

2012 ANNUAL REPORT



# CREATING THE CLIMATE FOR CHANGE

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## ACRONYMS AND ABBREVIATIONS

<b>ADB</b>	Asian Development Bank	<b>MDB</b>	Multilateral development bank
<b>AfDB</b>	African Development Bank	<b>MENA</b>	Middle East and North Africa Region
<b>APL</b>	Adaptable program loan	<b>MW</b>	Megawatt
<b>BSR</b>	Business for Social Responsibility	<b>M&amp;E</b>	Monitoring and evaluation
<b>CIF</b>	Climate Investment Funds	<b>PPCR</b>	Pilot Program for Climate Resilience
<b>CO<sub>2</sub></b>	Carbon dioxide	<b>PPP</b>	Public-private partnership
<b>CSO</b>	Civil society organization	<b>RE</b>	Renewable energy
<b>CSP</b>	Concentrated solar power	<b>REDD</b>	Reducing emissions from deforestation and forest degradation
<b>CTF</b>	Clean Technology Fund	<b>REDD+</b>	REDD plus enhancing forest carbon stocks
<b>DGM</b>	Dedicated Grant Mechanism for Indigenous Peoples and Local Communities	<b>SCF</b>	Strategic Climate Fund
<b>DPL</b>	Development policy loan	<b>SREP</b>	Program for Scaling Up Renewable Energy in Low Income Countries
<b>DR Congo</b>	Democratic Republic of Congo	<b>UK</b>	United Kingdom
<b>EBRD</b>	European Bank for Reconstruction and Development	<b>UN</b>	United Nations
<b>ECOSOC</b>	UN Economic and Social Council	<b>UNDP</b>	UN Development Programme
<b>EE</b>	Energy efficiency	<b>UNEP</b>	UN Environment Programme
<b>FCPF</b>	Forest Carbon Partnership Facility	<b>UNFCCC</b>	UN Framework Convention on Climate Change
<b>FIP</b>	Forest Investment Program	<b>UNPFII</b>	UN Permanent Forum for Indigenous Issues
<b>GDP</b>	Gross domestic product	<b>UN-REDD</b>	UN Collaborative Program on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
<b>GEF</b>	Global Environment Facility	<b>US</b>	United States of America
<b>GW</b>	Gigawatt	<b>WBG</b>	World Bank Group
<b>HCS</b>	Hydro-meteorological and climate services	<b>€</b>	European Union Euro
<b>IDB</b>	Inter-American Development Bank	<b>\$</b>	United States Dollar
<b>IFC</b>	International Finance Corporation (WBG)		
<b>IWRM</b>	Integrated water resources management		

## CREATING THE CLIMATE FOR CHANGE



A chrysalis (Latin *chrysalis* from Greek *χρυσάλλις* = *chrysalis*, pl: *chrysalides*) is the pupal stage of a butterfly's lifecycle. The pupa marks a distinct point of transformation as part of the insect's metamorphosis, or change, from embryo to larva, to pupa and, finally, to imago, the insect's fully developed adult stage. Within the chrysalis, growth and differentiation occur, preparing for emergence of the butterfly.

The Climate Investment Funds (CIF) are designed to scale up both climate financing and knowledge to support the transformation of economies that will equip poorer communities for a climate-stressed world. With the past year of operational efforts under our belts, we can begin to document, measure, and share the ways in which countries are using CIF funding to do that and where the challenges remain.

During 2012, the CIF's fourth year, we are beginning to see the impact of the CIF's triple focus on programmatic planning to embed climate-smart action in national development and poverty reduction plans, on innovative investments in tested-but-young climate approaches and technologies, and on partnerships and multi-stakeholder engagement. Four years of planning and preparation in 49 countries translate into indicative allocations of more than \$7.7 billion in CIF funds. To date, CIF funding for 66 projects in renewable energy, energy efficiency, clean transport, sustainable management of forests, and climate resilience has been approved.

The 2012 CIF Annual Report reflects on how CIF support is *creating the climate for change* by enabling pilot countries' work and gives particular focus to the role of resilience as the cutting—and the cross-cutting—edge of development. The report, a joint effort by the CIF partner multilateral development banks (MDBs) and incorporating voices and perspectives from the field in CIF recipient countries, is designed to give you a chance to look through the CIF's four windows into an emerging climate-smart future. We hope that you will find it informative and even inspiring.

**Patricia Bliss-Guest**  
*Manager, CIF Administrative Unit*





Time for (Solar) Tea  
by Ross Hughes,  
prize winner of the  
CIF 2012 Climate in  
Focus photo contest

# CLIMATE INVESTMENT FUNDS

**\$7.6 BILLION LEVERAGING \$43.6 BILLION IN CLIMATE-RESILIENT, LOW-CARBON DEVELOPMENT**

The Climate Investment Funds (CIF) are giving developing countries an urgently needed jump-start to mitigate and manage the challenges of climate change. Strong climate outcomes are contributing to national development priorities through CIF programs and projects.

CIF pilot countries and regions, covering 49 countries worldwide, are using CIF resources as springboards to launch national planning efforts across institutions and stakeholder groups, to leverage substantial additional resources, and to implement innovative, country-led investments for clean technology, sustainable management of forests, increased energy access through renewable energy, and climate-resilient development. Delivered through four windows, CIF financing includes grants, highly concessional funds, and risk mitigation instruments that

leverage significant financing from governments, the private sector, multilateral development banks (MDBs), and other sources. Funding flows through the five MDBs—the African Development Bank (AfDB), Asian Development Bank (ADB), European Bank for Reconstruction and Development (EBRD), Inter-American Development Bank (IDB), and World Bank Group (WBG), including International Finance Corporation (IFC)—who collaborate closely under the leadership of the government and support design and implementation of CIF-funded projects and programs.

At the country level, governments work with the MDBs and other development partners, including civil society and the private sector, to extract, aggregate, and share knowledge and expertise; spur innovation, learning, and sharing of ideas; and encourage high-impact use of CIF resources.



CLIMATE INVESTMENT FUNDS (CIF) \$7.6 BILLION <sup>1</sup>			
<b>CLEAN TECHNOLOGY FUND (CTF) \$5.2 B</b>	<b>PILOT PROGRAM FOR CLIMATE RESILIENCE (PPCR) \$1.3 B</b>	<b>FOREST INVESTMENT PROGRAM (FIP) \$639 M</b>	<b>PROGRAM FOR SCALING UP RENEWABLE ENERGY IN LOW INCOME COUNTRIES (SREP) \$505 M</b>
<i>Donors: Australia, Canada, France, Germany, Japan, Spain, Sweden, United Kingdom, United States</i>	<i>Donors: Australia, Canada, Denmark, Germany, Japan, Norway, Spain, United Kingdom, United States</i>	<i>Donors: Australia, Denmark, Japan, Norway, Spain, Sweden, United Kingdom, United States</i>	<i>Donors: Australia, Denmark, Japan, Korea, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom, United States</i>
High-ambition, scaled-up demonstration, deployment, and transfer of low-carbon technologies in renewable energy, energy efficiency, and clean transport	Mainstream resilience in development planning and action	Reduce emissions from deforestation and forest degradation, sustainably manage forests, and enhance forest carbon stocks	Demonstrate economic, social, and environmental viability of low-carbon development in low income countries' energy sectors
16 CTF investment plans: Chile, Colombia, Egypt, India, Indonesia, Kazakhstan, Mexico, Morocco, Nigeria, Philippines, South Africa, Thailand, Turkey, Ukraine, Vietnam, and the Middle East and North Africa Region (Algeria, Egypt, Jordan, Morocco, Tunisia)	11 PPCR pilots: Bangladesh, Bolivia, Cambodia, Mozambique, Nepal, Niger, Tajikistan, Yemen, Zambia, the Caribbean Region (Dominica, Grenada, Haiti, Jamaica, St. Lucia, St. Vincent and the Grenadines), and the Pacific Region (Papua New Guinea, Samoa, Tonga)	8 FIP pilots: Brazil, Burkina Faso, DR Congo, Ghana, Indonesia, Lao People's Democratic Republic, Mexico, and Peru	8 SREP pilots: Ethiopia, Honduras, Kenya, Liberia, Maldives, Mali, Nepal, and Tanzania
STRATEGIC CLIMATE FUND (SCF) \$2.4 BILLION <sup>2</sup>			

1. Fund pledges in this document are based on exchange rates on the initial CIF pledging date of September 25, 2008.  
2. For governance and funding purposes, the PPCR, FIP, and SREP are arranged under the Strategic Climate Fund (SCF).



**CIF Partnership**  
@CIF\_Action Follow

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Equal numbers of developing and developed nations govern the #Climate Investment Funds  
<http://bit.ly/SnnDiV> #CIFforum

# CIF IN NUMBERS

FUNDS BEING ALLOCATED AND READY FOR ACTION<sup>3</sup>

## CIF COUNTRIES BY REGION

**27%**  
LATIN AMERICA & THE CARIBBEAN

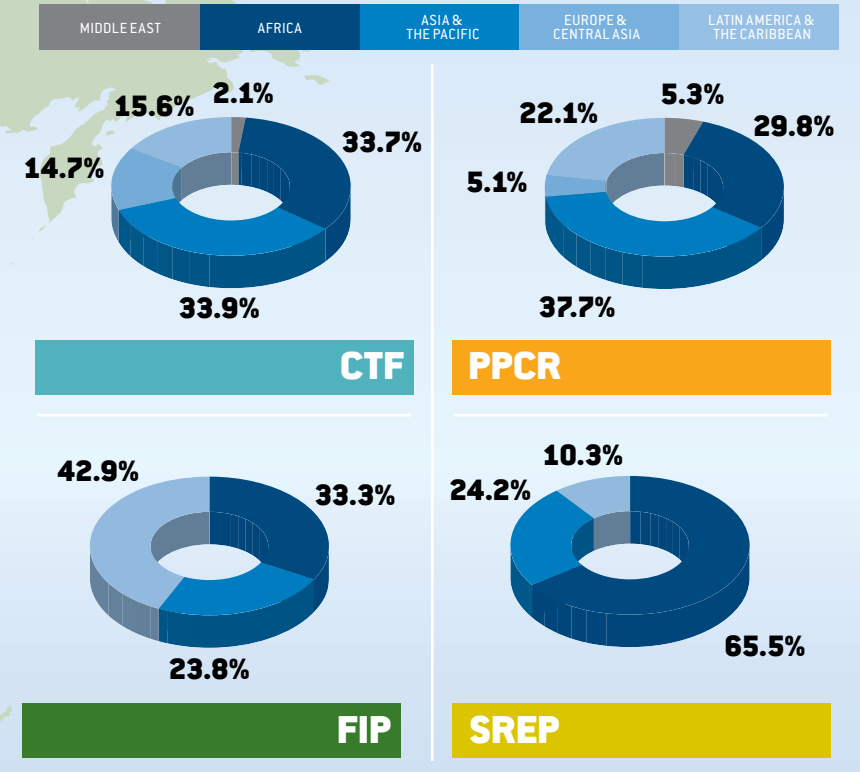
**8%**  
EUROPE & CENTRAL ASIA

**4%**  
MIDDLE EAST

**33%**  
AFRICA

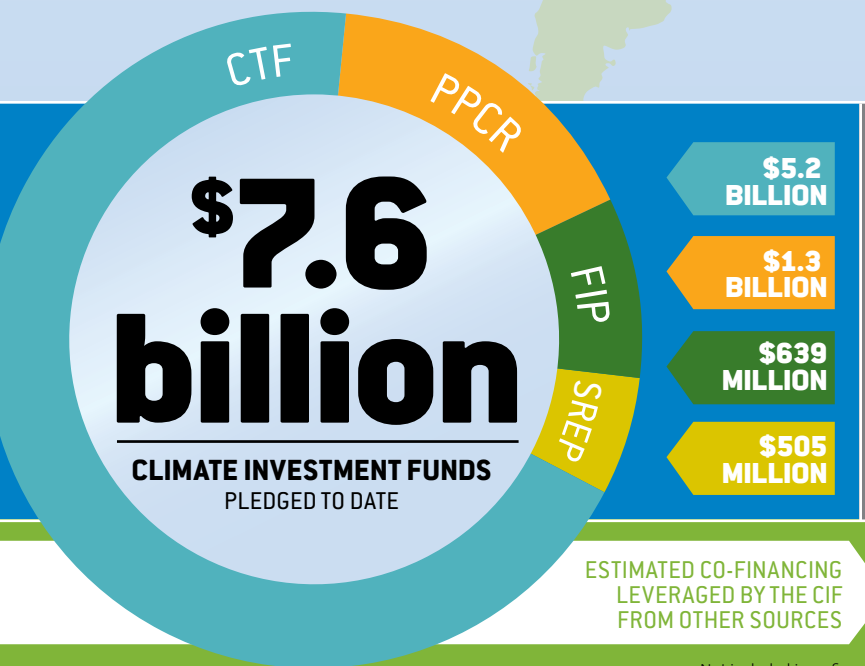
**27%**  
ASIA & THE PACIFIC

## PERCENTAGE OF INVESTMENT PLAN FUNDING—BY REGION



**66** CIF PROJECTS APPROVED  
{41CTF.20PPCR.2FIP.3SREP}

3. All "CIF in Numbers" statistics are as of December 31, 2012.



**FINANCIAL LEVERAGE**  
**1:7.1 CIF**

1:8.4 CTF | 1:1.6 PPCR  
1:3.2 FIP | 1:7.4 SREP

**\$7.7 billion**  
CIF INDICATIVE ALLOCATIONS

**\$44.9 million**  
CIF PROJECT PREPARATION GRANTS TO SPEED ACTION

**1.7 billion**  
TONS OF CO<sub>2</sub> EMISSIONS SAVINGS SUPPORTED BY THE CTF

**\$498 million**  
NEW DONOR SUPPORT IN 2012

**70+**  
ADDITIONAL COUNTRIES EXPRESSING INTEREST IN THE CIF

ESTIMATED CO-FINANCING LEVERAGED BY THE CIF FROM OTHER SOURCES  
**\$43.6 billion**<sup>4</sup>

**580 MW** OF RENEWABLE ENERGY CAPACITY SUPPORTED BY THE SREP

**49** CIF PILOT COUNTRIES

**14** CIF CONTRIBUTOR COUNTRIES

4. Not included is co-financing for India's \$100 million development policy loan, which will be determined at a later stage.



## 2012 INVESTMENT PLANNING GIVING WAY TO ON-THE-GROUND IMPLEMENTATION



*Energy Efficiency in Building Design:  
Saving the Lungs of Women and  
the Planet One Chimney Pipe at a Time*  
by Luke Metelerkamp, prize winner of the  
CIF 2012 Climate in Focus photo contest

In its fourth year, the CIF has seen a shift in its intense activity. The tremendous amount of time and effort to craft strategic, multi-dimensional investment plans—put in by governments, MDBs, development partners, and stakeholders across civil society, Indigenous Peoples, and the private sector in all 49 CIF pilot countries—has paid off as countries start active implementation of their CIF-backed programs. A total of 66 projects are approved in renewable energy, energy efficiency, clean transport, sustainable forest management, and climate resilience.

