

Beyond Low Hanging Fruits: A Programmatic Environment for Resilient, Low Carbon Economies

The Clean Energy Investment Framework in a Regional Context

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Developing Visions for a Low Carbon Society Through Sustainable
Development

Tokyo, 13-16 June

Argument

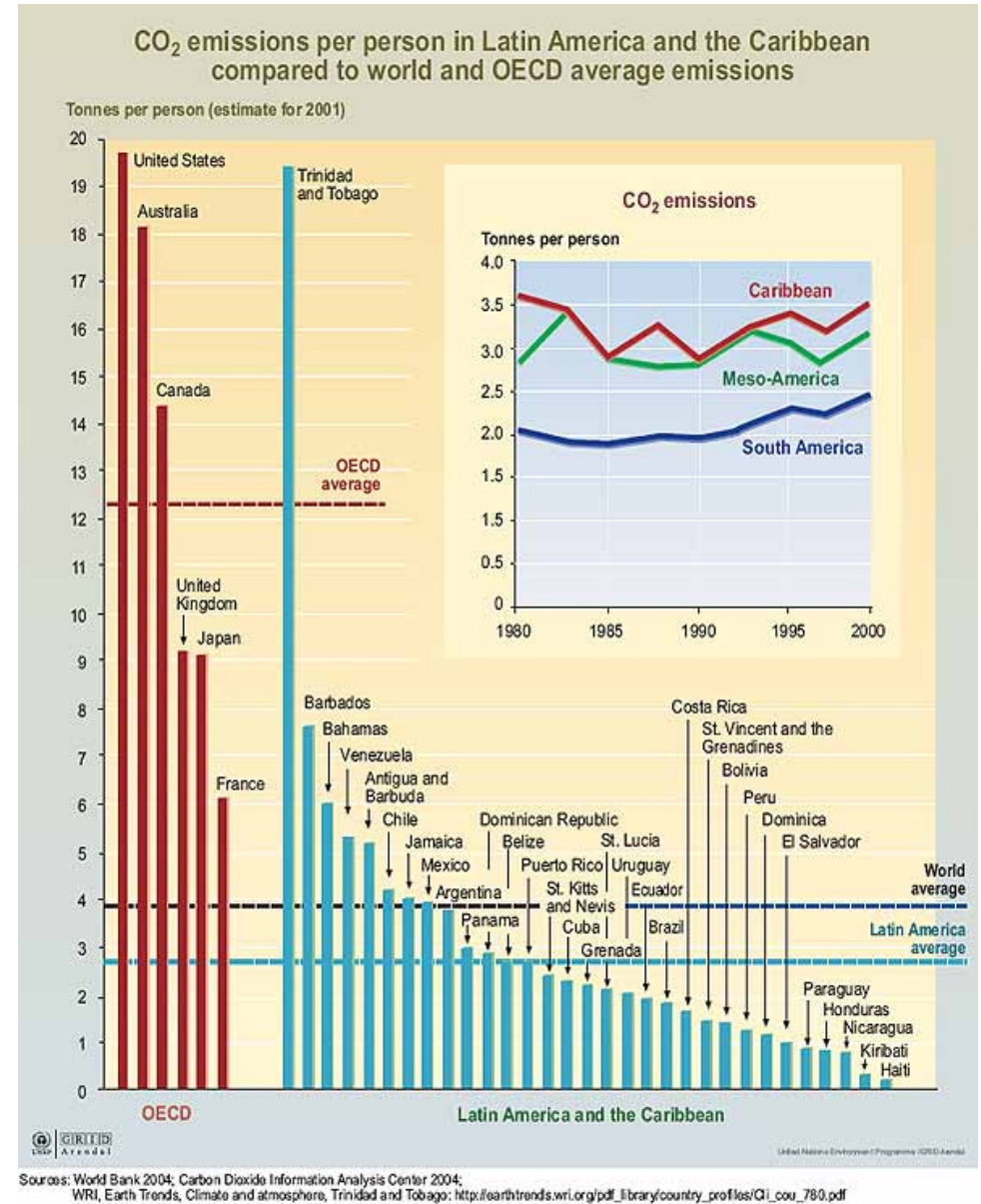
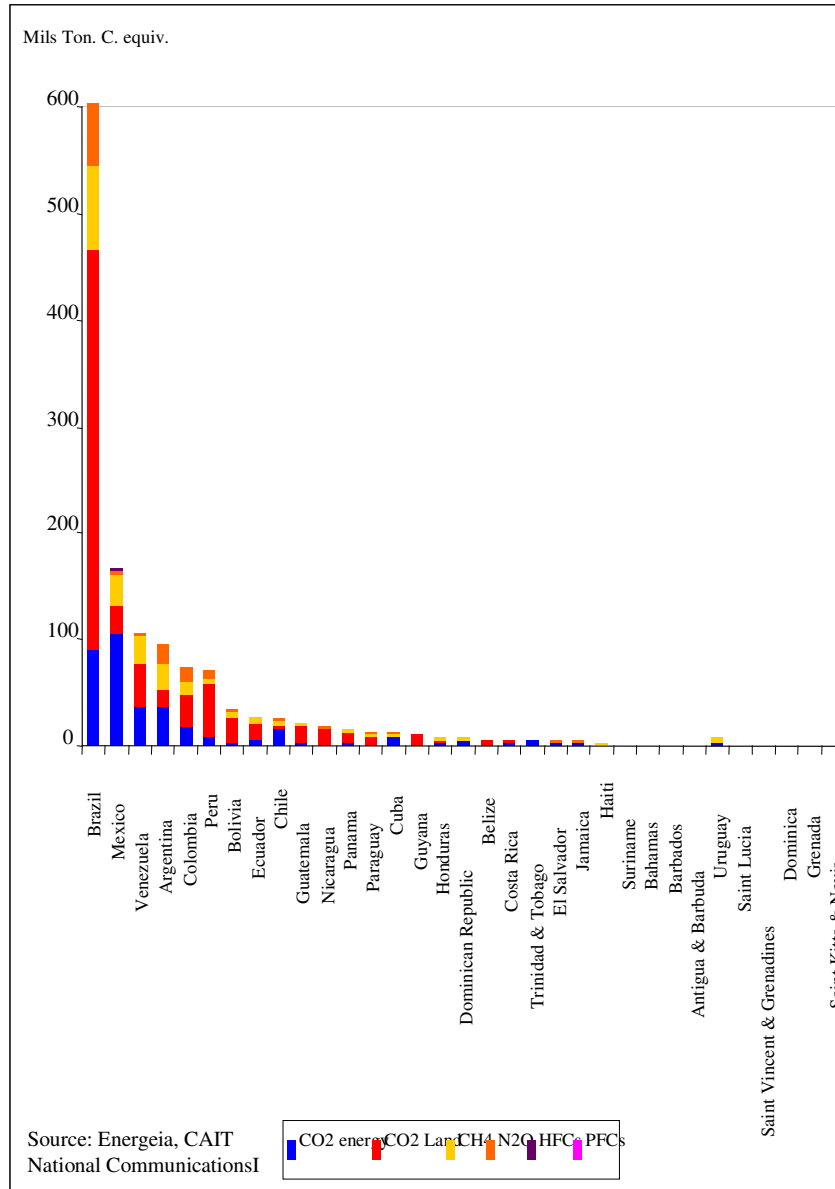
- **Low carbon society requires policy and regulatory enabling environment for long term investment; market key, but unlikely to change trends.**
- **Public and investment sectors involved through public programs crucial to induce the required step change**
- **Opportunities for win – win still untapped in terms of combining domestic policy, facilitating investment flows and carbon finance.**
- **New Climate Change Arena in Development Banks and Financial Institutions**

