

32ND ANNUAL CONFERENCE OF THE INTERNATIONAL ASSOCIATION FOR IMPACT ASSESSMENT

Global climate change post-2012 regime and energy policy



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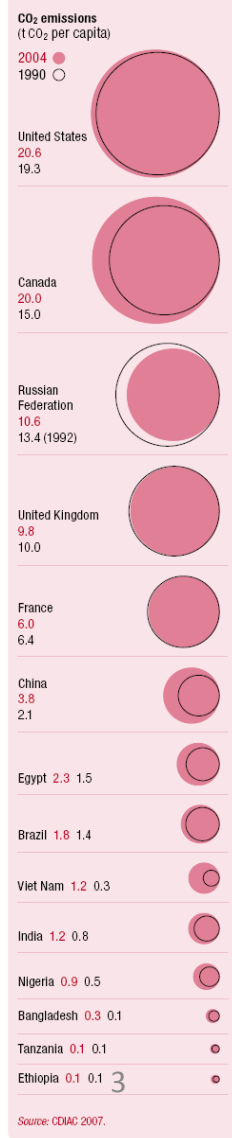
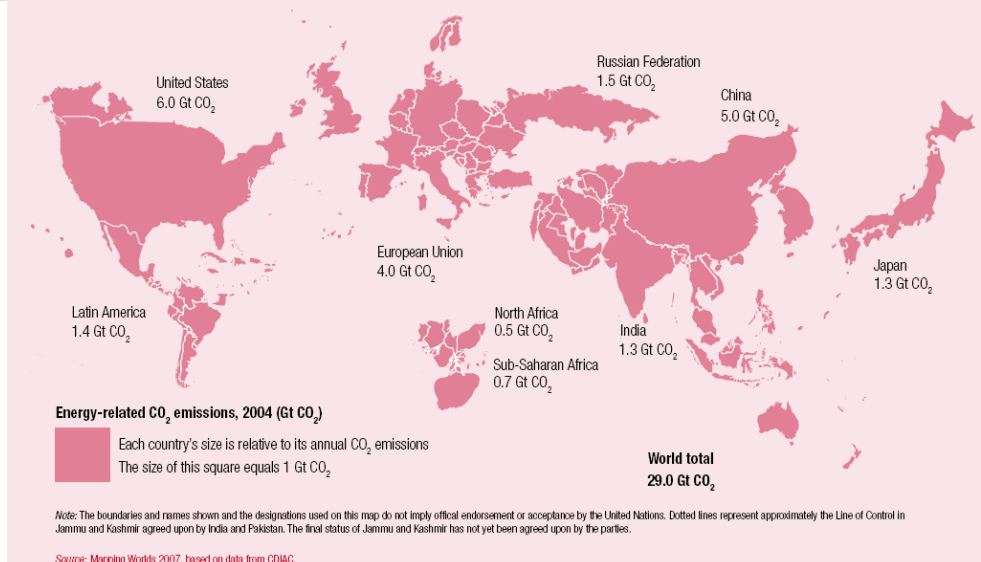
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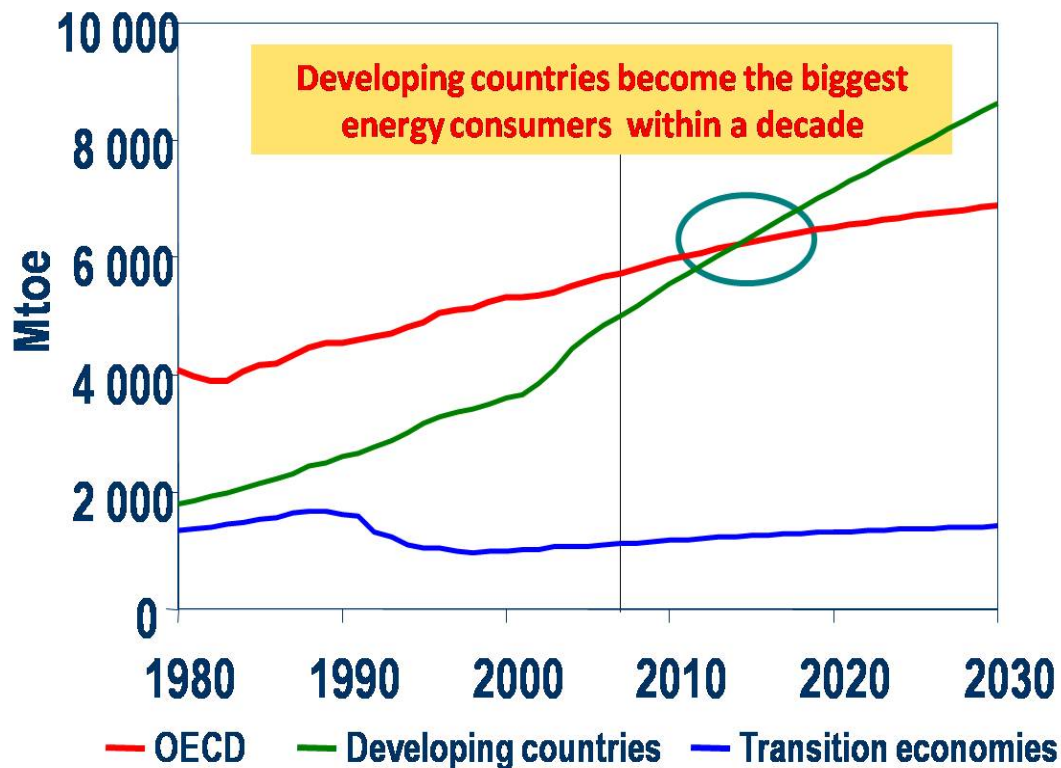
TOWARDS A POST-2012 CLIMATE CHANGE GLOBAL REGIME

