



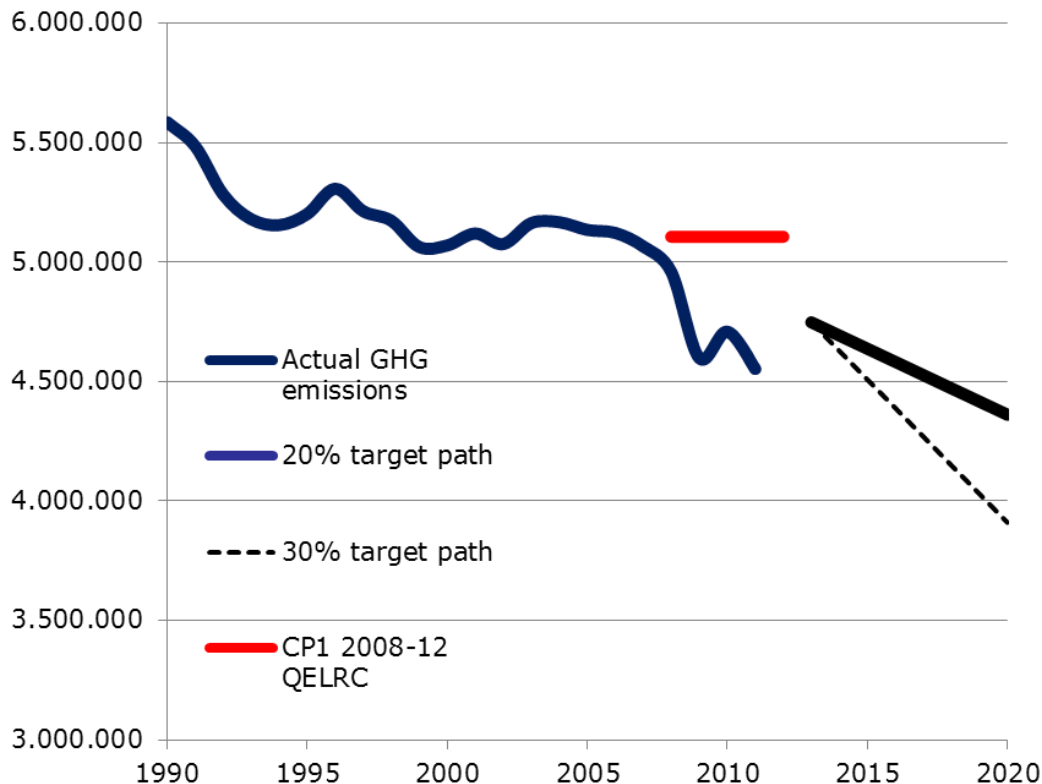
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Low-emission Development Strategies for the EU

