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# Towards domestic offset programmes

Maketplace - Feria de MDLs y otras iniciativas
de Mercados de Carbono,

5 November 2015, Bogotá - Colombia

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Project Developer Forum

# Agenda

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- Energy, human development and GHG emissions
- The role of developing countries and importance of early action
- Development of domestic offset programmes
- Case studies: Switzerland, Mexico and Brazil (optional, if time)
- Conclusions

# Global climate policy failed by (m)any means

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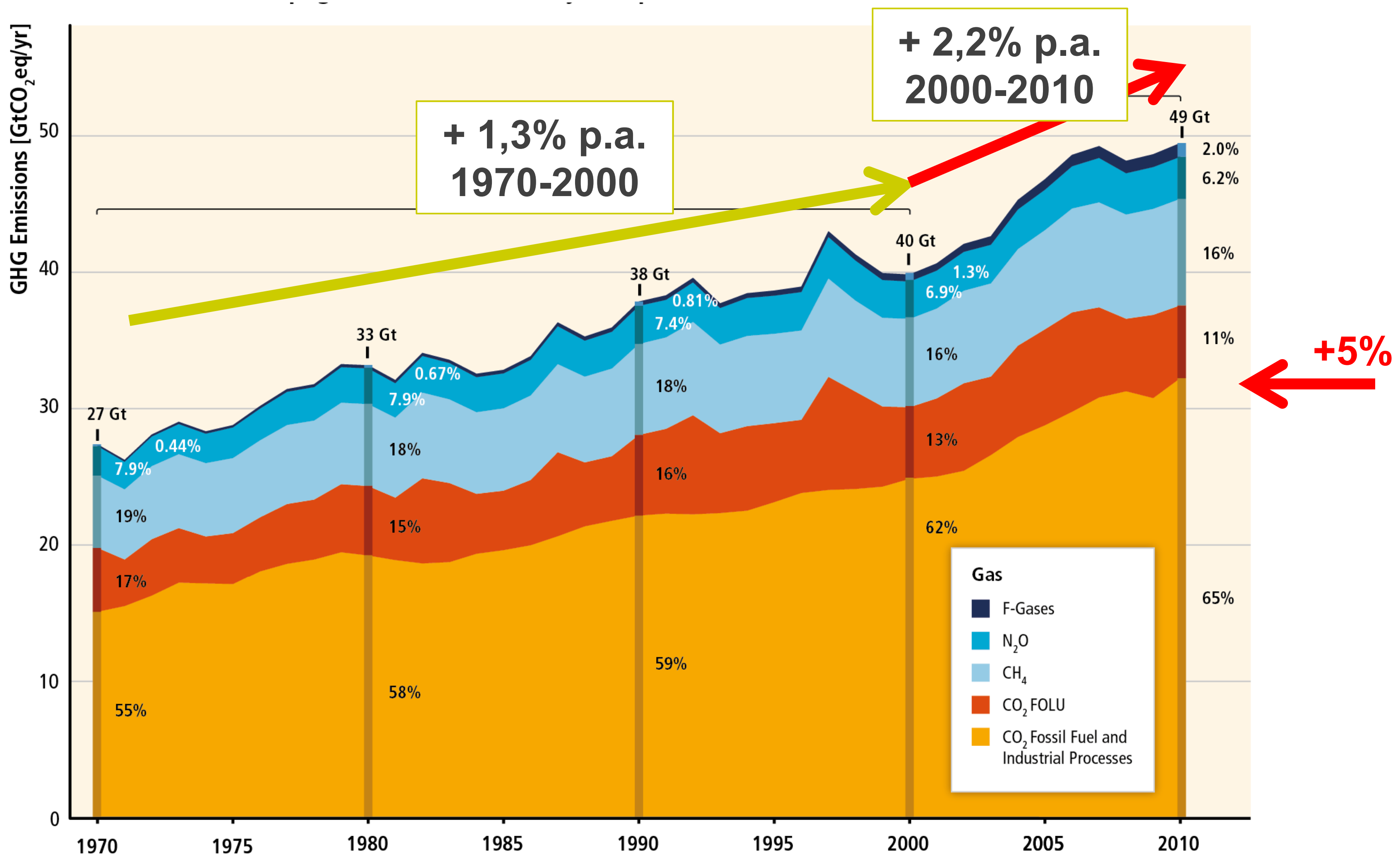


