



Center for
Clean Air Policy

Sectoral Approaches as part of a Post-2012 Climate Change Framework

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EC Side Event on Sectoral Approaches

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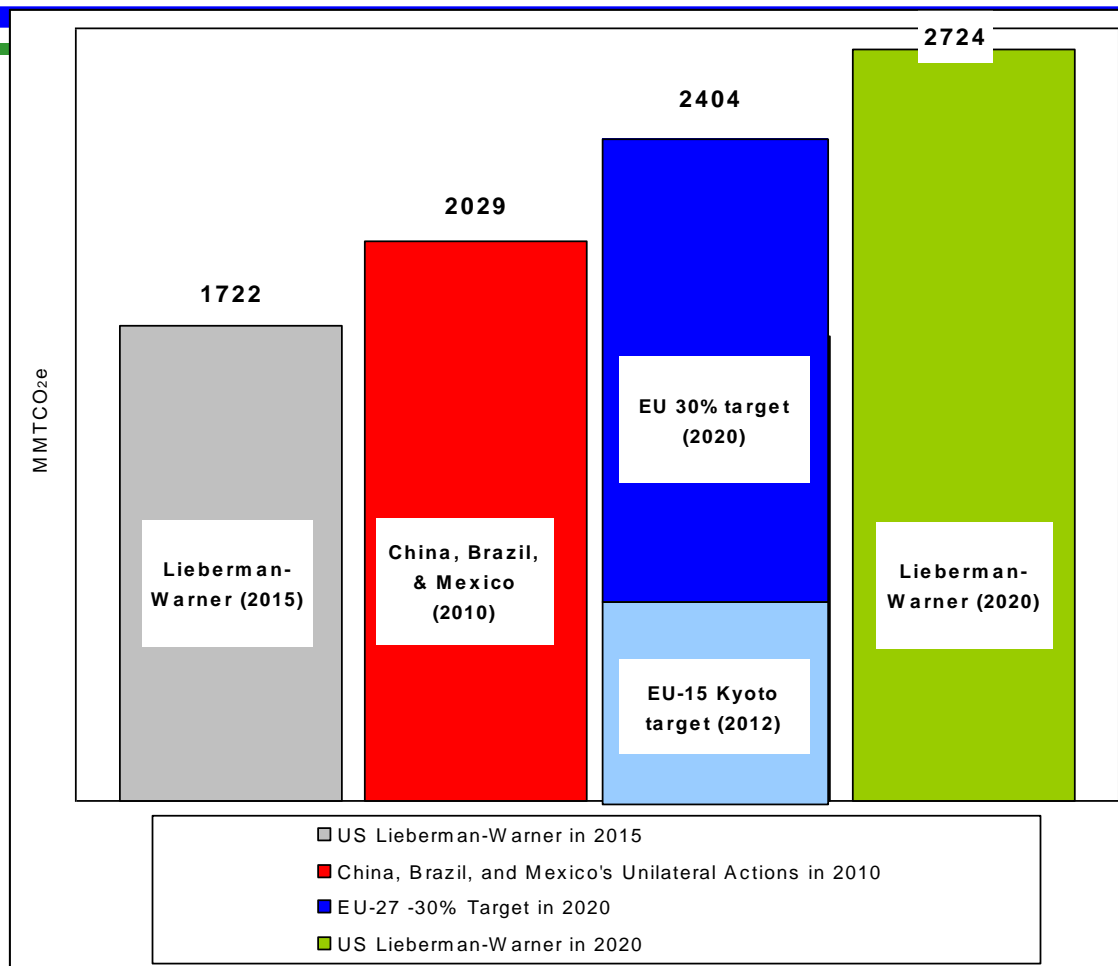
Study Partners

- Center for Clean Air Policy – Europe (CCAP)
- Centre for European Policy Studies (CEPS)
- Climate Change Capital (CCC)
- Institut du développement durable et des relations internationales (IDDRI)
- Zentrum für Europäische Wirtschaftsforschung GmbH (ZEW)

