

#### Global Emission Certificate Schemes as Solution for Development and Climate Policy

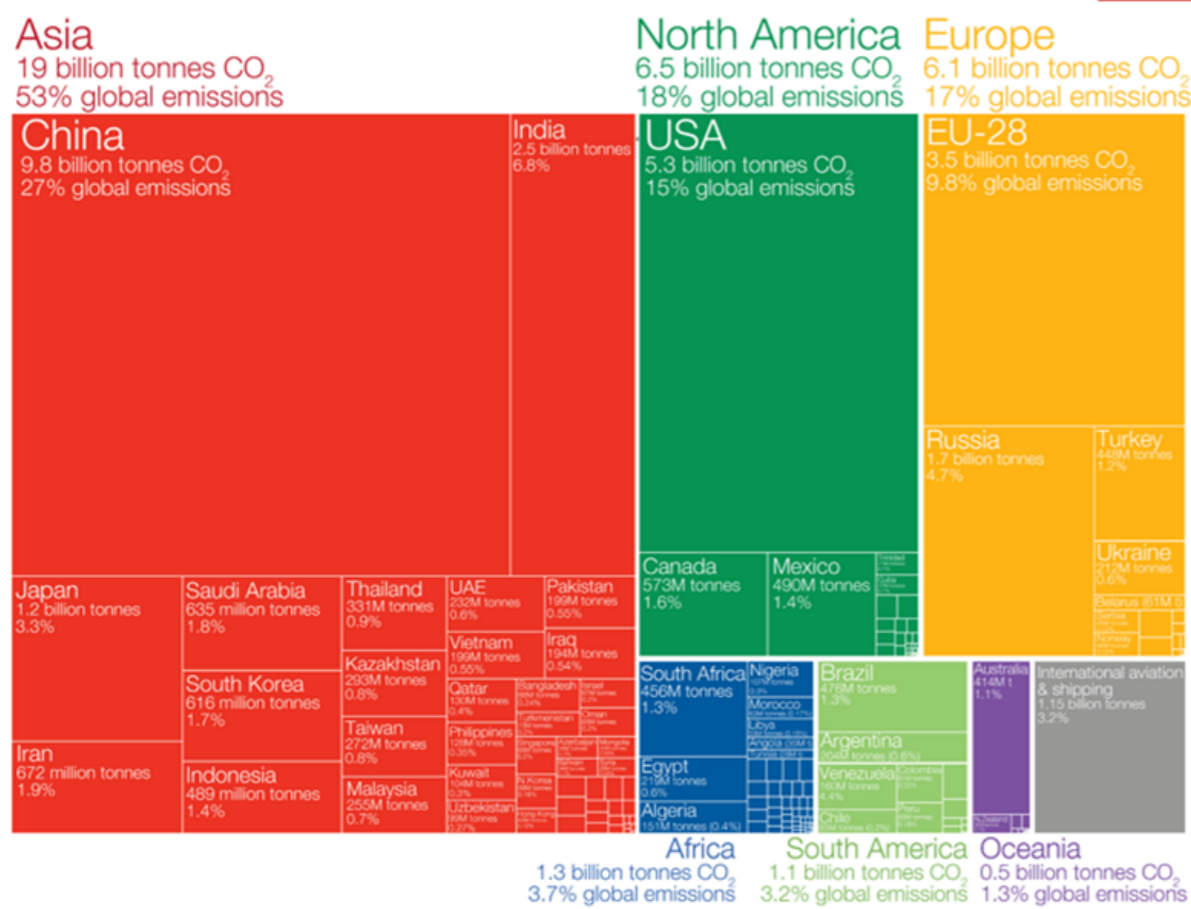


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- Facilitation of economic development and combating of climate as two global political challenges
- Policy makers have acknowledged the links between both challenges:
  - ⇒ Historically high correlation between resource consumption and economic growth, but countries with low current income and historically cumulative carbon emissions most severely affected by climate change
  - ⇒ Growing spendings on Official Development Assistance (ODA) from developed to developing countries (2021: almost 180 billion US\$, parts of that for climate projects [1999-2000:: 7.3 percent of ODA])
- However rather low rates of returns of ODA and limited successes in global climate policy