From January 1 through December 31, 2012, the CIF has achieved advancements in:

**The Clean Technology Fund (CTF):** The CTF Trust Fund Committee endorsed the investment plan of Chile, as well as the updated plans of Egypt, Morocco, the Philippines, Thailand, and Turkey. All 16 CTF investment plans are endorsed, with many already being launched. To date, 41 projects have been approved for \$2.3 billion in CTF funding, leveraging \$18.8 billion in co-financing and contributing to 525 million tons CO<sub>2</sub> emissions savings.

**The Pilot Program for Climate Resilience (PPCR):** The PPCR Subcommittee endorsed the strategic programs for climate resilience of Dominica, Papua New Guinea, Tonga, Yemen, the Caribbean region, and the Pacific region, bringing the total number of endorsed programs to 19 out of 20. To date, 20 projects have been approved for \$306 million in PPCR funding, which is expected to leverage \$365.8 million in co-financing.

**The Forest Investment Program (FIP):** The FIP Subcommittee endorsed the investment plans of Brazil, Burkina Faso, Ghana, Indonesia, and Lao People's Democratic Republic. This brings

the total number of endorsed plans to seven out of eight and amounts to \$370 million in FIP funding. Two projects, both in Mexico, were approved for \$57 million in FIP financing with total projected investments of \$703 million. Preparations are underway to activate the Dedicated Grant Mechanism for Indigenous Peoples and Local Communities (DGM) (see Box 7).

**The Program for Scaling Up Renewable Energy in Low Income Countries (SREP):** The SREP Subcommittee endorsed the investment plans of Ethiopia and the Maldives, bringing the total number of endorsed plans to six out of eight for \$240 million in SREP funding. Liberia was accepted as the eighth SREP pilot country, and funding is available to prepare investment plans in Armenia, Mongolia, Yemen, and the Pacific region. Three projects in Kenya, Nepal, and Honduras were approved for \$46 million in SREP financing expected to leverage an additional \$572 million in co-financing and contribute to 250 megawatts (MW) in new renewable energy capacity.

### DELIVERING AND IMPROVING ON THE PROMISE OF THE CIF

In 2012, CIF partners and stakeholders continued to build on early design efforts as they learn by doing, working to bring fully to life the principles upon which the CIF was built and to ensure the CIF delivers on its promise of:

- Initiating transformational change
- Transparent and equitable governance
- Focus on country-led, climate-smart development
- Flexible financing products that work for developing countries
- Fully stakeholder-owned processes
- Learning by doing and knowledge sharing

## \$498 million in new donor support demonstrates confidence in the CIF mission

In addition to new contributions received earlier in the year from Canada (CAD200M/USD199.4M\* for the CTF), Germany (EUR9.45M/USD12.3M\* for Readiness), and the United Kingdom (GBP25M/USD40M\* for the SREP), the following countries announced additional contributions at the CIF 2012 Partnership Forum in Istanbul, Turkey, or before the end of the 2012 calendar year:

- Denmark (DKK47M/USD8.3M\* for the PPCR)
- Norway (NOK20M/USD3.6M\* for the PPCR, NOK90M/USD16.1M\* for the SREP)
- Sweden (SEK170M/USD26.1M\* for the SREP)
- Switzerland (USD6M for the SREP)
- United Kingdom (GBP75M/USD121.3M\* for the CTF, GBP15M/USD24.3M\* for the PPCR, GBP25M/USD40.4M\* for the SREP)

This brings the level of total contributions to the CIF to USD7.6 billion.\*\*

\*\*Represents amounts converted into USD and amounts pending conversion into USD valued on the basis of exchange rates as of December 31, 2012.

\*\*\*This figure reflects a running total of CIF contributions received to date, pegged to the first CIF official pledging date of September 25, 2008. As of December 31, 2012, the current value of contributions is USD7.2 billion.

### BOX 1

The 2011 CIF Annual Report identified seven operational areas that the CIF committed to improving, and, in 2012, action was taken on:

#### 1. Strengthening country ownership by supporting stakeholder collaboration

The CIF put in place new plans<sup>5</sup> to ensure more effective participation at the country level, clarifying the roles of countries, MDB partners, and stakeholder groups to take this engagement forward. Measures include:

- Sensitizing development partner country teams to CIF collaboration
- Working with countries to distill and share country coordination and other relevant lessons learned
- Implementing principles of collaboration between the MDBs
- Engaging a broad range of stakeholders in regular forums to review progress against the CIF results framework, learn from experience, identify areas where better coordination is required to maximize synergies, and keep the programmatic focus on track

- Consistently using regular pilot country meetings to share lessons on country coordination

#### 2. Engaging the private sector by assessing and reaffirming CIF financial products

The CIF took stock of financial products and mechanisms as part of a larger effort to explore new instruments to engage the private sector. The exercise led to a recommitment to support riskier financial instruments, including equity and quasi-equity, to ensure the full range of CIF financing tools is utilized and to increase the share of CIF financing to private sector investments, particularly in the PPCR, FIP, and SREP. The CIF also is exploring use of local currencies in CIF-backed projects and programs.

#### and by establishing competitive reserve funds

To encourage innovative approaches to engaging the private sector in pilot countries and spur fast action, the CIF governing bodies approved setting aside resources to be allocated on a competitive basis. The agreed initial set asides are \$46 million for the PPCR, \$56 million for the FIP, and up to \$90 million for the SREP (see page 24).

#### 3. Strengthening communications by launching knowledge management and communication efforts

To fulfill the CIF mandate to invest in knowledge, as well as financing, a knowledge management program is underway to build new tools for each CIF program at the global and country levels. Work continues to ensure that knowledge products and approaches are demand driven by countries for countries and can be replicated and scaled up to expand reach (see page 28). As a complementary effort, a communications strategy<sup>6</sup> was developed to highlight CIF activities, reflect stakeholder perspectives, and convey emerging lessons to encourage national, regional, and global replication of CIF activities.

#### 4. Measuring development impacts by strengthening CIF results management frameworks

Revised results management frameworks were approved for the CTF, PPCR, and SREP, taking into account early experience to refine indicators, structures, and harmonization plans among programs and implementing agencies.

Core indicators were established for each program to be measured by all pilot and partner countries. This will enable the CIF to report on achievements of investments at the country and program levels and over time (see page 26).

#### 5. Ensuring good governance and transparency by setting high standards on disclosure

The CIF's robust disclosure policy requires that committee documents, governance frameworks, project proposals, and other documents be posted publicly on the CIF website. Additionally, the CIF is taking steps toward achieving full compliance with the International Aid Transparency Initiative.

#### by enhancing the CIF observer self-selection processes to improve participation

Key stakeholder groups organized more systematic approaches to selecting their observers to the CIF governing bodies, which improved timing, criteria, and selection process. As a result, stakeholders' engagement at committee meetings and their corresponding discourse with constituents back home are helping to deepen understanding of CIF contributions and are increasing the capacity for informed stakeholder involvement at the country level (see page 14).

#### and by limiting executive sessions

To better accommodate the important contributions of active observers on the CIF governing bodies, a decision to limit the executive sessions originally embedded in the governance design was made. Discussions on investment plans now include the voice of beneficiaries, non-governmental stakeholders, and other interested parties to help ensure informed decision making.

#### 6. Enhancing operational performance by assessing effectiveness

Work has begun on the independent evaluation of the CIF, led by an Evaluation Oversight Committee composed of specialists from the independent evaluation arms of the MDBs with advice from an International Reference Group of outside experts. The evaluation, which is expected to

be completed in 2013, will assess the development and organizational effectiveness of the CIF to date and will document experiences and lessons for the benefit of future climate finance instruments, including the Green Climate Fund.

#### and by establishing a CIF risk management framework

To better identify and manage potential events and risks that might affect the CIF portfolio and to allow for an open and inclusive dialogue on CIF risks, a working group comprising representatives from the CIF Administrative Unit, Trustee, and MDB partners has been formed to develop a CIF risk management framework. Goals include better-informed strategic and operational decisions, more transparent communication, and a planning and decision-making approach that aligns with the CIF's risk tolerances.

#### 7. Mainstreaming gender considerations by identifying key areas of improvement

While MDB partners provide gender disaggregated indicators for projects where feasible, the CIF commissioned the Global Gender Office of the International Union for Conservation of Nature to produce a Gender Review of the CIF<sup>7</sup>, providing recommendations and practical tools to help pilot countries and project teams better integrate gender into their work moving forward. In November 2012, the draft report was presented to the Joint CTF-SCF Trust Fund Committee, which agreed that steps should be taken to build upon the principles of the draft gender review to:

- Harmonize and institutionalize gender more effectively
- Acknowledge and employ gender as a driver for transformational change
- Address the need for further knowledge, innovation, and cooperation
- Harness capacity in MDBs and at the country level to strengthen CIF plans and programs through technical approaches that link gender to climate change and specific sectors
- Strengthen gender sensitive monitoring and evaluation

5. CTF and SCF Trust Fund Committees. 2012. "Enhancing Country Coordination Mechanisms, MDB Collaboration and Stakeholder Engagement in CIF Programs." CTF-SCF/TFC.8/5.

6. CTF and SCF Trust Fund Committees. 2012. "CIF Communications Strategy: Communicating CIF Investment in Low-Emission, Climate-Resilient Development A Strategy for Explaining Goals, Achievements, and Lessons." CTF-SCF/TFC.8/6.

7. CTF and SCF Trust Fund Committees. 2012. "Gender Review of the CIF." CTF-SCF/TFC.9/Inf. 5.

# +70

## More than 70 additional countries requesting CIF support

Ever ambitious and future focused, CIF pilot countries are submitting investment plans that require funding beyond available CIF resources and are requesting additional support. Other non-CIF pilot countries also are requesting resources from the CIF; more than 70 have expressed interest. Without additional pledges, the CIF will be constrained in programming for new recipients. The interest shows a need for climate finance from the CIF and other sources.

### BOX 2



BOX 3

**Stakeholders enhance self-selection process to deepen observer participation in the boardroom and on the ground**

A hallmark of CIF transparency is its stakeholders' participation in CIF governance. To keep this process alive and strong, the CIF continuously has looked to strengthen stakeholders' engagement so that they can help advance the CIF's purpose and goals.

In 2012, by drawing on feedback from an extensive review of past processes,<sup>8</sup> three main stakeholder groups—civil society organizations (CSOs), the private sector, and Indigenous Peoples—finalized refined processes of self-selection, participation, and contribution to CIF governance. Each group carried out its own customized process to select representatives to serve as CIF observers for the 2012-14 term (see Annex D, Observers). Orientation programs were held to prepare new observers for participation in the May and November 2012 CIF Trust Fund Committee and Subcommittee Meetings. Observers also met at the first-ever CIF 2012 Civil Society Forum organized by the CIF civil society observers in conjunction with the 2012 Partnership Forum in Istanbul, Turkey, to explore ways and means to enhance the engagement of CSOs at the program and project level (see page 30).

All CSO, private sector, and Indigenous Peoples observers play an active role in the CIF meetings by presenting their constituencies' views and providing expert advice. One critical aspect of their responsibility is to share CIF governance actions with their various constituencies, a challenging task for diverse and global sets of constituents. A means by which the observer groups solidified this process in 2012 was by producing their own joint summary report, which they issued parallel to the official summary following the May and November meetings. Each observer group then circulated its handcrafted summary to its constituencies to enlarge its constituencies' knowledge and understanding of CIF policies and actions.

8. CTF and SCF Trust Fund Committees. 2010. "Review of the Self-Selection Process of Observers to CIF Committees and Effectiveness of Participation." CTF-SCF/TFC.5/7.

*"CSO observers' active involvement in the CIF process has a strong potential for contributing to building consensus, as well as to identifying and addressing key issues for investment plans' approval, implementation, and follow up."*

**Sergio Sanchez, Instituto de Aire Limpio, Mexico**  
CSO observer to the CTF

*"CIF meetings have helped me in connecting with reputed professionals from national and international communities and provided an opportunity to share experiences, reduce isolation, and improve morale. These types of meetings are very effective in upgrading activities of SREP."*

**Padam Hamal, Neighbour Organization, Nepal**  
CSO observer to the SREP

*"The opportunity to be an observer in the CIF has enhanced my work with the national government. The government has increased their openness and recognized the work of CSOs."*

**Khamla Soubandith**  
Community Knowledge Support Association, Lao PDR  
Indigenous Peoples observer to FIP

*"Business is part of the solution to both mitigation of and adaptation to climate change. The CIF is an excellent platform for promoting and developing public-private partnerships to achieve solutions for the transition towards a 'green' and inclusive economy."*

**Andrea Bacher, International Chamber of Commerce, France**  
Private sector observer to the SCF, PPCR



Want to know what happened during the Civil Society Forum in #Istanbul? Webcast now posted. <http://ow.ly/hrhG2>



# CLEAN TECHNOLOGY FUND (CTF)

\$2.3 BILLION APPROVED, EXPECTED TO LEVERAGE \$18.8 BILLION IN CO-FINANCING AND CONTRIBUTE TOWARD 525 MILLION TONS OF CO<sub>2</sub> EMISSIONS SAVINGS

Clean technologies can help solve pressing environmental and socio-economic problems by reducing pollution, expanding energy options and access, and stimulating new markets and job growth. The CTF provides middle income countries with resources to explore options to scale up the demonstration, deployment, and transfer of low-carbon, clean technologies. Each CTF investment plan is tailored by a country to be integrated into national development objectives and to serve as a programmatic organizing framework for the activities of actors across institutions, stakeholder groups, and sectors.

More than 100 projects are expected to emerge from these plans and have a major impact both on reducing CO<sub>2</sub> emissions by an estimated 1.7 billion tons and on strengthening the viability and availability of clean technologies nationally, regionally, and globally.

In 2012, the CTF Trust Fund Committee endorsed the investment plan of Chile for \$200 million. Along with India and Nigeria, Chile received a first tranche of requested funding in August 2012, but an additional \$809 million must be mobilized to fully realize these three plans. Also endorsed in 2012 were updates to the investment plans of Egypt, Morocco, the Philippines, Thailand, and Turkey, which reflect changes in national circumstances, as well as early lessons learned.

To date, the CTF Committee has endorsed investment plans for all 16 CTF pilots and has approved \$2.3 billion in funding for 41 projects under 14 investment plans. The amount is expected to leverage \$18.8 billion in co-financing from governments, MDBs, and other sources, with nearly a third funded by the private sector.