Overview

- Why focus on developing countries?
- Why Focus on energy intensive sectors?
- What are the elements of a sectoral approach?
- Lessons learned to date

Developing countries are already doing more than many believe

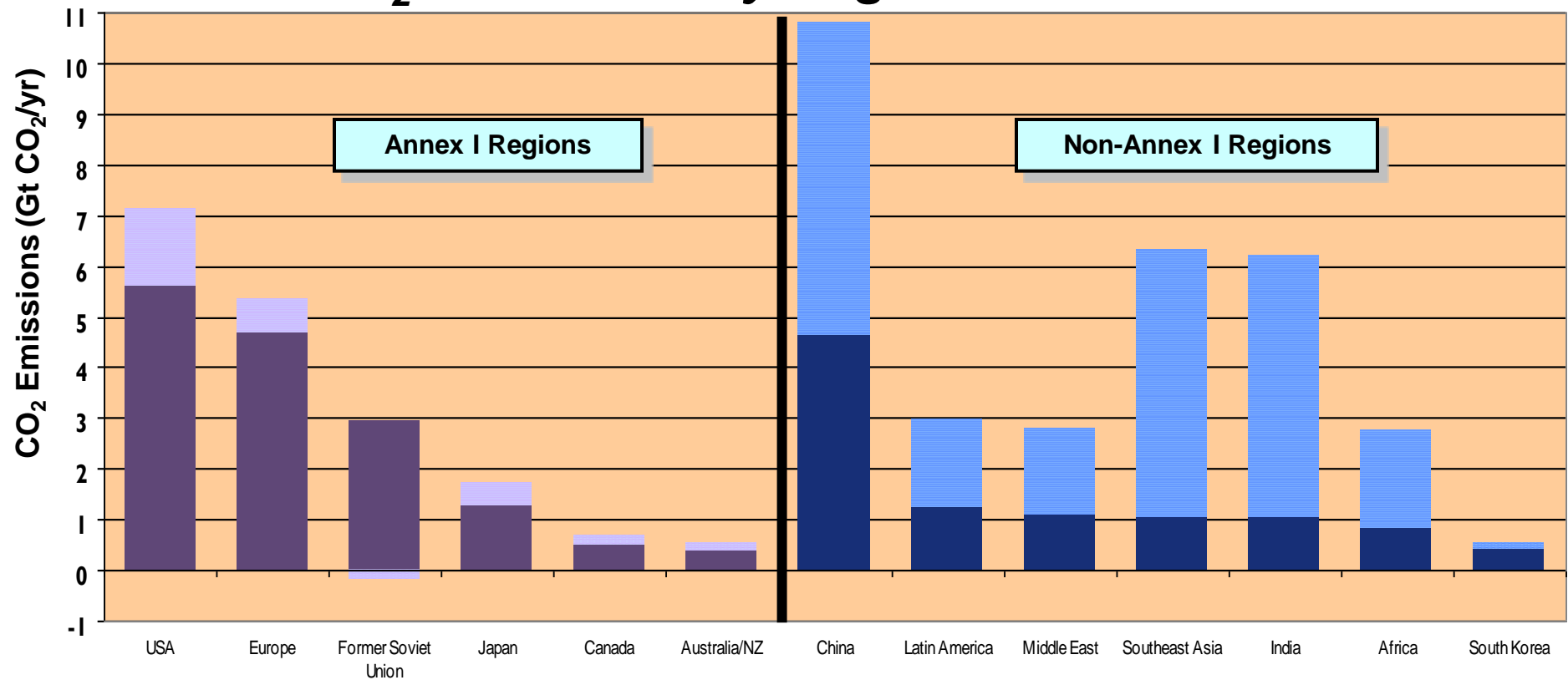


Reductions from BAU

Source: CCAP, updated

... But outlook for Developing Country emissions growth remains substantial

CO₂ Emissions by Region - 2000 & 2050



¹ Includes Fossil and other industrial CO₂.

Source: U.S. Climate Change Science Program. 2007. *Scenarios of Greenhouse Gas Emissions and Atmospheric Concentrations* (MINICAM Results).