A regional discussion to illustrate common, but specific problems in the context of the Gleneagles induced Clean Energy Investment Framework.

Contents

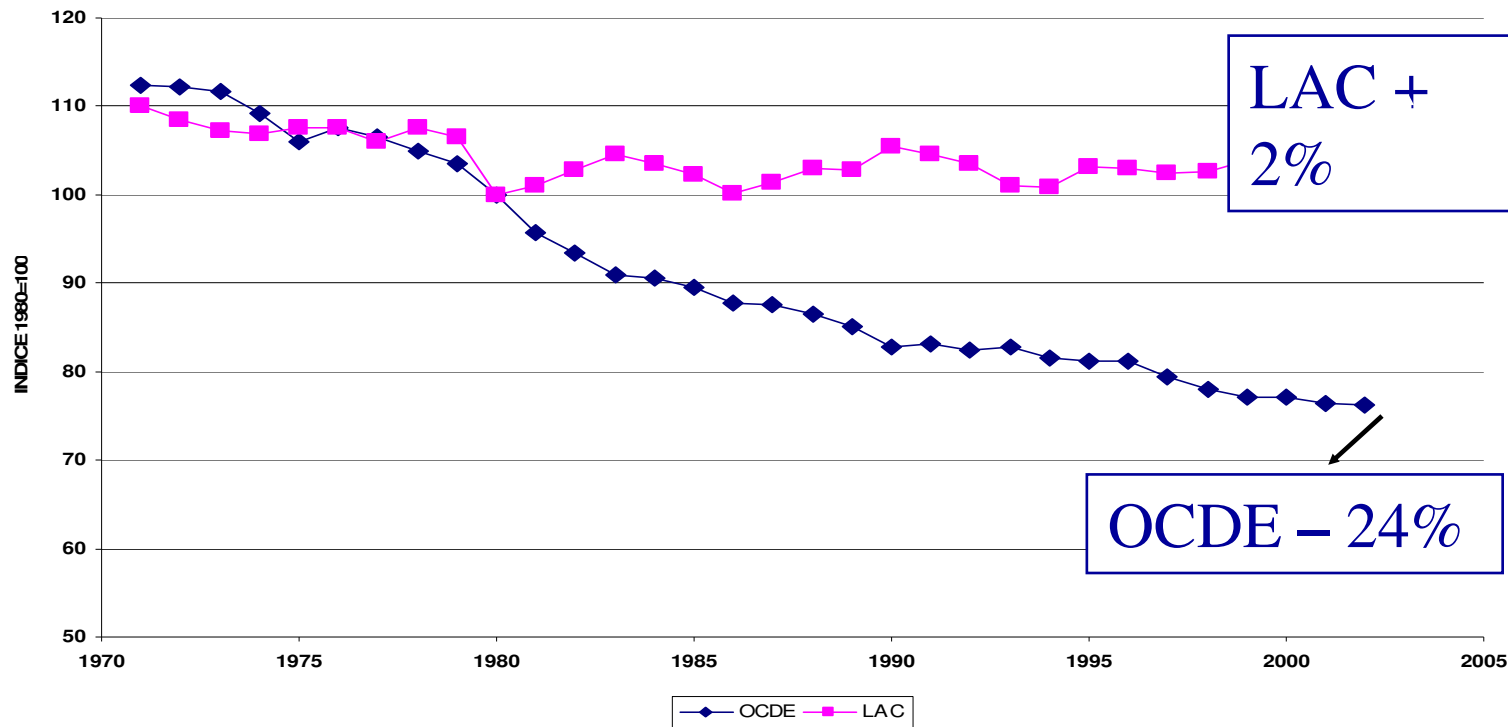
- 1. Energy and emissions trends in the Latin America and the Caribbean (LAC) region**
- 2. What could prompt a change in the policy and development pattern?**
- 3. The potential role and opportunities for the the G8 Investment framework in the LAC (and other) regions.**
- 4. Opportunities to engage in a Investment Framework (IF) regional consultation process in other regions through UN commissions.**