Latin America and the Caribbean-EU
round table on Climate Change
16 Oct. 2013

EU by 2020: Growing the economy while reducing GHG emissions



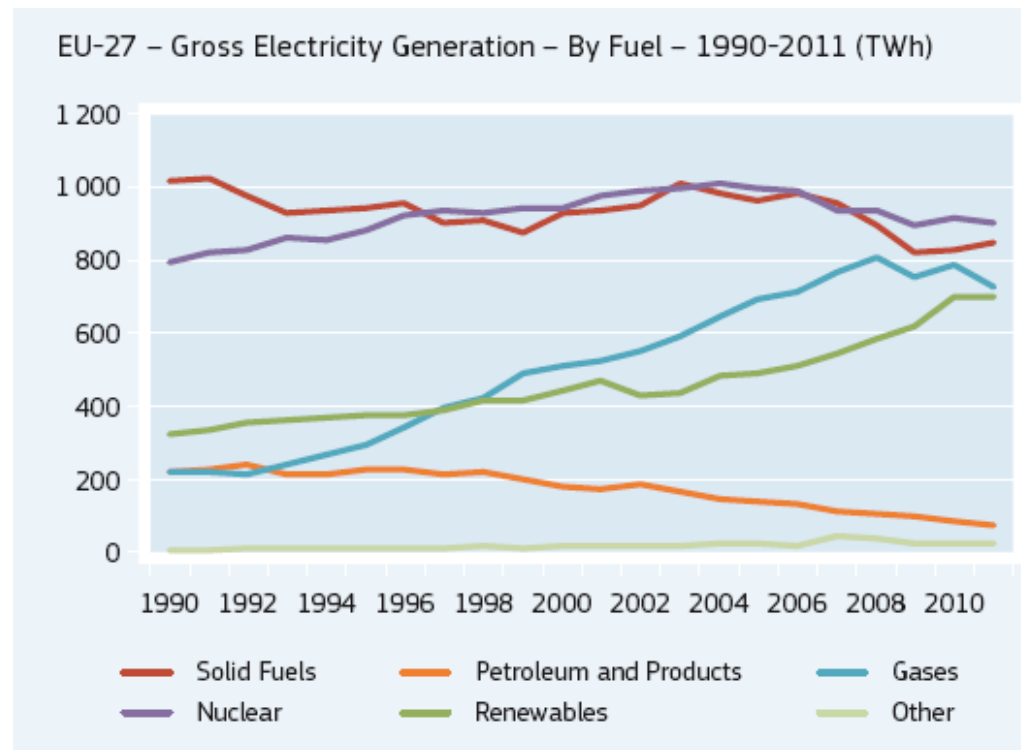
1990-2011

- **EU emissions -18.4% (1024 MtCO₂e)**
- **EU GDP grow >40%**
- EU on track towards 20% target
- Dynamic eco-industries: 2.4M jobs in 2000, 3M in 2008, expect 3.4M in 2012

Source: Annual EU inventory report EEA, 2013

EU 2020 climate and energy legislative framework

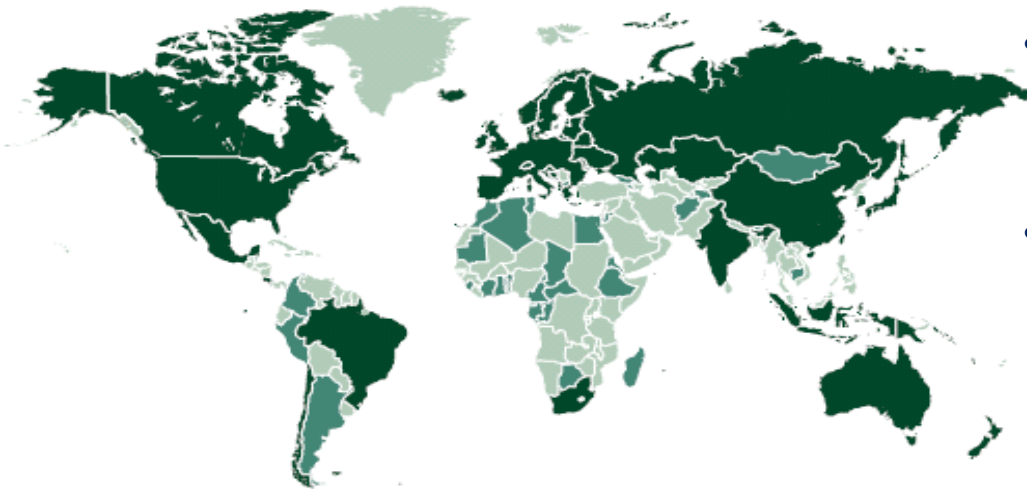
- **ETS: level playing field, long-term trajectory, support innovation**
- Non ETS (transport, buildings, appliances...): needs more measures
- **13% Renewable in EU final energy consumption in 2011, on track to 20% by 2020, tech costs down**