## CTF at a glance

**FUNDING**

\$5.2 billion pledged as of December 31, 2012

**FINANCIAL LEVERAGE**

1:8.4

**IMPLEMENTATION**

AfDB, ADB, EBRD, IDB, and WBG, including IFC

**GOVERNANCE**

CTF Trust Fund Committee on which contributor and recipient countries are equally represented

**OBSERVERS**

MDBs, Trustee, Global Environment Facility (GEF), United Nations Development Programme (UNDP), UN Environment Programme (UNEP), UN Framework Convention on Climate Change (UNFCCC), European Investment Bank, and self-selected representatives of CSOs, Indigenous Peoples, and the private sector

**FINANCING**

Concessional financing, such as grants and concessional loans; risk mitigation instruments, such as guarantees; equity; and technical assistance through grants

**COUNTRY ELIGIBILITY**

Countries eligible for official development assistance and MDB assistance

**CTF COUNTRIES**

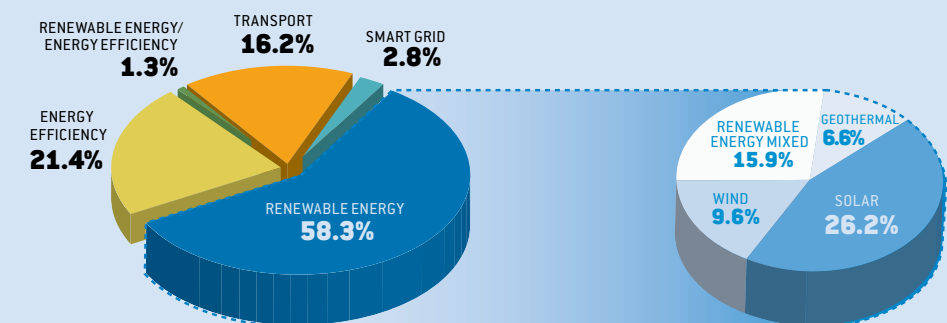
Chile, Colombia, Egypt, India, Indonesia, Kazakhstan, Mexico, Morocco, Nigeria, Philippines, South Africa, Thailand, Turkey, Ukraine, Vietnam, and the Middle East and North Africa Region (Algeria, Egypt, Jordan, Morocco, Tunisia)

**APPROVED PROJECTS**

41 projects under 14 investment plans for \$2.3 billion in CTF funding, which is expected to leverage \$18.8 billion in co-financing and contribute toward 525 million tons of CO<sub>2</sub> emissions savings

BOX 4

FIGURE 1. CTF FINANCING BY TECHNOLOGY, IN \$ MILLION (AS OF DECEMBER 31, 2012)



## HIGHLIGHTS FROM THE CTF PORTFOLIO

### PRIVATE SECTOR INNOVATION AND INVESTMENT ARE SPEEDING TRANSFORMATION

Engaging the private sector has been critical to stimulating markets, increasing investment potential, and enabling financial gain in climate-friendly enterprises and businesses. Usually engaged via the private sector arms of the MDBs, the CTF also has attracted the involvement of private sector entities through:

- Public-private partnerships (PPPs), such as the Ouarzazate I solar plant in Morocco
- Investments undertaken by the public sector arms of the MDBs: eight of ten MDB-approved CTF public sector interventions have attracted private sector co-financing, varying from 12 percent in the Morocco CSP program to 78 percent in the Mexico renewable energy program

Approximately 37 percent of CTF financing is focused on private sector investments being delivered directly to real sector companies or through local financial intermediaries to ensure fast scale-up of energy efficiency and renewable energy investments in mainstream market and industries.

CTF public investment projects can help attract private investment by:

- Tailoring regulatory and policy environments
- Investing in complementary infrastructure
- Reducing risk and increasing “comfort” for private investors

### TURKEY TRANSITIONING TO CLEAN ENERGY THROUGH LONGER-TERM LENDING

Turkey is applying \$100 million from the CTF to a project to support Turkish financial intermediaries as they work to extend longer-term finance to privately owned and operated energy efficiency and renewable energy initiatives, particularly in geothermal, small hydro, and wind power. Medium- and long-term lending to the private sector traditionally has been limited due to the short maturity of Turkish banks’ funding base. But the Turkish government’s push to capture the potential of renewable energy sources—an estimated 48,000 MW of wind and 600 MW of geothermal power—is creating opportunities for new lines of credit. The project is helping accelerate Turkey’s transition to clean energy alternatives by increasing the amount of credit available for private investors and building the capacity of national financial institutions to investigate and assess risk. This is spurring private sector involvement, and ensuring greater energy security. In addition, it will save nearly 20 million tons of CO<sub>2</sub> during the 20-year lifespan of investments financed by the project. CTF financing for this project has been fully disbursed, and agreement on Stage 2 funding for \$140 million was reached in November 2012.



### MOROCCO FIRST TO ADVANCE MENA REGION CONCENTRATED SOLAR POWER PROGRAM

Morocco is home to Ouarzazate I, the first project to be approved under the Middle East and North Africa region’s program to develop 1 gigawatt (GW) of concentrated solar power (CSP) generation capacity and advance Morocco’s own Integrated Solar Plan, which aims to achieve 2,000 MW solar power capacity and expand industrial integration and skills development by 2020. Morocco is using \$197 million from the CTF to support the CSP complex at Ouarzazate, which targets 120- to 160-MW generation capacity in its first phase by 2014 and 500 MW in total, making it the largest CSP plant in world. Structured as a PPP between the Moroccan Agency for Solar Energy (MASEN) and a private partner, International Company for Water and Power Projects (ACWA Power, Saudi Arabia), the project benefited from strong market competition during the bidding cycle, which resulted in a generation cost of \$0.188/kWh, much less than originally estimated in the project design. Ouarzazate I also will help Morocco bolster domestic green energy industries and avoid 240,000 tons of CO<sub>2</sub> emissions a year—the equivalent of removing 80,000 cars from the road annually.

“CIF funds have been able to mobilize a bigger pool of liquidity and, thus, make available larger amounts of funds permitting a higher leverage for a longer tenor and at a lower risk premium. The proof of the value created can be seen in the tariff that we have been able to deliver.”

Paddy Padmanathan, President and CEO, ACWA Power, Saudi Arabia private partner on Ouarzazate I during CIF 2012 Private Sector Forum

### THE PHILIPPINES’ TRANSCEBU TO OFFER CLEANER, FASTER, MORE RELIABLE URBAN TRANSPORT

In the Philippines, heavy traffic and an overcrowded, underequipped mass transit system typify its major cities, including the second largest, Cebu City. There, 75 percent of the population uses public transportation, especially the iconic but slow and polluting jeepney. CTF financing of \$25 million will support construction of a 17-km bus rapid transit system in the heart of Cebu City—TransCebu—featuring dedicated travel lanes and a fleet of 180 modern, air-conditioned buses powered by Euro IV ultra-clean diesel engines. At just over 13 meters long with a maximum capacity of 95 passengers, the buses will provide faster, cleaner, and more reliable transport at an affordable fare. Greenhouse gas emissions savings are expected to be around 3.8 million tons of CO<sub>2</sub> over a 20-year period. Complementing the bus service will be an area traffic control system to improve citywide traffic signals operation, manage traffic along the TransCebu route, and enhance public spaces. Expected to begin operation in 2015, TransCebu is a system that could be expanded across the entire metropolitan area.

FIGURE 2. CO<sub>2</sub> EMISSIONS REDUCTION OF CTF-APPROVED PROJECTS (AS OF DECEMBER 31, 2012)

COUNTRY (PROGRAM)	PROJECT TITLE	TOTAL EMISSIONS REDUCTION (MT CO <sub>2</sub> E)	COUNTRY (PROGRAM)	PROJECT TITLE	TOTAL EMISSIONS REDUCTION (MT CO <sub>2</sub> E)
Chile	Concentrated Solar Power Project	5.7	Philippines	Sustainable Energy Finance Program	5.3
Colombia	Strategic Public Transportation Systems Program (SETP)	0.8	Philippines	Market Transformation through Introduction of Energy Efficient Vehicles Project	2.7
Colombia	Sustainable Energy Finance Program	21.3	Philippines	Cebu Bus Rapid Transit Project	3.9
Egypt	Wind Power Development Project (Transmission)	119.7	South Africa	ESKOM Renewable Support Project-Wind	4.8
Indonesia	Indonesia Geothermal Clean Energy Investment Project	33.0	South Africa	ESKOM Renewable Support Project-CSP	9.5
Kazakhstan	District Heating Modernization Framework	2.0	South Africa	Sustainable Energy Acceleration Program	26.0
Kazakhstan	Renewable Energy II-Waste Management Framework	1.0	South Africa	EE Program	2.4
Kazakhstan	Renewable Energy II-Kazakh Railways Sustainable Energy Program	1.2	Thailand	Renewable Energy Accelerator Program (TSEFF)	2.6
Kazakhstan	Renewable Energy III-Kazakhstan Renewable Energy Finance	4.1	Thailand	Sustainable Energy Finance Program (T-SEF)	5.0
MENA	Morocco Ouarzazate CSP	7.0	Thailand	Private Sector Renewable Energy program	21.5
Mexico	Urban Transport Transformation Project	39.2	Turkey	Private Sector RE and EE Project	17.0
Mexico	Efficient Lighting and Appliance Project	85.0	Turkey	Turkish Private Sector Sustainable Energy Financing Facility (TurSEFF)	9.6
Mexico	Public Sector Renewable Energy	40.0	Turkey	Commercializing Sustainable Energy Finance Program (CSEF)	4.2
Mexico	Renewable Energy Program	18.0	Ukraine	Renewables Direct Lending Facility-Creating Markets for Renewable Power	7.0
Mexico	Private Sector Wind Development (La Ventosa)	3.6	Ukraine	Renewable Energy II - Novozovsk Wind Project	2.1
Mexico	Energy Efficiency Program-Part 1	4.3	Vietnam	Sustainable Energy Finance Program	4.5
Mexico	ECOCASA Program-Energy Efficiency Program Part II	1.6	Vietnam	Vietnam Distribution Efficiency Project	2.8
Morocco	One Wind Energy Plan	3.3			
Philippines	RE Accelerator Program (REAP)	3.0			
			<b>TOTAL</b>		<b>524.5</b>

525 =  
MILLION TONS  
CO<sub>2</sub> EMISSIONS REDUCTION

99 MILLION PASSENGER VEHICLES (ANNUAL EMISSIONS)\*

1 BILLION BARRELS OF OIL\*

2 MILLION RAIL CARS OF COAL\*

\* Based on United States Environmental Protection Agency, Greenhouse Gas Equivalency Calculator, November 2012. <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>

# PILOT PROGRAM FOR CLIMATE RESILIENCE (PPCR)

\$306 MILLION APPROVED, EXPECTED TO LEVERAGE \$365.8 MILLION IN CO-FINANCING

Particularly for the world's poorest countries, managing the effects of climate change is a multi-sector, multi-dimensional concern that is central to effective poverty reduction, economic growth, and sustainable development.

The PPCR is helping developing countries integrate climate resilience into development planning and offers additional funding to support public and private sector investments for implementation. Building on national development programs and plans, the PPCR provides grants and highly concessional financing (near-zero interest credits with a grant element of 75 percent) to pilot new approaches, as well as scale up proven action, to catalyze a shift to broad-based strategies for achieving climate resilience at the national level. To date, over 60 projects have emerged from these strategic programs under the PPCR with investments across several categories promising transformation (see Figure 3).

In 2012, the PPCR Subcommittee endorsed the strategic programs for climate resilience of Dominica (\$16 million), Papua New Guinea (\$25 million), Tonga (\$15 million), and Yemen (\$50 million), as well as two regional programs in the Caribbean (\$10.6 million) and the Pacific (\$10 million), bringing the number of endorsed programs to 19 out of a total of 20. Also approved was an additional \$88 million in PPCR grant financing.<sup>9</sup> To date, the PPCR Subcommittee has approved 20 projects under nine endorsed programs for \$306 million in PPCR funding, which is expected to leverage \$365.8 million in co-financing.

For more on these and other PPCR pilot countries, see feature section *Prepare, Empower, Prosper: Climate Resilience in the CIF Portfolio*, page 35.

9. Additional \$88 million in PPCR grant financing allocated to Tajikistan (\$10 million), Yemen (\$8 million), and \$5 million each to Bolivia, Cambodia, Dominica, Grenada, Haiti, Jamaica, Mozambique, Nepal, Papua New Guinea, Saint Lucia, Saint Vincent and the Grenadines, Samoa, Tonga, and Zambia.

## PPCR at a glance

### FUNDING

\$1.3 billion pledged as of December 31, 2012

### FINANCIAL LEVERAGE

1:1.6

### IMPLEMENTATION

AfDB, ADB, EBRD, IDB, and WBG, including IFC

### GOVERNANCE

PPCR Subcommittee with representatives from six contributors and six eligible recipient countries and a high-level representative of the Adaptation Fund Board

### OBSERVERS

MDBs, Trustee, GEF, UNDP, UNFCCC, and self-selected representatives of CSOs, Indigenous Peoples, and the private sector

### COUNTRY ELIGIBILITY

Countries eligible for official development assistance and MDB assistance with priority given to highly vulnerable least-developed countries

### PILOTS

Bangladesh, Bolivia, Cambodia, Mozambique, Nepal, Niger, Tajikistan, Yemen, Zambia, the Caribbean region (Dominica, Grenada, Haiti\*, Jamaica, St. Lucia, St. Vincent and the Grenadines), the Pacific Region (Papua New Guinea, Samoa, Tonga), plus two regional efforts addressing the needs across the islands

### APPROVED PROJECTS

20 projects under nine strategic programs for climate resilience for \$306 million in PPCR funding, which is expected to leverage \$365.8 million in co-financing

\*Strategic program for climate resilience not yet endorsed.

## BOX 5

## HIGHLIGHTS FROM THE PPCR PORTFOLIO

### CARIBBEAN REGION TO STRENGTHEN RESILIENCE THROUGH CLIMATE DATA SHARING



Across the Caribbean, tropical storms and hurricanes bring heavy winds and rain that can ravage entire communities, destroying infrastructure, livelihoods, and lives. To improve territorial planning and preparedness, Caribbean island nations are working to improve access to regional climate information, sharing knowledge and best practices, and implementing disaster risk management practices. PPCR financing of more than \$100 million is supporting six countries in the Caribbean—Dominica, Grenada, Haiti, Jamaica, Saint Lucia, and Saint Vincent and the Grenadines—as well as regional activities designed to facilitate information flow and allow for economies of scale for these resource-constrained island nations. Measures include improving geospatial data and adaptation planning, consolidating regional climate monitoring platforms, downscaling climate projection models and maps, and applying adaptation lessons to key sectors.

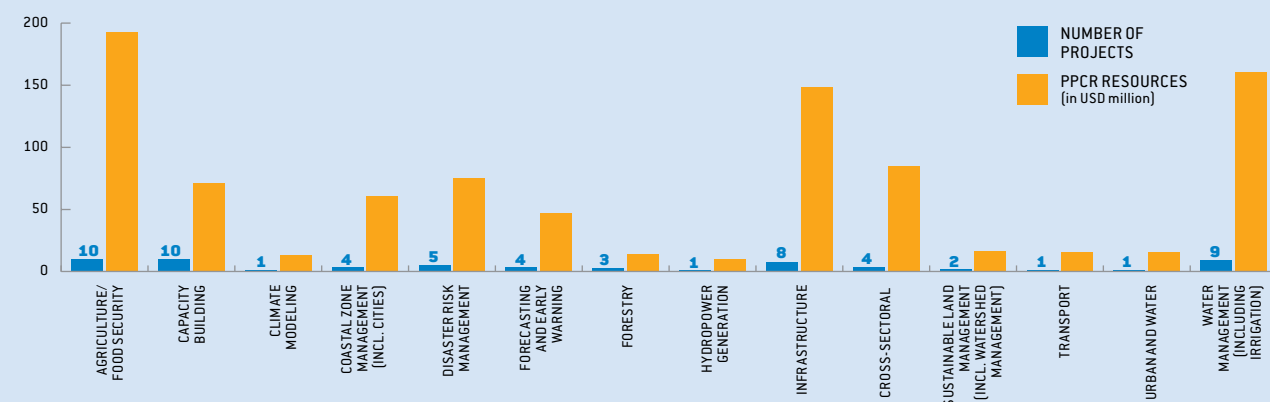
### CAMBODIA COMBATS CLIMATE DAMAGE TO VULNERABLE PROVINCIAL ROADS

Cambodia is putting \$17 million from the PPCR to work enhancing the resilience of 157 kilometers of rural roadways vital to communities in Prey Veng, Svay Rieng, Kampong Chhnang, and Kampong Speu provinces. To combat erosion inflicted by extreme weather events, as well as gradual climatic changes, road embankments and roadside ditches will be designed using moisture-resistant materials, while other engineering efforts will improve water conservation of the watershed and divert surface run-off away from roads. Community-based tree-planting and water-harvesting programs will support these measures, as will new engineering guidelines for road construction. A new national emergency management system in Kampong Chhnang Province also will be piloted to strengthen the country's disaster preparedness and response.