International Policy Context

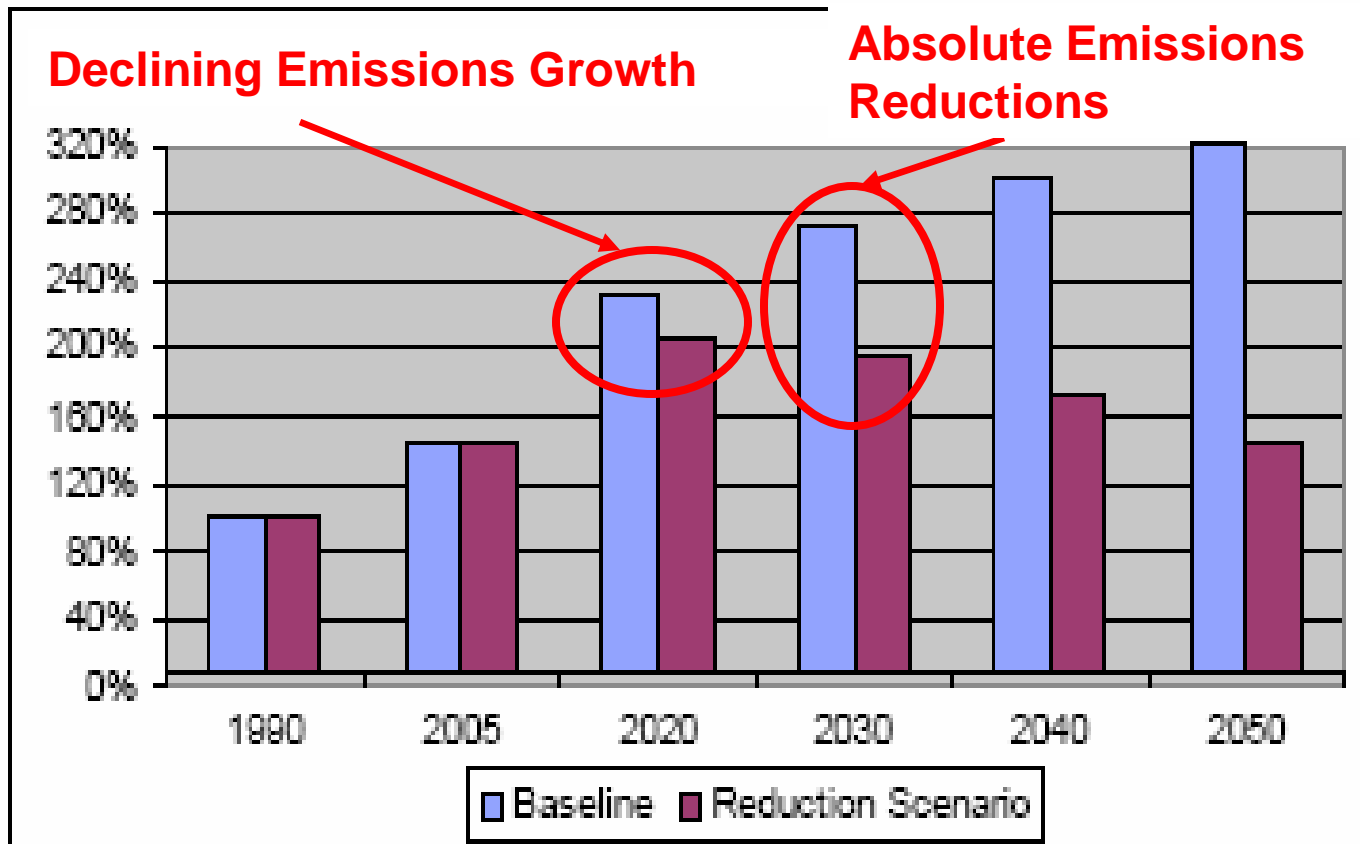
- Bali Action Plan calls for verifiable “Nationally appropriate mitigation actions by developing country Parties in the context of sustainable development”,
- Supported and enabled by verifiable technology, financing, and capacity-building support from A1 countries
- Roadmap envisions a menu of options that developing countries can elect to pursue including tech transfer, CDM, sectoral approaches, and reductions from deforestation (REDD)
- Also envisions a range of financing from A1 including expanded carbon market mechanisms (based on tougher A1 targets) and new financing beyond ODA

