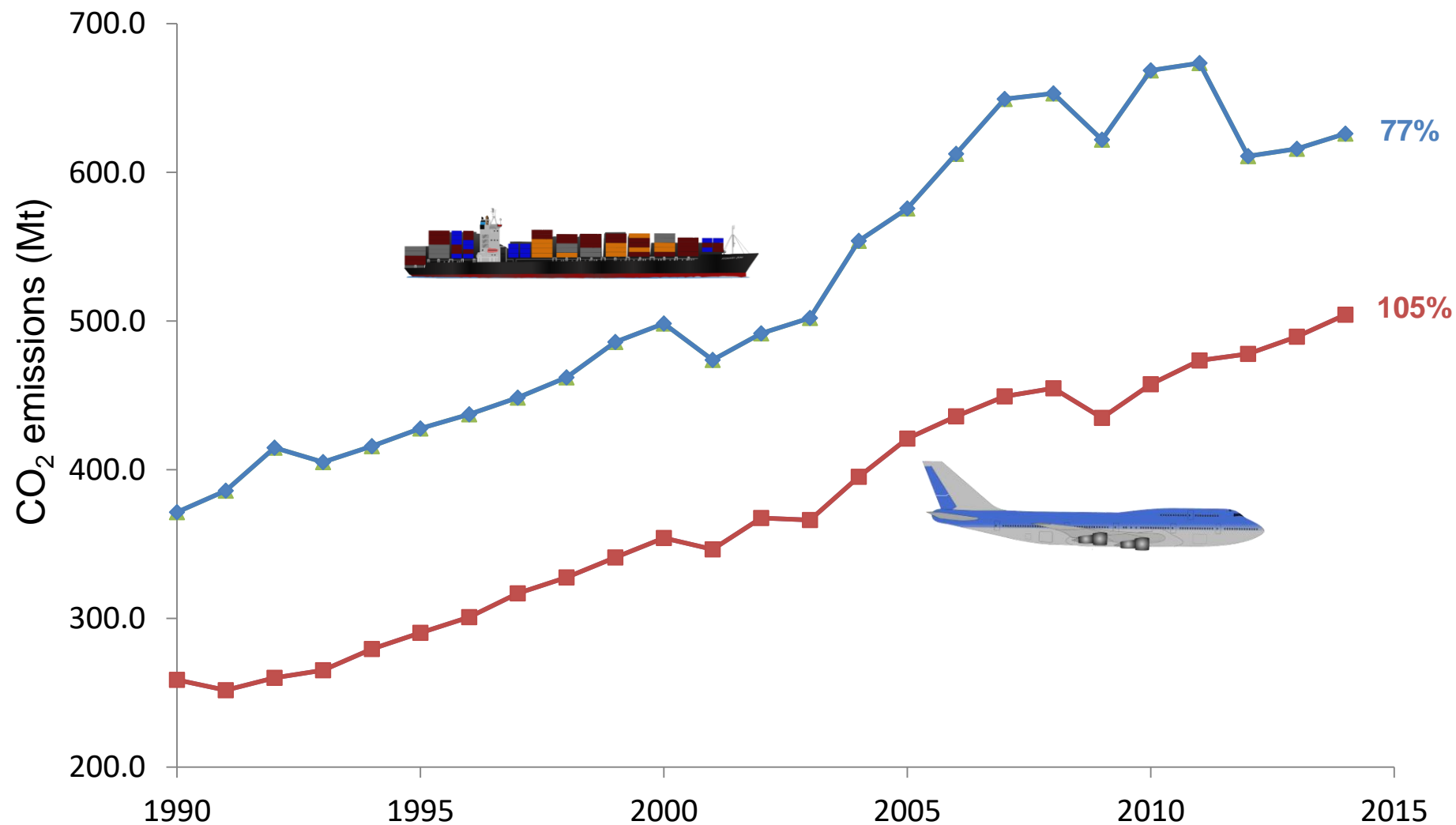


The Transparency Framework: Reporting of bunker fuels and future outlooks

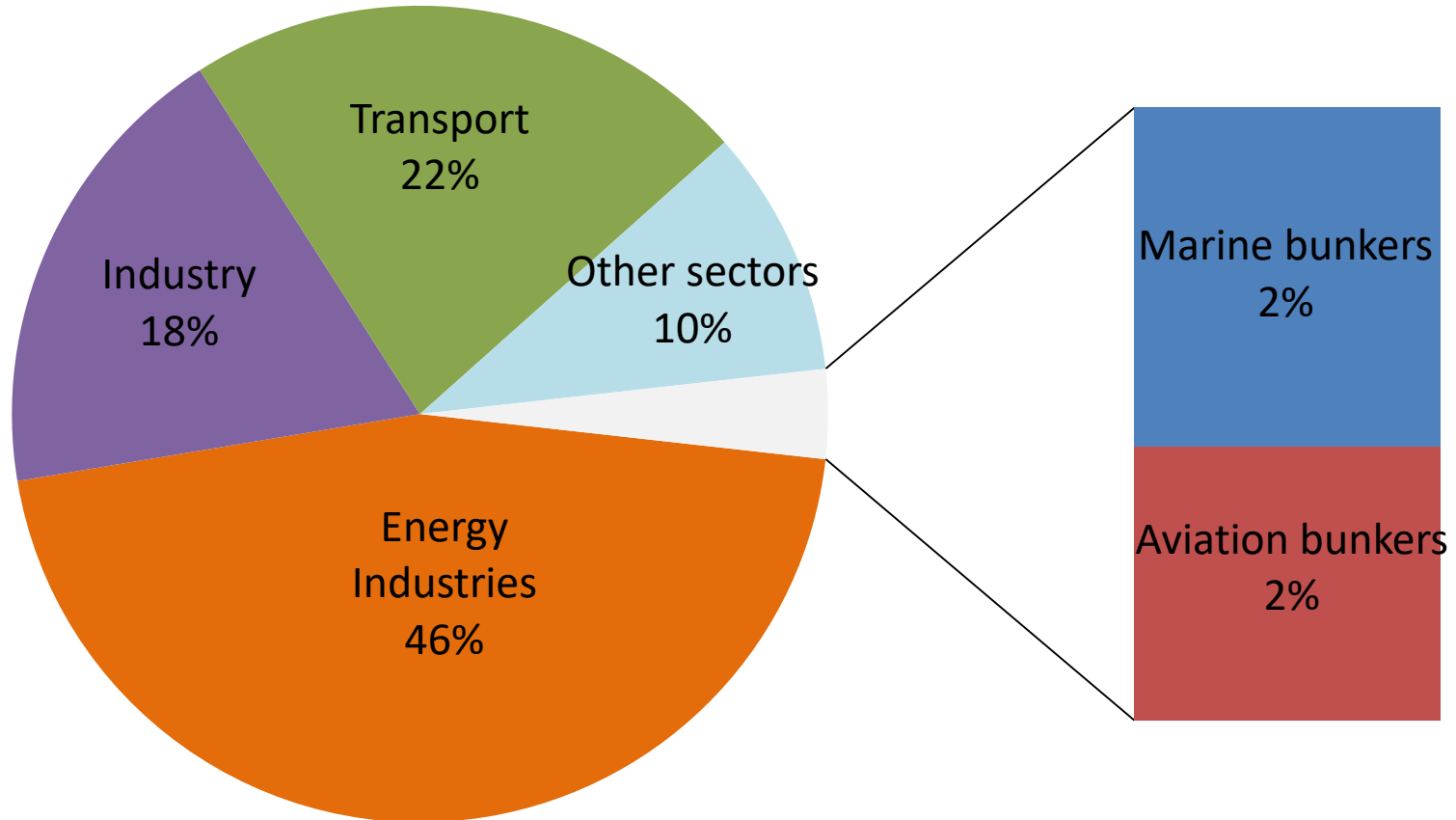
Stelios Pesmajoglou, PhD

CO₂ emissions from international aviation and maritime transport



(Source: IEA)

World CO₂ emissions from fuel combustion by sector (2015)



(Source: IEA)

Political attention



- Global significance of sectors (moving people and goods)
 - Air: 3.6 billion passengers; ca. 1% of world trade
 - Sea: 90% of world trade
- International competition
- No-discrimination
- Lack of alternatives
- Sustainable growth
- National legislation to address international emissions

Exclusion of international GHG emissions from national totals

Oldest UNFCCC agenda item

- On the agenda of the UNFCCC process even before the Convention entered into force
- Three separate issues:
 1. **Adequate and consistent GHG inventories**
 2. Allocation of emissions
 3. Control options



- Decision 2/CP.3, paragraph 4:
 - Maintains the exclusion of bunker fuel emissions from national totals
 - => Emissions from both international transport activities are not subject to the reduction/limitation targets of the KP**
 - The SBSTA to further elaborate on the inclusion of these emissions in the overall GHG inventories
- Kyoto Protocol (Article 2.2)
 - The Parties included in Annex I shall pursue limitation or reduction of emissions of GHG from aviation and marine bunkers fuels, working through ICAO and IMO

