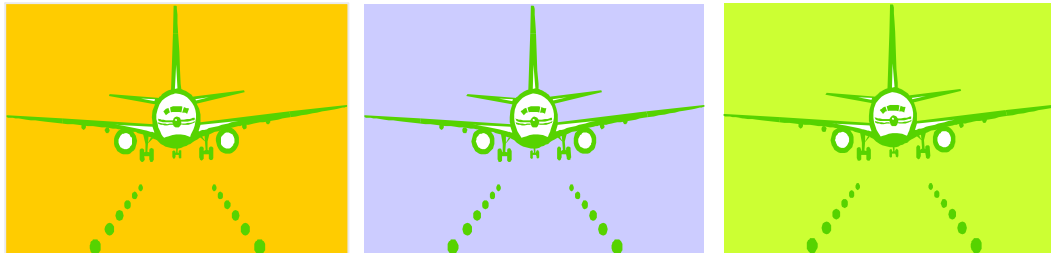


International aviation and developing countries

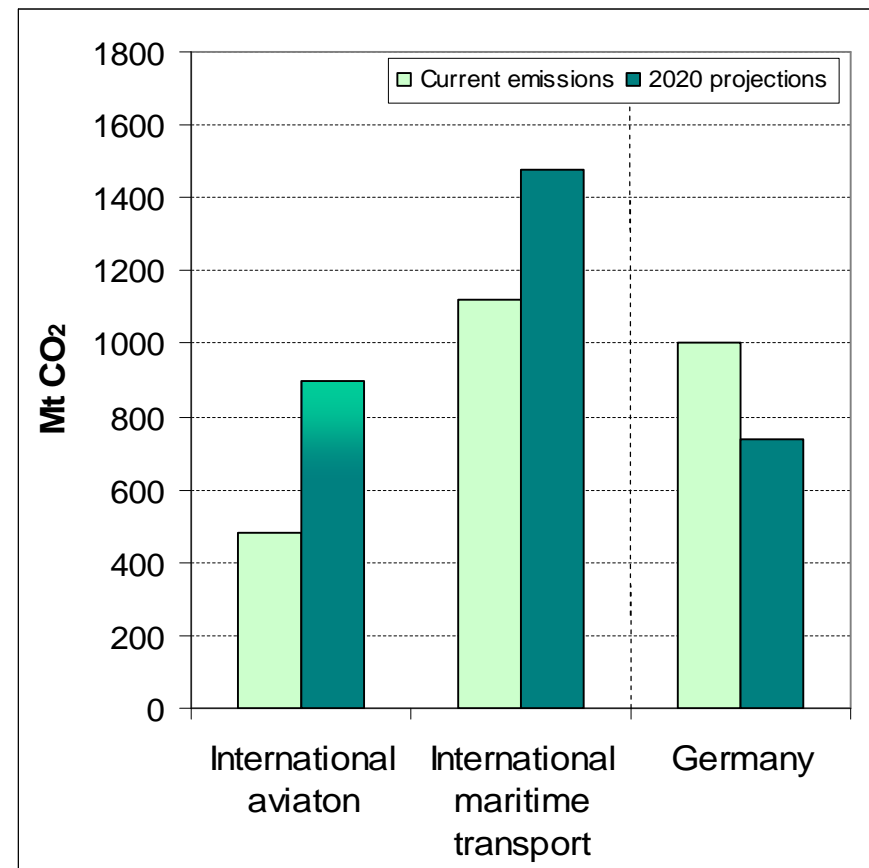
Relevance and possible impacts of the inclusion in a post 2012 climate regime



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Why does it matter?

- **Aviation and maritime emissions are comparable to large Annex I countries.**
- **International transport is one of the fastest growing sources of GHG emissions**
- **Growth in emissions in these sectors would significantly impair global reduction effort**



What are the main issues?

- 1. Responsibility for international emissions**
- 2. Common but differentiated responsibilities and distortion of competition**
- 3. Impacts on development and trade**

Responsibility for international emissions from aviation

Emissions from international aviation in 2000

Allocation according bunker fuel sold (Option 3)			
Annex I Countries	Singapore, Hong Kong, Thailand, United Arab Emirates, South Korea, Taiwan, China, Brasil, Malaysia	India, Mexico, South Africa, Argentina, South Arabia, Philipinnes	Rest of the World
64%			
	81%		
	87%		

Emissions could be addressed through

- a) Inclusion in national totals
- b) Sectoral approaches

Common but differentiated responsibilities

- **Core principle of UNFCCC and Kyoto Protocol**
- **Different possibilities to apply CBDR**
 - Mitigation commitment/ no mitigation commitment
 - Different types of mitigation commitments
 - Compensation
- **Combination of the different ways to apply CBDR is possible**
- **CBDR should not undermine environmental effectiveness**
 - Regime should be robust against evasion
 - CBDR should not lead to distortion of competition