Various options for reducing developing country emissions have been debated

- Since 2002, CCAP's Dialogue w/ senior climate negotiators has debated various forms of developing country actions
 - » Absolute economy-wide targets w/ an allowance for growth ("growth caps")
 - » Economy-wide intensity targets
 - » Sustainable Development Policies and Measures
- None of these approaches has gained significant support from both developing and developed countries for a variety of reasons

Scenario for Developing Country Emissions

- EU analysis of 50% chance of staying below 2 C
 - » Developed countries 32% reduction below 1990 by 2030; 60% below 1990 in 2050



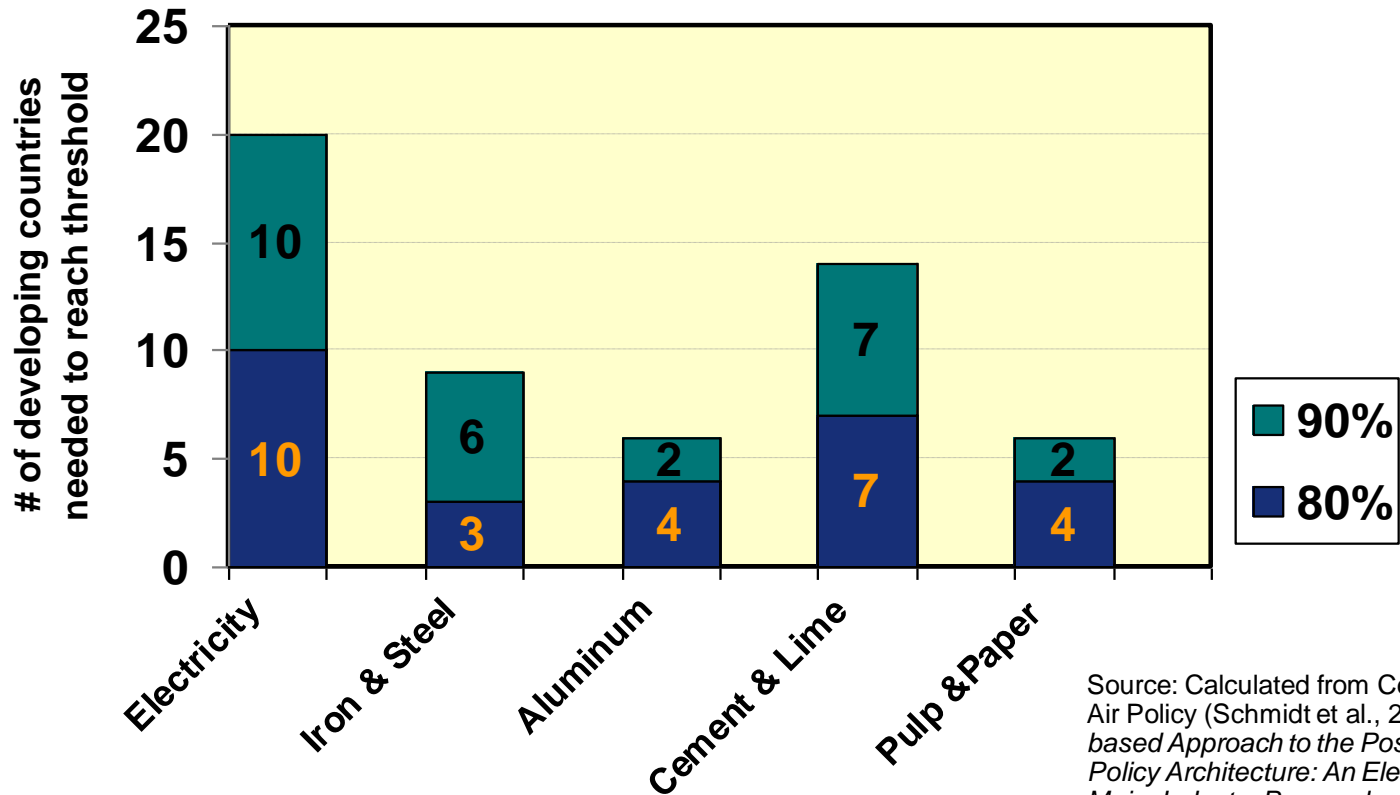
Source: European Commission, 2007

Focus on Energy Intensive Sectors Is Opportunistic