A team plots the coordinates of St. Lucia's West Coast highway with a portable GPS unit. The information will be loaded into St. Lucia's Integrated National Geonode (SLING), which was launched in March 2012 to inform better disaster preparedness and national planning. Photo: Jim Joseph

FIGURE 3. PPCR FINANCING BY PROJECT CATEGORY, IN \$ MILLION (AS OF DECEMBER 31, 2012)



**3.5 million**

PEOPLE EXPECTED TO BENEFIT from Bangladesh's project to enhance climate resilience of coastal infrastructure in 12 rural districts, supported by \$30 million from the PPCR (see page 53)

**8,000**

FARMING FAMILIES IN SOUTHERN GAZA PROVINCE EXPECTED TO BENEFIT from Mozambique's Baixo Limpopo Irrigation and Climate Resilience Project, supported by \$15.8 million from the PPCR (see page 45)

**708,000**

PEOPLE EXPECTED TO BENEFIT from Niger's project to sustainably manage and control water resources for increased food production in 10 rural districts, supported by \$22 million from the PPCR (see page 44)



# FOREST INVESTMENT PROGRAM (FIP)

## FIRST \$57 MILLION APPROVED, EXPECTED TO LEVERAGE \$703 MILLION IN CO-FINANCING

Deforestation and forest degradation constitute the second leading cause of global warming, accounting for nearly 20 percent of global greenhouse gas emissions.

The FIP supports developing country efforts toward reducing emissions from deforestation and forest degradation (REDD) and promoting sustainable management of forests that leads to REDD and enhancement of forest carbon stocks (REDD+). The FIP finances large-scale investments and leverages additional resources, including from the private sector, to:

- Promote forest mitigation efforts, including protection of forest ecosystem services
- Provide support outside the forest sector to reduce pressure on forests
- Help countries strengthen institutional capacity, forest governance, and forest-related knowledge
- Mainstream climate resilience considerations and contribute to biodiversity conservation, protection of the rights of Indigenous Peoples and local communities, and poverty reduction through rural livelihoods enhancements
- Serve as a proving ground to test new and innovative financing approaches

FIP programs collaborate with and complement other REDD+ financing mechanisms such as the Forest Carbon Partnership Facility (FCPF), the Global Environment Facility (GEF), and the UN Collaborative Program on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD).

The FIP aims to increase understanding of entire forest landscapes by looking across large, connected geographic areas to more fully recognize natural resource conditions and trends, natural and human influences, and opportunities for resource conservation, restoration, and development.

## FIP at a glance

### FUNDING

\$639 million pledged as of December 31, 2012

### FINANCIAL LEVERAGE

1: 3.2

### IMPLEMENTATION

AfDB, ADB, IDB, and WBG, including IFC

### GOVERNANCE

FIP Subcommittee of representatives from six contributor and six eligible recipient countries

### OBSERVERS

MDBs, Trustee, GEF, FCPF, UNFCCC, UN-REDD, and self-selected representatives of CSOs, Indigenous Peoples, and the private sector

### COUNTRY ELIGIBILITY

Countries eligible for official development assistance and MDB assistance with priority given to countries expressing an interest to participate

### PILOTS

Brazil, Burkina Faso, DR Congo, Ghana, Indonesia, Lao Peoples' Democratic Republic, Mexico, Peru\*

### APPROVED PROJECTS

Two projects in Mexico for \$57 million in FIP financing, which is expected to leverage \$703 million in co-financing

\*Investment plan not yet endorsed.

## BOX 6

In 2012, the FIP Subcommittee fully endorsed the investment plans of Brazil (\$70 million), Burkina Faso (\$30 million), Ghana (\$50 million), Indonesia (\$70 million), and Lao People's Democratic Republic (\$30 million), bringing the total number of endorsed plans to seven out of eight with indicative allocations totaling \$370 million in FIP funding. Two projects, both in Mexico, were approved for \$57 million in FIP funding with total projected investments of \$703 million. Additionally, 18 grants totaling \$7.6 million have been allocated to help FIP pilot countries prepare investment plans and projects.

## HIGHLIGHTS FROM THE FIP PORTFOLIO

### BRAZIL TO TRANSFORM LAND MANAGEMENT IN THE CERRADO

Brazil is embracing a landscape approach to achieve the triple win of mitigation, adaptation, and poverty reduction in the Cerrado, a vast mosaic of grasslands, savannahs, and evergreen tropical woodlands at the heart of the country's territory. The second largest biome after the Amazon, the Cerrado is under constant threat of deforestation and rising CO<sub>2</sub> emissions due to extensive tilling and cattle production. FIP backing of \$70 million will support efforts to curb the expansion of the agricultural frontier into native forests and reduce carbon emissions without sacrificing production levels of an industry that provides jobs and income to local communities and is a major contributor to the national gross domestic product (GDP). Initiatives include environmental regularization of agriculture and land use, climate-friendly farming technologies and techniques, information systems to support public and private sector partners in forest and land management, and early warning systems for fire prevention and land protection.

### MEXICO PIONEERING SUPPORT AND ENGAGEMENT WITH 4,000 FOREST COMMUNITIES

Mexico is committed to curbing deforestation and forest degradation and has adopted an ambitious program to manage its forests and trees in a sustainable manner, including its recently launched Forest and Climate Change Project. Supported by \$42 million from the FIP, this pioneering effort totals \$392 million and aims at improving the livelihoods of about 4,000 forest communities in Mexico through sustainable management of forest goods and services. Some 88 percent of project funding will go directly to small-scale initiatives to be proposed, prepared, and implemented by communities and *ejidos*, a collective ownership system unique to Mexico. The project also will fund studies, workshops, and consultations related to forests and climate change in Mexico and will contribute to international REDD+ efforts.

### FIP pilot countries prepare to launch the Dedicated Grant Mechanism for Indigenous Peoples and Local Communities (DGM)

After a two-year consultative process, the DGM is established. This mechanism will provide additional finance to resources allocated under FIP investment plans and aims to stimulate and extend participatory governance, transparency, and accountability in FIP pilot countries by providing Indigenous Peoples and local communities with the resources they need to meaningfully engage in REDD+ at the local, national, and international levels. The DGM will fund a range of activities, including:

- Community capacity building for communications and outreach
- Small grants for integrating indigenous knowledge with technologies for adaptation and mitigation, technical assistance, monitoring, and learning
- Knowledge exchange and learning
- Building and strengthening networks and alliances
- Community-based monitoring
- On the ground activities, such as establishing community woodlots, tree nurseries, small-scale alternative energy solutions

Once the DGM sets these actions in motion, the experiences and lessons learned will be shared with other global partners in the REDD+ process, including 32 countries of the FCPF. Several FIP pilot countries have initiated national consultations to design their local DGM institutional arrangements with a mandate to ensure that Indigenous Peoples and local community representatives are at the heart of any final decision-making structure.

Ghana, for example, is using a bottom-up approach to build awareness and consult with community and CSO stakeholders before launching the DGM. A country where around 80 percent of land is communally owned, Ghana sees the DGM process as complementary to the investment planning process because it can help build the capacity of local communities to support FIP investments, create consensus on and facilitate tenure and benefit-sharing arrangements, and strengthen the government's ongoing decentralization process.

## BOX 7



"The FIP was a fantastic opportunity for us in terms of its timing and in terms of its character."

**Jose Carlos Fernandez Ugalde,**  
Head of International Affairs and Financial Promotion,  
National Forestry Commission, Mexico

# 8.2 million

TONS OF CO<sub>2</sub> EXPECTED TO BE AVOIDED

and sequestered over 8 years based on the \$30 million FIP investment plan of Lao Peoples' Democratic Republic

# 4,000

FOREST COMMUNITIES EXPECTED TO BENEFIT

from Mexico's Forest and Climate Change Project, supported by \$42 million from the FIP

# 90,750

HECTARES OF FOREST EXPECTED TO BE SUSTAINABLY MANAGED

over 10 years from Mexico's project to finance low carbon strategies in forest landscapes, supported by \$15 million from the FIP

# PROGRAM FOR SCALING UP RENEWABLE ENERGY IN LOW INCOME COUNTRIES (SREP)

FIRST \$46 MILLION APPROVED, EXPECTED TO LEVERAGE \$572 MILLION IN CO-FINANCING AND SUPPORT THE DEVELOPMENT OF 250 MW OF RENEWABLE POWER

More than 1.3 billion people worldwide do not have access to electricity.<sup>10</sup> As developing countries strive to overcome poverty and advance economic growth, governments are recognizing that renewable energy can offer a new pattern of energy generation and use.

The SREP stimulates energy access and economic growth by working with governments to build renewable energy markets, engage the private sector, and target renewable energy technologies that allow for the generation and productive use of energy for households and businesses, as well as community services, such as health, education, and communications. By promoting both public and private sector actions, the SREP acts as a catalyst to remove tough barriers that might otherwise inhibit investments in renewable energy in low income countries.

In 2012, the SREP Subcommittee endorsed investment plans from Ethiopia (\$50 million) and the Maldives (\$30 million), bringing the total number of endorsed plans to six for \$240 million in SREP financing. That amount is expected to leverage \$1.8 billion in co-financing and support the development of 580 MW of renewable energy capacity. Three projects in Kenya, Nepal, and Honduras were approved for \$46 million in SREP financing, which is expected to leverage an additional \$572 million in co-financing and contribute to 250 MW of renewable energy capacity development. Liberia was accepted as the eighth SREP pilot country, and funding also has been made available to prepare investment plans in Armenia, Mongolia, Yemen, and the Pacific region.

10. International Energy Agency. 2012. *World Energy Outlook 2012*.

## SREP at a glance

### FUNDING

\$505 million pledged as of December 31, 2012

### FINANCIAL LEVERAGE

1:7.4

### IMPLEMENTATION

AfDB, ADB, IDB, WBG, including IFC

### GOVERNANCE

SREP Subcommittee of representatives from six contributor and six eligible recipient countries

### OBSERVERS

MDBs, Trustee, GEF, UNDP, UNEP, and self-selected representatives of CSOs, Indigenous People, and the private sector

### COUNTRY ELIGIBILITY

Low-income countries eligible for MDB concessional financing and engaged in an active MDB country program with priority given to countries expressing an interest to participate

### PILOTS

Ethiopia, Honduras, Kenya, Liberia\*, Maldives, Mali, Nepal, and Tanzania\*

Reserve SREP pilots (funding available to develop investment plans)

Armenia, Mongolia, Yemen, and the Pacific region

### APPROVED PROJECTS

Three projects in Kenya, Nepal, and Honduras for \$46 million in SREP funding expected to leverage \$572 million in co-financing and contribute to 250 MW of renewable energy capacity development

\*Investment plan not yet endorsed.

BOX 8

## HIGHLIGHTS FROM THE SREP PORTFOLIO

### ETHIOPIA EXPANDING RENEWABLE ENERGY GENERATION AND MARKETS

Ethiopia's efforts to increase energy efficiency and diversify its energy mix through renewable energy are getting a \$50 million boost from the SREP. "Our SREP investment plan will help unlock Ethiopia's renewable energy potential and share some of the risks. Funds will be applied to technology transfer to reduce the cost of wind energy and to initial drilling and exploration activities of geothermal," stated Gosaye Mengistie Abayneh, Director of Energy Study and Development in the Ethiopian Ministry of Energy. Geothermal and wind power will help expand the energy supply at low costs and with limited environmental impacts by up to 75 MW and 100 MW, respectively. SREP support also will go to establishing a capacity building and financing facility for small and medium energy enterprises in an effort to increase the local population's access to renewable energy technologies by creating a solid supplier base.

### NEPAL INCREASING ENERGY ACCESS THROUGH RENEWABLES AND RURAL ENERGY SERVICES

Nepal is focusing \$40 million in SREP financing on initiatives to increase energy access through renewable energy technologies, address poverty reduction and gender inclusiveness, and ensure sustainable operations by implementing technical assistance and capacity building. SREP investments will finance on- and off-grid small hydropower and off-grid mini-/micro-energy initiatives, such as hydropower, solar photovoltaic, and biogas programs. It is estimated that these initiatives will enable the rapid takeoff of small hydropower projects, resulting in roughly 50 MW of additional capacity. In addition, 250,000 households will gain energy access through 30 MW of micro-/mini-hydropower, and another 500,000 households through solar home systems totaling 10 MW capacity. The large-scale biogas program, which envisions producing electricity and thermal energy from the organic waste of urban centers, cities, municipalities, and large institutions, aims to alleviate poverty by increasing energy access while stimulating the local economy.



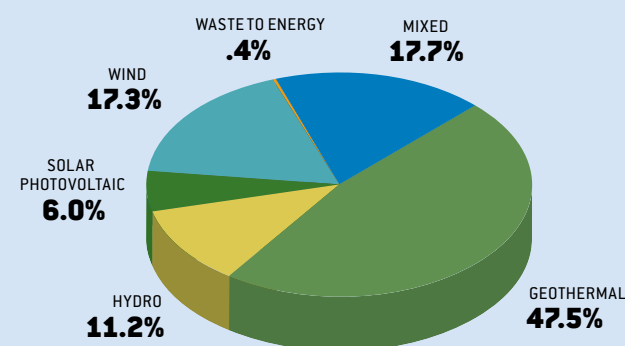
\$25 million from the SREP managed by the AfDB is helping to finance Kenya's Menengai geothermal power project, which is structured as a PPP and aims to produce electricity for 500,000 households and displace 2 million tons of CO<sub>2</sub> emissions annually. Photo: Africa Express



"We are heading to programmatic outputs, meaning we are planning to bring all stakeholders in one output so that we'll have a broader renewable energy program in Nepal to meet the objective of the national plan."

Raju Laudari,  
Alternative Energy Promotion Centre, Nepal

FIGURE 4. SREP FINANCING BY TECHNOLOGY, IN MW-INSTALLED RENEWABLE ENERGY CAPACITY



Based on endorsed SREP investment plans as of December 31, 2012.



# ADDRESSING PUBLIC AND PRIVATE INVESTOR RISKS

## CIF FINANCIAL INSTRUMENTS

The CIF offers a range of financial instruments that provide flexible concessional financing to accommodate a range of risks encountered by both the public and private sectors. The MDBs, the CIF's implementing agencies, can use one or more of these instruments to structure a financial package for a project they support, enabling them to blend their own resources for interventions that go beyond "business as usual" and mobilize financing from the private sector and other sources.