Source: EU energy in figures, Eurostat, 2013

Global picture by 2020: more pledges, more business opportunities

● Pledges formulated in terms of GHG emissions ● Submitted actions ● No pledge



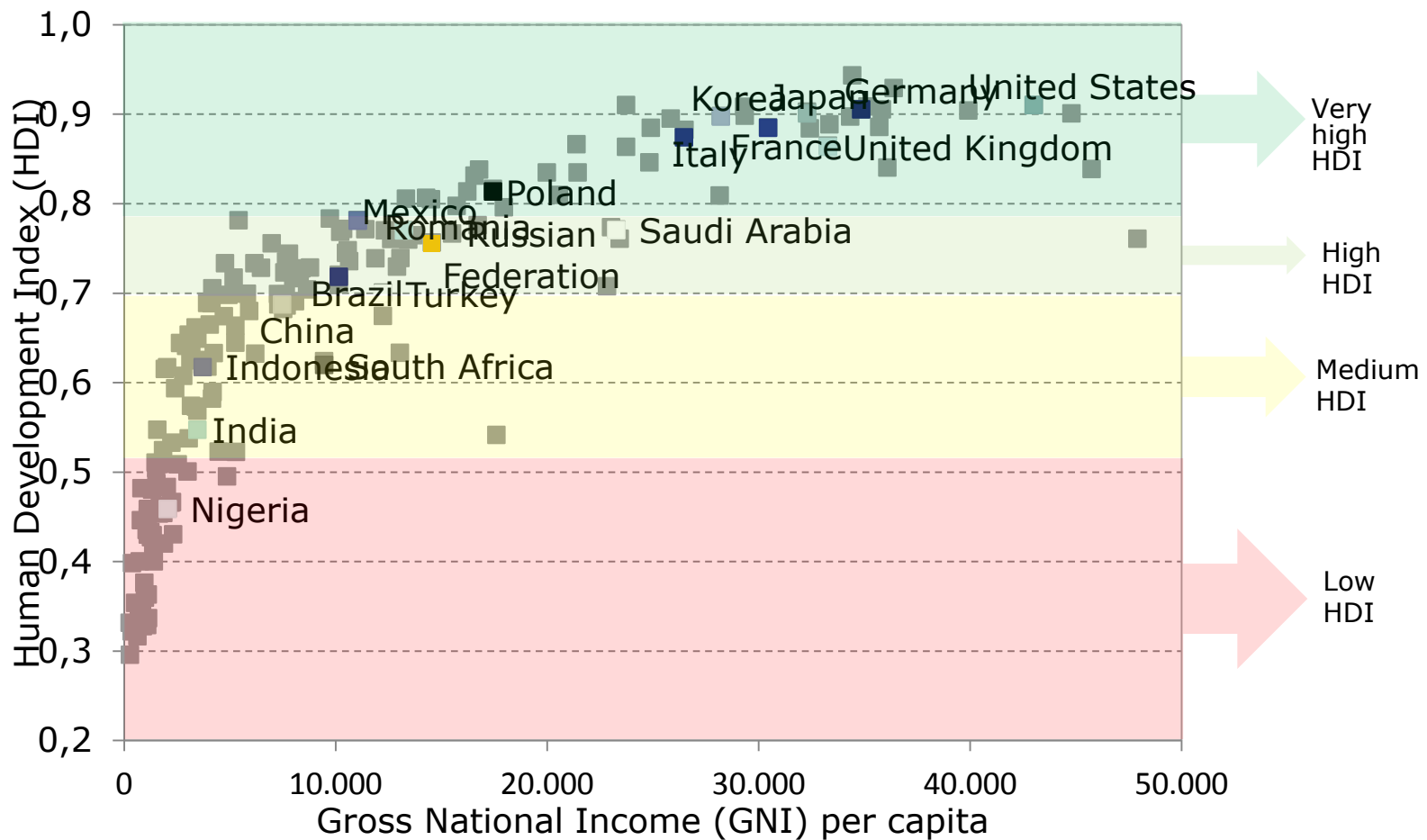
Source: UNEP, 2012

- Pledges by countries eq. to >80% of global emissions
- Policies with mitigation benefits in all countries with pledges and more (>85% of global emissions)
- Investments in clean energy 2012:
 - China - \$67.7bn
 - US - \$44.2bn
 - Japan - \$16.3bn
 - Brazil - \$5.3bn