- Internationally, energy-intensive industrial sectors like cement, steel, and aluminum:
 - » Account for about 8% of global direct emissions;
 - » Are working collectively to gather data and understand potential for emission reductions
 - » Are experiencing rapid growth in developing countries;
 - » Are characterized by large, multi-national companies; and
 - » Are disproportionately important politically

How Many Developing Countries Need to Play ?

Top 10 developing countries in each sector emit 80-90% of non-Annex I CO₂ emissions



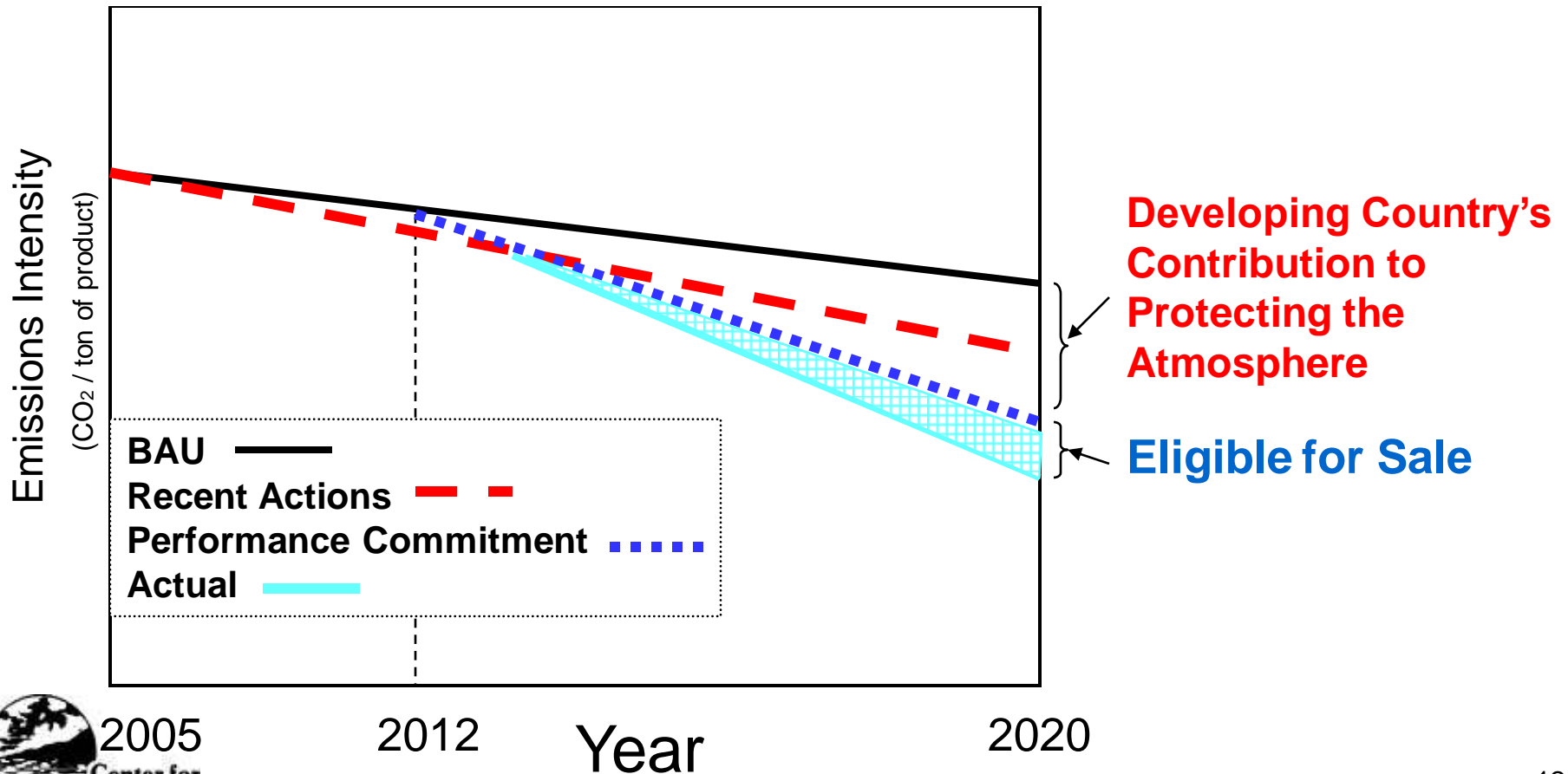
Source: Calculated from Center for Clean Air Policy (Schmidt et al., 2006), *Sector-based Approach to the Post-2012 Climate Policy Architecture: An Electricity and Major Industry Proposal*