An overview of regional emissions



Latin America Energy Efficiency Lag

1970 – 2005 Tenuous decoupling between energy consumption and economic growth



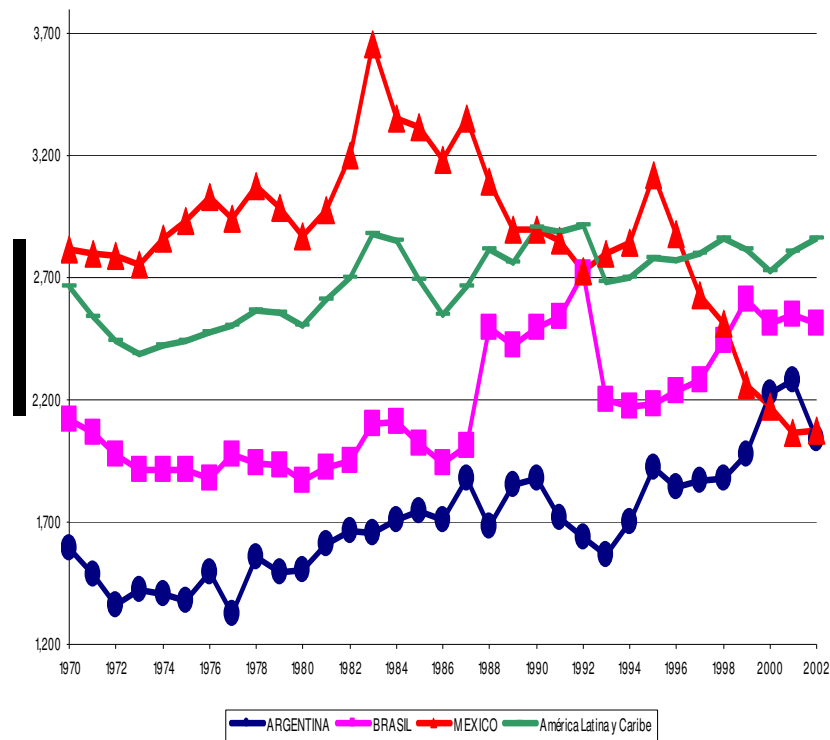
A word of caution:

- Aggregates relatively clean power and transport in Brazil with high fossil fuel intensive Mexico
- Disguises internal changes within industrial structure and growth pattern

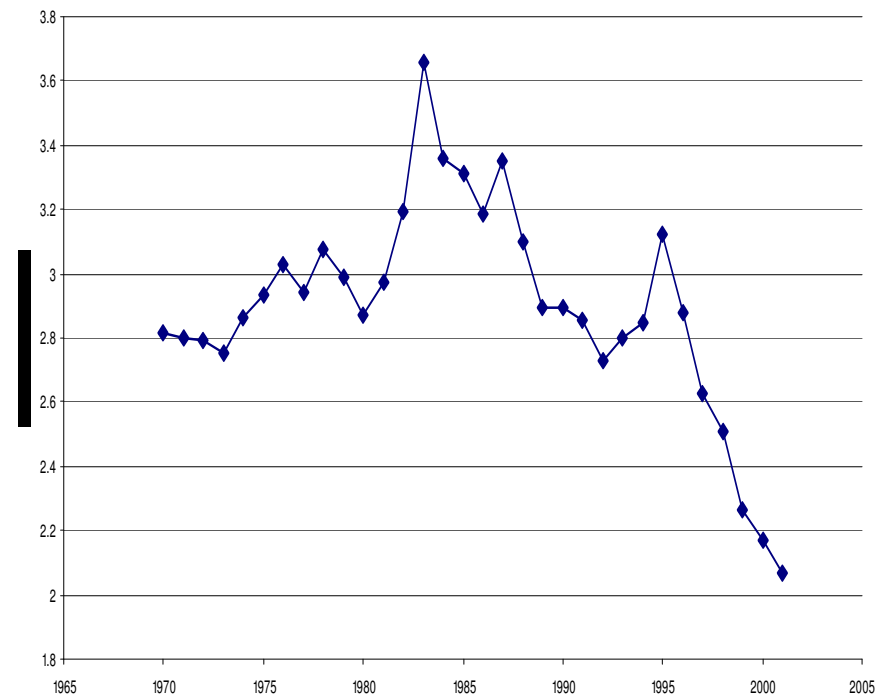
Nevertheless, shows an effective tendency

Shifting Paths?

LATIN AMERICA INDUSTRIAL ENERGY INTENSITY



MEXICO INDUSTRIAL ENERGY INTENSITY

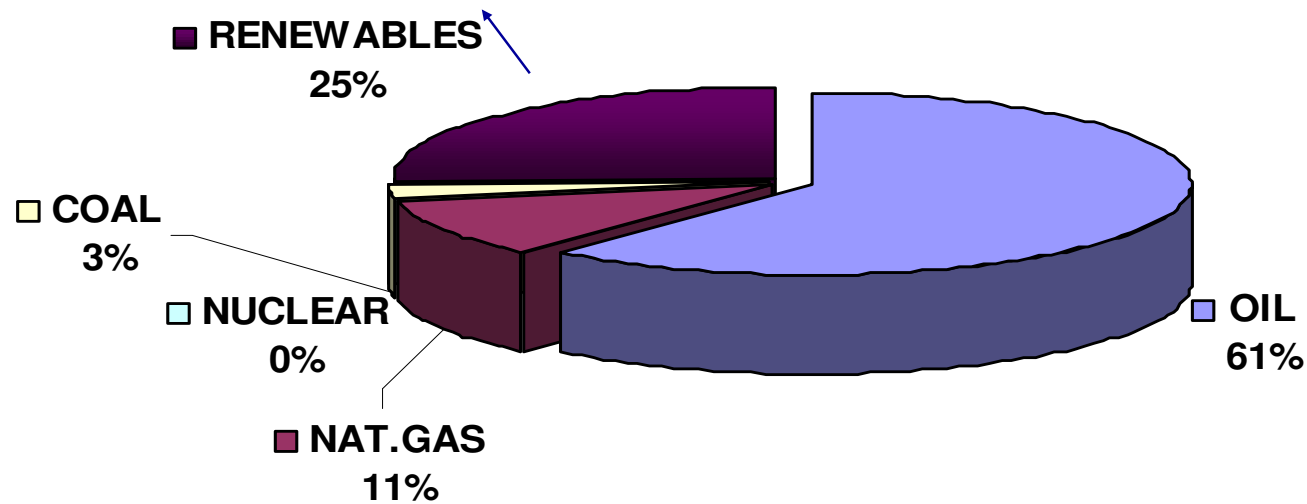


Although with exceptions, industrial energy intensity mostly increasing in the region...