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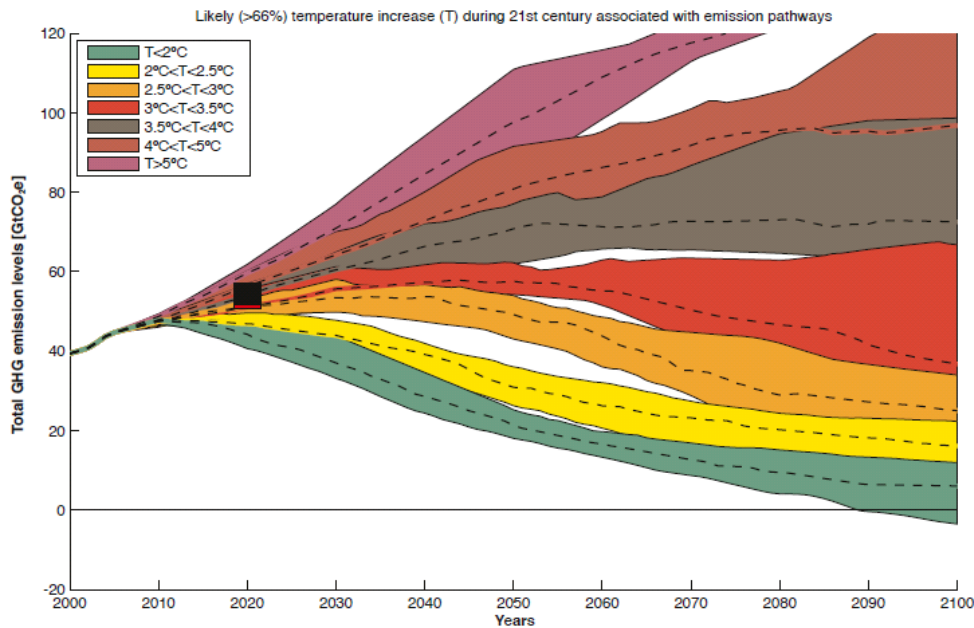
Global sustainable development challenge





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Global mitigation challenge



Source: UNEP (2012)

**8-13 GtCO₂e mitigation gap by 2020
to stay below 2°C
-50% by 2050 below 1990 levels**

Energy
security,
jobs,
growth
potential

Renewables
expansion:
energy
markets,
grid...

Carbon
price,
investment
incentives

Urban
planning,
modal
shift, new
techno

→ Low emission development strategy: to identify pathways, direct innovation, investments, realise opportunities