Source: IPCC 5th assessment report – WG III

# Countries have huge differences in development needs

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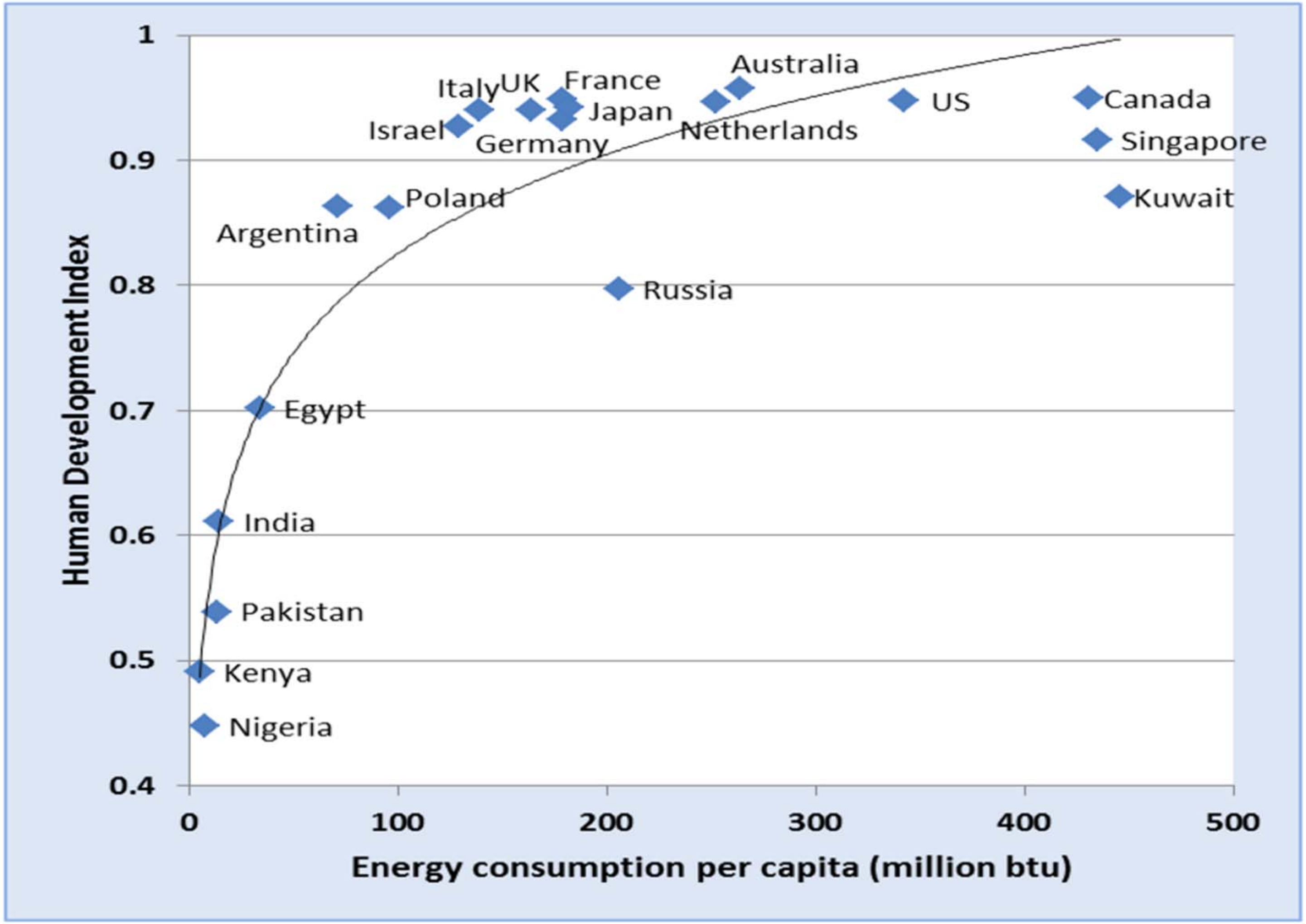


Source: "International Total Primary Energy Consumption and Energy Intensity" (EIA, 2010) and "Human Development Report" (Palgrave Macmillan, 2010)

# The uneven challenge to meet 2˚C What do we need to bridge the gap?

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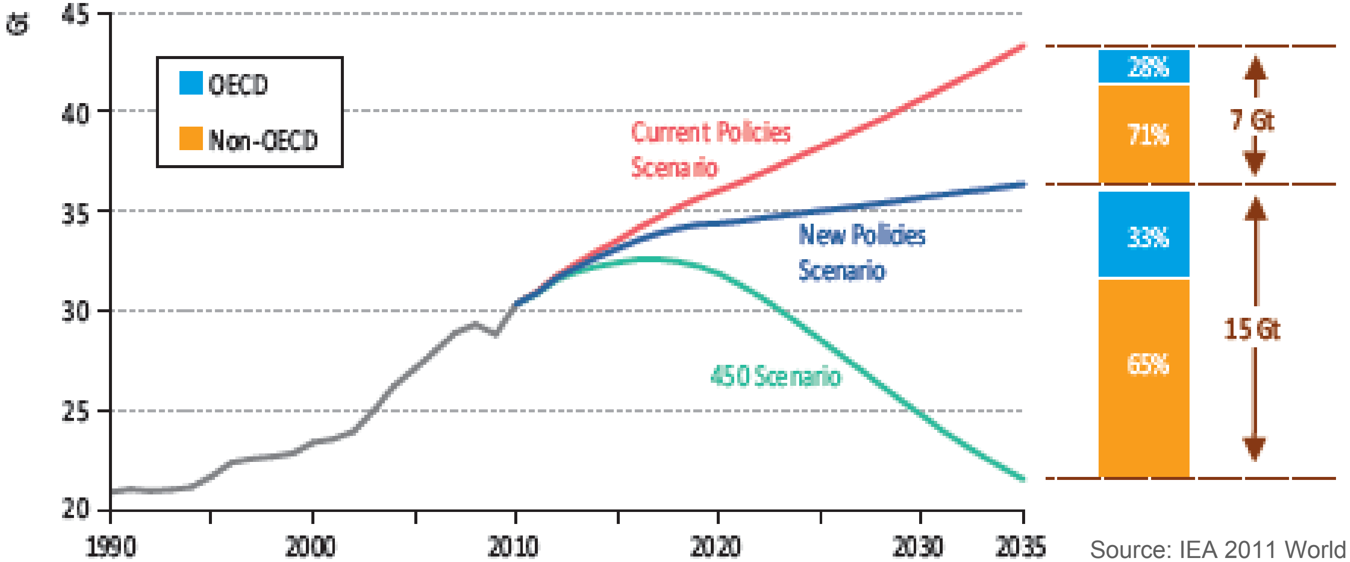


Source: IEA 2011 World Energy Outlook.

