



Towards a Strategic Framework on Climate Change and Development for the World Bank Group

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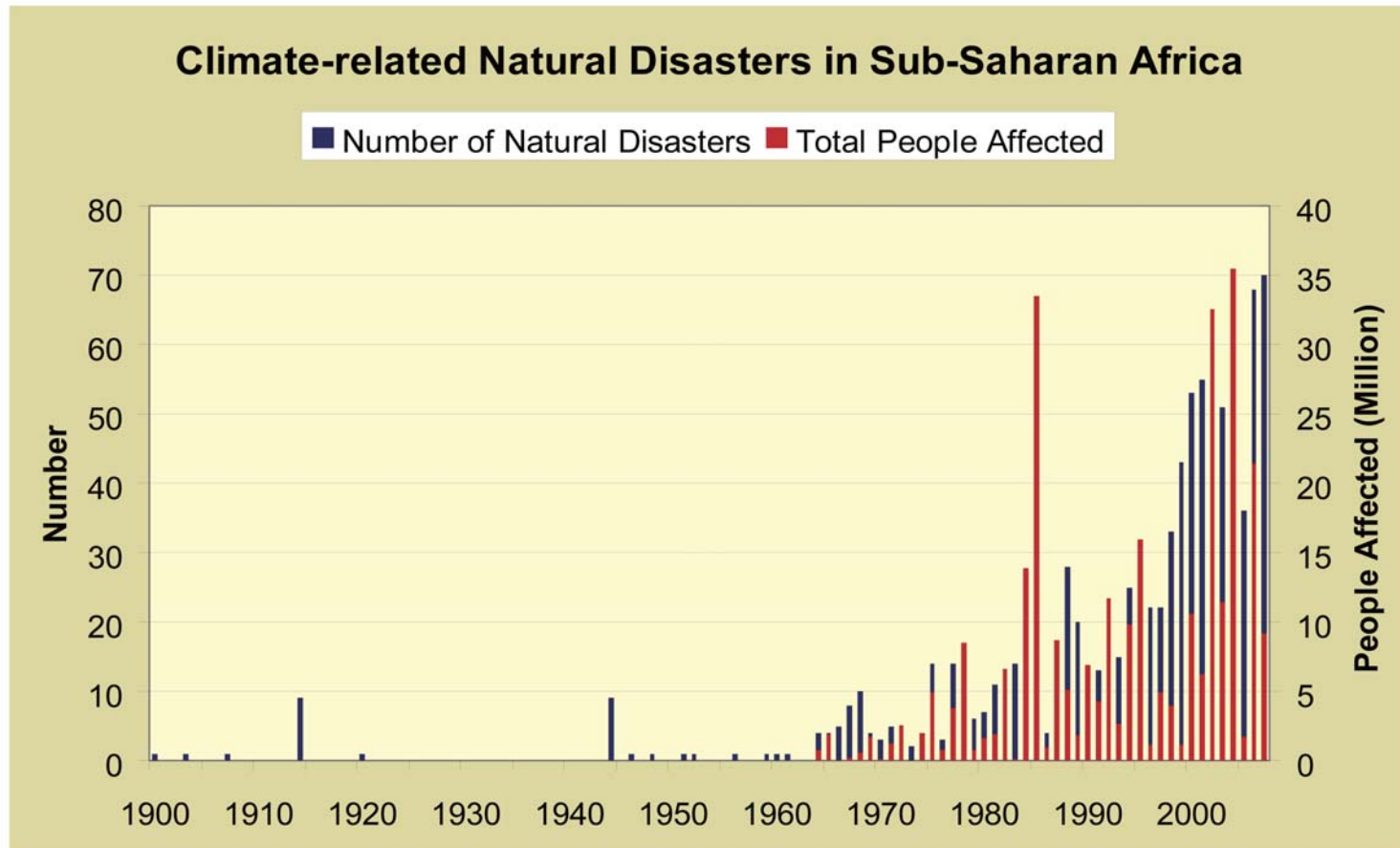




Climate Science: What We Know

- **Climate is changing: Evidence of warming unequivocal**
 - Temperature observations (11 of 12 years from 1995 – 2006 warmest since 1850)
 - Trends in drought, extreme rainfall, cyclones, heatwaves
 - Loss of glaciers and sea ice
 - Sea-level rise

Number and impact of natural disasters are both increasing



Source: Centre for the Research on the Epidemiology of Disasters, Universite Catholique de Louvain.
www.emdat.eb Disasters include floods, droughts, landslides, extreme temperature events, wind storms, wave/storm surges and wildfires.

