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ICAO: UNITING AVIATION ON CLIMATE CHANGE

# ICAO Colloquium on Aviation and Climate Change

## Climate Finance – Challenges and Responses

**World Bank perspective**

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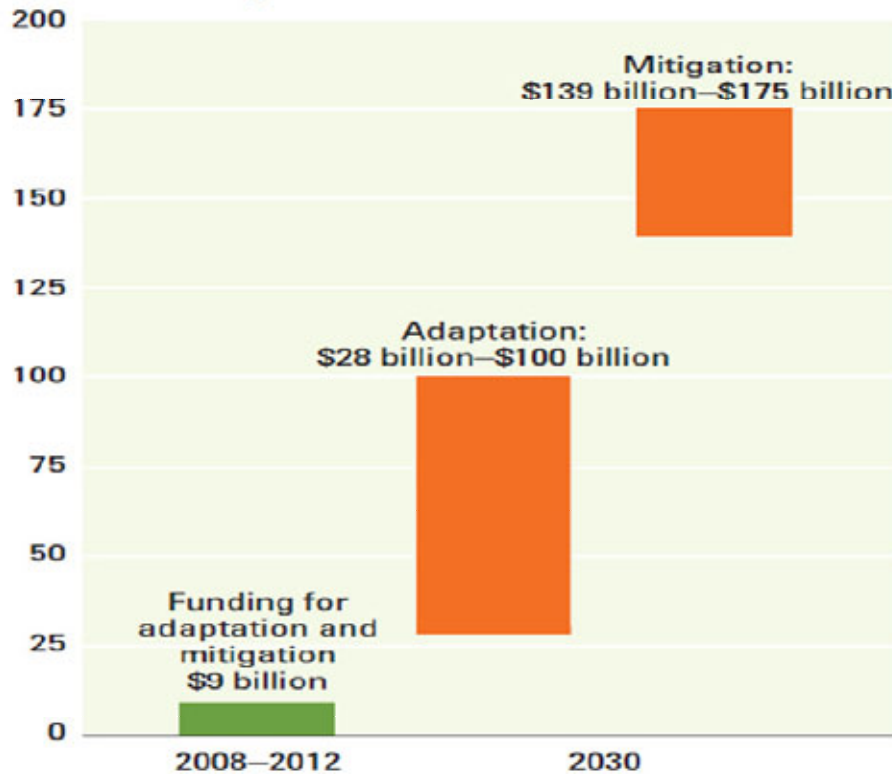
[www.worldbank.org/climatechange](http://www.worldbank.org/climatechange)





# Financial needs to deal with climate change

Additional investment needs in developing countries, by 2030



Climate finance covers additional costs and serves to..



Available dedicated climate finance covers only 5% of the needs



## Developing Countries are already taking action...

**Brazil:** Reducing deforestation in the Amazon by 70% by 2020; expanding biofuel programs, energy efficiency

**China:** Energy efficiency, 20% reduction in energy intensity from 2005 to 2010; 15% renewable energy target by 2020; Clean technology R&D; sustainable transport



**Ethiopia:** Integrating adaptation in sustainable land management, social protection, development of hydropower, and building capacity programs

**India:** Adaptation (drought, floods, cyclones, glacier melting), energy efficiency, hydro and new renewable energy, solar energy R&D, knowledge

**Caribbean Islands:** Adaptation to increasing hurricanes and storms, using catastrophic risk bonds

**Morocco:** Integrated approach to tackling climate change in water, agriculture, and urban sectors, Mediterranean Solar Plan Initiative



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# The WBG Strategic Framework for Development and Climate Change

## Objectives:

- Enable WBG to effectively support sustainable development and poverty reduction, as climate risks and climate-related economic opportunities arise
- Facilitate global action and interactions among all countries

## Key principles:

- Working in partnerships guided by UNFCCC process
- Country-led, country-driven, “no regrets” actions
- Approach tailored to specific needs of diverse clients

## Six Areas of Action

1. Support climate actions in country-led development processes
2. Mobilize additional concessional and innovative finance
3. Facilitate the development of market-based financing mechanisms
4. Leverage private sector resources
5. Support accelerated development and deployment of new technologies
6. Step up policy research, knowledge and capacity building



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# Climate Change Issues in Country Assistance and Partnership Strategies