- Energy causes 66% of global emissions & non-OECD account for 100% of growth;
- The current policy scenario will lead to a temperature rise > 6°C scenario;
- Cancun pledges, if fully implemented, translate into a 3.5°C scenario;
- The 450 (ppm) scenario requires additional investments of $11.6 trillion;
- Most of the reductions and capital expenditures are required in non-OECD countries as they account for 90% of population and energy demand growth.

# The challenge ahead according to the WEO 2011

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*"If we do not change course, by 2017, 100% of the permissible energy sector emissions will be locked in.*

**Maria van der Hoeven - Executive Director IEA**

- **In a policy driven scenario to achieve 450 ppm, carbon prices in:**
  - **OECD will converge to $120/t in 2035;**
  - **BRICS is to rise from $10/t in '20 to $95/t in '35.**
- Cost is time dependent and increasing: ***Each US$ investment delay will cost 4.5 US$ investment in 2020.***
- Though no direct link between markets expected before 2035, **all systems will have access to offsets (indirect linking),** leading to price convergence
- If all countries begin **immediate mitigation, establish a single global carbon price and use of all technologies**, economic costs will be limited to 0,06% reduction in annual consumption growth until 2100 (IPCC 5th AR WG III)

# Importance of a global carbon market

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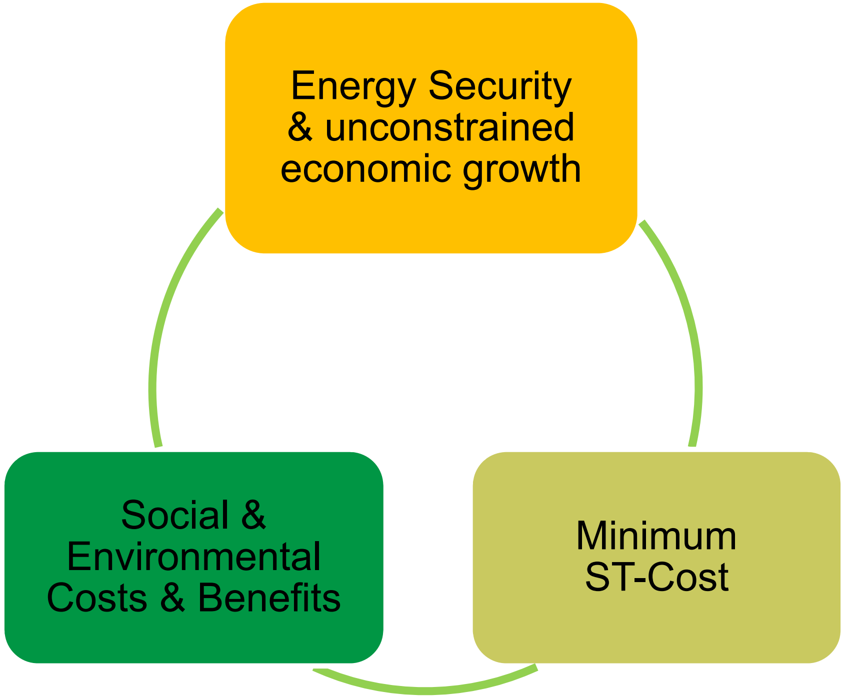
**Perspective and objectives of emerging countries:**




- OECD perspective:
  - Mitigation requires gradual reform of infrastructure
  - Mitigation costs to be contained by substituting depreciated assets with new technologies
  - Mitigation potential is insufficient when compared to emission growth of non OECD countries