KEY QUESTIONS ON POST-KYOTO NEGOTIATIONS

- SCOPE
- Deforestation;
- Adaptation;
- Technology Transfer;
- Provision of Financial Resources;
- Compliance;
- Mitigation
- ...
- DEADLINE... 2011

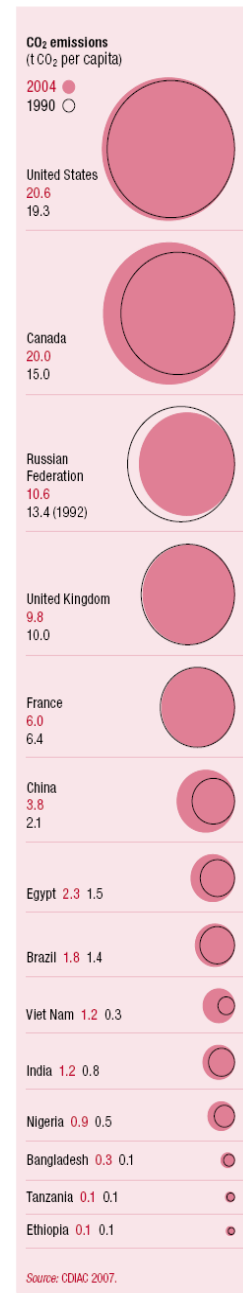
- KEY QUESTIONS:**
1. **RESPONSABILITY:** 2°C. 450ppmv CO2eq?
 2. **FAIRNESS AND COMPREHENSIVENESS:** *How should we share the mitigation burden between developed and developing countries? How shall we involve developing countries in mitigation actions without curbing its sustainable development aspirations?*
 3. **COST-EFFECTIVENESS:** *What are the vital policies and mechanisms to foster a truly global carbon economy in which mitigation is achieved cost-effectively?*





Primary Energy Demand by Region
International Energy Agency, World Energy Outlook 2006

Not easy....



World oil demand grows by just over half between 2004 and 2030, with 70% of the increase coming from developing countries

Challenge 1: Charting a course away dangerous climate change - a window of opportunity of 120 months

450 ppmv:

Global GHG emissions must peak before 2020 and then fall by up to 50 % by 2050 compared to 1990 levels (2 tonCO₂eq per capita).