The CIF was founded on the principles of:

- Providing concessional funding for public and private sector investments with a concessionality element
- Allowing tools and instruments that match their delivery expectations and result in positive and catalytic change

While the vast majority of CIF allocations to date have taken the form of loans or grants, the CIF offers a range of financial instruments tailored to address a range of different barriers for real and financial sectors: loans, guarantees, equity, quasi-equity, mezzanine financing, convertible loans, and grants.

Grants are offered under the CIF for technical assistance targeting the enabling environment, policy reform, and capacity building. Technical assistance is usually aligned with the investment side of a project and addresses market barriers.

The concessionality element is provided to offset risk premiums associated with a new technology, market risk, implementation risk, and other barriers. This usually makes an investment more viable and, de facto, incentivizes other investors and lenders to participate in a project. The CTF, for example, has been able to mobilize significant amounts of funding around its projects, achieving high leverage ratios.

## EXPANDING PRIVATE SECTOR ENGAGEMENT

For the CIF, engaging the private sector is critical to stimulating markets, increasing investment potential, and enabling financial gain in climate-friendly enterprises and businesses. In May 2012, the Joint CTF-SCF Trust Fund Committee expressed its recommitment to support riskier financial instruments,<sup>11</sup> including equity and quasi-equity, to ensure the full range of CIF financing tools is being utilized and to increase the share of CIF financing to private sector investments particularly in the PPCR, FIP, and SREP programs. The CIF also is exploring the use of local currencies in CIF-backed projects and programs, as well as developing a risk management framework.

To further encourage innovative approaches to engaging the private sector in pilot countries, in November 2012 the Joint CTF-SCF Trust Fund Committee approved the establishment of competitive reserve funds for the PPCR, FIP, and SREP. Explicit allocations will be set aside—\$46 million for the PPCR, \$56 million for the FIP, and up to \$90 million for the SREP—to support private sector clients working through an MDB's private sector arm and public sector entities working through the MDB public sector arm that would, in turn, channel all funds to private sector recipients in the pilot countries. Procedural details are being finalized for launch in 2013.



CIF is no longer just an enabler, it becomes a pioneer. Dr. Stewart Maginnis. Global Forest & Climate Change. IUCN <http://ow.ly/h8tpb>



*Harnessing the Sun's Power*  
by Daisy Desiree Salgado, prize winner of  
the CIF 2012 Climate in Focus photo contest

11. CTF and SCF Trust Fund Committees. 2012. "Proposal for Additional Tools and Instruments to Enhance Private Sector Investments in the CIF." CTF-SCF/TFC.8/8



# UNDERSTANDING CIF IMPACT

## STRENGTHENED RESULTS FRAMEWORKS

Measuring the results of climate investments is fundamental for development effectiveness and learning. Early in its design effort, the CIF established a set of results frameworks to provide the basis for developing investment plans. In the spirit of the CIF's learning-by-doing approach, the results frameworks are living documents designed to encourage feedback from pilot countries and MDBs on their practical application. Their input demonstrated that the first generation of results frameworks were useful but challenging for many CIF pilot countries:

- Results chains were sometimes unclear, making it difficult for pilot countries to develop their own results chains.
- Too many indicators across multiple levels created confusion about objectives and raised transaction costs.
- Several indicators did not correspond to the data that countries and MDBs collected through existing processes, making it difficult and costly to establish baselines.
- Many indicators did not allow uniform application and aggregation across all projects, making it challenging to report on the overall results of CIF programs.

Based on measures approved by the Joint CTF-SCF Trust Fund Committee in November 2011 to improve CIF operations, the CIF Administrative Unit and the MDB Committee initiated in 2012 a process to revise the CIF results frameworks with the objective of making them easier to implement by the pilot countries. In November 2012, revised results frameworks for the CTF, PPCR, and SREP were approved. They are designed to guide pilot countries, regional programs, and MDBs in refining their own results frameworks to ensure that CIF-relevant results and indicators are integrated in those entities' own monitoring and evaluation (M&E) systems at the country or project/program level. They incorporate a series of basic principles:

**National M&E systems:** The results frameworks are designed to operate within existing national M&E systems, as well as the MDBs' own approach to managing for development results.

**Data collection and reporting standards:** In order to aggregate country-level results at the programmatic level, a set of core indicators will be measured using compatible methodologies.

**Flexible and pragmatic approach:** The frameworks are designed to allow and encourage pilot countries to have flexibility in selecting relevant additional indicators and subsequent reporting provided that core program outcome indicators are included.

The FIP will continue working with its results framework approved on June 7, 2011, but FIP pilot countries meetings in 2013 will serve as a forum to explore a few core outcome indicators that could be measured by all countries to allow reporting of progress at the level of the FIP.

REVISED RESULTS FRAMEWORK	PURPOSE	OUTCOME OBJECTIVES
CTF	Monitor and evaluate progress in achieving a transformed low-carbon economy	<ol style="list-style-type: none"> <li>1. Avoid greenhouse gas emissions</li> <li>2. Mobilize increased finance for low-carbon development</li> <li>3. Increase supply of renewable energy</li> <li>4. Increase users of low-carbon public transport</li> <li>5. Increase energy efficiency</li> </ol>
PPCR	Monitor and evaluate progress in achieving increased resilience of households, communities, businesses, sectors, and society to climate variability and climate change and in achieving improved climate-responsive development planning across economic sectors	<ol style="list-style-type: none"> <li>1. Strengthen adaptive capacities</li> <li>2. Put adequate institutional frameworks in place</li> <li>3. Routinely apply climate information in decision making</li> <li>4. Conduct improved sector planning and regulation for climate resilience</li> <li>5. Identify and implement innovative climate-responsive investment approaches</li> </ol>
SREP	Monitor and evaluate progress in achieving support for low-carbon development pathways by reducing energy poverty and/or increasing energy security	<ol style="list-style-type: none"> <li>1. Increase access to clean energy</li> <li>2. Increase supply of renewable energy</li> </ol>

### Lessons learned in revising CIF results frameworks

**Purpose:** The revised results frameworks are designed to support routine annual monitoring of progress with project implementation. Core indicators, which can be aggregated, will produce good insights into the results achieved in the agreed core outcome areas.

**Focus:** All parties involved with the CIF—pilot countries, contributing countries, MDBs, as well as local and global stakeholders—have different interests and needs regarding the information on results generated by the CIF. At its early stages, the CIF results frameworks had aimed at meeting many of those purposes through measuring as many as 30 or more indicators per program. The revised and approved results frameworks for the CTF, SREP, and PPCR focus on a small number of core indicators per funding window that can be measured consistently by all pilot countries. This will allow for aggregation and synthesis of data and information, and will enable the CIF to meaningfully report on achievements of investments at the country level, fund level, and over time.

**Finding the right balance:** The revised results frameworks focus on “what we need to know” rather than “what is nice to know.” This represents a trade-off because it means reporting on fewer results chains and indicators and potentially not capturing the full picture of what programs and projects are accomplishing across communities or sectors. Robust reporting on the

identified core indicators, however, will allow the programs to demonstrate their impact more visibly and credibly while helping them both gain support across stakeholder groups and boost accountability. In addition, the fewer the indicators, the more resources are available per indicator to do the data work, bolstering the quality of reporting even more.

**M&E in country capacity:** To monitor the CIF programmatic approach, pilot countries need an effective institutional and organizational setting to ensure that the results frameworks are applied. In order to streamline the collection of data and make the most efficient use of resources, country circumstances and building on national monitoring systems need to be taken into account. Capacity in pilot countries can challenge successful capture and analysis of high-quality data because data sets may be missing for specific populations, geographical areas, or time periods; engaging stakeholders may have high transaction costs; or expertise or technical capacity to process data may be limited. In addition, most countries must take on this new work on top of already established and sometimes competing national data collection programs.

**Development and poverty reduction benefits:** The MDBs have in place their respective results frameworks with indicators that measure progress toward development outcomes, as well as progress in achieving poverty reduction. CIF results frameworks aim to complement existing MDB results frameworks. For example, individual CTF projects will use at least one MDB development indicator in each project results framework.

### BOX 9

The CIF uses a traffic light system to flag key delivery milestones of investment plans, projects, and programs. The traffic light helps track a project or program from the original date of submission to the expected date of submission for funding approval and from Subcommittee approval to the expected MDB approval of the project.



# LEARNING HOW TO LEARN

## ADVANCING CIF KNOWLEDGE MANAGEMENT

To strengthen the knowledge side of CIF work—from operational findings to new technology applications, from policy development to new partnerships, from governance questions to market transformation—the CIF began in 2012 an intensive

exploration of new avenues for expanding, documenting, and sharing CIF-generated learning. The result is a customized set of knowledge tools that aims to capture and disseminate the unique knowledge emerging from the four CIF funding windows.

	KNOWLEDGE TOOL	PURPOSE	ACTIVITY	FINDINGS/NEXT STEPS
CTF	Private Sector Forum hosted in partnership with Bloomberg New Energy Finance on November 5, 2012, in Istanbul, Turkey	<ul style="list-style-type: none"> <li>Identify the best channels for public engagement with private capital</li> <li>Exchange private sector lessons on climate finance</li> <li>Engage with entrepreneurs in developing countries and network with private sector players and public sector fund managers</li> </ul>	<p>In-depth discussions on:</p> <ul style="list-style-type: none"> <li>Public-private interplay in a pragmatic manner with full engagement of the private sector</li> <li>Common strategies between the public and private sectors</li> <li>Private investments in adaptation and mitigation</li> <li>Value chain of climate finance</li> <li>Matching expectations of project developers, policy makers, and investors</li> <li>Innovative funding vehicles to accelerate private investment in climate change</li> </ul>	<ul style="list-style-type: none"> <li>Common agreement among both governments and private sector players—from investors to small project developers to large utility companies—that gains are much larger if common strategies are developed and new partnerships are forged</li> <li>A “results book” based on forum outcomes, which is being produced in early 2013</li> </ul>
PPCR	Online community of practice webinar series	Generate and sustain an ongoing dialogue about key issues relevant to climate change adaptation	<ul style="list-style-type: none"> <li>Zambia and Bolivia south-south exchange on early warning systems and disaster risk management offered practical solutions and advice to PPCR pilot countries and regions</li> <li>Caribbean nations webinars on data management and sharing offered first-hand experience with the challenges of improving regional integration</li> <li>Samoa and Nepal described experiences reaching out to community stakeholders</li> <li>Dominica shared experiences integrating gender into climate resilience planning</li> </ul>	<ul style="list-style-type: none"> <li>Key drivers for success: <ul style="list-style-type: none"> <li>Identifying virtual tools that are appropriate for pilot country participants and can fit busy schedules</li> <li>Providing a platform for sharing and consistent follow-up with country-level specialists and experts</li> <li>Regular pilot country meetings provide an opportunity to gather feedback from countries and solicit ideas about discussion topics</li> </ul> </li> <li>Participants of the November 2012 meetings identified topics for the first half of 2013</li> </ul>
FIP	Four-country study of FIP and REDD+ collaboration at the country level	Understand the dynamics, challenges, and opportunities for REDD+ collaboration and the FIP in different country contexts	Analysis, video, and interviews with key stakeholders in DR Congo, Indonesia, Peru, and Burkina Faso	<ul style="list-style-type: none"> <li>Insights and lessons from the study were shared at the November 2012 FIP Pilot Countries Meeting and 2012 Partnership Forum</li> </ul>
SREP	One-day country case-study learning workshop, organized as part of the March 2012 SREP Pilot Countries Meeting in Nairobi, Kenya	<p>Pilot country representatives considered:</p> <ul style="list-style-type: none"> <li>How to prioritize SREP-financed energy interventions to increase renewable energy and expand energy access</li> <li>How to use the SREP to leverage resources to achieve a common programmatic national approach</li> </ul>	Face-to-face interaction and sharing of experiences highlighting the expertise and experience of SREP pilot country Kenya	<ul style="list-style-type: none"> <li>Participants surveyed indicated that this format was effective for sharing experiences and lessons</li> <li>The workshop report was distributed at the 2012 Partnership Forum, with key lessons highlighted at the Knowledge Bazaar</li> <li>Participants at the November 2012 SREP Pilot Countries Meeting brainstormed on topics for future workshops</li> </ul>

# CIFLEARNING

## CIFlearning library continues to grow

Renewable Energy Financial Instrument Tool (REFINE)

Financing Renewable Energy: Options for Developing Financing Instruments Using Public Funds  
*WBG and CIF report, December 2012*

Forest Investment Program: REDD+ Stakeholder Collaboration at the Country Level

IISD Reporting Services daily web coverage of the 2012 CIF Partnership Forum and associated events

Stakeholder Engagement in Preparing Investment Plans for the Climate Investment Funds: Case Studies from Asia  
*ADB report, November 2012*

AfDB & CIF in Action, Summer 2012  
Financing Change: The AfDB and CIF for a Climate-Smart Africa, No. 2 July-December 2012  
*AfDB's semi-annual report on implementing the CIF in Africa*

PPCR Pilot Countries Meeting Report March 12-13, 2012, in Livingstone, Zambia

SREP Pilot Countries Meeting Report March 5-6, 2012, in Nairobi, Kenya

SREP Workshop: Lessons from Kenya March 7, 2012, in Nairobi, Kenya

FIP Pilot Countries Meeting Report April 2-3, 2012, in Brasilia, Brazil

## BOX 10



“We are countries with predominantly similar difficulties but different peculiarities in our approaches, so we are able to learn from Kenya or Nepal or Maldives on how they tackled this [or that] problem.”