Three sectoral approaches, and a growing convergence

1. **Transnational:** *A single international standard of performance is applied with differentiation in terms of deadlines and levels of assistance provided*
 2. **Carbon finance:** baselines are developed that all plants within a sector must meet on an aggregate basis, rather than offering project by project crediting as in the current CDM
 3. **Bottom-up:** targets are set based on national conditions – and a country can earn CERs if it beats its sectoral target.
- A key difference among these three approaches is up-front financial assistance is provided for technology in the bottom-up approach.

Sectoral “Performance Goals”

- Emissions reductions beyond the performance commitment are eligible for sale



Financing Options

- Technology & finance assistance could be provided as the incentive for participating developing countries to establish more aggressive “performance goals”
- Financing assistance could be used:
 - » To accelerate deployment of first-of-a-kind technologies by writing down the cost,
 - » to overcome local financing barriers, or
 - » to reduce the cost of local policies.

Lessons Learned to date

Broad Lessons

Sectoral approaches should:

- » have clearly defined objectives
- » build on ongoing unilateral mitigation actions
- » Produce material participation and material emission reductions across sectors and countries
- » Support national sustainable development strategies

Broad Lessons

Sectoral approaches should:

- » Be flexible and take national and local circumstances into account
- » Produce technological innovation and transfer
- » Offer sufficient incentives to both governments and industry in both developing and developed countries