Developed countries:

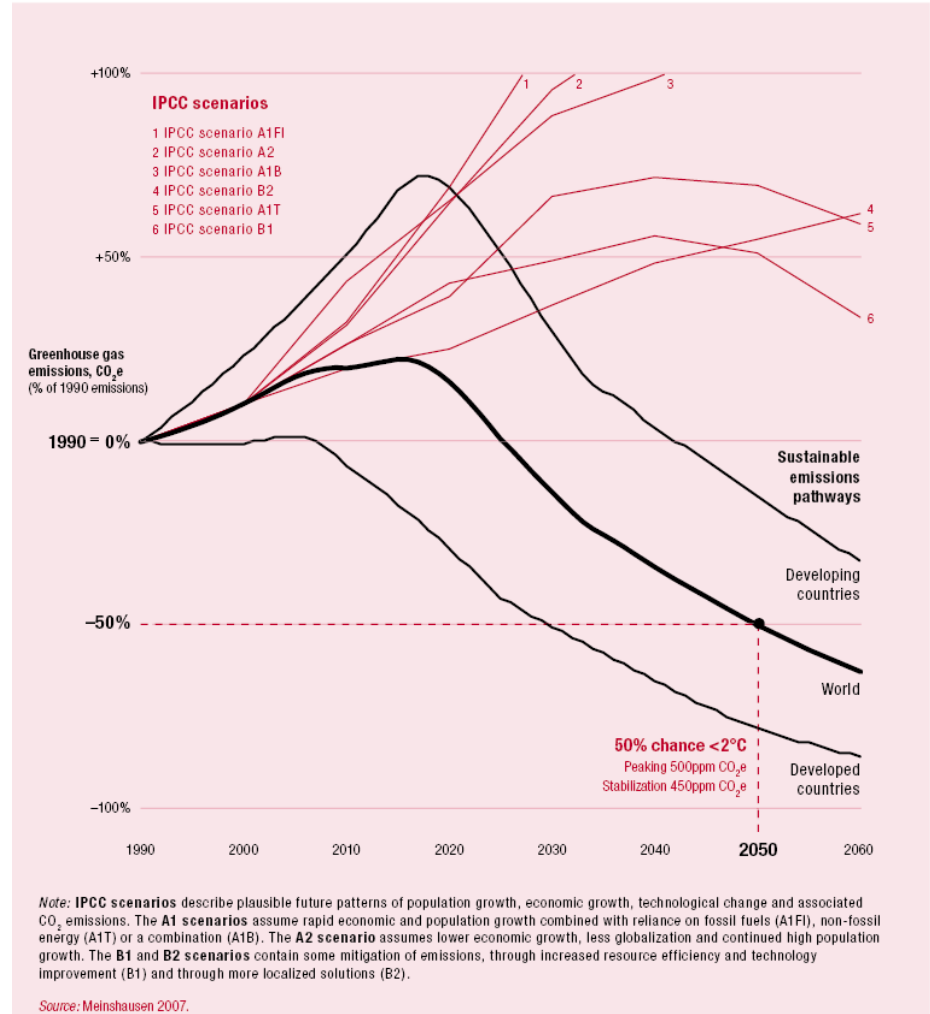
- ❑ - 75 -90% 2050/1990
- ❑ - 25 - 40% 2020/1990.

Developing countries:

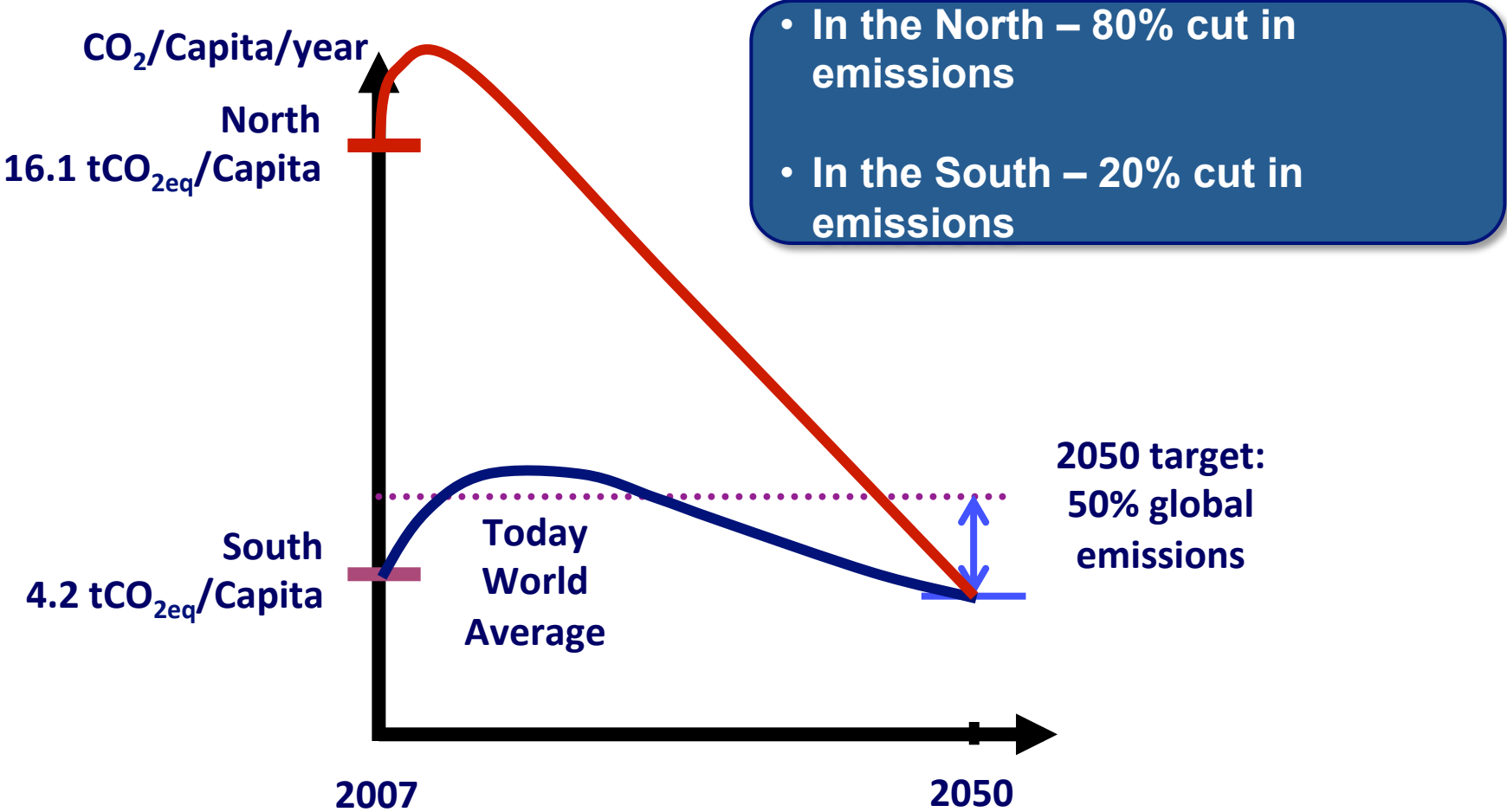
- ❑ - 15 – 30% below BAU by 2020;
- ❑ - 20% 2050/1990

The UNDP 2007/2008 HDR estimated that the 21st Century carbon budget is set at **1,456 Gt CO₂**

Figure 4 Halving emissions by 2050 could avoid dangerous climate change



We must reduce global emissions by 50% by 2050



Challenge 2: Meeting the financing gap

MITIGATION:

€175 billion annually by the year 2020 (€81 billion in developed countries and €71 billion in developing countries)



ADAPTATION:

\$86 billion by 2020



\$250 billion per year by 2020

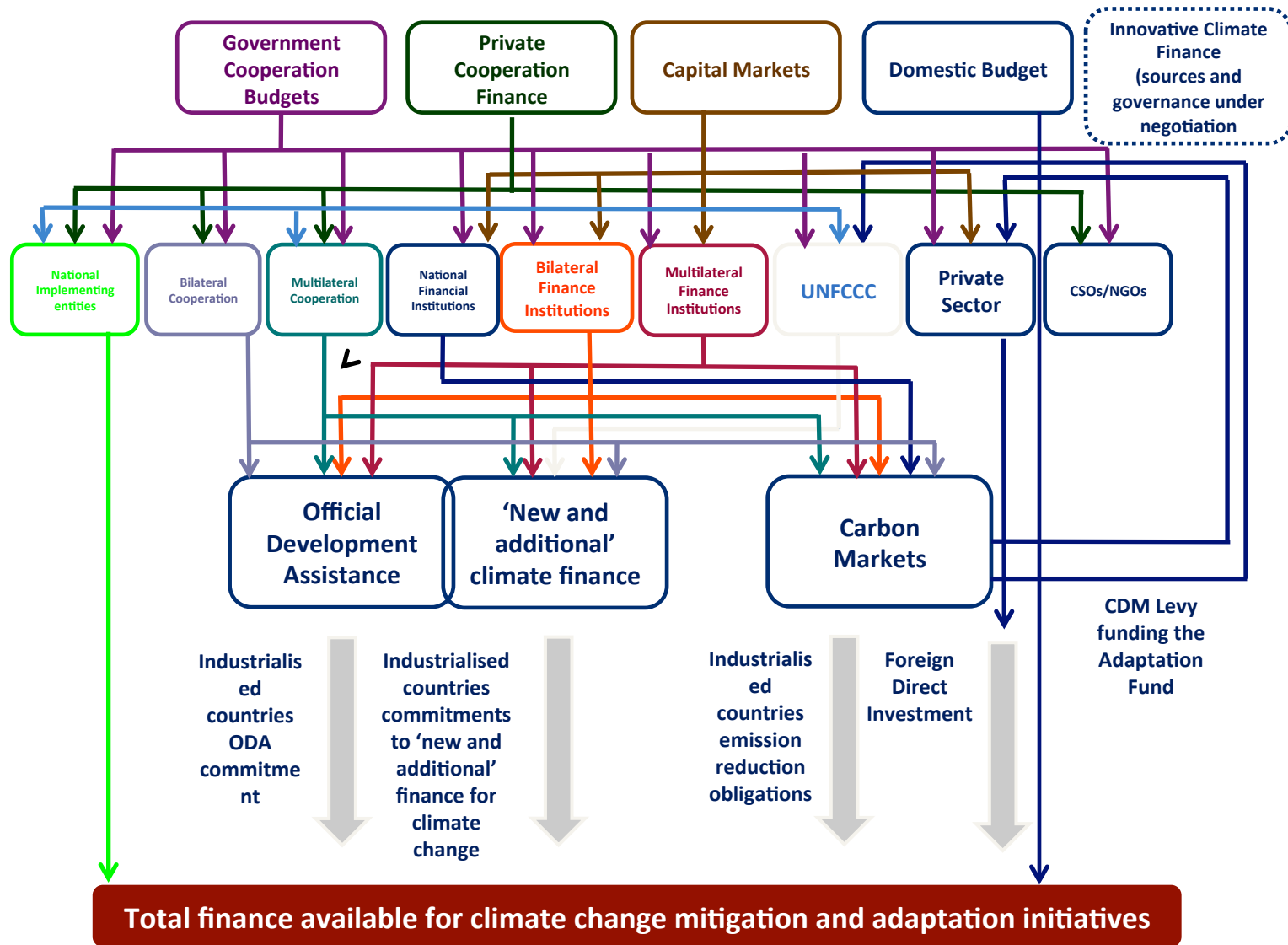
Total ODA in 2006 was US\$103.9 billion

• **€38 billion** could be compensated through **carbon market** credits.

- Need to **dramatically increase financial resources available**
- New climate financing architecture** (the current institutional arrangements on climate financing are complex, fragmented and were not designed to handle the disbursement of finance at scale).

Thus the current debate in the UNFCCC is centered on revenue generation and fund governance.

Climate Change Finance: Sources, Agents and Channels



Source: Adapted by Y. Glemarec from SEI 2009

High Level Advisory Group on Climate Finance: Potential Sources of Additional Climate Finance