# Importance of a global carbon market

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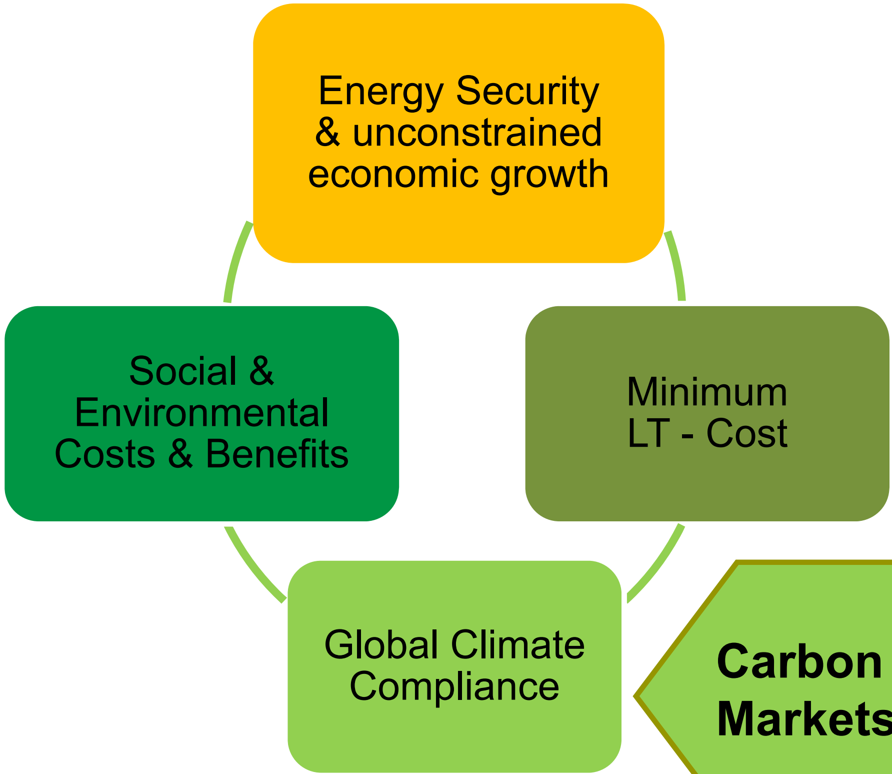


– OECD perspective:

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**Carbon Markets**

- **OECD needs time for smooth transition and asset rotation**
- **Non OECD needs immediate incentives for clean growth**

# GHG mitigation in developing countries: Principles and concepts

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- Focus on clean expansion and efficiency of existing infrastructure.
- Major share of GHG mitigation is related to avoided emission growth.
  - How to measure avoided emission growth?
  - Early action avoids building-up of future GHG liabilities, requires financing of large capital requirements.
- Developing countries offer great opportunities for cost effective GHG mitigation, investments and technology transfers.
- Developed countries cannot be expected to finance all GHG mitigation that is available and needed in developing countries
- Domestic Carbon Tax or  Cap & Trade can generate demand for domestic credits, set minimum price for investors and satisfy demand for net mitigation.
- CDM is regulated by DNA and UNFCCC recognition suggests fungibility.
- Conservativeness of CDM basis to ensure that crediting is reflected on National Inventories.

# What Is a Domestic Offset Program

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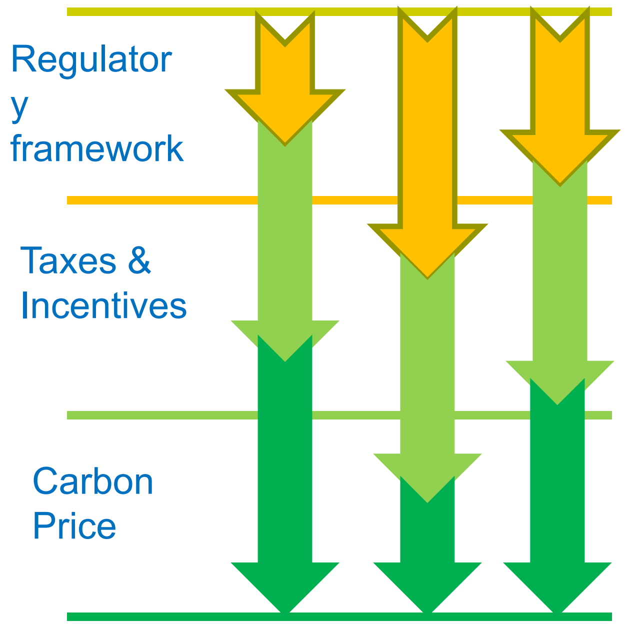
- An **international offset program** is a program that is run by an institution recognized by multiple countries (e.g., international body, non-profit organization). The rules are not specific to a certain country and the credits are sourced from multiple countries and sold on the international market.
- A **domestic offset program** is a program that is run at the national level by a domestic body. The rules are specific to the country and are developed by the domestic government. The credits are sourced from projects developed domestically or internationally, and are sold either domestically or in other countries. These credits can be used under a domestic policy e.g., an Emission Trading Scheme (ETS), a carbon tax, a domestic voluntary emission reduction or carbon neutrality scheme, or under an international market-based mechanism.