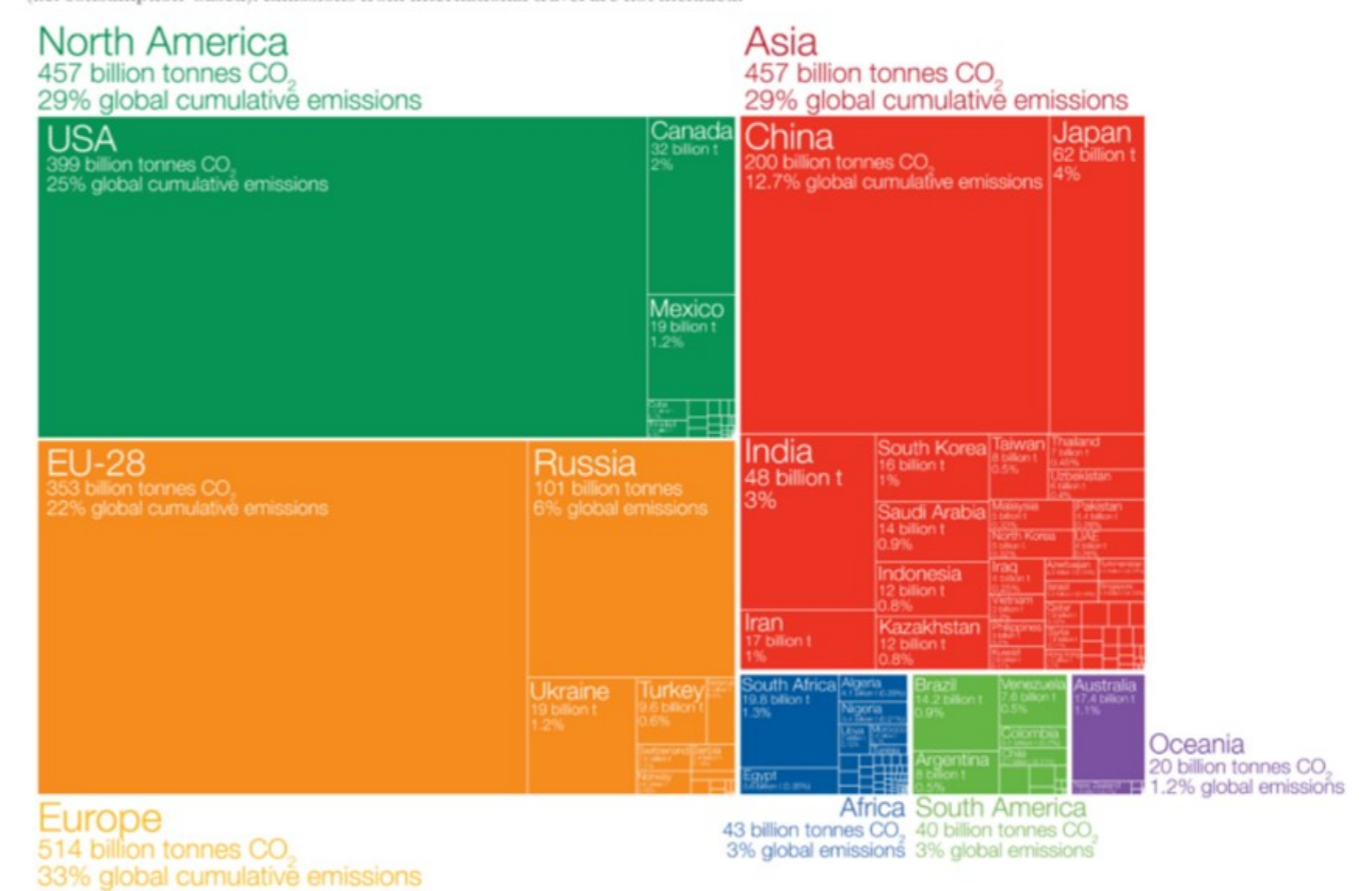
#### Who emits the most CO<sub>2</sub>?

Global carbon dioxide (CO<sub>2</sub>) emissions were 36.2 billion tonnes in 2017.



#### Who has contributed most to global CO<sub>2</sub> emissions?

Cumulative carbon dioxide (CO<sub>2</sub>) emissions over the period from 1751 to 2017. Figures are based on production-based emissions which measure CO<sub>2</sub> produced domestically from fossil fuel combustion and cement, and do not correct for emissions embedded in trade (i.e. consumption-based). Emissions from international travel are not included.