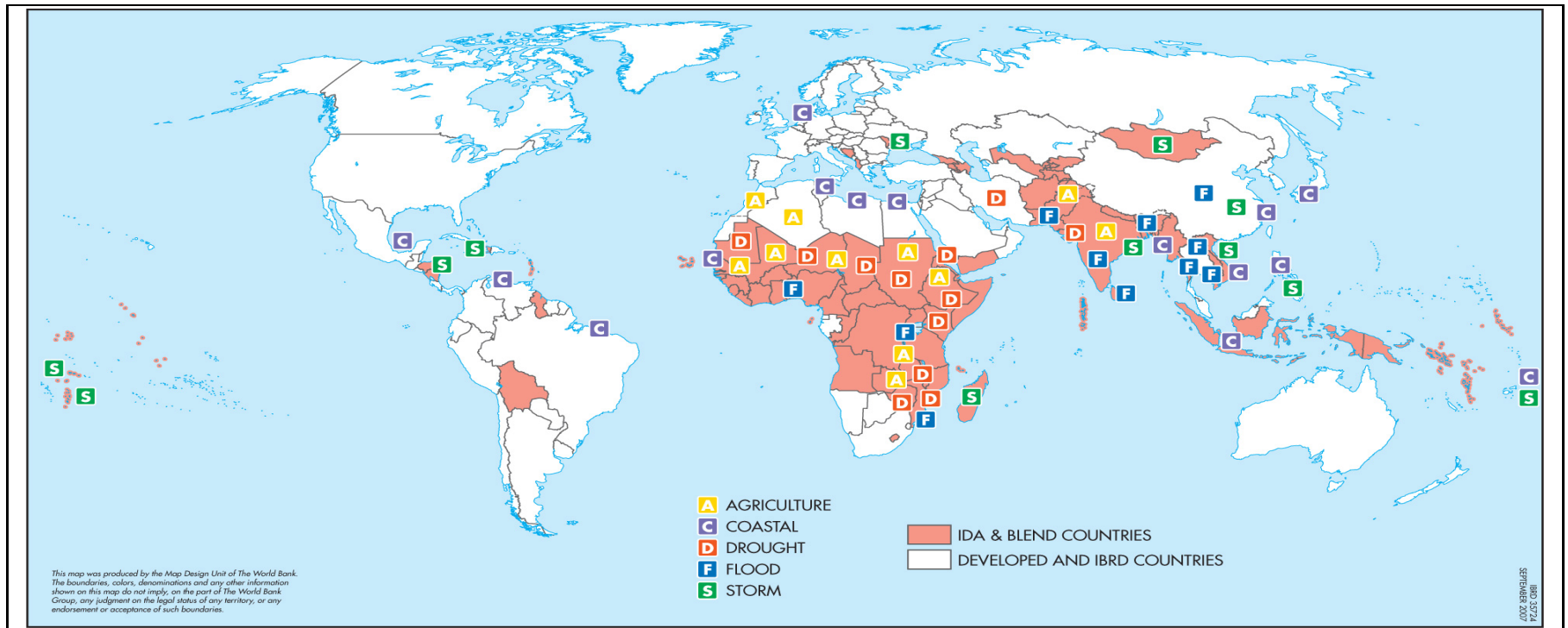


Climate Change is a Development Issue

- Developing countries are already being affected
- The poorest countries and communities stand to suffer the earliest and the most
- Development gains and achievement of the Millennium Development Goals are at risk
- Lower carbon and climate resilient growth offers opportunities for sustainable development with multiple benefits



Climate risks are highest in poor countries



distribution of climate risks, by category



Developing Countries Most At Risk: 6 Climate Threats

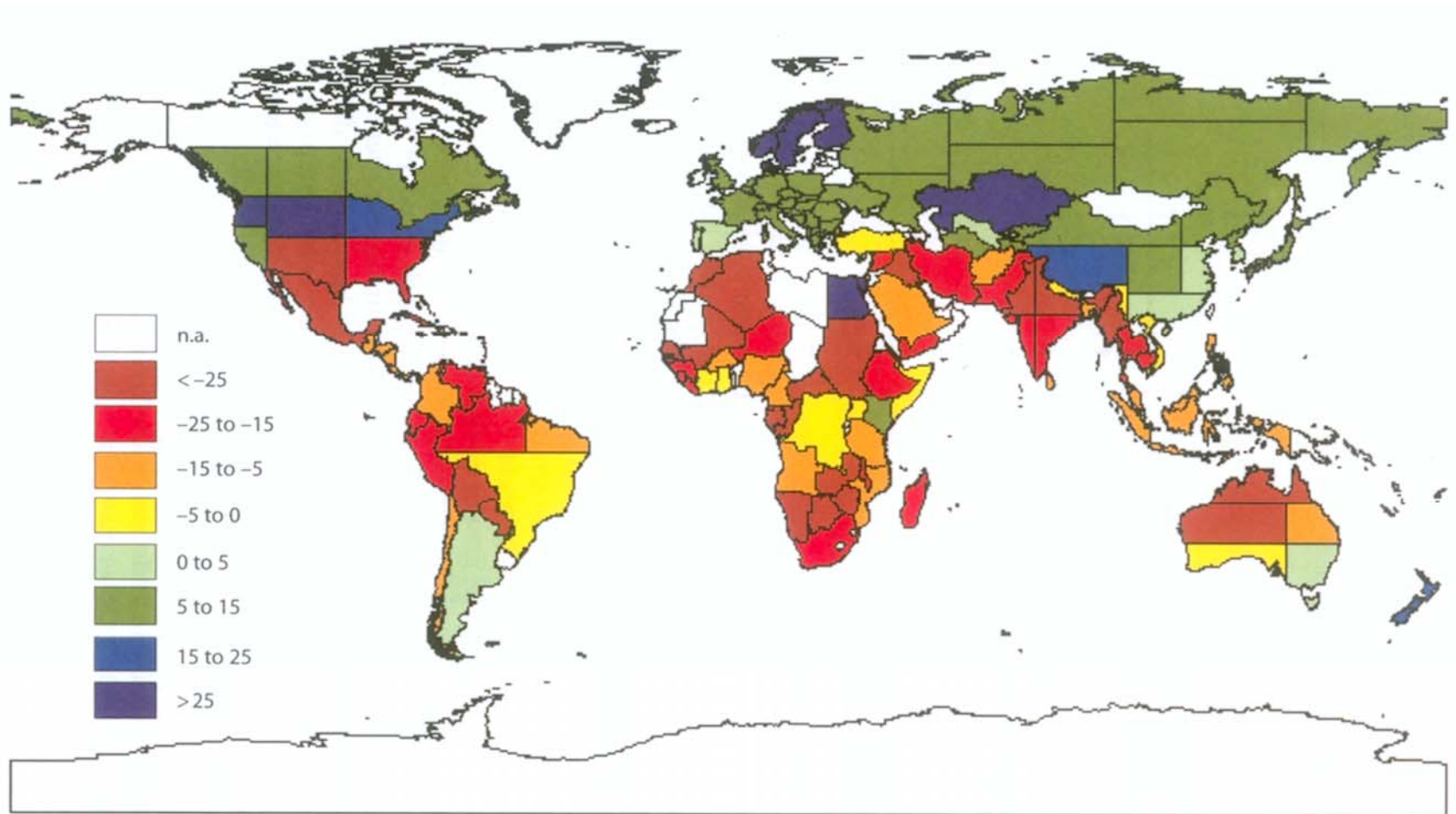
<i>Drought</i>	<i>Flood</i>	<i>Storm</i>	<i>Coastal 1m</i>	<i>Coastal 5m</i>	<i>Agriculture</i>
Malawi	Bangladesh	Philippines	All low-lying Island States	All low-lying Island States	Sudan
Ethiopia	China	Bangladesh	Vietnam	Netherlands	Senegal
Zimbabwe	India	Madagascar	Egypt	Japan	Zimbabwe
India	Cambodia	Vietnam	Tunisia	Bangladesh	Mali
Mozambique	Mozambique	Moldova	Indonesia	Philippines	Zambia
Niger	Laos	Mongolia	Mauritania	Egypt	Morocco
Mauritania	Pakistan	Haiti	China	Brazil	Niger
Eritrea	Sri Lanka	Samoa	Mexico	Venezuela	India
Sudan	Thailand	Tonga	Myanmar	Senegal	Malawi
Chad	Vietnam	China	Bangladesh	Fiji	Algeria
Kenya	Benin	Honduras	Senegal	Vietnam	Ethiopia
Iran	Rwanda	Fiji	Libya	Denmark	Pakistan