# A global vision to orient domestic action
## Building a global carbon markets from bottom up action

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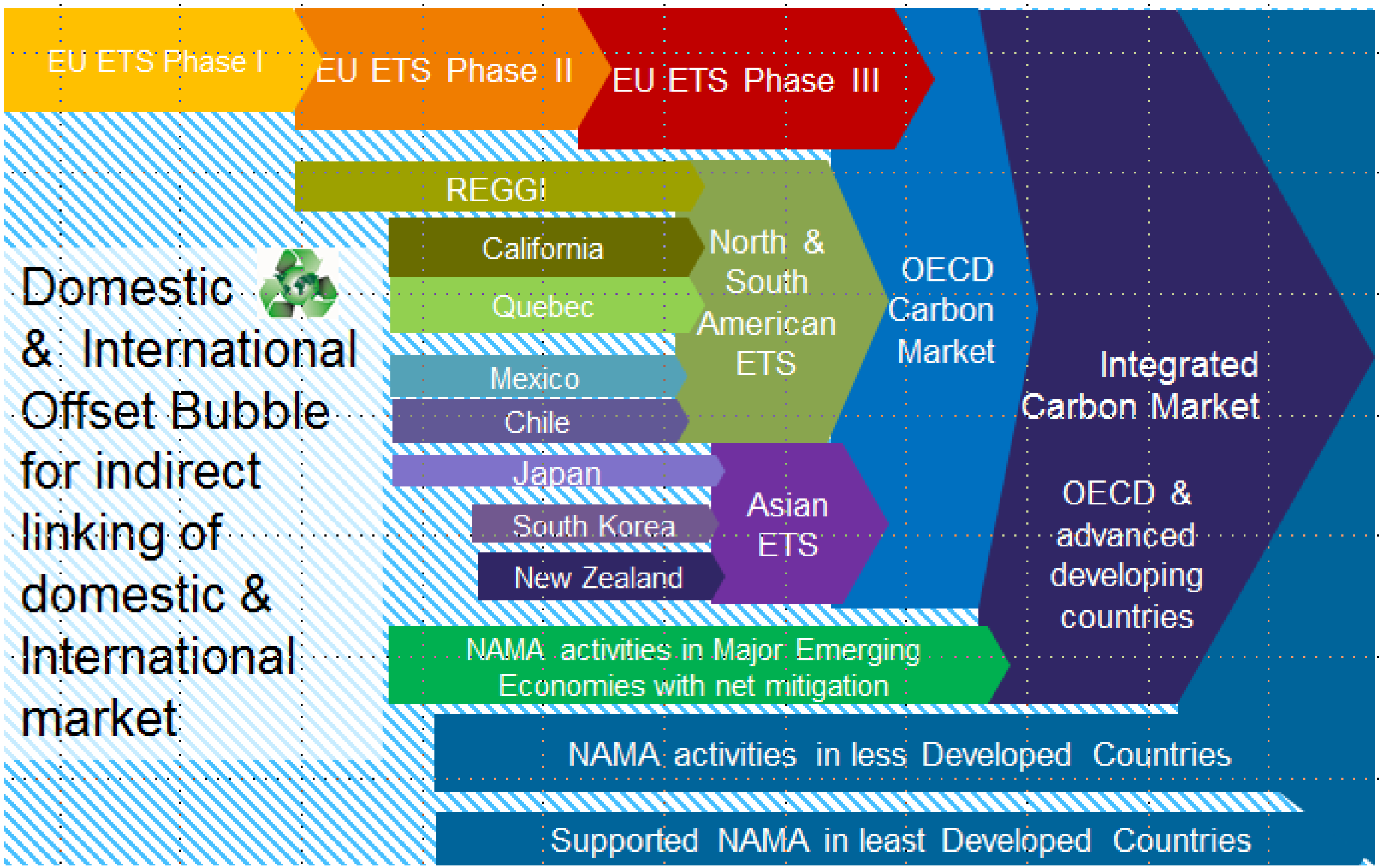

# Existing, emerging, and potential ETS’

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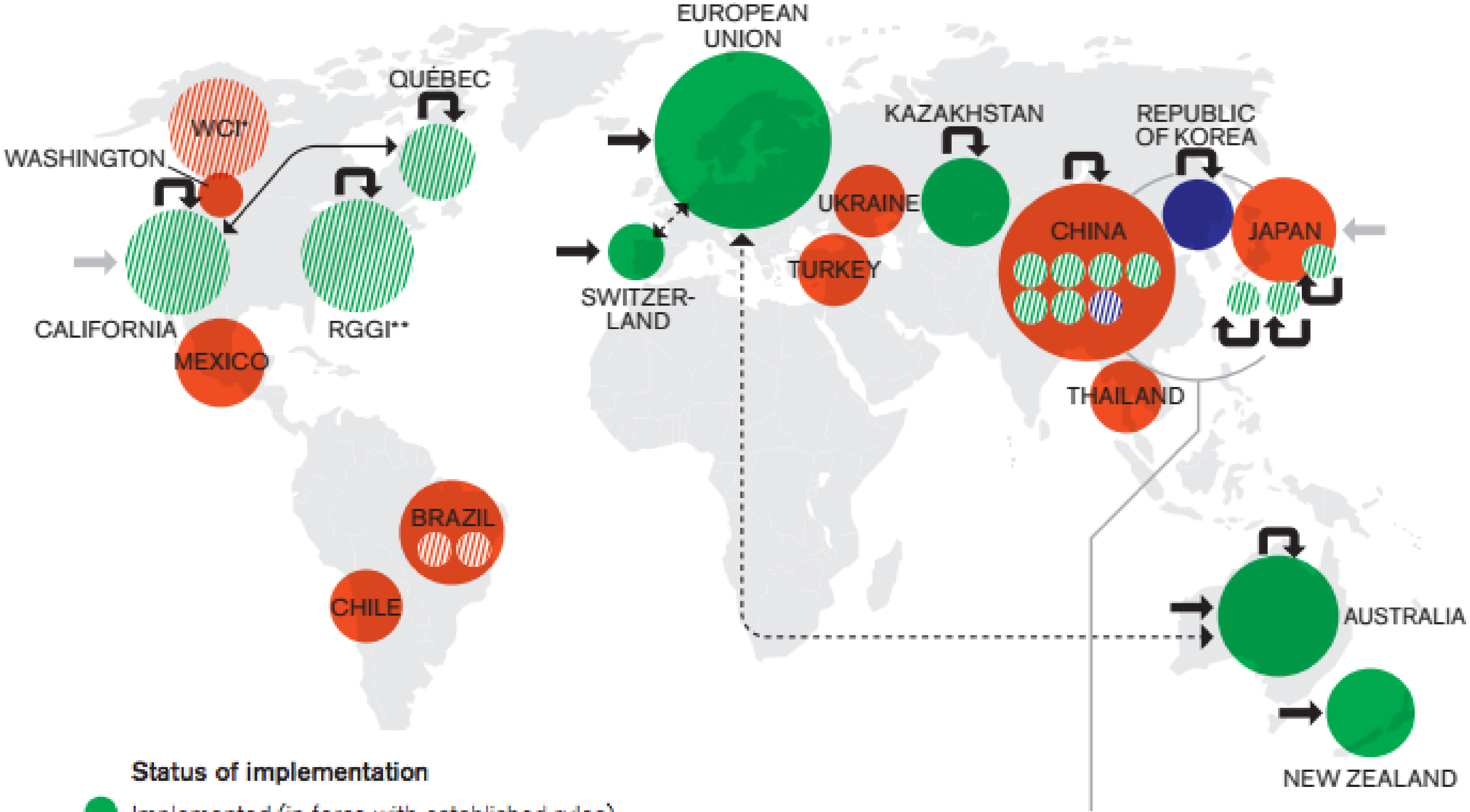