Hydrocarbons dominated energy supply

HYDRO	3.8 %
GEOTH	0.1%.
BIOMASS	21.1%

1970

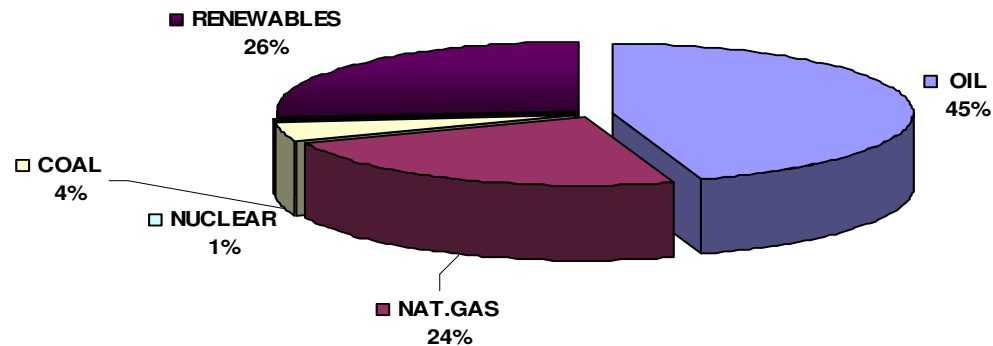


HYDROCARBONS 72%

With the entry of cleaner fossil fuels the most significant change....

2003

HYDRO	10.5%
GEOETH	0.5 %
BIOMASS	15 %



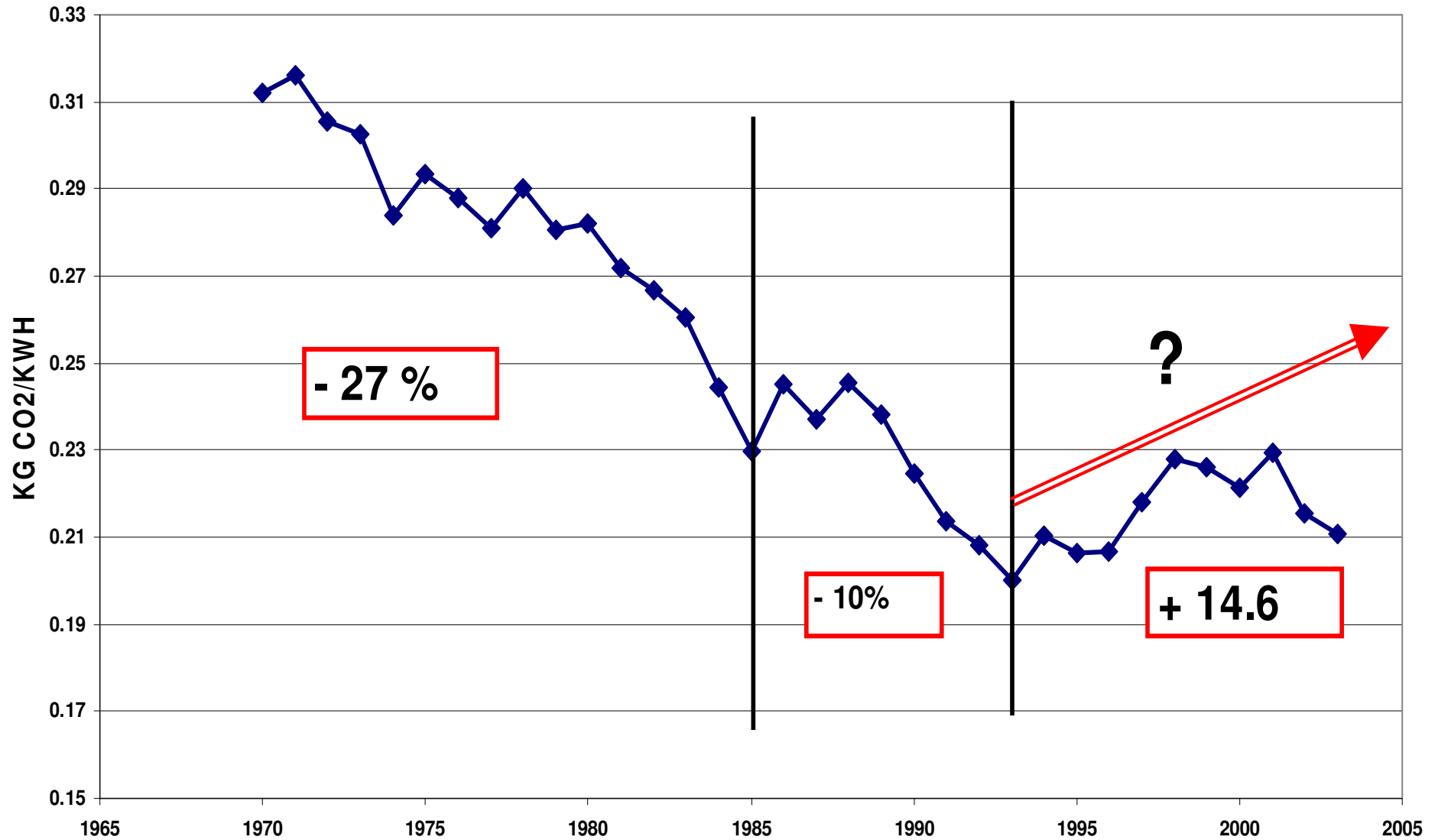
HYDROCARBONS 69 %

However:

- Fiscal, Energy and Environment policies frequently at odds; subsidies to dirtier, scarcer fuels
- Power sector expansion more likely to rely now on gas than hydropower as in the past
- Overall Infrastructure investment decreasing the last decade
- Crucial role to policy coordination, long term planning, and energy efficiency

So, what direction?