Low Income
 Middle Income

Source: World Bank



Potential Impact on Agriculture — Projected Percentage Change in Agricultural Productivity in 2080



Note: Scenario: SRES A2.
Source: Cline 2007.



Adaptation Challenges Over Time Will Depend on Mitigation Progress



Likely change already "baked in"

Likely change with successful mitigation action

Likely change without significant action on mitigation



Global temperature change (relative to pre-industrial)

0°C

1°C

2°C

3°C

4°C

5°C

Food

Falling crop yields in many areas, particularly developing regions

Possible rising yields in some high latitude regions

Falling yields in many developed regions

Water

Small mountain glaciers disappear – water supplies threatened in several areas

Significant decreases in water availability in many areas, including Mediterranean and Southern Africa

Sea level rise threatens major cities

Ecosystems

Extensive Damage to Coral Reefs

Rising number of species face extinction

Extreme Weather Events

Rising intensity of storms, forest fires, droughts, flooding and heat waves

Risk of Abrupt and Major Irreversible Changes

Increasing risk of dangerous feedbacks and abrupt, large-scale shifts in the climate system

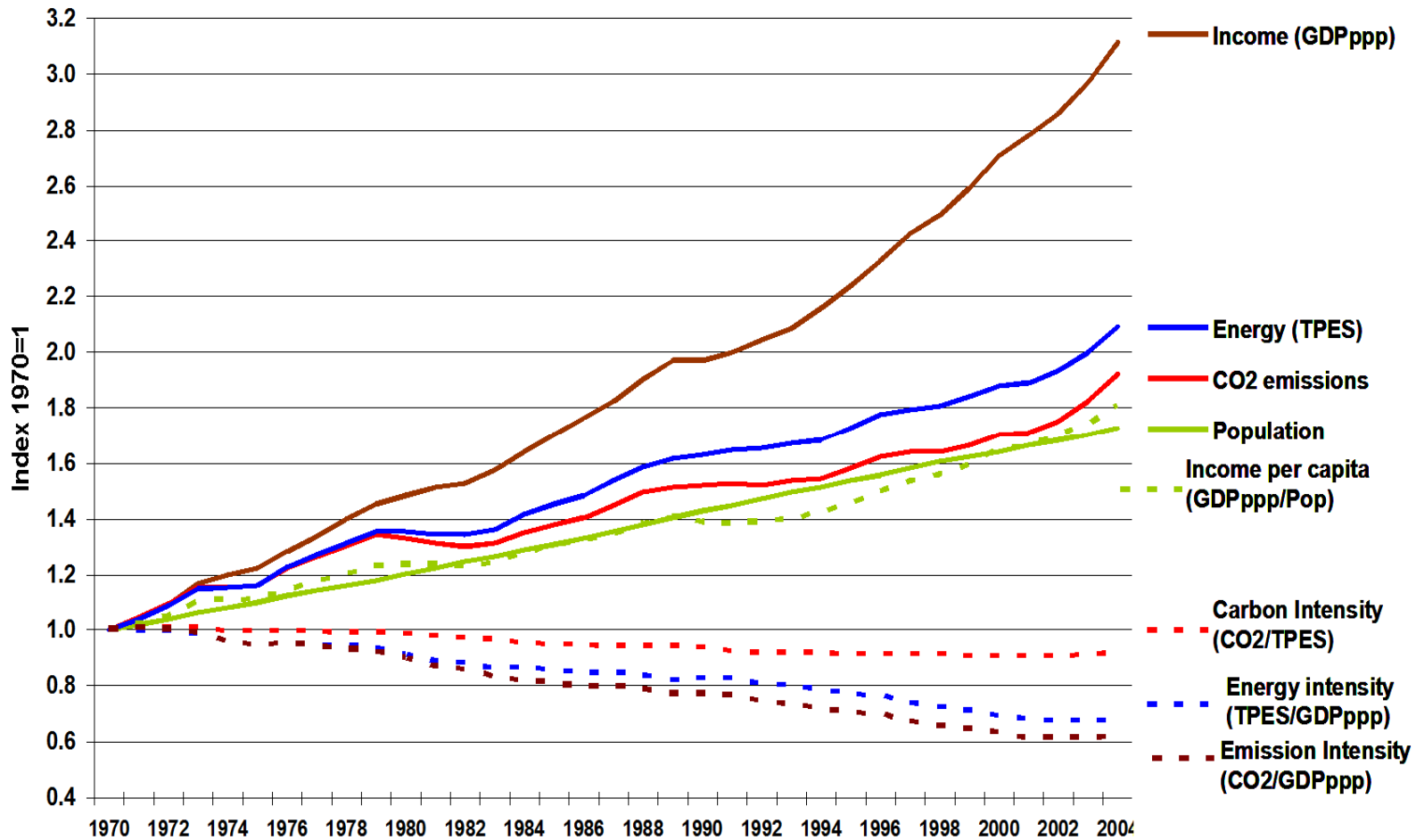
Risk of catastrophic events increases with temperature