**Status of implementation**

- Implemented (in force with established rules)
- Implementation scheduled (mandate agreed, start date communicated, rules in preparation)
- Under consideration*** (government gave public signal towards the development of an ETS)
- National
- Sub-national or regional

**Offsetting**

- CDM and JI credits
- Bilateral offsets
- Domestic offsets

**Linking**

- Planned link
- Link

Source: ECOFYS, World Bank Group (2014)

# Share of global emissions covered by ETS'

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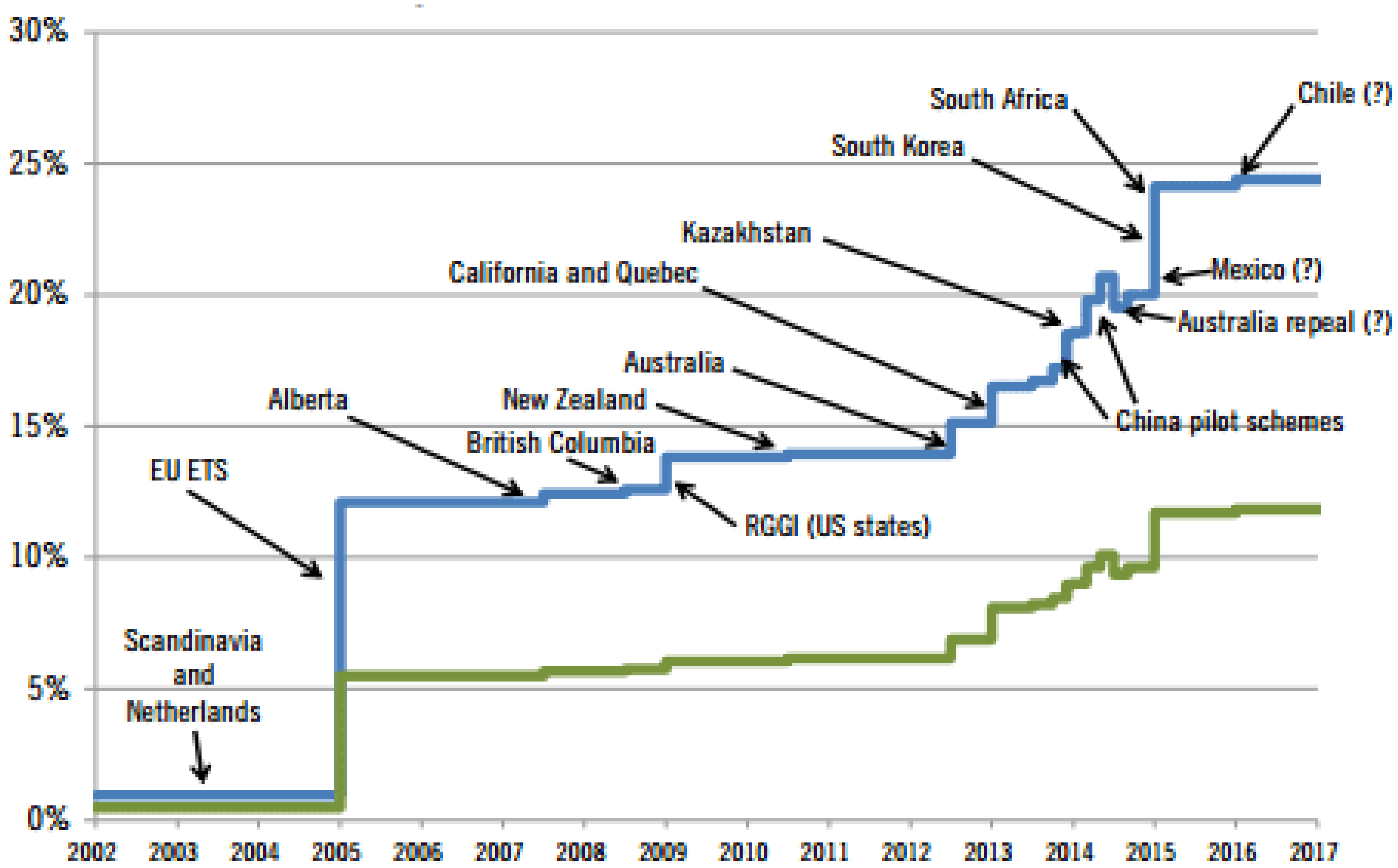