Target Setting

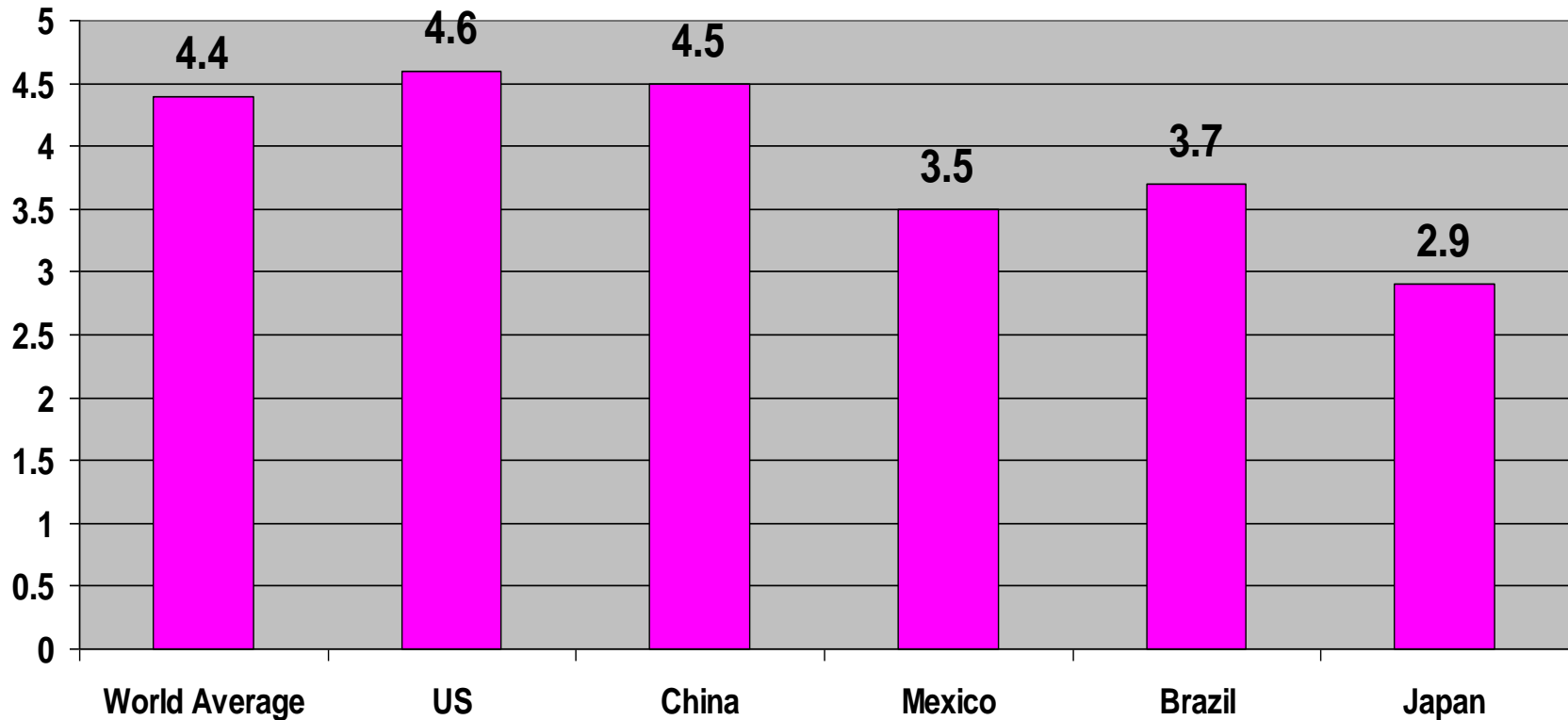
- Lack of plant-specific data, cost data and confidentiality problems means we cannot create “objective” intensity targets – targets can be based on status of technology penetration in a given country
- EU followed similar process in pilot phase of ETS when data on industry emissions and costs was lacking
- Targets should not be limited rigidly to carbon per ton of production sector-wide goals
- Technology-based targets can be more effective in some settings and more easily implemented (e.g. Chinese cement)
- A combination of intensity and technology targets in a sector may offer greater potential for large emission reductions – (e.g. cogeneration in oil refining)

Target Setting (II)

- Key question will be what policies and measures will country implement to achieve the targets
- Process of setting targets in developing countries will be like that in Annex I – a policy and political negotiation process
- International process will also be a negotiation between developing country and A1 donor countries where level of effort is tied to level and nature of up-front financial support