GREENHOUSE GASES (CO₂) EMISSIONS IN ELECTRIC GENERATION AS AN EXAMPLE



An Emerging Consensus: what could prompt a change?

LAC likely to require 0.6 trillion in clean energy plus massive adaptation insurance/mechanisms.

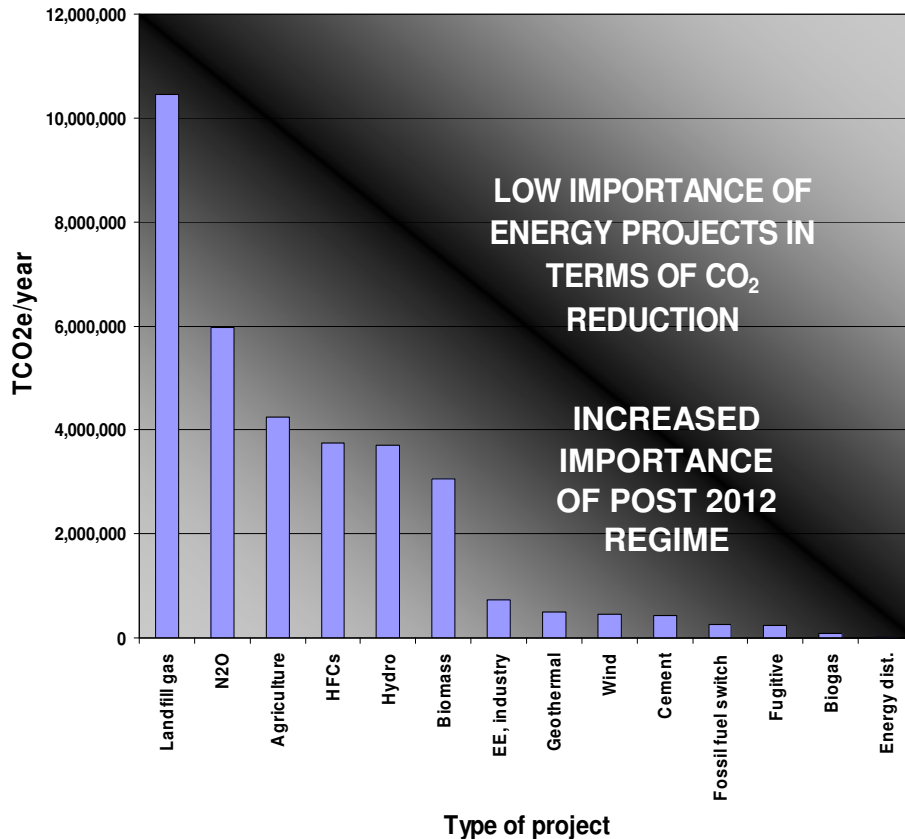
Access, security and competitiveness common interconnected challenges

- Carbon Markets so far very minor fraction of investment flows
- Carbon revenue could play crucial role in catalyzing policy to
 - Improve policy coordination
 - Enhance project return rate
 - Facilitate enabling environment.

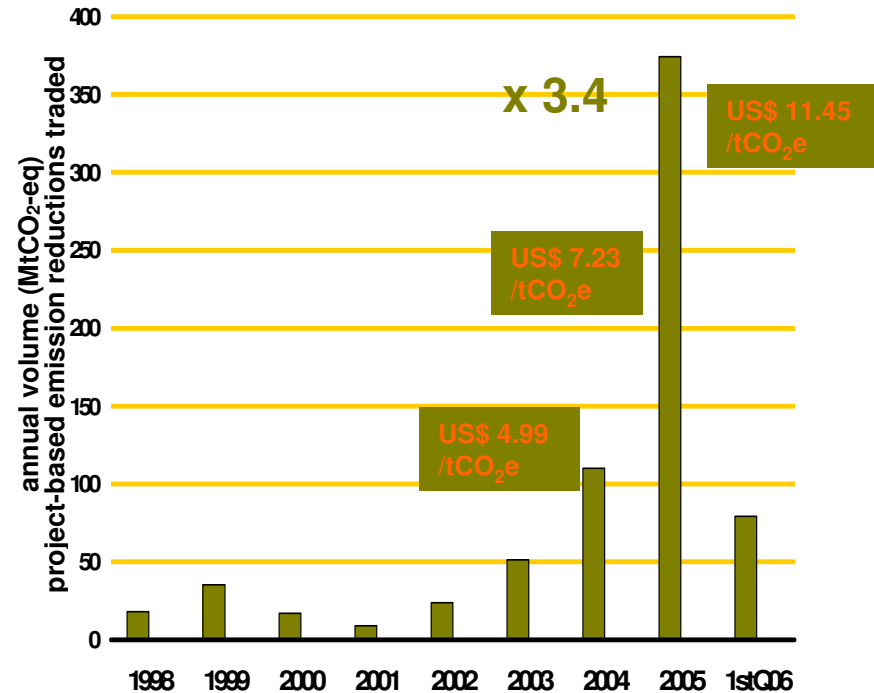
Low Hanging Fruits:

- Number of projects and the value of CERs has multiplied.
- But carbon instruments like CDM shifting towards high GHG effect gases..