The Global Mitigation Challenge

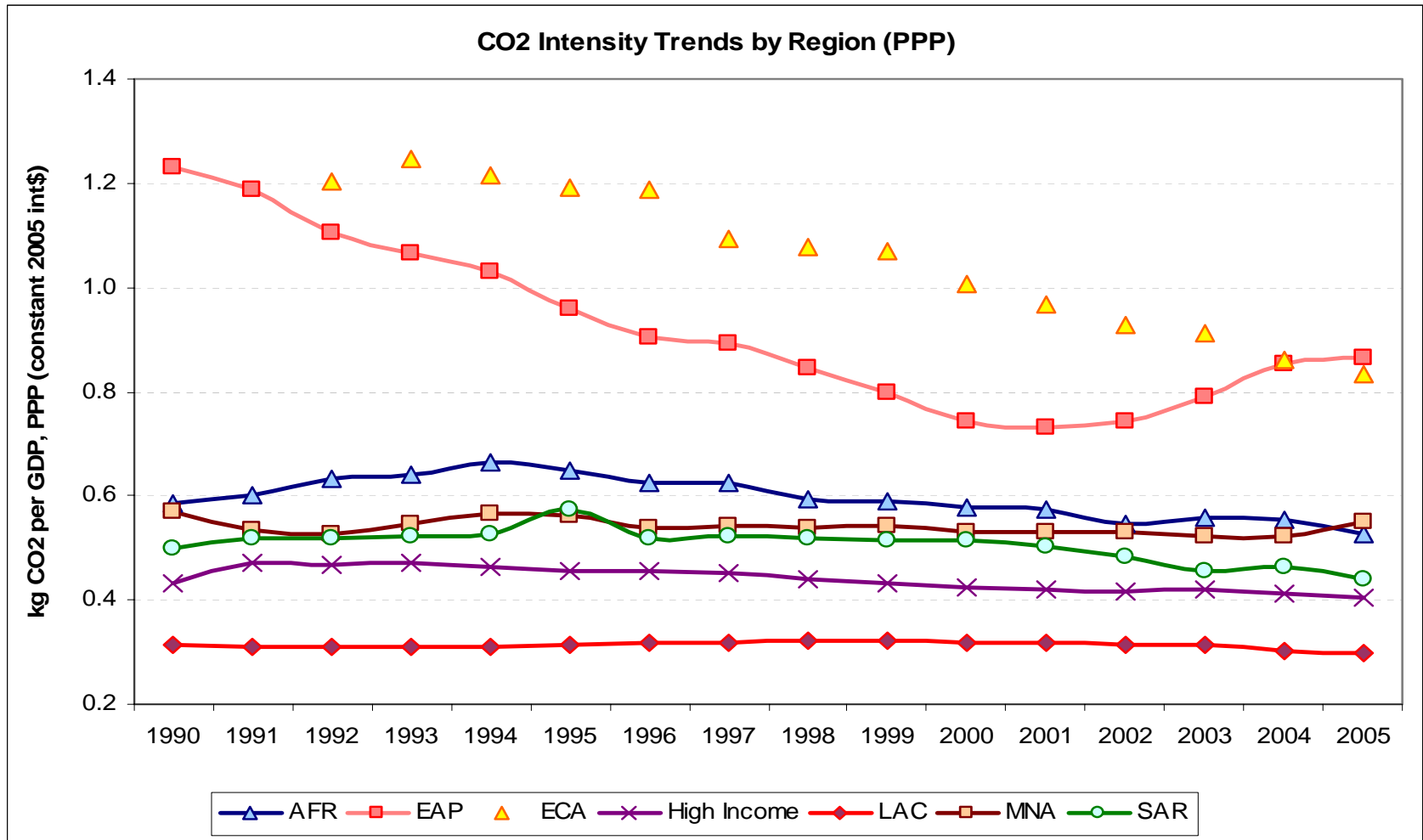


In past several years, growth in global CO2 emissions accelerated. Long-time declining trend in global CO2 intensity per GDP was reversed.