**Over 81% of all Country Assistance Strategies prepared so far in FY 2010 address climate change**

## **Example: Morocco Country Partnership Strategy (FY09)**

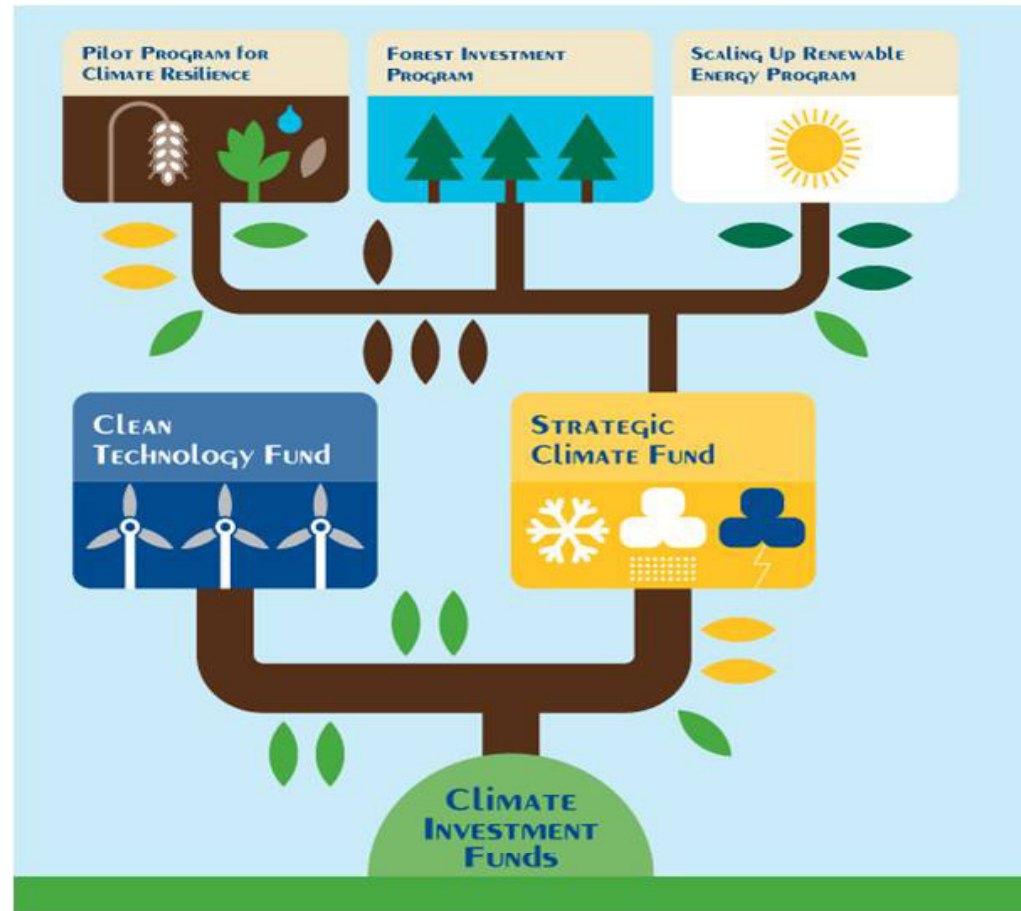
Morocco's future economic development is vulnerable to energy supply disruption, water scarcity and natural resource depletion. Climate change impacts are already felt today. The strategy addresses climate change and sustainable development in tandem.





# Mobilizing Finance: Climate Investment Funds

**Clean Technology Fund:** Finances demonstration, deployment, and transfer of low carbon technologies.  
**Total commitment: \$4.4 billion**



**Strategic Climate Fund:** Targeted programs to pilot new approaches and scale-up:  
**Total commitment: \$1.9 billion**

Approved in July 2008, CIFs have balanced and equitable governance with equal representation from developed and developing countries



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# Clean Technology Fund

Thirteen investment plans endorsed with a total envelope of US\$4.4 billion, leveraging \$40 billion

## **Example: Mexico**

\$500 million, leverages \$6.2 billion

- ❖ Enables shift to efficient, low carbon bus rapid transit systems and light rail, and to retire old buses and replace them with lower carbon alternatives, such as hybrid vehicles

- ❖ Aims to reduce more than 20 percent of national energy consumption through energy efficiency

- ❖ Develop renewable energy, particularly wind power and mini-hydro installations



- ❖ **Countries:** Colombia, Egypt, Indonesia, Kazakhstan, Mexico, Morocco Philippines, South Africa, Thailand, Turkey, Ukraine, and Vietnam

- ❖ Regional Program for Concentrated Solar Power in Middle East and North Africa



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# Pilot Program for Climate Resilience (PPCR)

First operational program under the Strategic Climate Fund: \$967million in grants and IDA-like resources

## Purpose

To help highly vulnerable countries pilot and demonstrate ways to integrate climate risk and resilience into core development planning while complementing other ongoing activities.