- Traditionally, command-and-control policies have been the dominant instruments in climate policy across countries and internationally
- Market-based instruments combine a number of advantages with regards to static and dynamic efficiency; a cap-and-trade system of carbon emission certificates guarantees ecological effectiveness
  - ⇒ Recently, growing number of Emission Trading Schemes (ETS) on different political levels (including EU ETS, China ETS, US state level)
  - ⇒ **Global ETS and free allowances based on national emission budgets derived from historical emissions as efficient solution?!**

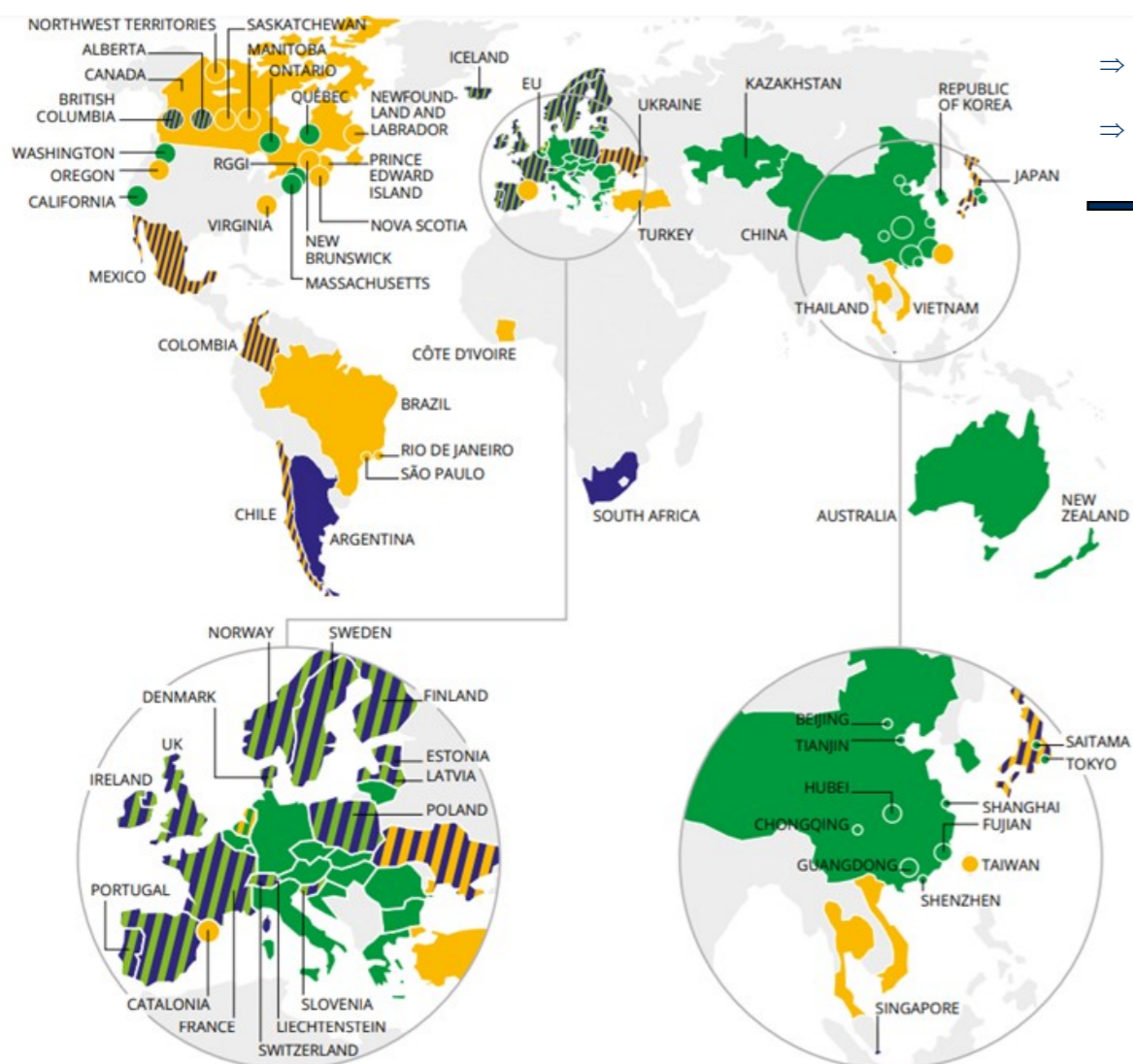
- ⇒ Assignment of free allowances as replacement for ODA spending
- ⇒ Commitment to global ETS increases effectiveness and efficiency of global climate policy

#### How can this solution be feasible?

- ⇒ How can political majorities be generated based on constraints in political markets?
- ⇒ How can the legitimacy of distributional effects be increased?
- ⇒ How can resistance of bureaucratic incumbents be overcome?
- ⇒ How can corruption and rent-seeking activities be mitigated?
- ⇒ How can "losers" be compensated and social acceptance be improved?
- ⇒ How can free-riding in global climate policy be avoided?
- ⇒ Is price regulation or trade-volume regulation on allowance markets needed?

#### Other Research Interests

- Inclusive Development
- Dictatorships
- Public Good Provision
- Better regulation



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