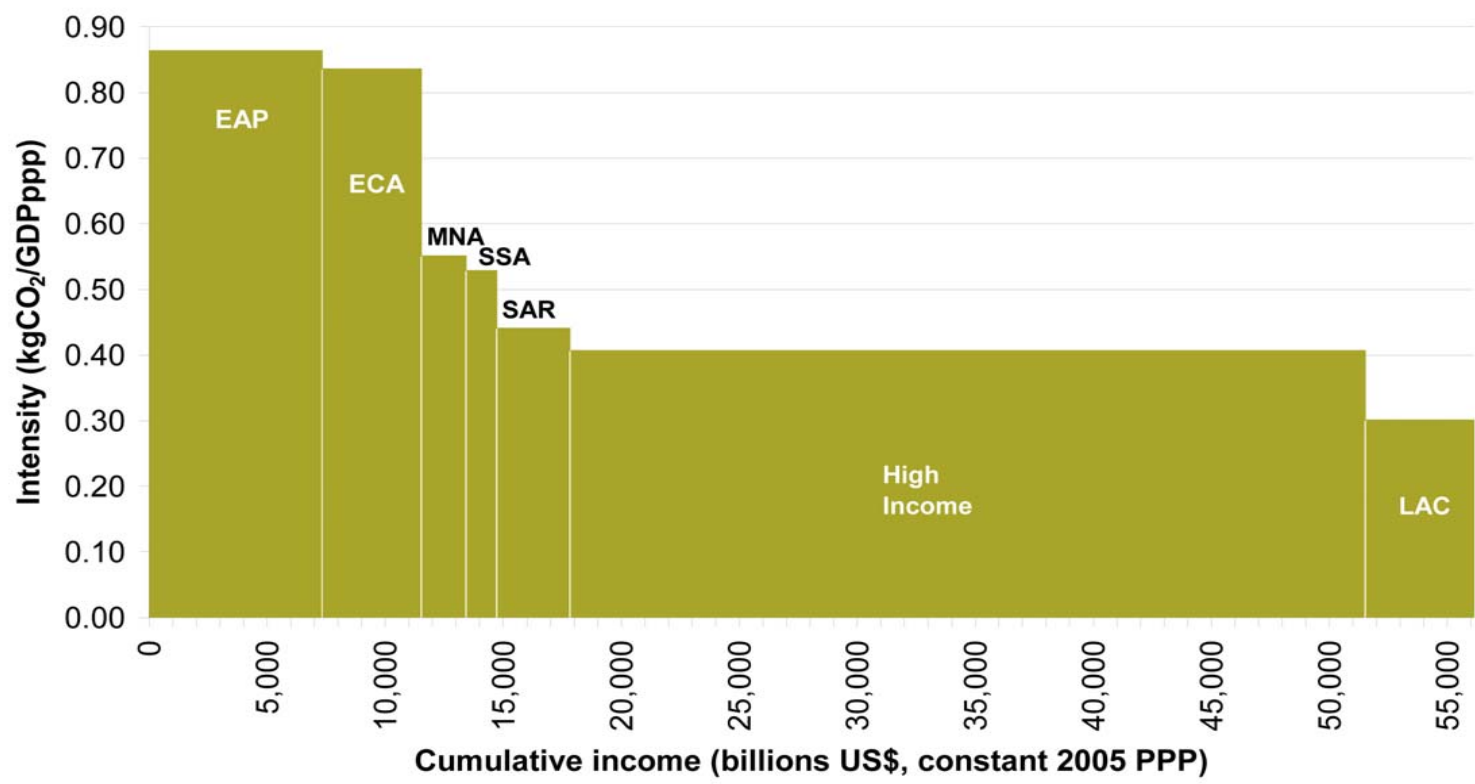
CO2 intensity trends by region





Regional distribution of energy-related CO₂ emissions, 2005

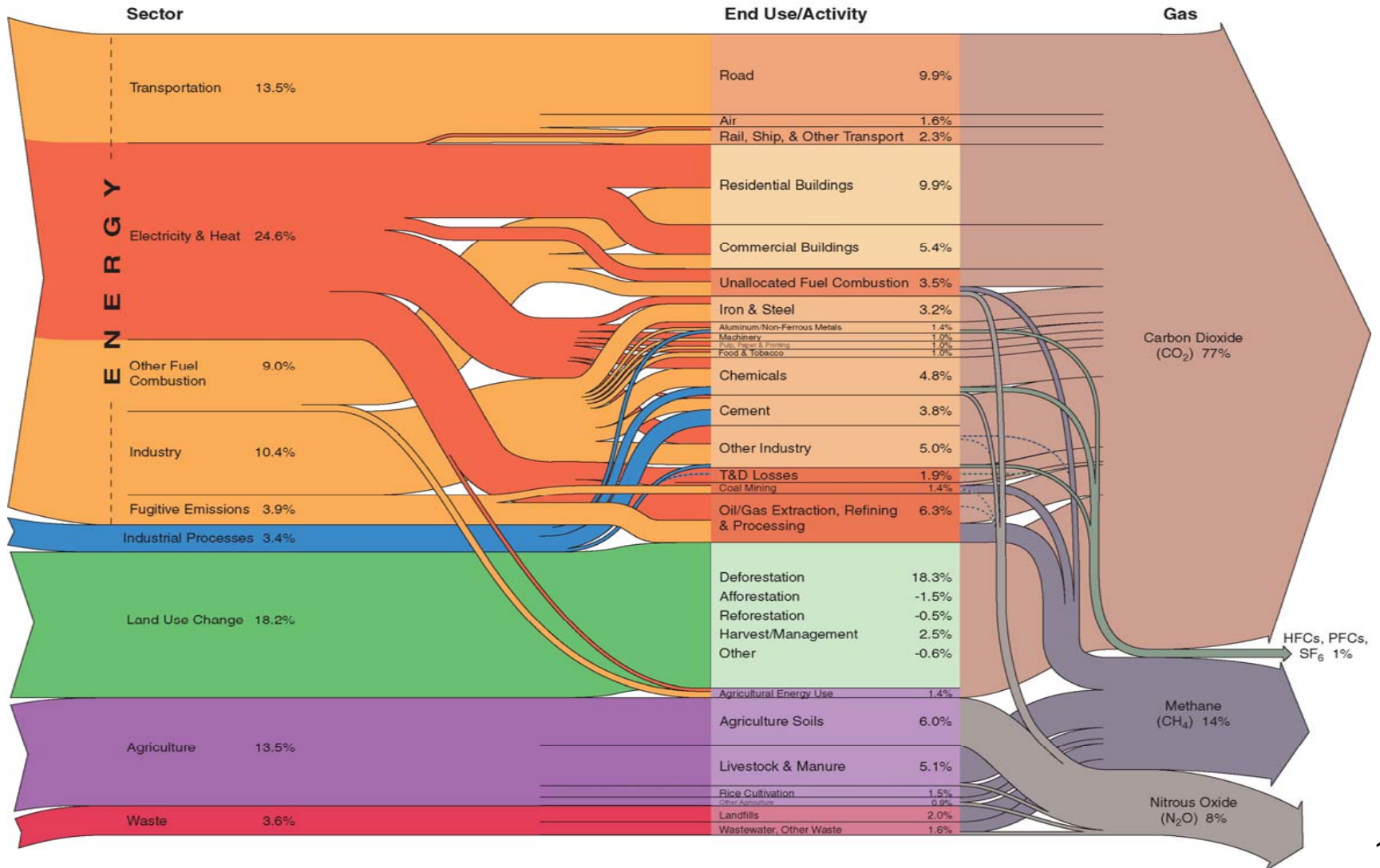
CO₂ emissions / GDP (PPP)
(EXCLUDING land use, 2005)



Source: WDI World Bank.