Emission reductions by type of project
15 March 2006



Total number of projects and CER value
15 March 2006



An Agenda:

1. Focus on areas where domestic co-benefits and synergies exist with low carbon

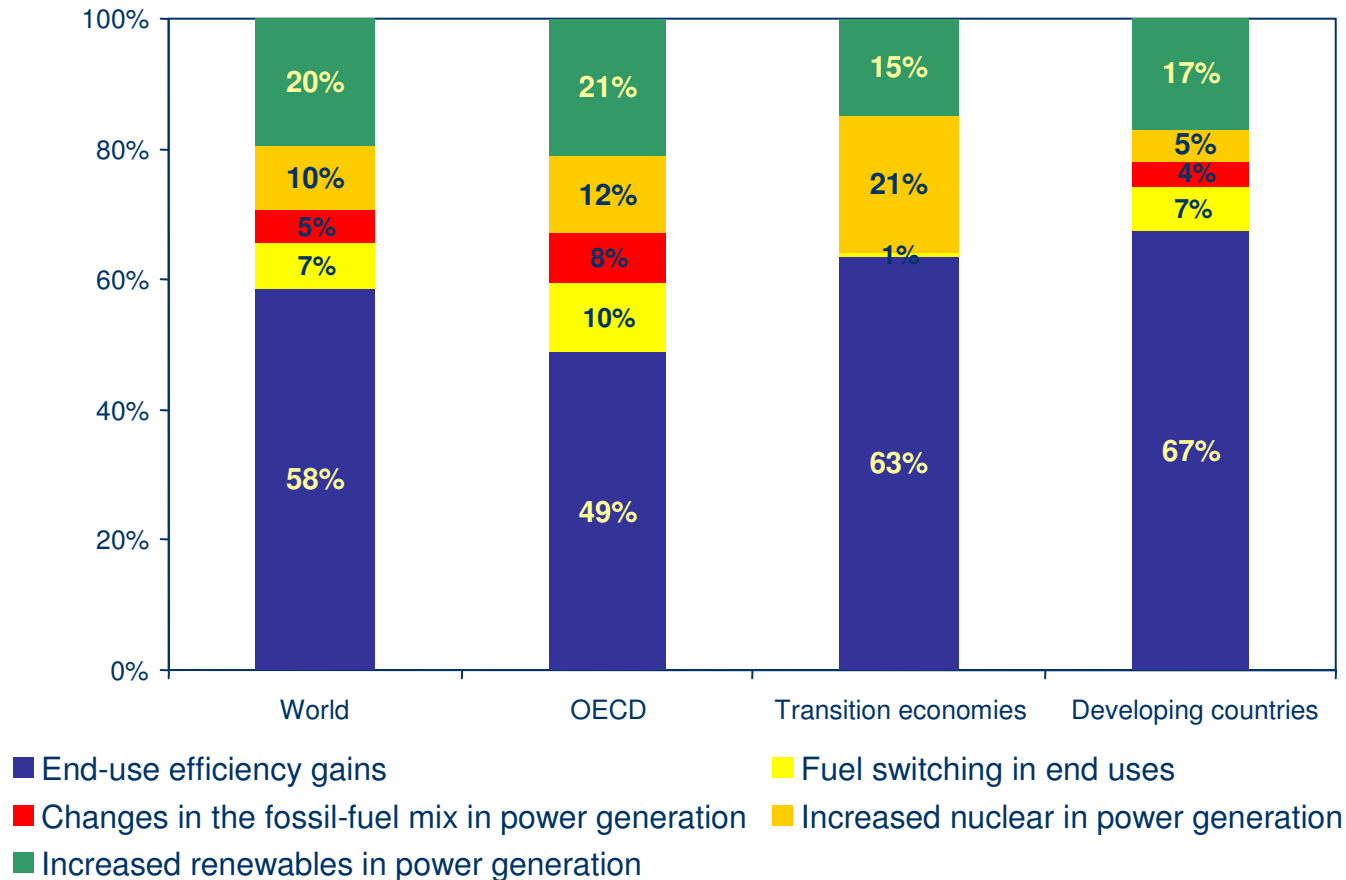
- Programmatic low carbon approaches combining policy, finance, and technology introduction to catalyze policy change, offset transition costs, and promote investment.
- Opportunities in Public Transport, Waste Management, Lighting, Energy Efficiency, Cogeneration, Fuel switching, and large city based projects
- Already multiple private and public instruments; but long term Climate Regime crucial

2. Investment Framework preparation to help identify opportunities and finance a regional transition.

Energy and Climate linked to economic development agenda.

Opportunities for Reduction

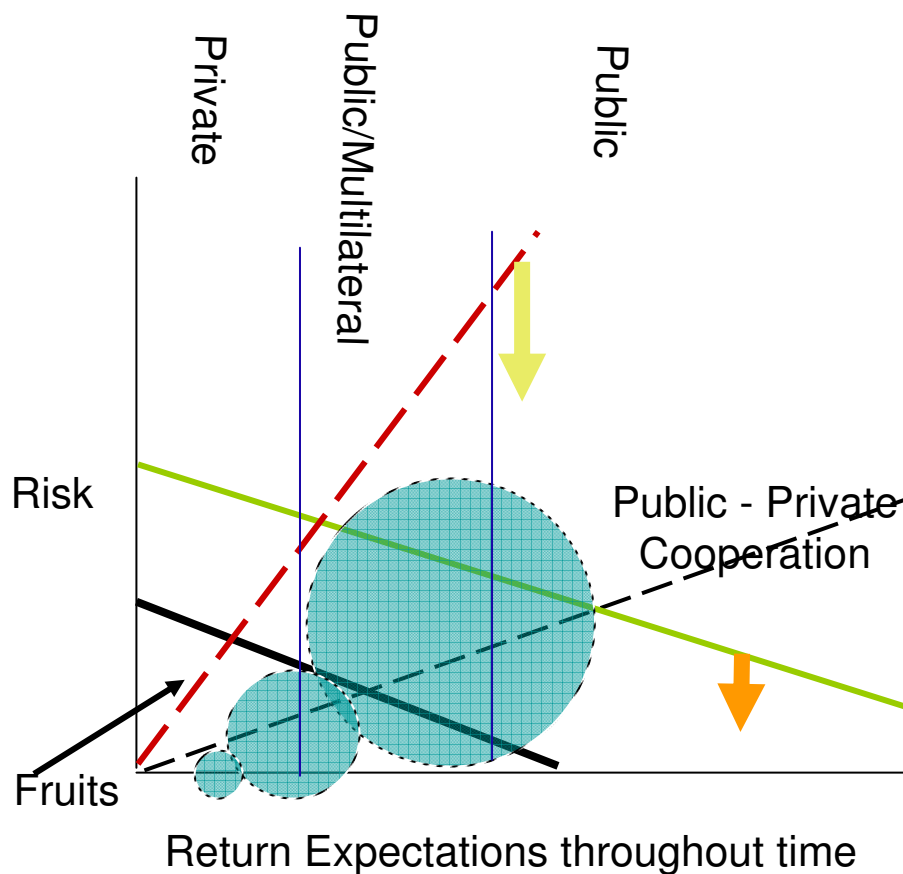
Contributory Factors in CO₂ Reduction, 2002-2030