Global Comparison

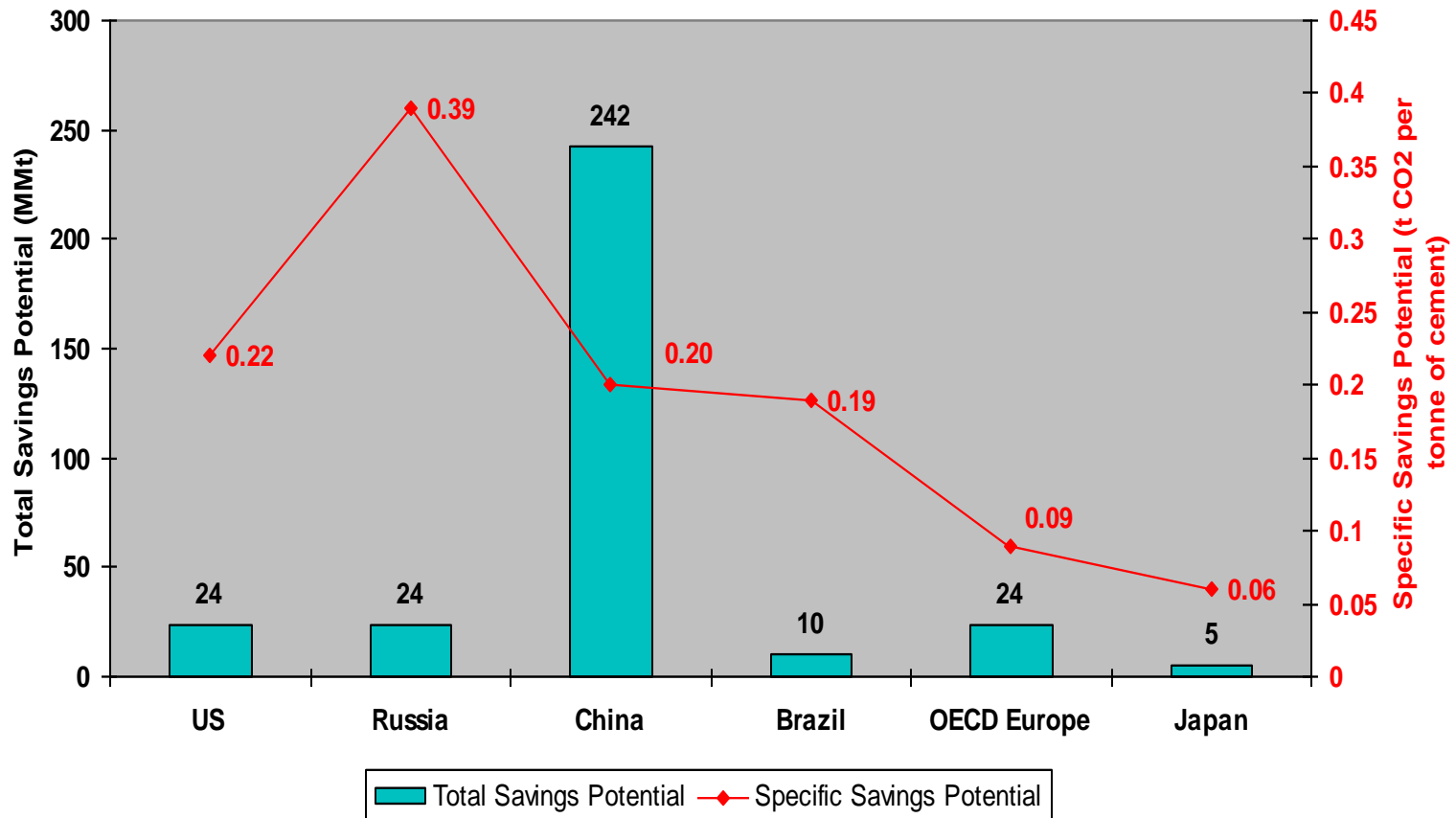
■ 2004 Energy Consumption per Tonne of Clinker (GJ)



Source: IEA. 2008. Worldwide Trends in Energy Use and Efficiency

Global Comparison

2005 CO2 Reduction Potentials in Cement



Source: IEA. 2008

Design of Incentives

- Bottom-up analysis of barriers to cost effective options can uncover need for tailored incentives (e.g. Mx barriers to cogeneration)
- Sectoral programs may require third party entities (IFIs) that can tailor incentives and financing to maximize effectiveness
- There is no substitute for in-depth bottom-up analysis and consistent data – capacity building for developing countries needs to begin immediately

Advantages of a Sectoral Approach

- A bridge strategy for the next commitment period (between 2012 – 2020) to encourage further developing country actions.
- Creates strong technology finance incentives in key internationally competitive sectors (e.g. steel, cement, electricity) to:
 - » deploy advanced low carbon technologies (such as CCS that are not market ready and cost effective) in developing countries
 - » Encourage developing countries to set more aggressive emissions reduction targets than in their current laws and regulations.
- Moves toward leveling the playing field for carbon in internationally competitive sectors

Thank you!

For more information:

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