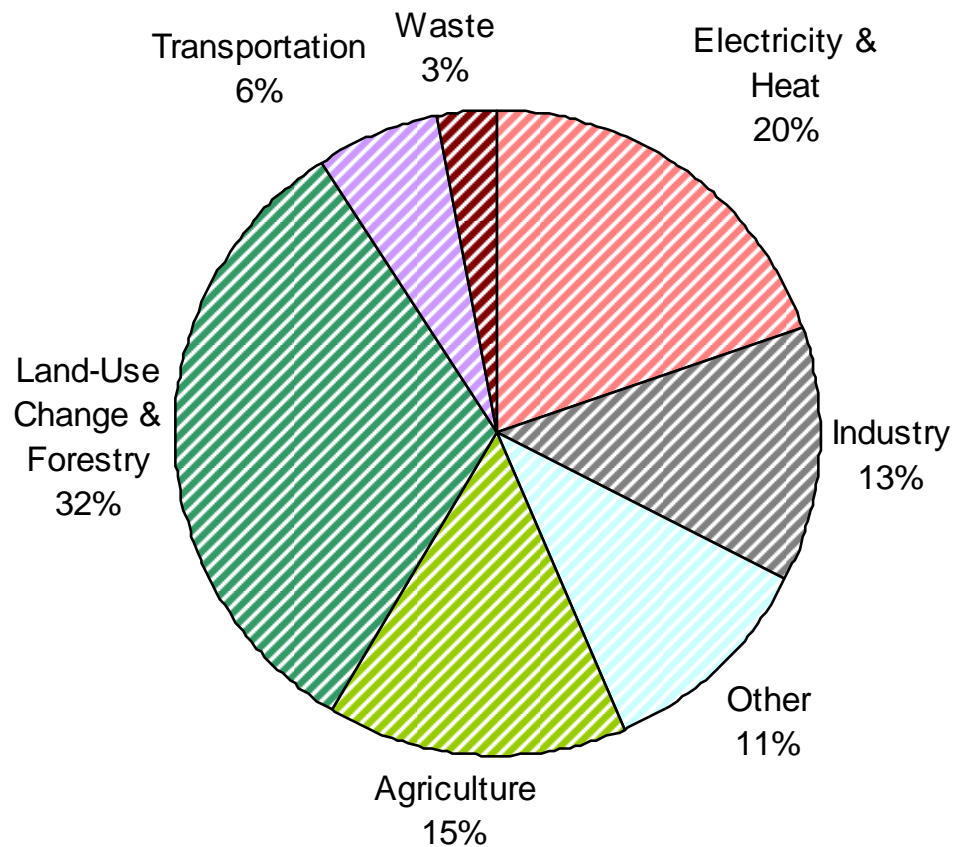
Globally, sources of GHG mostly from energy





Sources of GHG Emissions in Developing Countries

GHG Emissions by Sector, IBRD-IDA Countries



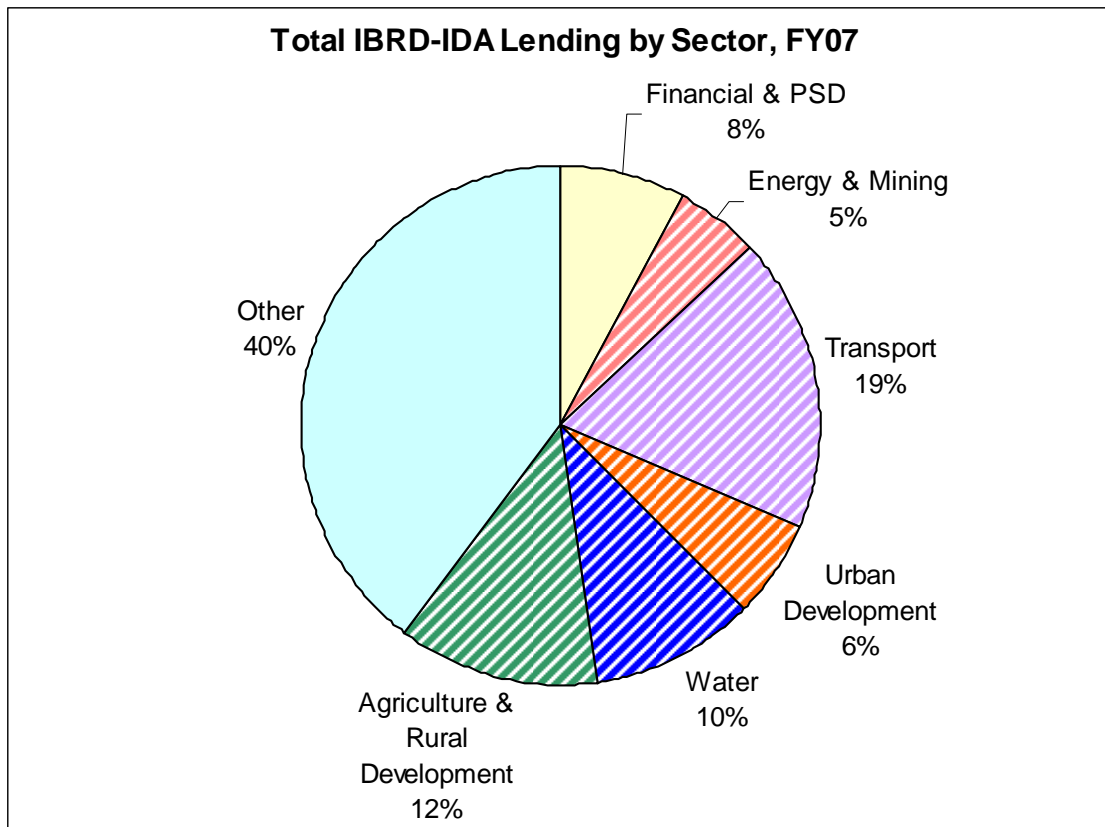


Climate Change is not new for the World Bank

- **1993 – Began implementing / leveraging GEF funding for climate change**
- **1999 – Pioneered Carbon Finance through \$180 million Prototype Carbon Fund**
- **1999 – "Fuel for Thought" Environment Strategy for the Energy Sector**
- **2001 – Adopted Environment Strategy with climate change pillar**
- **2006-08 – Clean Energy Investment Framework (CEIF):**
 - (i) increased access to energy, especially in Sub-Saharan Africa; (ii) accelerated transition to a low carbon energy economy; and (iii) adaptation to climate variability and change.
- **2007 – IDA and Climate Change Paper**