Source: IETA (2015)

# Sectors covered by ETS'

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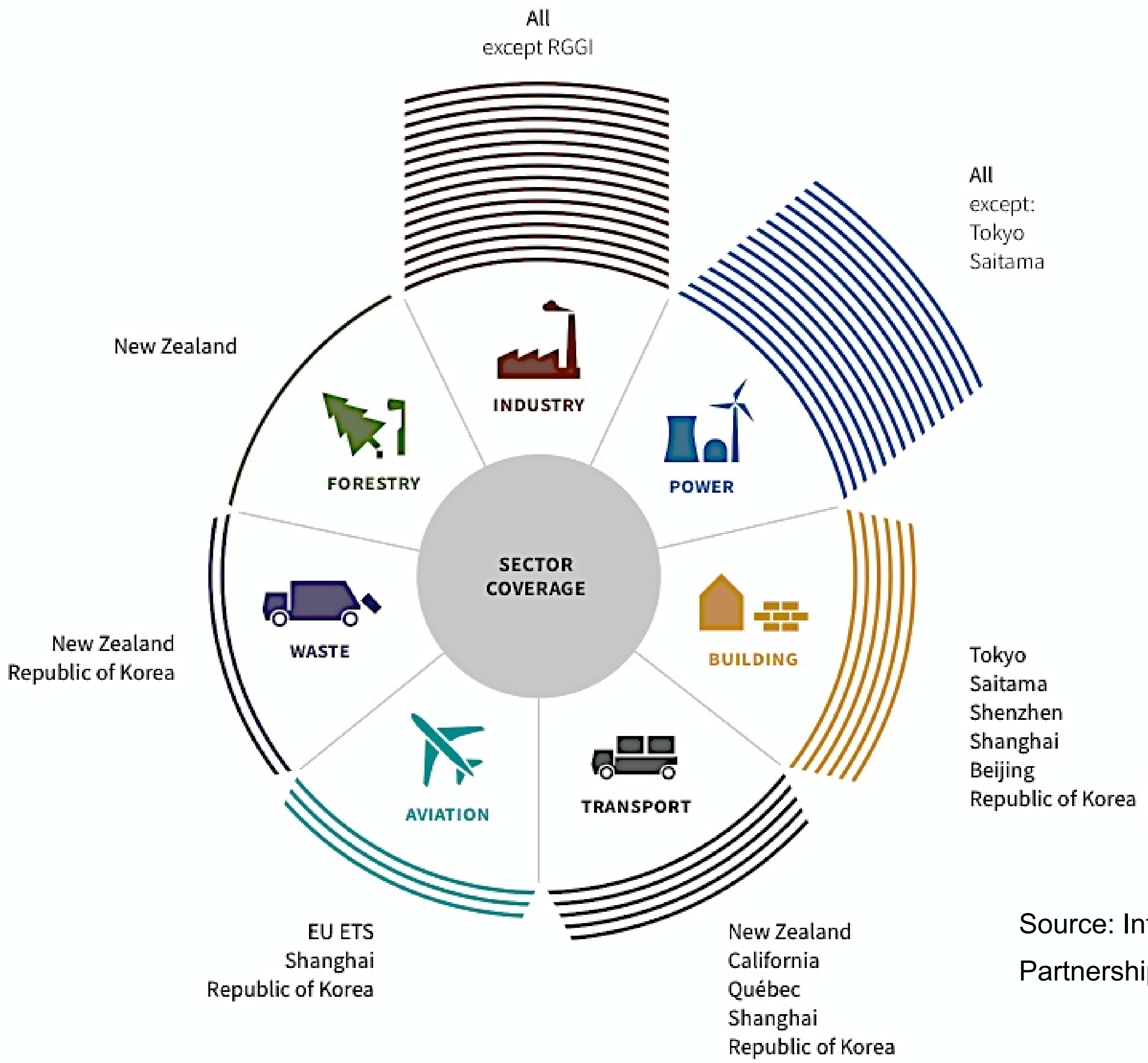


Source: International Carbon Action Partnership -ICAP- (2015)

# Intended Nationally Determined Contributions (INDC)

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- 146 countries covering 87% of global emissions submitted their INDCs by October deadline for national contributions to a post-2020 global climate pact due to be signed in Paris in December.
- Poorer nations seek to sell emission reductions to help decarbonise their economies
- Barely any richer countries are willing to outsource their abatement efforts through buying carbon credits, limited to relatively small demand from Canada, Japan, New Zealand and Switzerland
- No interest from the major economies of China, the EU and US to buy abroad
- **Around 70 countries that are considering using market-based mechanisms**
- It is unclear whether Mexico would be buyer or seller, while Brazil confirmed to rather act as a seller.
- **Colombia**: "….With the objective of contributing to achieve the emissions reduction target, with a focus on costefficiency, Colombia will **explore the use of market instruments (or other economic instruments)** that guarantee the principles of transparency and environmental integrity, which result in real, permanent, additional, verified mitigation outcomes and prevent double counting."