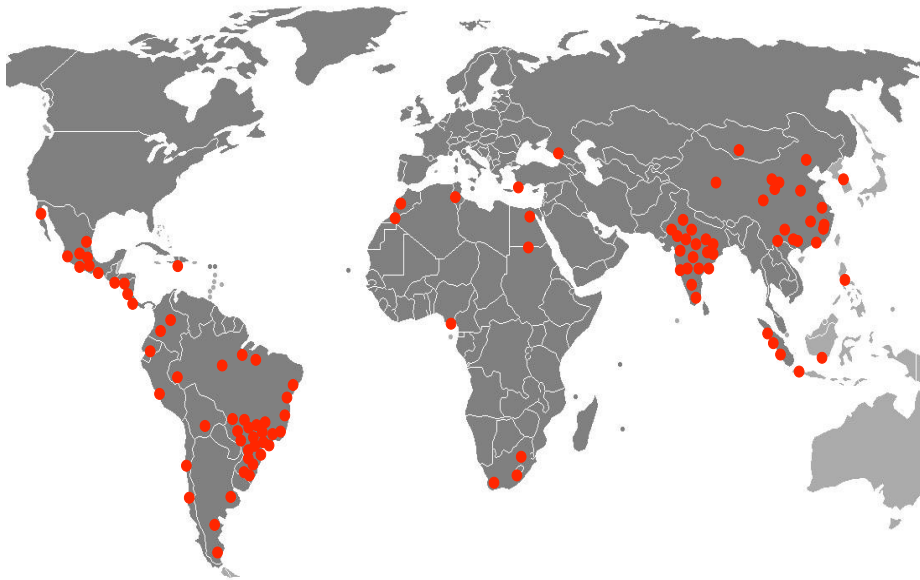
1. Public finance from climate sources
 - Phase out of regressive fossil fuel subsidies
 - Fossil fuel extraction royalties/licenses
 - AAU auction proceeds
 - Emission Trading Schemes (ETS) auction proceeds
 - Carbon taxes/Carbon export optimization taxes
 - Marine and aviation/bunker fuel levies
 - Offset levies
 - Wires charge on electricity production
2. Public finance from non-climate sources
 - 'Tobin' tax, taxing revenues from financial transactions
 - Leveraging of IMF Special Drawing Rights
 - Increased headroom of IFIs
3. Carbon markets

Challenge 3: Climate mitigation boosted by a true carbon market

- ❑ Climate change mitigation public policies must foster a global carbon market, putting an **appropriate price on carbon and enabling cheaper GHG reductions**. Therefore, the emerging global carbon market should build on current institutions and mechanisms, **linking up existing and developing regional carbon markets**.
- ❑ Fostering a truly global carbon market depends on our ability to engage developed countries in ambitious mitigation commitments and developing countries in mitigation actions, based on the principle of common but differentiated responsibilities and respective capabilities, to be addressed through **NAMAs, low carbon development strategies and sectoral mechanisms (sectoral crediting and sectoral trading)**.
- ❑ But it is also vital to **reform CDM to improve access to carbon finance and to maximize the carbon development dividend for a broader range of developing countries and project types**. CDM must be streamlined and expanded and at least needs to move from being a project-based to a more wholesale mechanism.

The need to strengthen the capacity of developing countries to access new sources of Finance