World Bank lending is in sectors with largest opportunities for both adaptation and mitigation



Numerous opportunities to make a difference



Recent progress in climate change

- Energy portfolio has grown (from \$6 billion in FY03–05 to \$11 billion in Fy06-08); low carbon share up from 28% to 40%
- Carbon Finance business grown to \$2 billion, with two new facilities - CPF and FCPF- approved in September 2007
- Low carbon growth and adaptation studies; WDR
- Pilot program to begin measuring GHG emissions of the WBG lending portfolio is underway; shadow price for carbon



World Development Report Development and Climate Change

September 2009

- **Challenges:**

- A report a week on climate change...how to add value?
- UNFCCC process – how to contribute? how to manage politically charged context?

- **Emerging storyline:**

- Two “facts”:
 - Climate change will greatly complicate development challenges
 - Traditional development is not the answer to climate change
- And two questions:
 - What would “climate-smart development” look like?
 - What international architecture is needed to support it?



How we will develop a comprehensive Strategic Framework on Climate Change and Development (SFCCD)

- ✓ Neutrality to UNFCCC Negotiations
- ✓ Flexibility to accommodate new developments
- ✓ Working with Multiple Partners
- ✓ Inclusive and Consultative Process
- ✓ Bank Group Framework; region and country specific strategies and business plans



Neutrality to UNFCCC Negotiations

- Neutral to any party position
- Helping countries understand the impacts of alternative policies within the UNFCCC
- Piloting innovative instruments and approaches that help inform the development of a future regime (e.g. IDA15 as a platform for mainstreaming adaptation, Carbon Finance, Climate Investment Funds)
- Advocacy and capacity building



SFCCD is about *development* in the context of climate change

- Priority of growth, poverty reduction and MDGs
- Importance of meeting energy needs of developing countries
- Development imperative of helping to adapt to climate risks
- Resource mobilization in addition to the current ODA levels





Access and Low Carbon Energy

- ***Providing Energy Services for A Better Quality of Life.***
- Worldwide, nearly 2.4 billion people use traditional biomass fuels—wood, agricultural residues, and dung—for cooking and heating
- Nearly 1.6 billion do not have access to electricity.
- Four out of five people without access to electricity live in rural areas
- Without access to modern and sustainable energy services, poor people are deprived of opportunities for economic development and improved living standards.



6 Action Pillars

1. Make effective climate action – both adaptation and mitigation – part of core development efforts
2. Address the resource gap through existing and innovative instruments for concessional finance
3. Facilitate the development of innovative market mechanisms
4. Create enabling environment for and leveraging private sector finance
5. Accelerate the deployment of existing and development of new climate-friendly technologies
6. Step-up policy research, knowledge management and capacity building



Focus on Multiple Benefits and Opportunities of Climate Action

Examples:

- Greater energy efficiency & diversification of energy base
- Increased competitiveness through technological innovation
- Improved air quality and reduced congestion
- New business and income-generating activities
- Better forest and land management practices
- Improved spatial planning and enhanced local governance
- Designing “climate resilient” infrastructure – addressing increased variability & climate change
- The holistic development of water resources with multiple local and global benefits



Mobilizing Finance to Cover *Additional Costs*

Progress to date:

- Strong replenishment of IDA15
- Adaptation Fund under special arrangement with GEF Secretariat
- CEIF: Increased volume and share of low carbon energy lending, in partnership with GEF
- IFC leveraged private finance by 1 to 5
- Robust increase in Carbon Finance
- Forest Carbon Partnership Facility