**Participating countries:** Bangladesh, Bolivia, Cambodia, Mozambique, Nepal, Niger, Tanzania, Yemen, Zambia,

**Regional Programs:** Caribbean (Dominica, Grenada, Haiti, Jamaica, Saint Lucia, Saint Vincent and Grenadines) and South Pacific (Papua New Guinea, Samoa, Tonga)



## Example: Cambodia

- ❖ Technical support for mainstreaming climate resilience
- ❖ Piloting vulnerability assessments and investments on an ecosystem basis
- ❖ Strengthening data collection on climate risks
- ❖ Promoting participation of the private sector and civil society





# Carbon Market Development



11 Carbon Funds:  
\$2.5 billion

- Expanding the reach and boundary of carbon markets
- The WBG portfolio has more than 200 projects in 57 developing countries
- Africa accounts for one fifth of active projects in the WBG carbon finance portfolio compared to 2-3% share of projects in the CDM pipeline



Carbon Partnership  
Facility (CPF)

- Supporting programmatic and sector-wide interventions
- Carbon Asset Development Fund – €7 million
- Carbon Fund - €100 million



Forest Carbon  
Partnership Facility  
(FCPF)

- Supporting Country-readiness and piloting incentives for reducing emissions from deforestation and forest degradation - \$160 million available
- 37 participating developing countries
- 11 Readiness grants signed



# Mobilizing Finance via Capital Markets

**World Bank Green Bonds:** \$1.4 billion  
issued through 16 bonds: the inaugural transaction was launched in November 2008

**Cool Bonds:** \$31.5 million

**Eco Notes:** \$390 million

**Risk Management Services supporting climate risk management**

- ❖ **MultiCat Program**
- ❖ **Caribbean Catastrophe Reinsurance Facility (2007, 2008, 2009)**
- ❖ **Weather hedges**



Example: ***Mongolia Index-based Livestock Insurance Project***

In Mongolia, the livestock sector represents 87 % of GDP and supports at least half of the population.

Between 1999 and 2002 however, one-third of the national herd was lost in successive harsh seasons, showing extreme vulnerability.

This project introduces a new market-based approach that spreads the risk across herders, government, and the private sector.



## Climate Finance Knowledge Platform

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**My CFO**

**What's New**

**News Featured Story**

COP15 United Nations Climate Change Conference 2009  
Dec 7 - Dec 18, 2009

**Project**

National Sustainable Electrification and Renewable Energy Program, Nicaragua  
Oct 1, 2009

**List of Acronyms**

**Related**

- Climate Change - The World Bank | UNDP
- Adaptation - The World Bank | UNDP
- Mitigation - The World Bank | UNDP
- Carbon Finance - The World Bank | UNDP
- UNFCCC

**OVERVIEW**

This platform aims at providing comprehensive guidance on financial options available for climate action in developing countries. Here you can find information on where to access the wide range of funds available from multilateral and bilateral institution, as well as public and private sources. Learn more on how these funds are governed and whether your project is eligible. Users are invited to be a resource to share their experiences with investment projects and offer feedback and comments on ongoing projects.

FUNDING SOURCES	ON THE GROUND	KNOWLEDGE CENTRE
<p>Find funds that are available for both adaptation and mitigation projects that reduce impacts of climate change. See whether your project is eligible, what the governance structure for these funds is, and how to access them.</p>	<p>Learn about projects from across the world and a range of sectors that have accessed these funds successfully. They have used a mix of these instruments innovatively and are now a source of inspiration for those waiting to hit the ground.</p>	<p>Expand your financial literacy with our glossary of finance and climate change terms, analyze your project using our compilation of business tools from around the Web, and peruse a host of guides and funding documents to ensure your project's success from planning to implementation.</p>

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One vehicle for UN agencies and MDBs to provide access to information on climate finance

[www.climatefinanceoptions.org/demo](http://www.climatefinanceoptions.org/demo)

[www.worldbank.org/climatechange](http://www.worldbank.org/climatechange)



# Monitoring & Reporting

- Increasingly reliable, comprehensive and transparent reporting is needed to demonstrate that new climate finance instruments are not introduced at the expense of those targeting other objectives
- Exact and comparable figures on additional contributions to fund incremental expenses probably not possible
- Levies/taxes versus ODA
- Need to continue to develop and improve OECD DAC Rio Markers



## **Indirect Taxes on International Aviation & Maritime Activities**

- IMF paper from 2007 (Michael Keen & Jon Strand)
- On pure tax policy grounds, case is strong
- Optimal likely to involve combination of both an excise on use of fuel or equivalent emission charges and a ticket tax (best taking the form of VAT)
- Trip charges less capable of variation according to fuel use or extent of consumption of aviation services
- Also fuel consumed by ocean-going vessels not taxed



## **UNSG's High-Level Advisory Group on Climate Change finance**

- Established in Feb. 2010 to conduct a study on potential sources of revenue for scaling up new and additional resources to meet “Copenhagen Accord” commitments
- Co-chaired by PMs of Ethiopia and the UK
- 18 other members incl. 2 heads of state/government, ministers of finance, etc.
- Final report in October 2010