Wondwossen Sintayehu Wondemagegnehu  
Environmental Protection Authority, Ethiopia



## BRINGING TOGETHER STAKEHOLDERS IN 2012 TO DEEPEN COLLABORATION AND KNOWLEDGE EXCHANGE

<b>MARCH AND APRIL</b>	The semiannual PPCR, FIP, and SREP pilot countries meetings were hosted for the first time by pilot country governments in Kenya, Zambia, and Brazil, respectively, and included visits to project sites. These meetings bring together representatives of recipient country governments, MDBs, and other national and global stakeholders in an open and collaborative environment to discuss challenges, lessons learned, and best practices in preparing and implementing CIF investment plans.
<b>MAY</b>	CIF Trust Fund Committee and Subcommittee meetings in Washington, D.C.
<b>OCTOBER 30 TO NOVEMBER 1</b>	A second set of PPCR, FIP, and SREP pilot countries meetings, as well as a meeting of CTF countries, were convened in association with the 2012 CIF Partnership Forum in Istanbul, Turkey. Both the spring and fall pilot countries meetings were particularly useful in helping pilot countries develop common positions on the simplification of CIF results frameworks, and M&E promises to be an ongoing theme to be addressed in future pilot countries meetings.
<b>OCTOBER 31 TO NOVEMBER 5</b>	CIF Trust Fund Committee and Subcommittee meetings in Istanbul, Turkey
<b>NOVEMBER 1</b>	The Master Class on Managing the Impact of Wind Power Development on Birds and Bats in Istanbul, Turkey, offered CIF-backed case studies from Egypt, Turkey, and South Africa followed by presentations from Ethiopia, United States, BirdLife International, and World Bank. The discussion identified the need for a better understanding of bird and bat behavior, environmental impact assessments, post-construction monitoring and mitigation of negative impacts, legal and regulatory frameworks, national capacity building, and private sector engagement.
<b>NOVEMBER 4</b>	The 2012 CIF Civil Society Forum in Istanbul, Turkey, was organized by the CIF CSO observers to focus on "Efficiency and Transparency: Learning from the CIF engagement process and lessons for improvements." Discussions resulted in proposals to establish a structure linking observers at global and national levels, implement multi-stakeholder regional dialogues, improve the quality of country-level stakeholder consultations (including allocating sufficient resources), and enhance transparency and public access to information at the national level.
<b>NOVEMBER 5</b>	The 2012 CIF Private Sector Forum, hosted in partnership with Bloomberg New Energy Finance in Istanbul, Turkey, brought together some 220 participants representing both the public and private sectors, including policy makers and civil society, project developers, direct and institutional investors, and bankers, to discuss climate finance from a private sector standpoint (see page 28).
<b>NOVEMBER 5</b>	A Technical M&E Workshop: Implementing CIF Results Frameworks In-Country was held in Istanbul, Turkey, to address the challenges CIF pilot countries face (or expect to encounter) when implementing the revised CIF results frameworks and areas that require more work and support to countries in terms of harmonization of approaches, specific collaboration on subject areas, and learning from each other's experiences.
<b>NOVEMBER 6 AND 7</b>	The 2012 CIF Partnership Forum in Istanbul, Turkey, brought together some 400 representatives of governments, civil society, Indigenous Peoples, the private sector, MDBs, and UN agencies to learn from each other about implementing their CIF programs, and to contribute to deepening global understanding of the linkages between climate change and development. Participants advanced discussions on sustainable energy for all, landscape approaches in climate resilience planning, the role of hydro-meteorological and climate services, private sector investments, sustainable cities, M&E, CSO participation, and gender among other issues. Going forward, the CIF Partnership Forum will take place every 18 months, with the next one slated for 2014.



A field trip to Kenya's Olkaria geothermal power plant during the March 2012 SREP pilot countries meeting offered a first-hand look at the technology and sparked discussion. Photo: CIF



Participants at the March 2012 PPCR Pilot Countries Meeting in Zambia visited local communities impacted by floods and droughts to witness resilience measures and exchange ideas. Photo: CIF

"The CIF Knowledge Bazaar was engaging and enriching. The Speakers' Corner was especially an excellent environment to have frank and interactive conversations with speakers away from the formality of the larger panel sessions."

Sam Balch  
International Climate Fund, Department of Energy and Climate Change, UK

### BOX 11

#### Knowledge Bazaar showcases CIF learning

The 2012 Partnership Forum featured the CIF Knowledge Bazaar, an interactive space showcasing the knowledge products and activities organized by the CIF and its partners over the last 18 months. Forum participants immersed themselves in the work of the CIF through booths, videos, web tools, publications, and graphics that highlighted key themes, projects, and emerging lessons.

The Knowledge Bazaar featured a Speakers' Corner where a diverse array of expert presenters from civil society, the private sector, and MDB partners discussed pressing issues such as the role of M&E in mainstreaming climate change into development projects, taking climate finance to scale, landscape approaches in climate-resilience planning, and emerging lessons from the FIP.



CIF Partnership  
@CIF\_Action



CIF2012 Partnership Forum, Istanbul, all session webcasts posted <http://ow.ly/h8sHT> #gender #adaptation #mitigation #energy #forests



# 2013

## BUILDING ON FORWARD MOMENTUM

Creating the climate for change is a process, requiring careful up-front planning by multiple stakeholders to lay the proper groundwork and ensure success. In 2012, the CIF's fourth year, a shift in activity occurred with investment planning giving way to more and more on-the-ground implementation. As the CIF moves forward, the trend will continue. In 2013, the CIF is looking forward to:

1. A significant increase in MDB disbursements as countries are now ready to move into project implementation
2. Growth in demand from CIF recipient countries and other stakeholders for CIF-supported climate knowledge supplied through targeted sharing of lessons emerging from the CIF-backed programs and projects with regional and thematic experts and communities
3. Full implementation of the CIF communication strategy, complementing and supporting the knowledge-based learning being generated and shared
4. Effective implementation of revised results frameworks for the CTF, PPCR, and SREP across all projects and programs while keeping the discussion on the FIP results framework moving forward
5. A continuous push to engage the private sector and embrace innovative business models through both the public and private sector arms of MDB partners
6. Updated investment plans of early movers under the CTF to reflect evolving national and regional circumstances, as well as lessons learned from the CTF and other CIF programs







## PREPARE, EMPOWER, PROSPER

### CLIMATE RESILIENCE IN THE CIF PORTFOLIO

Climate change and variability are real and are affecting systems we consider essential to human livelihood: water resources, agriculture, infrastructure, health, and resilience to natural disasters. Integrating climate resilience into development is an imperative for sustainable life on earth, and a reality CIF pilot countries aim to achieve.

Strategies for climate resilience cut across societies, sectors, and geo-political divides, and can take many forms: establishing hydro-meteorological networks and early warning systems, weather proofing roads and other vital infrastructure, conducting crop research to suit changing climate conditions,

transforming the policy environment, upgrading urban and rural water management systems, improving access to public and private finance, fortifying assets along vulnerable coastal zones, linking disaster risk management and adaptation, modifying construction standards, and other crucial short-, medium-, and long-term interventions.

To follow are snapshots taken by the MDBs that capture some of the CIF-backed climate-resilient development strategies being planned and implemented to give people worldwide the power to prepare for and prosper in the face of climate change.



# CLIMATE-RESILIENT DEVELOPMENT IN OUR WORLD

BY THE WORLD BANK GROUP (WBG)



*"As a scientist, I feel a moral responsibility to be very clear in communicating the dangers of climate change.... I think the question we have to ask ourselves is not simply is climate change real or not; I think we have to begin looking hard at what the world is going to look like for our children."*

Jim Yong Kim  
President of the World Bank Group

Climate change is one of the overarching drivers behind sustainable development because protecting the earth's climate system is one of the key dimensions of sustainability. The United Nations Conference on Sustainable Development (Rio+20) renewed its commitment to the sustainable development paradigm and expressed a determination to pursue the Green Economy Agenda in the context of sustainable development and poverty eradication. But, while sustainability has become the explicit goal, the climate has yet to "feel" the difference.

The rise in greenhouse gas emissions over the past decade has been higher than even the most pessimistic projections. At the same time, the process of reaching a comprehensive global emissions reduction agreement has experienced significant delays. These factors place the world on a dangerous trajectory. It looks increasingly likely that the world might miss the 2°C target, despite it being widely agreed upon as an important guardrail threshold that should not be crossed in order to avoid dangerous and abrupt climate change.<sup>12</sup>

The Intergovernmental Panel on Climate Change's Special Report on Managing the Risks of Extreme Events and Disasters to

Advance Climate Change Adaptation (SREX) in 2012<sup>13</sup> represents the latest scientific consensus and states that "a changing climate leads to changes in the frequency, intensity, spatial extent, duration, and timing of extreme weather and climate events, and can result in unprecedented extreme weather and climate events." The report anticipates that today's once-in-20-year extreme temperatures are likely to happen every year in some regions by the end of the 21<sup>st</sup> century with similar projections for extreme rainfall and associated floods and droughts.

*Turn Down the Heat*,<sup>14</sup> a snapshot of the latest climate science that was prepared for the World Bank in 2012 by the Potsdam Institute for Climate Impact Research and Climate Analytics, says that the world is on a path to becoming 4°C warmer by the end of this century and that current greenhouse gas emissions pledges will not reduce this by much. The report confirms that 4°C scenarios are potentially devastating to all nations but stresses that the distribution of impacts is likely to be inherently unequal and tilted against many of the world's poorest regions. For example:

- Even though absolute warming will be largest in high latitudes, the warming that will occur in the tropics is larger when compared to the historical range of temperature and extremes to which human and natural ecosystems have adapted and coped, consequently leading to significantly larger impacts on agriculture and ecosystems.
- Sea-level rise is likely to be 15 to 20 percent larger in the tropics than the global mean.
- Increases in tropical cyclone intensity are likely to be felt disproportionately in low-latitude regions.
- Increasing aridity and drought are likely to increase substantially in many developing country regions located in tropical and subtropical areas.

12. World Bank. 2009. *WDR 2010: Development and Climate Change*. Washington, DC: World Bank.

13. Field, C. B., et al., ed. 2012. *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change*. Cambridge: Cambridge University Press.

14. World Bank. 2012. *Turn Down the Heat: Why a 4°C Warmer World Must Be Avoided*. World Bank, Washington, DC.

FIGURE 5. MAP OF POTENTIAL POLICY-RELEVANT TIPPING ELEMENTS IN THE CLIMATE SYSTEM



Source: Lenton, T.M., et al. 2008. "Tipping Elements in the Earth's Climate System." *Proceedings of the National Academy of Sciences* 105 (6): 1786–93.

Many potential tipping points in Earth's system could be exceeded as temperatures rise and thresholds for important natural phenomena are passed. Examples include significant and rapid losses of ice from the Greenland and West Antarctic ice sheets and the conversion of the Amazon rainforest to savanna or grassland. Cities, which are home to almost 50 percent of the global population, are particularly susceptible to climate impacts, and record heat events are already being recorded around the world. Repercussions will be profound, as sudden changes caused by non-linear phenomena reduce the resilience of natural and managed ecosystems and affect the resilience of socio-economic systems globally.

*"In 2000, Mozambique experienced its worst floods in 50 years, killing about 800 people and displacing 540,000, costing the country 10 percent of its GDP. Looking to the future, our analysis suggests that almost 1 million people will be displaced from coastal areas in 30 years from now if no action is taken... behind these figures will lay human suffering on an unimaginable scale."*

Ana Chichava  
Deputy Minister, Ministry for Coordination of Environmental Affairs

## WORKING TOWARD TRANSFORMATIONAL SOLUTIONS

The world must work collectively to step up action on the mitigation/low-carbon front. Even as the world seeks to hold the guardrail at 2°C above pre-industrial levels and defy the move to 4°C, the imperative to mainstream climate resilience and build the enabling environment to engender transformational climate-resilient development pathways is already past due.

Considerable efforts are being made to understand this highly complex problem and to deal with continuing uncertainty about climate developments. At the same time, increased variability will challenge actors across society to learn to deal with climate "on a daily basis."

Instead of piecemeal responses, governments must develop and implement comprehensive and inclusive approaches to transformational adaptation that break down silo tendencies in sector planning. The more the climate is projected to change, the clearer it becomes that resilience is a multi-sector, multi-dimensional concern.



The CIF and in particular the PPCR are playing a crucial role here. In providing scaled-up financing to initiate transformational change, they help countries to pilot and show “what can be done” when significant resources translate into committed political engagement and programmatic thinking beyond silos. This also has led to significant opportunities for using PPCR funds to leverage additional funding from other sources, resulting in a manifold increase of the overall resources available.

#### Financing instruments available from international MDBs in combination with the CIF

Climate-resilient development planning also can be encouraged and enhanced with strategic financing in combination with and complementary to the support from the CIF. A number of instruments tailor-made for countries with different needs are available:

**Development policy loans (DPLs)** provide untied, direct budget support to governments for policy and institutional reforms aimed at achieving a set of specific development results. In Mozambique, a technical assistance package backed by the PPCR is helping build institutional capacity so related reforms on climate resilience can be achieved in a three-year time frame. “It is a good instrument for the government to commit itself to undertake these reforms,” says Xavier Chavana, Ministry of Planning and Development, Mozambique.

**Adaptable program loans (APLs)** provide phased support for long-term development programs. APLs involve a series of loans that build on the lessons learned from the previous loan(s) in the series. They are used when sustained changes in institutions, organizations, or behavior are key to successfully implementing a program. They offer longer-term support when time is required to build consensus and to convince diverse actors of the benefits of politically and economically difficult reforms.

For example, the PPCR supports APLs in different phases in several Caribbean countries where they can be deployed most usefully, including Dominica, Saint Lucia, Grenada, and Saint Vincent and the Grenadines.

**Additional financing for investment lending** goes to projects that are already underway but might require additional support to scale up activities or address a climate-related aspect requiring attention. PPCR countries are likely to take advantage of this offer further down the road.

#### BOX 12

In addition to financial support, the PPCR helps to establish country coordination mechanisms and institutional arrangements that are nurturing this thinking and approach, builds capacity, and acts on this shift through targeted investments in each country. In the strategic and highly participatory process of developing their strategic programs for climate resilience, pilot countries of the PPCR work with the MDBs to provide the basis for addressing short-, medium-, and long-term actions on climate adaptation as part of national development strategies, policies, and plans. The strong emphasis on a highly participatory, consultative process in developing these strategic plans is an innovative feature of the PPCR.

#### Enabling transformational change where it is most needed

The PPCR enables countries to apply the PPCR resources to issues where the transformation change can be triggered at scale.

- Bangladesh is using the PPCR to scale up resiliency investments in all vulnerable coastal districts.
- Niger is using the PPCR to reduce the country’s vulnerability to food shortages exacerbated by climate change.
- Samoa is using the PPCR to reinforce aging infrastructure in densely populated coastal zones.

#### BOX 13

### MOBILIZING INFORMATION: PUTTING CLIMATE SERVICES TO WORK

Hydro-meteorological and climate services (HCS) are key to enabling more informed decision making to transform and mainstream climate-resilient development. They contribute directly to resilience while at the same time acting as key enablers of a broad range of adaptation decisions, such as disaster relief management systems, early warning systems, and agricultural extension systems. Private companies and businesses also need and rely on the data provided by HCS to make investment decisions related to climate risk mitigation for their operations.