Location of CDM Projects

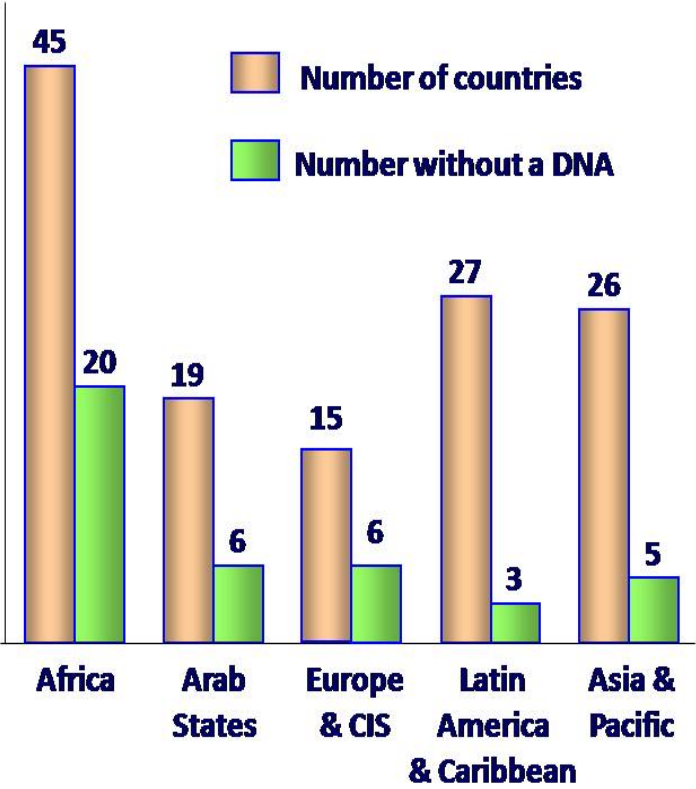


Ex: Geographical imbalance in the CDM

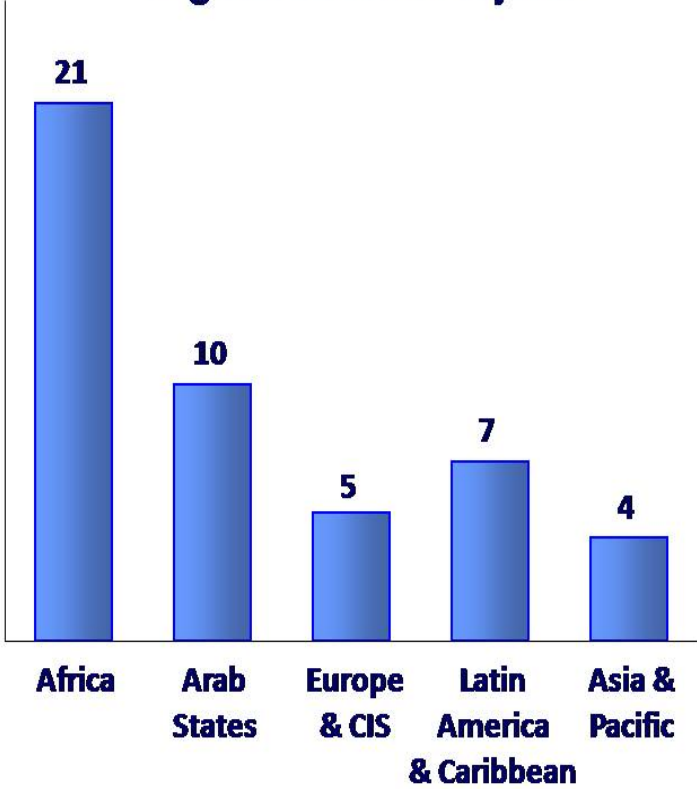
- 4 countries (China, India, Brazil and South Korea) account for 70% of CDM projects and 80% of CERs through to 2012
- Sub-Saharan Africa accounts for 2% of registered projects and 5% of CERs through to 2012
- However, the WB estimates a technical potential of 3,200 in Africa, that could provide 170 GW of additional power-generation capacity, more than twice the region's current installed capacity

Countries are incurring carbon costs but realizing few benefits

DNA Presence Across Regions



Countries With A DNA But No Registered CDM Projects



86 non-Annex 1 countries have yet to benefit from any registered CDM project activity

Challenge 4: Adaptation

❑ A successful deal must strengthen the world's ability to cope with inevitable climate impacts and **provide a strong adaptation package** to support the most vulnerable.

Challenge 5: Deforestation

❑ Deforestation and forest degradation, **responsible for more than 20%** of global GHG, must be fully addressed. Options to tackle deforestation should include effective **international and national forest policies, economic incentives and market mechanisms.**

❑ REDD. -50% by 2030?

Challenge 6: The need for a paradigm shift - Towards a territorial approach to climate change management (shift from national to sub national)

- ❑ **50% to 80%** of GHG emissions are influenced by **local behaviour and investment choices**;
- ❑ **Almost 100 % of adaptation** solutions are in the hands of regions.
- ❑ NAPA, national communications are not sufficient: an addition of CC projects does not make a **CC strategy**.

Challenge 7: Climate mitigation and low carbon development as an opportunity – GREEN NEW DEAL?