CBDR: mitigation commitment

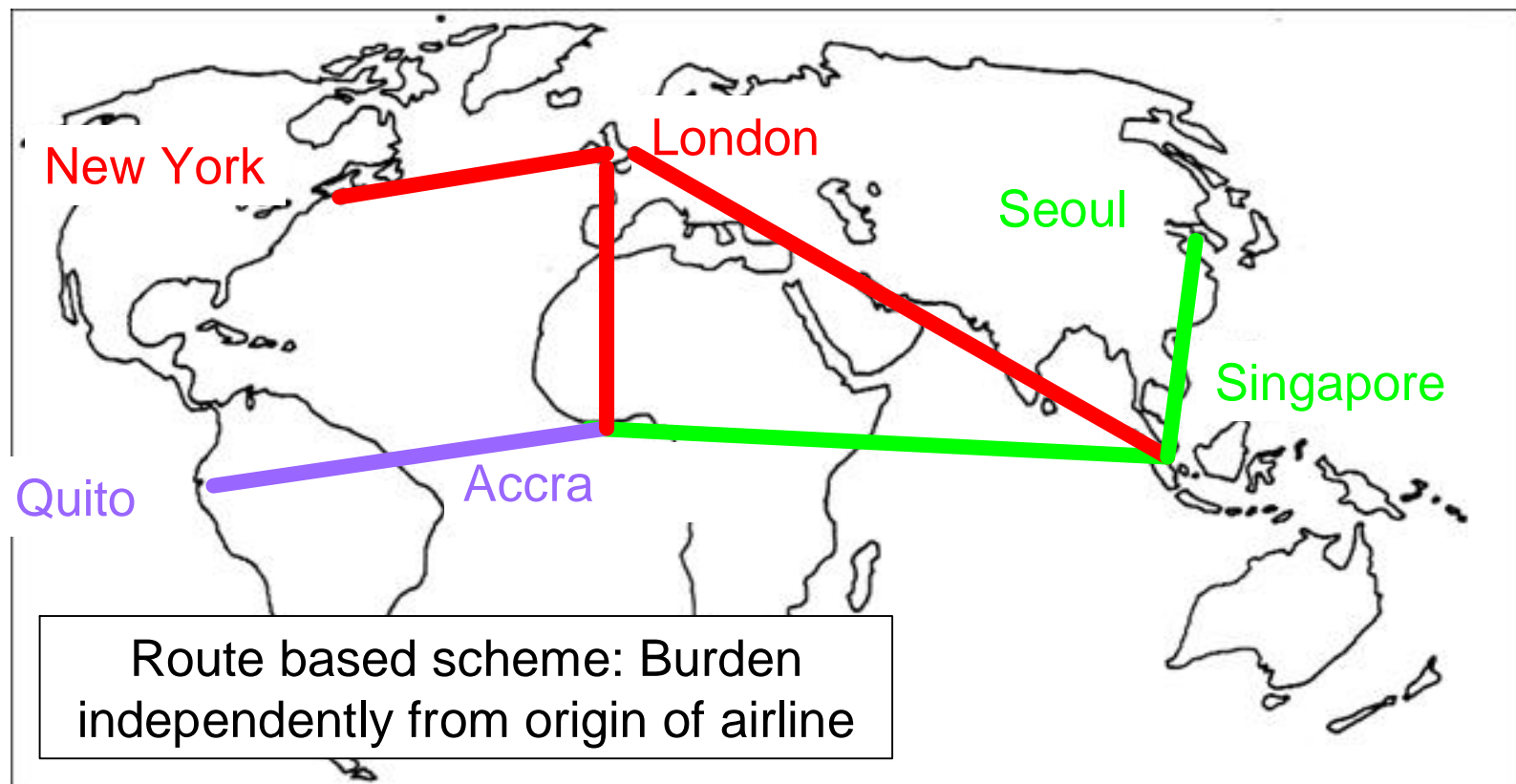
- **Only aviation emissions from Annex I countries are addressed**
 - a) Inclusion in national totals according to route flown or fuel sales
 - b) Sectoral approach addressing all flights to/from Annex I countries
- **Coverage approx. 70% of global aviation emissions**
- **Limited possibilities to take different development stages and needs into account**

CBDR: type of mitigation commitment

Industrialised Countries	Advanced Developing Countries	Developing Countries
Absolute Targets <i>Emissions Trading</i>		
Relative Targets <i>Performance Standards</i>		
No targets <i>Policies and Measures</i>		