Indicative evidence on the economic returns of HCS suggest very high returns on investment, producing economic benefits



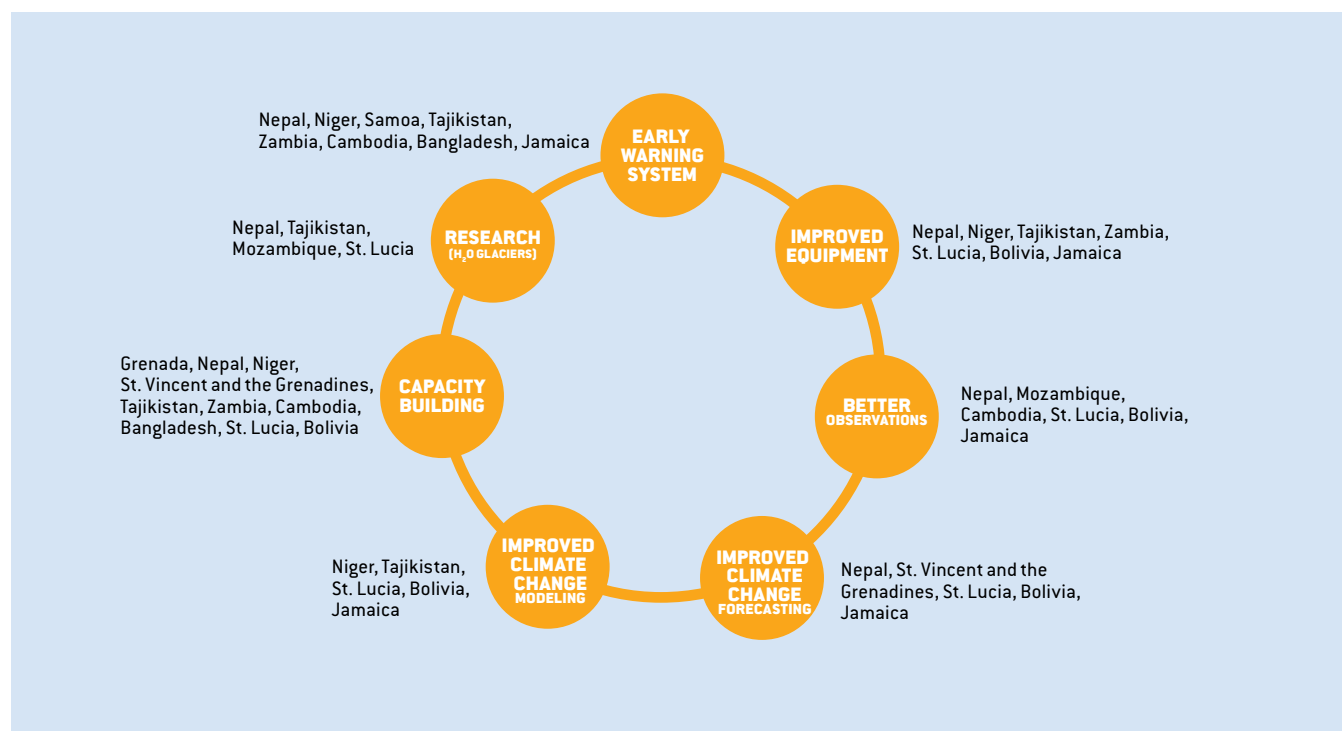
for industries, businesses, households, and individuals across a range of sectors from agriculture and transport to tourism and health. Depending on the estimation method, a World Bank study on Europe and Central Asia estimated cost-benefit ratios between 1 to 2 and 1 to 10 for investments into national meteorological and hydrological services.<sup>15</sup> In addition, increased climate variability and long-term climate change only stand to increase the return even further. According to the World Meteorological Organization, one dollar invested

in disaster preparedness can prevent seven dollars’ worth of disaster-related economic losses.

Many countries, therefore, have started to invest in HCS and are receiving technical support and financing from the CIFs and the PPCR to ensure that this crucial building block for sustainable climate-resilient development and enabler of transformation change is strengthened across the globe.

15. Tsirkunov, V., A. Korshunov, M. Smetanina, and S. Ulatov. 2006. *Assessment of Economic Efficiency of Hydrometeorological Services in the Countries of the Caucasus Region*. Report prepared as part of Weather/Climate Services pilot study in the countries of Europe and Central Asia.

**FIGURE 6. ILLUSTRATIVE OVERVIEW OF PPCR PILOT COUNTRIES' HYDRO-METEOROLOGICAL-RELATED PROJECTS AND ACTIVITIES**



### PUTTING PEOPLE AT THE CENTER

In the development of the institutional landscapes, countries should take a people-centered approach that places communities at the center of resilience. Climate change adaptation, disaster risk reduction, and social protection efforts should be integrated because they are linked by a shared focus on the vulnerability of populations to a variety of shocks and stresses. The insights they can gain collectively promise to be more effective at reducing vulnerability than working in isolation. Public sector, private sector, civil society, local communities, Indigenous Peoples, and academia—each group has a role in creating an enabling environment for adaptation and each has specific needs that can be fulfilled only by others.

The private sector already is feeling the impacts of the changing climate and is starting to incorporate climate risk concerns into

their operations. Recent flooding in Thailand, for instance, that shut down thousands of businesses and disrupted the global supply chain is an example of the magnitude of impacts that the private sector will face. Businesses are becoming aware that they need to find innovative solutions to ensure that their assets and operations are climate change resilient. Moreover, changes in climate also are presenting new opportunities for the private sector to provide new products and services, such as climate proofing infrastructure and drought- and flood-resistant seeds for agriculture, among others.

Taking a people-centered approach also means engaging more fully with the perspectives, priorities, and capacities of poor people. This includes the consideration of gender aspects, because women are disproportionately vulnerable to the effects of natural disasters and climate change when their rights and socio-economic status are not equal to those of men.

#### Climate change champions empower Zambia's climate resilience

Principal Economist of Zambia's Ministry of Finance and National PPCR Coordinator David Kaluba reflects that "team building across sectors, civil society, and MDB partners can add time and money but provide greater value for the investments." He stresses the value of the comparative advantage that various partner stakeholders can bring to the process and that "Zambia is striving to build a cadre of champions from key sectors, as well as from among law makers and policy makers."

Effective institutional coordination, stakeholder engagement, and knowledge management are key pillars of the PPCR. Zambia is maintaining the programmatic nature of its strategic program for climate resilience under the PPCR by rooting it within the thematic and institutional framework established under the National Climate Change Program. This ensures that investments are designed to achieve national development priorities and that implementation takes full advantage of different national institutions and multi-stakeholder platforms, strengthening their capacities in the process.

#### BOX 14

### CONCLUSION

In the face of growing urgency to address both climate variability and climate change, the CIF has mobilized one of the largest concentrated efforts to pilot and demonstrate climate-resilient development at scale. Emerging lessons can fuel transformation. To create climate-resilient societies, governments must embed responses to climate impacts across economic and social sectors

and must create systemic and programmatic approaches that provide broad-based, inclusive resilience solutions based on reliable climate data. Ministries must come together to find cross-cutting approaches and programs, and partners must be engaged at every level of society.

## THE WORLD BANK GROUP



The World Bank Group (WBG) helps developing countries and their people find ways to adapt to climate change. Its strategic approach to climate change and development emphasizes and promotes synergies between climate resilience and disaster risk management as part of overall adaptation strategies and climate-smart development. This approach focuses on building knowledge and partnerships, supporting country-led action, and sourcing and extending multiple types of financing.

KNOWLEDGE PRODUCTS	ADAPTATION TRUST FUNDS	INSTRUMENTS
<ul style="list-style-type: none"> <li>● Turn Down the Heat: Why a 4°C Warmer World Must Be Avoided</li> <li>● The Economics of Adaptation to Climate Change</li> <li>● WBG Climate Change Knowledge Portal</li> <li>● WBG Disaster Risk Financing Business Lines</li> <li>● Ecosystem-Based Adaptation—Promoting Nature-Based Solutions to Counter Loss and Damage</li> <li>● Natural Hazards, Unnatural Disasters</li> <li>● Social Dimensions of Climate Change: Equity and Vulnerability in a Warming World</li> </ul>	<ul style="list-style-type: none"> <li>● CIF/PPCR</li> <li>● Global Facility for Disaster Reduction and Recovery (GFDRR)</li> <li>● Least Developed Countries Fund (LDCF) and Special Climate Change Fund (SCCF)</li> </ul>	<ul style="list-style-type: none"> <li>● Country Assistance Strategy (CAS) and Country Policy Strategy (CPS)</li> <li>● International Development Association (IDA) and International Bank for Reconstruction and Development (IBRD) instruments, including Specific Investment Loans (SILs), Development Policy Operations (DPOs), Technical Assistance (TA), and IDA16 provision</li> <li>● Bilateral, multilateral, and other trust funds</li> </ul>

# ENSURING AFRICA'S WATER, FOOD, AND ENERGY SECURITY

BY THE AFRICAN DEVELOPMENT BANK (AfDB)



*"The African Development Bank perceives accelerated, strong, sustainable, and inclusive growth as an essential part of its long term strategy. This encapsulates water resources management in a green growth development framework and resilience vis-à-vis climate change and other contemporary challenges such as population growth, urbanization and natural resource scarcity."*

**Donald Kaberuka**  
President of the African Development Bank Group  
(World Water Conference, March 14, 2012)

Climate change is a major motivation for green growth in Africa. The continent has contributed less than other regions to climate change and other global environmental changes, but Africa's population and economy are suffering disproportionately from the negative effects. The impacts of climate change on the water sector are particularly acute in Africa, where they ripple across societies, ecosystems, and economic sectors.

Global warming means higher temperatures that, in turn, mean greater evapotranspiration (or evaporation and plant transpiration). For example, warming by 1°C could result in a 10 percent reduction in surface runoff in Morocco. Increased climate variability equates to more severe, intense, and prolonged droughts and floods and changes in groundwater recharge. By 2020, up to 250 million people in Africa are projected to be exposed to increased water stress. This has disastrous effects on the most vulnerable people in Africa, that is, the poor, women, and children. Less access to water demands that women and girls spend more time fetching water and less time in school. Inadequate access to water combined with poor sanitation also exacerbates malnutrition and water-related diseases in children.

## FEELING THE IMPACTS ON AGRICULTURE, COASTAL LIFE, AND ENERGY INFRASTRUCTURE

The impacts of climate variability and change are particularly important for the agriculture sector in Africa because around 30 percent of the continent's GDP and 70 percent of the continent's population is linked to rain-fed agriculture. For every 1°C rise in temperature, crop yield losses of up to 16 percent are being calculated. By 2020, yields from rain-fed agriculture could be 50 percent less in some countries, affecting food security, exacerbating malnutrition, and increasing dependence on food aid. This is bad news for countries like Mozambique, Niger, and Zambia whose economies are heavily based on subsistence farming and animal husbandry. With support from the AfDB, these nations each have developed strategic plans for climate resilience under the PPCR that focus on the climate-sensitive agricultural sector due to its unique position to deliver pro-poor growth among rural households and to reduce exposure to crises of food prices and availability.

Along Africa's coasts, livelihoods also are threatened. Africa is home to 22 of the 33 coastal countries determined "highly vulnerable" to climate change impacts on fisheries. Nineteen big cities (more than 1 million inhabitants) in the low-elevation coastal zone (within 10-meter elevation and 100-kilometer distance from the coast) are threatened by sea-level rise and cyclones, including coastal cities in Mozambique, spurring PPCR investments to increase the climate resilience of Beira and Nacala. Mozambique aims to generate experience and guidance for building climate resilience into coastal urban planning and development elsewhere, including the capital Maputo.

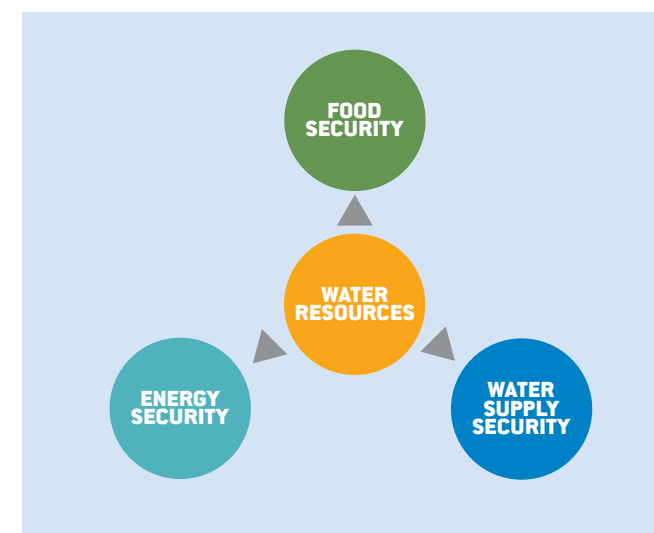
Increased incidents of drought also may affect Africa's power sector. Hydroelectric generating capacity dropped by half in Uganda following Lake Victoria's nearly 2-meter drop in water levels. Kenya, Tanzania, and Ethiopia also have been affected by

drought-related power shortages and have had to turn to costly thermal generators to ease the supply deficit. In an effort to increase energy efficiency and diversify its energy mix, Ethiopia is pursuing wind and geothermal power as part of its \$50 million investment plan under the SREP.

## MANAGING THE NEXUS OF WATER, FOOD, AND ENERGY SECURITY

Water is a natural resource, an economic asset, and a hazard, and Africa's ability to mitigate and adapt to the impacts of climate change requires a multi-sectoral, integrated approach to its management. Preparing for a resource-scarce future and meeting today's water, food, and energy challenges require solutions that take into account all three sides of the water, food, and energy security nexus. Water crosses geo-political boundaries, and African countries must work together to analyze and understand the problems and create multi-country design strategies to cope with the impact of climate change and variability. It, therefore, is essential that the cross-cutting nature of water is fully acknowledged and fully mainstreamed into national and trans-boundary water resource management plans.

**FIGURE 7. WATER, FOOD, AND ENERGY SECURITY NEXUS**



## MORE RELIABLE, ACCURATE INFORMATION

The solution lies, in part, in upgrading the hydro-meteorological and climate information and knowledge base in most countries to improve the reliability and quality of data that supports decision-making systems, as well as early warning systems. National meteorological and hydrological services and other climate services providers across Africa must work to strengthen observational networks, data analysis, management, and exchanges. The capacity of training and research institutes, regional climate centers, and other climate-related organizations also must be enhanced to produce and deliver a full range of climate services in support of sustainable development in various sectors.

Community involvement is crucial in building and maintaining observational and climate information networks. Increased access to knowledge and training on climate change and adaptation, in turn, will empower local communities to participate more effectively in decision making on adaptation plans and their implementation.

*"You can only adapt to that which you know."*  
**Dr. Joseph Kanyanga**  
Zambia Meteorological Department

Niger, for example, aims to develop climate information and forecasting capacity with PPCR and AfDB backing. Plans include improving the national climate observatory system, researching and optimizing climate modeling, strengthening the national early warning system, and expanding communication on climate information to end users. This will allow adaptation responses to be better tailored to specific vulnerable populations, especially rural communities that rely on rain-fed farming.

In addition, the country will implement a weather index-based crop insurance scheme in collaboration with IFC to cushion





farmers and pastoralists against climate-related losses from floods and droughts and to strengthen farming, food production, and agricultural development to meet the country's food security requirements.

### MORE DURABLE, CLIMATE-RESILIENT INFRASTRUCTURE

Water resources can be better managed and infrastructure better designed when stakeholders understand variability and changes in the climate and communicate that information effectively. Cameroon, Kenya, and Ethiopia are examples of countries investing in drainage system upgrades to cope with more severe and frequent flooding in urban areas, while Tunisia is developing wastewater treatment facilities to reuse this precious resource.

In the agricultural sector, feeding everyone in the future with limited water resources requires Africa to grow more “crops per drop” and to rethink how food is produced, consumed, and traded from a water perspective. Water management must be

undertaken at the lowest appropriate level, calling on public awareness raising and watershed stewardship. Communities must demonstrate adaptive behavioral changes and cultural shifts in the means of production and consumption of water by including indigenous and modern knowledge, water-use efficiency, and wastewater reuse.

Supporting this pragmatism, small-scale irrigation solutions that draw from rain water harvesting, ground water, or small ponds and reservoirs will have a significant role to play in nurturing both staple crops and cash crops to diversify diets and insure against crop failure. With adequate support of the entire value chain—from water provision to produce marketing—backed up with capacity building to ensure sustainability, these projects can support rural livelihoods and expand productivity.