- **Enhancing energy security**, increasing access to modern energy sources for the poor and reducing the energy bill for developing countries

- Facilitating negative cost, **energy-efficient** measures
- Unleashing **local renewable energy** potentials
- Encouraging **decentralized energy** production

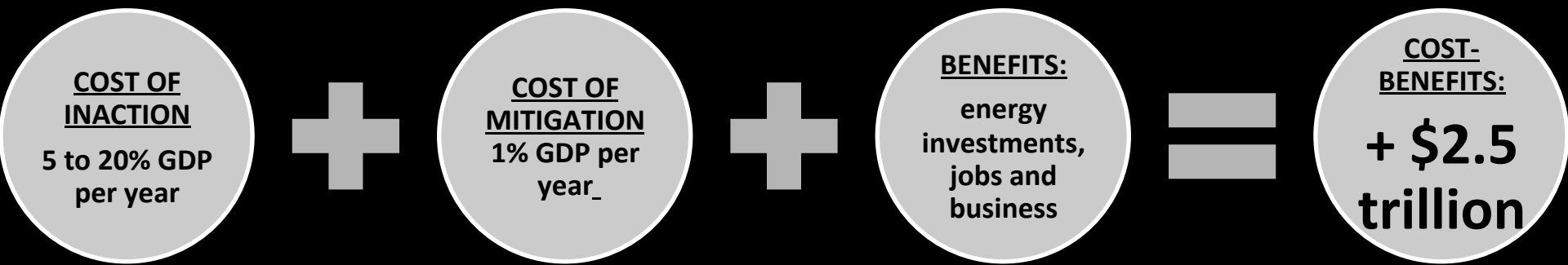
- Leveraging additional resources from **multiple financing sources** (e.g., GEF, CDM, voluntary markets, etc.)

- The investment required in **energy supply infrastructure** worldwide to meet growing energy needs is estimated at \$11.6 trillion over the period 2010-2030 (IEA, 2006). Approximately 50% of this will be in developing countries.

- Direct investment in sustainable energy is rapidly increasing, and reached **US\$ 147 billion in 2007** (UNEP, NEF)

The Durban Package includes the following elements:

- ❑ **Durban Platform for Enhanced Action:** The conference outcome meets the EU's key demand by launching a process – the Durban Platform for Enhanced Action - to develop a new Protocol, another legal instrument or agreed outcome with legal force that will be applicable to all Parties to the UN climate convention. The decision states that this process shall raise levels of ambition in reducing greenhouse gas emissions. The **new instrument is to be adopted by 2015** and be implemented from 2020. At the initiative of the EU and the Alliance of Small Island States (AOSIS), the conference also agreed to launch a work plan to identify options for **closing the "ambition gap"** between countries' current emissions reduction pledges for 2020 and the goal of keeping global warming below 2°C.
- ❑ **Kyoto Protocol:** In the Durban Package it is formally decided that a second commitment period of the Kyoto Protocol will run from 1 January 2013, thus avoiding a gap at the end of the first commitment period finishing next year. New rules on forestry management approved as part of the package will improve the Protocol's environmental integrity. Parties' quantified targets for reducing emissions, as well as rules governing the carry over of surplus emission rights from the first commitment period, will be decided at the end of next year.
- ❑ **Green Climate Fund and other new bodies:** The Durban outcome makes operational the new Green Climate Fund (GCF) by finalizing its design and governance arrangements. The GCF is expected to be **one of the major distribution channels for the US\$ 100 billion in assistance** which developed countries have pledged to mobilise for developing nations annually by 2020 in the context of meaningful mitigation efforts. Germany has pledged €40 million and Denmark €15 million for the operationalization of the GCF. The arrangements needed to make operational the new Technology
- ❑ **Transparency:** The Durban Package brings into operation new arrangements for making more transparent the actions taken by both developed and developing countries to address their emissions. This is a key measure for building trust between Parties
- ❑ **New mechanisms and sectors:** A new market-based mechanism is established to enhance the cost-effectiveness of actions to reduce emissions. A process is also launched to consider climate issues related to agriculture, with a view to taking a decision at the end of 2012. Both initiatives respond to EU demands.



Source: N. Stern and European Commission (POLES)

Addressing climate change is: urgent, manageable and cost-effective

- **...IF PUBLIC POLICY GIVES RIGHT SIGNALS ON:**

- Carbon pricing through tax, trading or regulation (30€/tonCO₂eq by 2020 e 65€/ton CO₂eq by 2030).**
- Technology policy to support the development of a range of low-carbon and high-efficiency technologies on an urgent timescale.**
- The removal of barriers to behavioural change**