Global Players in int. aviation

CBDR: example for commitment type differentiation

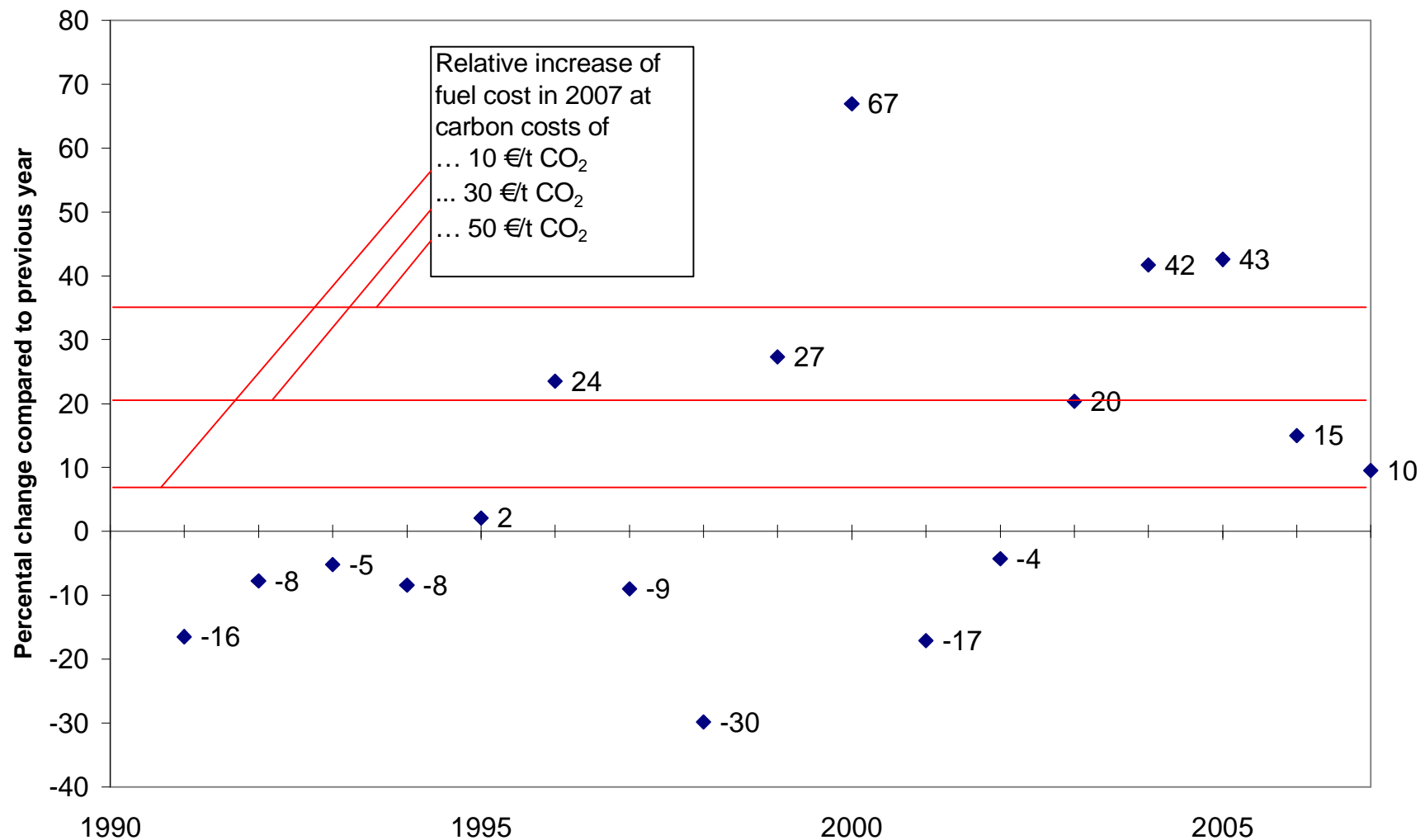


Commitment: — ETS — Intensity — PAM

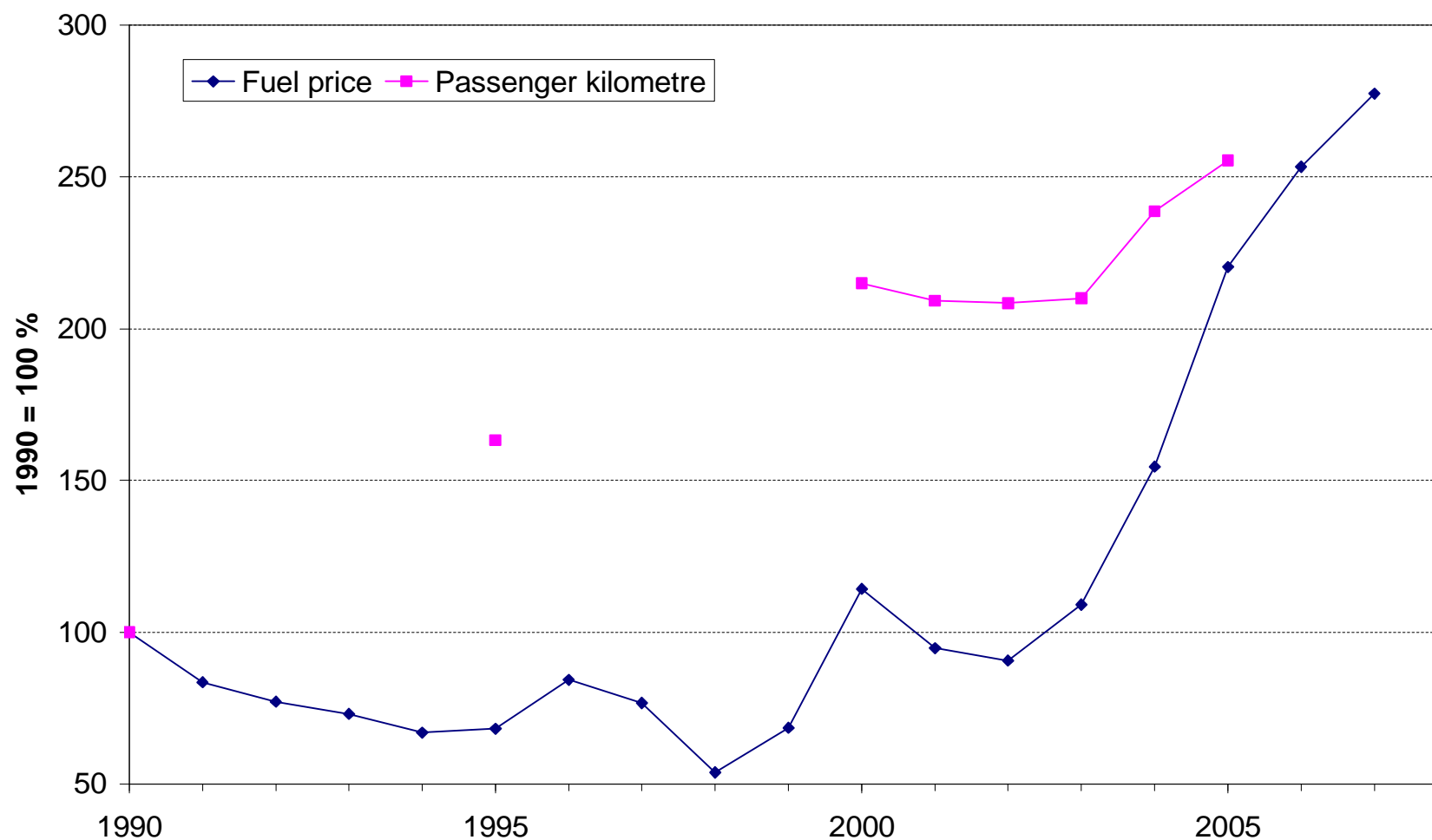
CBDR: Compensation

- **Auctioning/selling emission allowances for aviation has to the potential to generate revenues around 25 billion USD per year up to 2020**
- **Developed countries finance lions share of costs**
 - Passengers and not governments pay additional costs
 - Largest share of aviation demand originates from Annex I and ADC
 - Major share of aviation to other developing countries and especially LDCs is caused by passengers from developed countries (tourism)
- **Revenues could be spent mainly for developing countries**
 - Support adaption, especially in LDCs and SIDS
 - Support countries most affected by the inclusion of aviation
 - ...
- **Generation and distribution of revenues generated clearly reflects CBDR**

Impacts on development and trade: Fuel price increase with 100% auctioning



Impacts on development and trade: Demand for air transport



Impacts on tourism

- business flights inelastic
 - leisure flights show a higher elasticity
 - high growth rates expected for international air passenger transport → reduced growth
 - Example: 30€/t CO₂ → average increase of 2% of the cost of a typical leisure journey.
 - Most affected regions are those that are completely dependent on tourism.
-
- **Cost increases lead to lower growth and not to absolute decline in demand**

Impacts on development and trade: Increase of consumer prices for goods

- Consumer prices for most goods will increase by less than 1%
- Consumer prices for perishables (e.g. flowers, fish) have a larger dependency

	Share of transport costs in product's final price	Relative price increase for consumers at a carbon price of €/t CO ₂ (2007 oil price)		
		10	30	50
Product 1 (e.g. electronics)	5%	0.1%	0.4%	0.7%
Product 2	30%	0.9%	2.6%	4.3%
Product 3 (e.g. flowers)	50%	1.4%	4.3%	7.1%

Conclusions

- **International aviation has to contribute to the overall efforts to prevent dangerous climate change**
- **There are ways to implement common but differentiated responsibilities in the aviation sector without incentives for carbon leakage**
- **Impacts on development and trade will be minimal for most countries**
- **Integrating international aviation in a future regime has the potential to raise predictable and substantive funding to compensate for potential adverse impacts**