# Overview of countries seeking market based Mechanisms (INDCs)

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Source: IETA (2015)

# Swiss Emissions Trading Scheme

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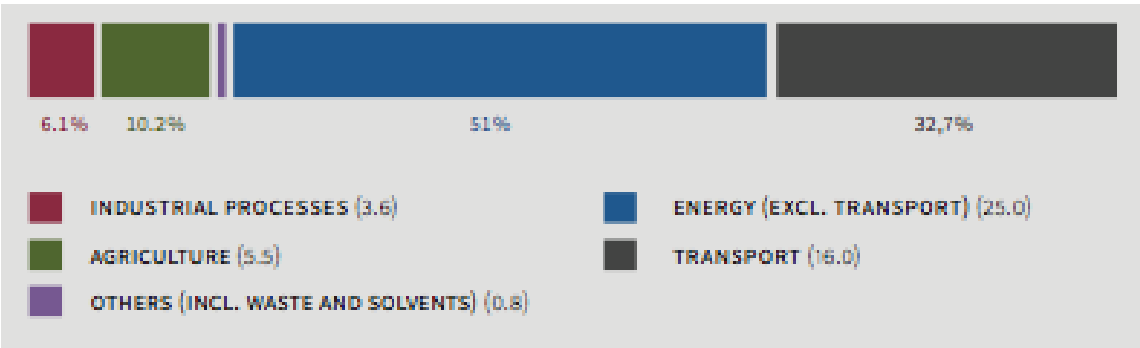
- Target (KP) 15.8% and Target (National) 20% compared to 1990 levels
- INDC: commitment to a 50% reduction in GHG emissions compared to 1990 levels by 2030, with at least 30% of this reduction within Switzerland itself.
- CO2 levy on fossil fuels (e.g. heating oil, natural gas) since 2008. In 2014, the levy on thermal fuels was CHF60 /tCO2 (16 ct. per litre of heating oil).
- Revenue from the levy is redistributed to the public and invested in a buildings programme to promote CO2 reduction, and a technology fund.
- The Swiss ETS 2008–2012 covered firms that set caps to receive exemption for the CO2 levy (ceramics, paper, plastics, aluminium, chemistry, etc)




- 2013-2020: larger emitters (>20 MW thermal output) are covered, with possibility to voluntary participation (>10 MW) and opt-out (<25 ktCO2)
- Swiss ETS: 55 entities covered with 85% of total emissions
- Certain international offset credits are accepted within the Swiss ETS.

# Mexico

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- Long-term target (National): reduce by 50% compared to 2000 levels by 2050
- 2008: Law on Renewable Energy Use and Financing the Energy Transition with criteria to weigh environmental impacts for dispatching power plants by the CFE.
- The law also established a high-level inter-ministerial Commission on Climate Change that is **authorized to create a domestic carbon market**, and authorizes the Environmental Ministry to establish an emissions market that can include international transactions.
- Additionally, the Mexican Green Fund is set up (resources for GHG mitigation and climate change adaptation) and goals for deforestation reduction are set.
- 2013**: Carbon tax on fossil fuel production and imports**, initially MXN$39.80 (US$3.50) per tCO2e of fossil fuels (with the option to use CERs for compliance), e.g. natural gas 11.94 ¢/m3, diesel 19.17 ¢/l and coal $178.33/ton (in MXN)
- 2013: **Establishment of the MexiCO2** (voluntary carbon exchange)
- 2015: **Annual reporting** for around 3,000 companies with sources > 25ktCO2
- Mexico’s General Climate Change Law enables, but does not mandate, the **implementation of an ETS**. It makes emphasis on cost-benefit analysis and economic efficiency of mitigation measures may favor such systems.
- INDC: **mandatory commitment to cut GHG emissions to 25% below BAU** baseline using 2013 emissions by 2030, and **explicitly mentions the development of international carbon markets as a mechanism** to achieve deeper reductions.

# Brazil

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- 2009: National Climate Change Policy with a voluntary commitment to reduce GHG emissions by 36.1%–38.9% compared to BAU scenario for 2020.
- Brazilian government is considering the implementation of market instruments to meet Brazil's voluntary GHG reduction commitment and reduce overall mitigation costs, including an **emissions trading system (ETS) and a carbon tax.**
- 2014-2015: **21 companies organize a voluntary ETS simulation**, offering a platform to gain experience and acceptance for a compulsory national ETS
- The states of Rio de Janeiro, São Paulo announced plans to implement mandatory emissions trading schemes to cover major polluting industries.
- Bolsa Verde do Rio De Janeiro, BVRio, (launched in December 2011), which serves as an electronic exchange and registry for emission credits, quotas and voluntary market products.

# Thank you for attention

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Project Developer Forum (PD Forum) is a collective voice of companies and practitioners that are developing and financing greenhouse gas emission reduction projects in all regions of our globe.

Our knowledge and experience with global carbon market, climate finance instruments, country specific policies and NAMAs, make PD Forum a unique platform and stakeholder for discussions around the reform and creation of policies and mechanisms to mitigate climate change

See our members at: www.pd-forum.net


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