General direction of IEA coincident with these diagnosis: opportunities lie in increased efficiency –and also in improved policy coordination and planning

Beyond low hanging fruits

Sustainable low carbon development is as much a policy and financial issue as an information and capacity building exercise



Information and Technology

- Inventory and Opportunity Information
- Government (subnational and national) and Private Sector Coordination
- Technology transfer and development

Policy and Regulatory

- Regulatory (interconnections, transmission, capacity, EE)
- Fiscal, Tax and Sectorial policy coordination
- Stake holder alignment

Financial

- Combining multilateral, private and public resources
- Collateral and guarantee schemes
- Increasing linkages to carbon
- Domestic funds, option contracts

Programmatic Approaches to decarbonization

Policies	Governmental Function – Sectorial Policies
Programs	Governments / Private Parties – <ul style="list-style-type: none">• Specific incentives for policy goals• Govt. Agent(s) involved in program coordination, promotion, barrier removal.• Financial Mechanisms (funds, option contracts, investment fairs)
Project Activity	Private Parties / Public Sector <ul style="list-style-type: none">• Carbon finance operating incentive, complementary role• Carbon finance, IFI and domestic guarantees (Chile, Argentina, Brazil)

Some examples...

Where is such an agenda now in use?

- Renewable energy in power and transport (Brazil, Mexico, Colombia)
- Transport and urban corridors (Chile, Colombia, Mexico, Peru)
- Solid and water waste management; landfills (Mexico, Colombia)

Where could it be expanded?

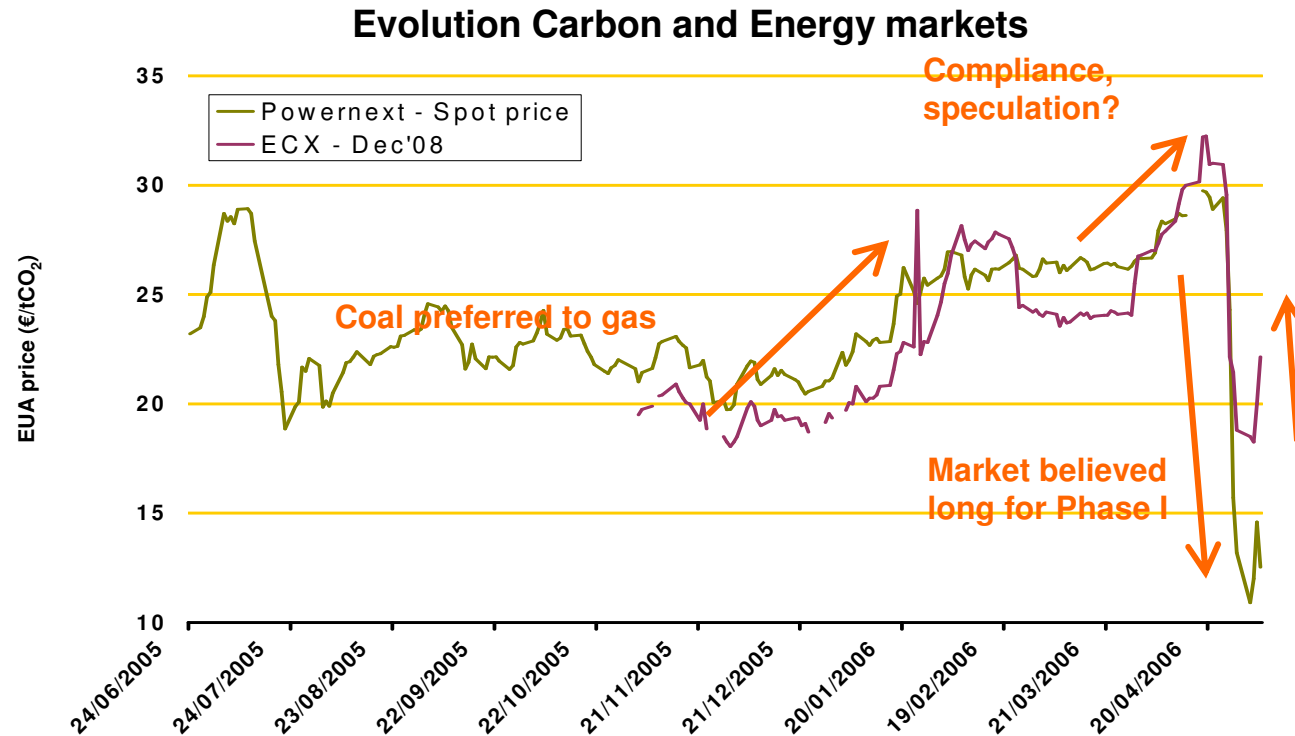
- Increased Efficiency in high intensity GHG sectors
- Low carbon shifts in resource base / fuel mix
- Sub regional integration
- Gas introduction assessments
- Rural electrification, access to energy
- Forestry? An urgent need...