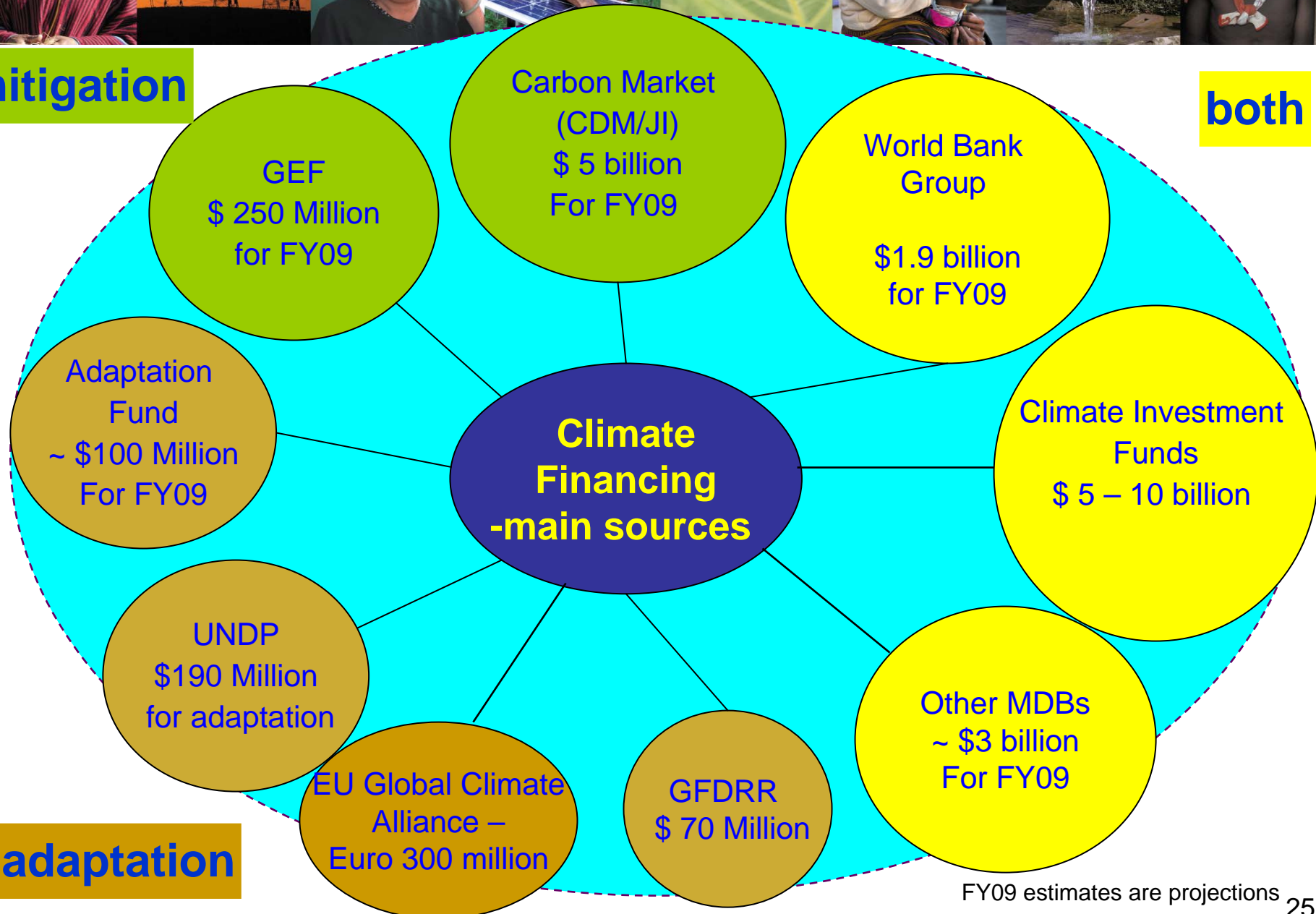
New initiatives:

- WBG+RDBs - Climate Investment Funds (CIF)
- Carbon Partnership Facility
- MIGA –carbon credit delivery guarantee
- IFC- Structured financing packages blending CF with loans and guarantees
- WB Treasury - bonds at reduced rates to advance to projects with climate benefits
- Climate Risk Insurance products customized to different needs



mitigation

both



adaptation



Gaps in Adaptation Financing

- Financing gap: UNFCCC estimates that by 2030, \$28–67 billion/year required to help developing countries adapt
- Knowledge gaps are impediments to integrating climate risks into development
- Until large-scale funds are operational, interim financing is necessary to proceed with adaptation mainstreaming in development and to build knowledge base
- Need to pilot programmatic approaches to delivering finance



Mobilizing Additional Financing: Proposed Climate Investment Funds

www.worldbank.org/cif



Principles

- Core mission of the MDBs is growth and poverty reduction
- MDBs have role to play in ensuring access of developing countries to adequate financial resources and appropriate technology for climate change
- Activities financed by funds should be based on country-led programmatic approach and integrated into country-owned development strategies
- UN is the appropriate body for broad policy setting on climate change
- Guided by principles of UNFCCC
- Support Bali Action Plan with no prejudice to final agreement
- MDBs should remain accountable to their governing bodies





CIF Objectives

- Provide incentives for scaled-up action and transformational change
- Promote international cooperation on climate change to support future progress under the Bali Action Plan
- Provide experience and lessons through learning-by-doing





Clean Technology Fund

- Goal: Accelerate transformation to low carbon economies
- Recognizes gap between current financial flows and expectations for financing under a future agreement
- Finances cost-effective mitigation of greenhouse gas emissions
 - Focus on transformative investments at scale
 - Speed and nimbleness essential, given urgency
 - Rooted in national strategic plan
 - Engages public and private sector
- Complements existing financing
- Utilizes blend/suite of instruments (grants, concessional loans, guarantees)





Strategic Climate Fund

Goals:

- Promote and channel financing for targeted programs
- Provide opportunity for sharing and disseminating lessons learned
- Promote collaboration, synergies and learning among MDBs in area of climate change





Strategic Climate Fund

Programs:

- First SCF program is the Pilot Program for Climate Resilience (PPCR)
- Other potential programs include greening energy access, sustainable forest management and CCS





Proposed Pilot Program for Climate Resilience

- Explore practical ways to mainstream climate resilience into core development planning and budgeting, building on National Adaptation Programs of Action (NAPAs)
- Ensure strategic alignment with – and reporting to – Adaptation Fund
- Generate lessons for the wider development community
- Close program at end of pilot



SFCCD Consultations

- SFCCD requested at Annual Meetings 2007 as evolution of CEIF
- Through March 2008: Concept and issues development, early, informal consultations
- April – June 2008: First phase of global consultations on draft concept and issues paper
- October 2008 ~ beyond: SFCCD will remain flexible to accommodate:
 - Additional feedback
 - New developments related to climate change regime and financial architecture
 - Most recent knowledge and lessons learned



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1. What should the World Bank Group's role on climate change be within the international development community?
2. The Concept and Issues Paper states that both mitigation and adaptation must be integrated into development efforts, where do you see the key areas of focus for the World Bank Group?
3. What role can the World Bank Group play to accelerate the development and deployment at scale of climate friendly technologies for energy, transport, agriculture and other sectors in developing countries?
4. Building capacity within countries, regions and institutions will be crucial to address climate change issues. How can the World Bank Group contribute?
5. What should be the role of the World Bank Group in mobilizing additional concessional financing and private sector investments to respond to climate change?
6. Other Comments?

Your Feedback

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If you have comments on the consultations draft, [you may click here to submit them now](#). There are 6 specific questions for your consideration. Given the expected volume of feedback, we cannot guarantee an immediate response, but you will be sent an acknowledgement that your comment(s) have been received.

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We Are Listening



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