Roadmap 2050: a cost-efficient pathway to a low-emission economy in the EU

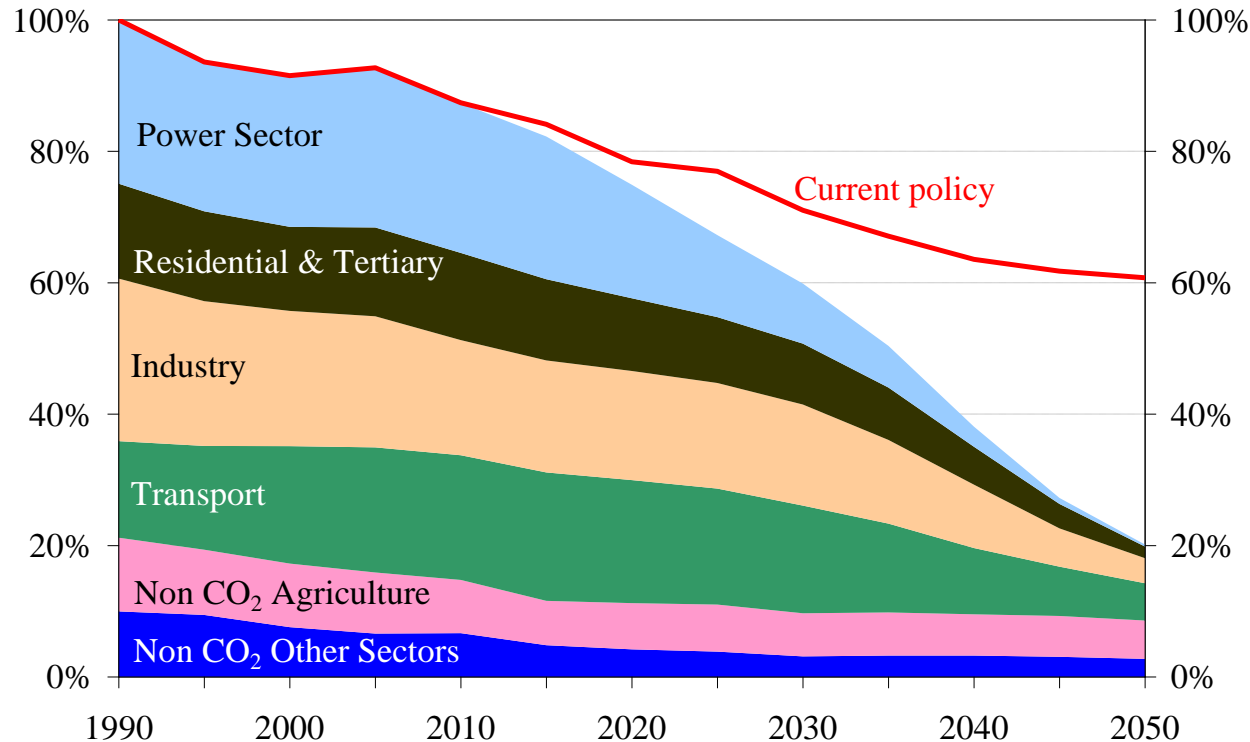
80% domestic reduction in 2050 feasible

with currently available technologies

If all economic sectors contribute

Efficient pathway:

- 25% in 2020
- 40% in 2030
- 60% in 2040





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EU 2050 climate and energy Roadmaps

More renewable energy, energy efficiency, smarter energy infrastructure: "no regrets"



40% GHG reduction by 2030 in EU to reach a GHG reduction of 80-95% by 2050, in line with staying below 2°C



Significant investments needed, with or without decarbonisation



In the policy scenarios in the Energy Roadmap 2050: renewable share of around 30% in 2030

Directing investments in energy sector key to unlock low-emission development

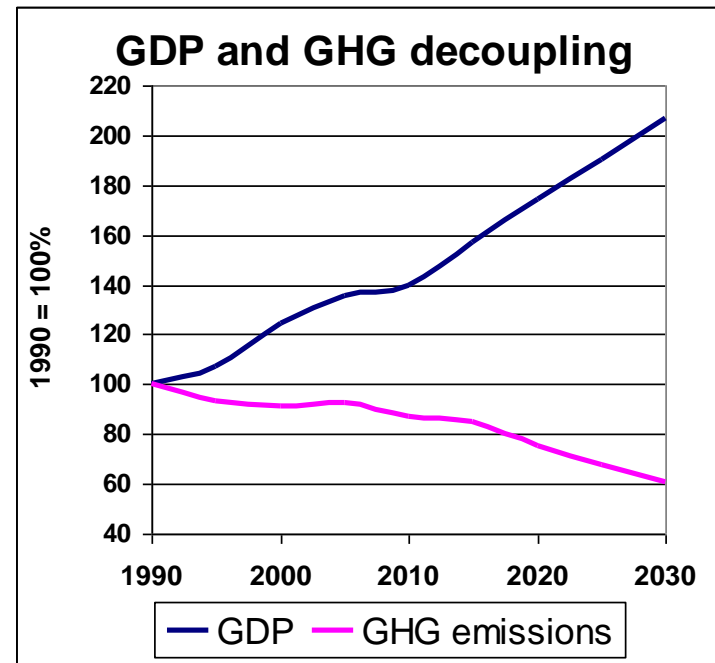
Energy system costs in % GDP	2005	2011-2050 average
Reference scenario	10,5%	14,4%
Decarbonisation scenarios	10,5%	14,1 – 14,6%

Source: Energy Roadmap 2050

- Important:
 - Need more energy investments even without climate action: increasing fuel prices, replacing ageing infrastructure
 - Structure of energy costs changes: from 44% capital costs in reference, to 50-52% in decarbonisation scenarios as more efficient use of fuels
 - **Benefits for innovation, health, jobs in decarbonisation scenarios: e.g. up to 1.5 million net new jobs by 2020**