..And a Common Interest in Sustaining Carbon Markets

- ❑ Project based assets driven by vibrant carbon market, supported by EU / ETS.
- ❑ Energy, environment and financial markets linked
- ❑ Not all assets equal: CERs depend on post 2012 regime

What Happens next?

- Phase II choices: cap level, other sectors
- Role of Canada
- Unlocking Unused AAUs
- Development of U.S. markets.



But also...

- Role of long term, post 2012 regime
- Policy signals for long term low carbon development in developed and developing economies
- NAI support for voluntary or CER discount measures for preservation and expansion of CM
- Framework to support expansion of long term investment flows

What role for a Clean Energy Investment Framework?

What?

G8 invitation to World Bank and RDBs

Included:

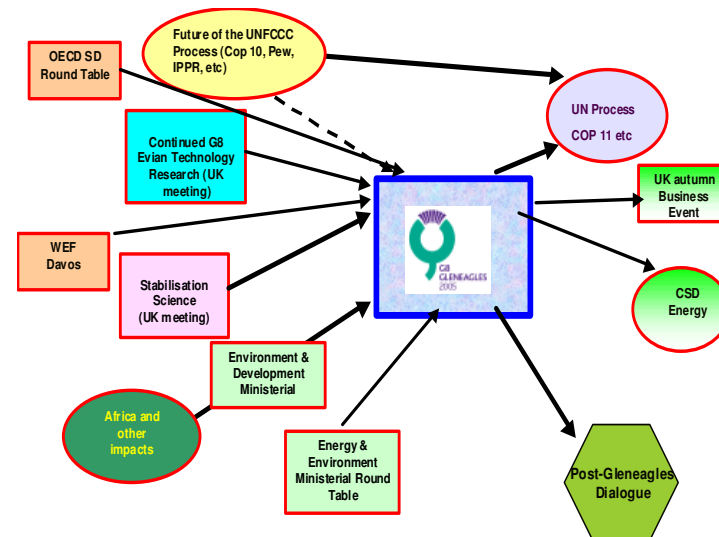
- i) Describe current activities;
- ii) Analyze barriers;
- iii) Propose financing portfolio increments;
- iv) Explore new mechanisms; and
- v) Develop Work Programme.

- Work approved at WB development committee,
- Progressing at WB, IADB, EBRD, ADB and others.

Why useful?

- Mechanism for long term action
- Leverage private and public resources
- Coordination with carbon finance mechanisms
- Banks mainstream CC

Key to tailor framework to regional needs and strengths



CLIMATE CHANGE UK G8 PRESIDENCY PROCESS

What can multilateral and RDBs do?

1. MAINSTREAM LOW CARBON AND ADAPTATION

- Project cycle, integration development finance.
- Assess existing instruments; expand innovative ones.
- Donors contribution, develop integrated funds

2. DEVELOP ACTIVITIES THROUGH EXISTING NETWORKS

Large industrial energy users

- Audit, investment and energy management training; Trust funds; public institutions development

Small energy users

- SME's and small renewable energy projects; support local programs.

Power utilities and energy companies

- Cleaner energy supply - power and natural resource sectors; fuel switching opportunities; carbon finance

Renewable energy suppliers

- Promote, support and invest renewable energy

Municipalities and Subnational Governments

- Reduce municipal infrastructure ghg emissions (waste, transport, urban transport, heating sectors)

Carbon market institutions

- Complement to set- up of multilateral carbon credit fund

3. WORK AT COUNTRY AND REGIONAL LEVEL

- Integrate low carbon and adaptation into country dialogue, assistance strategy, operations and practitioners networks; work together with regional economic policy bodies.

Regional Action so far

Preparatory Meetings – Opportunities in Mainstreaming carbon

- ECLAC regional meeting Mainstreaming Climate Change policies : Towards a Lower Carbon economies (CEPAL, Santiago, September, 2005).
- Discussed at Iberoamerican NDA Network & Caracas Environmental Ministers Summit (October 2005)

Current: Relation with Financing

- IADB / ECLAC: Investment Framework Elements, (Washington, March, 2006).
- Role of Private Banks (Mexico City, March 2006).
- Latin American Carbon Forum, Quito, April 2006.

Next Steps: Tailoring the regional IF components

- Discussion of WB and IDB draft IF documents, ECLAC, September 2006.
- Side event, WB annual meeting, Singapore September 2006.

And expanding to other regions...

- Exchanges with ESCAP already in place: cooperation in disaster mitigation since 2004 and CDM natural resources and trade (Tokyo, June 2006).
- Asian regional meeting, ESCAP: IF and opportunities (August 2006),
- ADB discussing contents activities on sectorial IF and Clean Energy Week (June 2006)
- ESCAP proposal on programmatic approaches and CER discounting

Both ECLAC and ESCAP to present results in October Ministerial – Gleneagles Dialogue.

Investment framework needs the support and input of countries and regions to be effective

Consultations to proceed in LAC and Asia between July and September.

Conclusions

- Markets will not deliver low carbon resilient economies on their own; public sector programs crucial both to enable an investment environment as well as support a long term regime
- Potential to develop IF in coordination with existing portfolio of domestic financial and policy instruments developed for co-benefit purposes
- Key role for developing and developed countries in building IF:
 - Not a Banks' framework, but a multilateral one
 - Developing countries participation in WB & RDB boards and development committee discussion key to ensure it's deployed to meet their needs
 - IF effectiveness depends on the capacity to tailor the framework to regional strengths and needs and the investment institutions strengths
- Expand discussion from Environment to Energy and Economy Ministries/ Sectors as an economic policy / dev. Issue.
- Engage regions, lower energy consumption countries through regional UN institutions through schedules 2006 – 2007 consultation process