- **Long-standing mandate** for close cooperation between the secretariats of UNFCCC, ICAO, IMO:
 - Participation in meetings
 - Reports on progress
 - Organization of expert meetings
 - Participation in relevant work



Increased awareness of the issues of common interest among experts and delegates



But does not solve the problem of **lack of coordination at the national level**

UNFCCC Reporting (Developed countries)

International maritime:
38 countries

International aviation:
43 countries

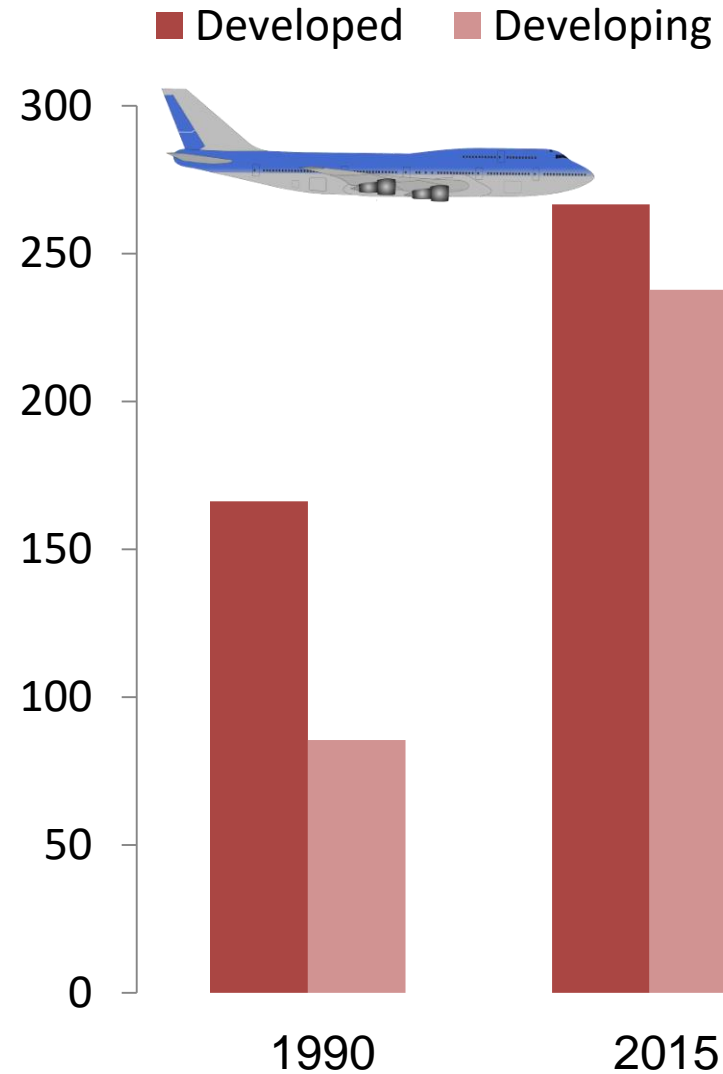
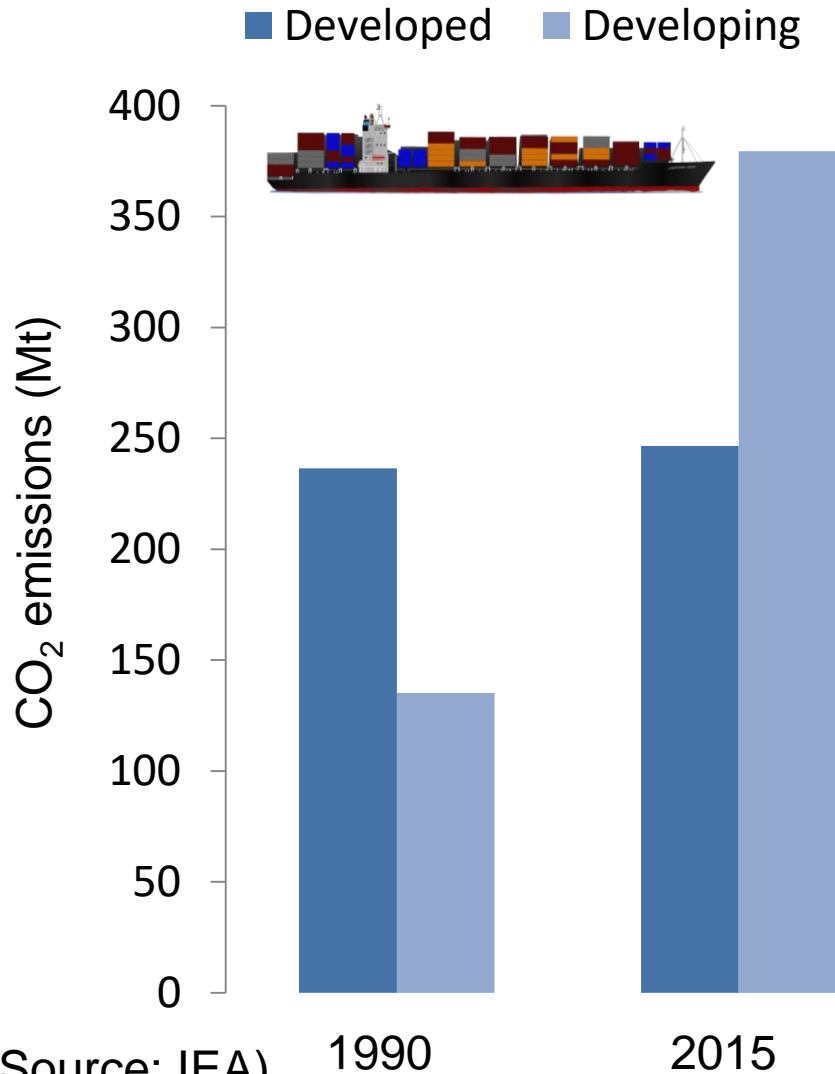
- Gases: CO₂, CH₄ and N₂O
 - Also some estimates of CO, NO_x, NMVOCs, SO₂
- Years: From 1990 onwards
- Compliance with the provisions of the IPCC Guidelines and the UNFCCC reporting guidelines
 - Methods are the same as those for domestic aviation
 - Review process relies on cross-checking reported fuel use data with IEA statistics