Co-benefits – Growth potential at stake

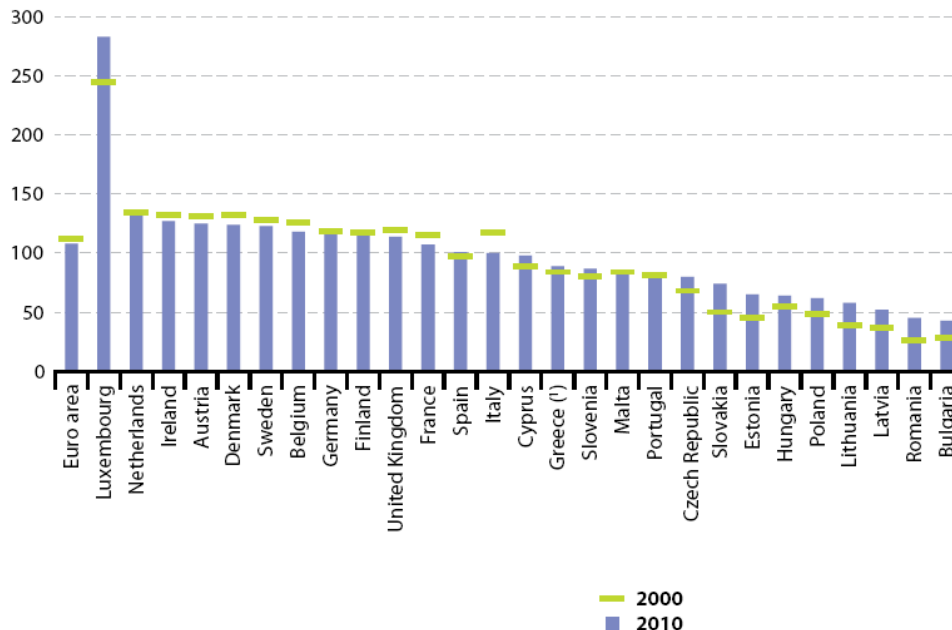
- On EU decarbonisation pathway:
 - Additional domestic investment: €270bn/yr in 2010-2050, 1.5% EU-GDP
 - Investments in: buildings €75bn, transport €150bn, power sector €30bn
- **Investment in the EU economy and EU jobs, not cost**
- Delaying action increases overall investment needs
- Investments with fuel savings: on average €175 to 320bn/yr in 2010-2050
- Air quality and health benefits: € 27bn in 2030, € 88bn in 2050





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Acknowledging differing capacities Enabling all contributions



EU 2020 framework set up for cost-effectiveness ↔ Fair contributions

- GDP/capita → different MS targets in sectors outside EU ETS; renewables targets; redistribution of auctioning rights
- Cost-effectiveness → flexibility and market based-instruments

→ New analysis in 2030 framework

Source: GDP/cap in 2011 in the EU - Eurostat, 2013

Consult stakeholders, debate EU 2030 framework in 2013

- In time for:



Increased certainty for Member States and reduced regulatory risks for investors



Growth and jobs through demand for efficient and low-carbon technologies



Prepare for an ambitious international climate change agreement

International collaboration – Mutual learning on Low-emission development

Examples	In UNFCCC pledge by 2020	Recent policy framework developments
Chile	20% below BAU emissions in 2020	2012 National strategies for: Renewable energy; forestry. NAMA seeking support.
Argentina	Policy list	National Climate Change Strategy 2011. UNDP LECB programme
Brazil	36.1 % to 38.9 % below BAU in 2020	2008 National Climate Plan reviewed, 4 Sector Plans Spring 2013.
Colombia	77% total electric capacity installed from RES; 20 % fuel consumption from biofuels by 2020	2011 Low Carbon Development Strategy. By end 2013 Sector Action Plans. Monitoring system operational by end 2014.
Costa Rica	Carbon neutrality by 2021	On-going national debates
Dominican Republic	Emission reduced by 25% between 2010 and 2030	Mitigation targets set in the Climate National Economic Development Plan
Mexico	30% below BAU emissions in 2020	10-20-40 Climate Strategy to 2050 in 2013. On-going work at state levels.
Peru	Renewable energy >33% of total energy used; zero net deforestation by 2020	Work on a 'Climate Change Plan' to implement the National Strategy, for adoption in 2013. Work on reducing waste emissions.
Trinidad and Tobago		National Climate Change Policy (2011) administrative and legislative framework for the pursuance of a low-carbon development path.
Uruguay	NAMAs seeking support in Registry	Inter alia aiming for 55% energy supply from RES in 2015.

EU engaged in domestic processes For proposals by end 2013



Thank you!

More information:

http://ec.europa.eu/clima/policies/2030/index_en.htm

http://ec.europa.eu/clima/policies/roadmap/index_en.htm