UNFCCC Reporting (Developing countries)

International aviation and maritime:
65 countries

- Gases: Mainly CO₂
- Years: 1 or 2 years (1990 or 1994) for most reporting countries
- General compliance with UNFCCC reporting Guidelines
 - However, no detailed assessment can be made about the compliance with the IPCC Guidelines since there is no review process for developing countries

Developed vs. Developing countries



(Source: IEA)

- **Lack of reliable disaggregated (domestic vs. international) fuel data:**
 - Fuel taxation
 - Flag or country of registration of carriers
 - Oil companies or operators
 - Surrogate data, e.g.
 - LTO cycles and “default” fuel consumption factors
 - Fuel expenditures and information on the flag of carriers
- Lack of disaggregated data has led (in some cases) to the allocation of all fuel used to either international or domestic transport:
 - **Potential under- or over- estimation of emissions**
 - Could result in accounting problems

- Action plans for reporting information on States' activities to address CO₂ emissions from international aviation
- Action Plans' contents:
 - Traffic, fuel consumption and CO₂ emissions (2010-2050)
 - Selected measures proposed for mitigating CO₂ emission
 - Expected impact mitigation measures
 - Assistance needs (financial, technological, training, etc.)

**104 States (90.1% of global RTK)
have submitted their Action Plans to ICAO**



- Chapter 4 of MARPOL Annex VI on “Regulations on energy efficiency for ships”, introduced the Energy Efficiency Design Index (EEDI) for new ships and the Ship Energy Efficiency Plan (SEEMP) for all ships.
 - The regulations entered into force on 1 January 2013 and apply to all ships of 400 gross tonnage and above.
- Potential for the collection of disaggregated fuel data



Transparency Framework under the Paris Agreement

- Negotiations are on-going on the specific rules and modalities for the PA Transparency Framework
- Recommendations:
 - Further enhance the review/assessment of the reported GHG data from international aviation and maritime transport including information from both developed and developing countries
 - Build in-country capacity to ensure complete and sustainable reporting
 - Enhanced cooperation between the 3 UN organizations to ensure the exchange of data and use of sectoral expertise

- **Emissions** from international aviation and maritime transport **are increasing** and will continue to do so, if no measures are taken
- Currently account for a small portion of total GHG emissions, BUT, if left unabated, their **relative importance will increase** in a mitigation scenario for other sectors
- **Data availability and reliability** is of paramount importance if countries are to fulfill their pledges under the PA and achieve the objective of the PA
- Emissions from international aviation and maritime transport should not “fall through the cracks”, but their **assessment** under the PA **should be enhanced**