In Niger, seven episodes of drought during the last 40 years have had dramatic consequences on agro-pastoral production, food security, and people's livelihoods. Backed by the AfDB and the PPCR, Niger's Sustainable Management and Control of Water Resources Project seeks to boost food production in

ten rural districts and improve the livelihoods of some 708,000 people by controlling the flow of fresh water to fields and pastures. Mini-dams, wells, and boreholes; irrigation schemes; and erosion control and other water management measures will be implemented along with the social infrastructure and training needed at the local level. Moreover, climate-resilient seeds and farming techniques will be introduced to increase agricultural production.

In Mozambique, frequent flooding and cyclones in the southern Gaza Province have damaged severely existing rural infrastructure and have weakened agricultural production.

Mozambique's PPCR/AfDB Baixo Limpopo Climate Resilient Agriculture Pilot Project intends to improve the lives of some 8,000 farm families by weatherizing rural roads and rehabilitating irrigation and drainage systems to withstand weather extremes and sea water intrusion. These measures will be complemented by the introduction of new climate-proofed seeds, localized processing and storage facilities, and expanded access to markets as yields increase. Improved infrastructure leading to better water management and increased participation in agricultural activities is expected to help smallholder farmers more than double their incomes over a 20-year period with yields expected to increase by 100 percent.

## THE AFRICAN DEVELOPMENT BANK



The AfDB is dedicated to helping Africa build its adaptive capacity and ensure that climate resilience is mainstreamed into country development programming and implementation. Particular emphasis is on supporting projects and activities that enable countries to address the impact of climate change and variability on water resources management, develop water security strategies, and foster regional cooperation on trans-boundary water resources management.

Since 2002, the overall financing of water supply and sanitation operations by the AfDB increased both in number and in volume. The Bank's water supply and sanitation sector investment grew several folds since 2002, from less than \$70 million per year to an expected \$1 billion per year at the end of 2012.

Adding to these efforts to accelerate the development of the sector are the AfDB's two flagship water initiatives: the African Water Facility (AWF) and the Rural Water Supply and Sanitation Initiative (RWSSI). During the past six years, the AWF has made steady progress toward achieving its objective of mobilizing resources for the water sector in Africa. To date, 72 projects amounting to €89 million of grant funding were approved and are being implemented in 31 countries. Trans-boundary projects raise that number to 51 countries. The RWSSI has helped more than 45 million people gain access to drinking water and nearly 30 million to improved sanitation since its inception in 2005. It is moving forward with 31 programs approved in 23 countries for a total \$5.5 billion.

# KEEPING LATIN AMERICAN AND CARIBBEAN WATERSHEDS IN BALANCE

BY THE INTER-AMERICAN DEVELOPMENT BANK (IDB)



*“The IDB is helping Latin America and the Caribbean to take the goal of sustainable, inclusive growth into a measurable reality. The Bank’s commitment to climate change is very solid because the Region is one of the most vulnerable to its impacts.”*

**Luis Alberto Moreno**  
President of the Inter-American Development Bank  
(Ministerial Lunch, Rio+20 Summit on Sustainable Development, June 2012)

In Latin American and Caribbean countries, rainfall and temperature patterns are changing regionally and locally, affecting both the supply and the demand sides of the water sector and exacerbating current water stress among water users in some regions. This could lead to water conflicts if due measures are not taken into consideration. Moreover, observed non-stationarity of rainfall series, also exacerbated by climate change, will have profound implications for management approaches on ecosystem services, energy, and agricultural productivity. As the availability of water resources becomes uncertain, different water uses will have to be adjusted to account for climate variability and change. This will need to be accompanied by new or revised policies and an efficient monitoring and evaluation structure for new projects that are aimed at reducing water resources’ and dependent communities’ vulnerability to climate variability and change.<sup>16</sup>

The inclusion of climate change considerations within existing structures for integrated water resources management (IWRM) programs is of utmost importance for Latin American and

Caribbean countries and becomes the logical and most effective way to help all the different users, including communities, to adapt to the impacts of climate change on water resources availability (both in quality and quantity). In order to respond to these challenges, the Inter-American Development Bank (IDB) has been working with its clients on a regional approach to IWRM comprising five basic areas:

- 1. Supply, distribution, and sustainability of water sources:** Required are better understanding of climate and its functioning, and of the development and utilization of useful climate change scenarios, coupled with river basin models in order to translate precipitation and atmospheric data (provided by climate scenarios) into useful planning information. Building public awareness, the institutional and organization capacity to interpret and use the information provided, and the ability to properly manage the process also are required.
- 2. Demand, efficient water use, and management:** Required are building awareness; promoting efficiency in technology and cultural practices; conducting adequate monitoring, reporting and verification; and eliciting community participation and action.
- 3. Contamination and degradation of water quality:** Required are water consumption reductions and water regulation increases, such as increasing minimum flows through reservoir discharges as needed to preserve environmental standards, in order to cope with the reduced auto-purification potential of warmer water.

- 4. Water resources management infrastructure:** Required are new performance standards and guidance on building for the long term and against climate uncertainty.
- 5. Governance and institutional strengthening:** Required are water planners and managers to develop inclusive and participative approaches to water allocation and water management, as well as conflict resolution schemes attuned to the cultural, institutional, and geographical characteristics of the water basin.

The IWRM approach is a powerful process that already embraces social and environmental sustainability, which can be aligned toward short- to long-term climate change adaptation at the basin level. Likewise, new tools for the evaluation and comparison of different water management policies with respect to its sustainability with a climate change lens are required.

In this context and as an implementing agency of the CIF, the IDB supports a group of countries in the Latin American and Caribbean region in the development of specific investment projects in the water sector under the PPCR. These projects include approaches that follow the IWRM process.

## BOLIVIA: CLIMATE RESILIENCE PROGRAM FOR THE WATER AND SANITATION SYSTEMS OF THE METROPOLITAN AREAS OF LA PAZ AND EL ALTO

The geographical location of Bolivia in the Andean region, combined with high levels of poverty, make this country extremely vulnerable to climate change. The availability of water resources for various areas of the country is affected by accelerated glacier melting, changes in the spatial and temporal distribution of precipitation, and increased evapotranspiration.

The overall objective of Bolivia’s program is to increase the resilience of the entire water supply system of the cities of La Paz and El Alto. The specific objectives are to:

1. Improve the continuity and quality of the water system in the metropolitan areas of La Paz and El Alto
2. Allow the expansion of coverage
3. Generate experiences and lessons to integrate climate change in the planning, design, and implementation of water projects in high-mountain environments
4. Start the preparation and implementation of a pilot project of an IWRM plan that is multi-purpose, participatory, sustainable, and resilient and includes the gender dimension



<sup>16</sup> Regional Policy Dialogue in Latin America and the Caribbean, 2010–2012.

5. Lay the groundwork to develop a climate-resilient water system for the metropolitan areas of La Paz and El Alto

To provide assurances that the metropolitan area of La Paz and El Alto and all water users in the river basin will continue enjoying a sustainable and resilient water provision, it is necessary to consider a group of actions including:

1. Improving the current understanding of climate change impacts on water resources so that projects and programs can be designed to ensure the resilience to climate change in the water supply system
2. Assessing the current reliability of the water supply system and how it will be affected by climate change during the next three decades
3. Conserving the sources of the existing water supply through integrated river basin management plans
4. Searching for and developing new water supply sources
5. Implementing regulations and education programs for users to ensure rational use of the resource
6. Improving the existing distribution systems and water usage to reduce losses

### JAMAICA: CLIMATE RESILIENCE PROGRAM FOR WATER AND AGRICULTURAL SYSTEMS WITHIN THE RIO MINHO REGION OF SOUTHWEST JAMAICA

Jamaica's geographic location within the Caribbean Sea and its limited adaptive capacity present significant challenges as the country attempts to increase its resilience to the impacts of climate change. An important step in meeting this challenge is to ensure that all key policies, plans, regulations,

and legislation, as well as regulatory institutions, provide the framework for individuals, communities, businesses, civil society, and government agencies to deliberately incorporate climate change risk reduction/adaptation strategies as a normal part of their planning and decision-making processes. These processes should be complemented by strategic adaptation interventions, particularly at the watershed or river basin level.

The principal objective of the Jamaica program is to mainstream climate change into the development plans and planning processes for two river basins, Rio Minho and Rio Bueno River Basins, located in the south-central section of the island, and to increase adaptation to the impacts of climate change by stakeholders in vulnerable sections of the two areas. Specifically the program will:

1. Create an enabling framework for mainstreaming climate change adaptation at the local and national levels
2. Characterize the project area using baseline data and develop vulnerability assessments and adaptation plans for the prioritized sectors, the infrastructure, and vulnerable communities in the project area
3. Improve river basin planning and management to protect the recourse base of the area and safeguard livelihoods through vulnerability assessment and integrated planning
4. Develop and implement integrated adaptation strategies (water, land, and infrastructure) to address the anticipated impacts of climate change in the project area.

The expected outcome of these measures is the improvement of the livelihoods of more than 65,000 people within farming communities.

## THE INTER-AMERICAN DEVELOPMENT BANK



The Latin America and Caribbean region is highly vulnerable to the detrimental effects of climate change. According to the most recent assessment reports from the Intergovernmental Panel on Climate Change, important changes in precipitation and increases in temperature have been observed in the region.

It is imperative that Latin American and Caribbean region countries address climate change vulnerabilities and respond with adequate adaptation and mitigation measures in key economic sectors, such as energy, transport, agriculture, water resource management, and urban development.

In 2012, the IDB developed a Climate Change Action Plan (2012-2015) as a direct instrument to implement its Strategy for Climate Change. Given the scale of needed interventions and resources available to cover climate-related priorities in the Latin American and Caribbean region, the Action Plan focuses on the following three key priority areas:

- Strengthening the IDB's involvement in adaptation, including increased financial resources to strengthen the resilience of natural systems, communities, businesses, and economies in the region to the impacts of climate change
- Supporting activities with the largest potential for greenhouse gas emissions reduction, including those from land use change and deforestation, transport, and power generation
- Promoting technology development, social engagement, and resource mobilization that encourage synergies between adaptation and mitigation actions

The strong commitment of the IDB to support climate change-related activities in the region also is represented by the increasing number of operations approved by the IDB in recent years. Between 2006 and 2011, the IDB financed more than \$7.5 billion in climate change mitigation projects and more than \$1.1 billion in adaptation.

These amounts are expected to increase in the following years based on an annual target of 25 percent of lending for climate change, sustainable energy, and environmental sustainability by 2015. This target was established in the IDB's Ninth General Capital Increase (GCI 9) by the Board of Governors at the 2010 Annual Meeting.



# SPOTLIGHT ON CLIMATE-RESILIENT AGRICULTURE

BY THE CIF ADMINISTRATIVE UNIT (CIF AU) AND WORLD BANK GROUP (WBG)

Agriculture accounts for one-third of developing countries' aggregate GDP and employs 65 percent of the work force. It is widely agreed that climate change and variability may further decrease the already low productivity of agriculture in many developing countries. The need to increase the resilience and capacity of the agricultural production systems of these countries to effectively adapt is urgent.

## Effects of climate change and variability on plants in low latitudes

- Heat stress
- Decreased soil moisture
- Increased water shortages
- Disruption from frequent and more severe natural disasters
- Increased crop pests and diseases due to warmer temperatures

BOX 15

Nowhere will the achievements of the PPCR be as crucial as in agriculture, and most PPCR pilot countries include agriculture and food security in their strategic programs for climate resilience. While the composition of agricultural adaptation programs varies from country to country, some common features are emerging:

### PHYSICAL INVESTMENTS

- Small- and large-scale irrigation infrastructure
- Coastal defense infrastructure to control predicted sea-level rise and associated adverse economic and social effects
- Floodgates for secure water flows and control of salinization of irrigated land
- On-farm productivity-enhancing and climate-smart land and water management practices
- Storage facilities for seed and agricultural output

### CAPACITY BUILDING

- Knowledge generation (studies, climate data management, information sharing, climate modeling)
- Stakeholder training for the integration of climate resilience into farming and agricultural development planning
- Development and dissemination of climate products and services (hydro-meteorology)
- New technology (improved seeds, new irrigation techniques)
- Awareness raising
- Strengthening of national meteorology and hydrology services

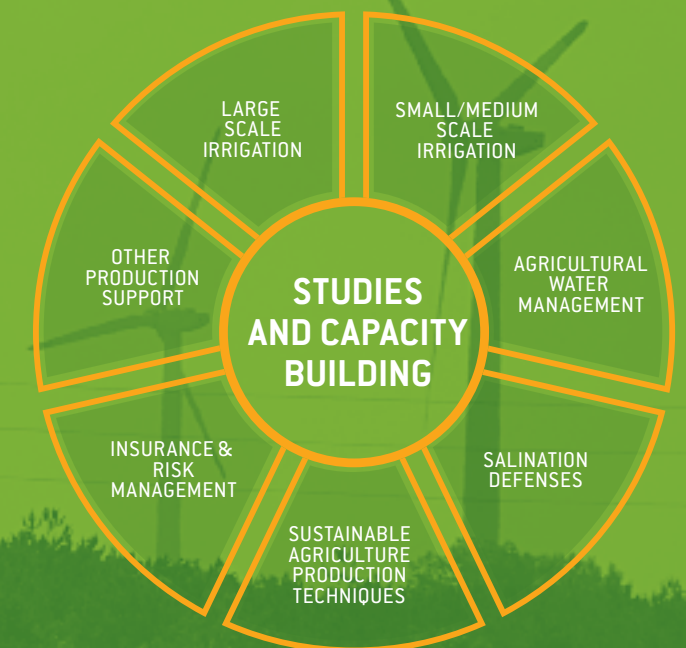
### POLICY SUPPORT AND ENABLING ENVIRONMENT

- Regulations and policies pertaining to irrigation water use
- Index-based weather insurance for agriculture
- Agricultural research
- Establishment of early warning systems
- Creation and strengthening of social safety nets

These measures are aimed at 1) raising the awareness of policy makers, sector planners, and producers about current and future vulnerability of agriculture and food security to climate risks and change, and 2) helping policy-makers and producers to adopt appropriate adaptation measures and risk management strategies. Their successful implementation will result in wide-ranging benefits and will help to achieve the strategic objective of increased and stable agricultural production in PPCR pilot countries.

Yet, more needs to be learned and done in order to meet the complex challenges of adapting farming systems to climate change and ensuring food security. As more and more PPCR pilot countries translate their adaptation investment plans into operations on the ground, increased attention will be needed to deepened public engagement, strengthen multi-sectoral engagement, expand the range and type of decision-relevant information, enhance policy-making and planning tools, and secure long-term financing.

FIGURE 8. PPCR AGRICULTURAL INVESTMENTS CATEGORIES



APPROXIMATELY 22 PERCENT OF PPCR FUNDING, **\$193 million**, is focused on 10 agriculture and food security projects in Bangladesh, Bolivia, Cambodia, Mozambique, Nepal, Niger, Tajikistan, Yemen, and Zambia.

# CLIMATE PROOFING INFRASTRUCTURE IN ASIA

BY THE ASIAN DEVELOPMENT BANK (ADB)



*“To address climate change adaptation, countries should take a “no regrets” approach. Such an approach to adaptation involves measures that represent sound development practice as part of a broader effort to achieve inclusive and environmentally sustainable growth... Infrastructure investments should be guided by the principles of sustainability, accessibility, and social inclusiveness.”<sup>17</sup>*

Climate change threatens development, increases the likelihood of disasters, and further exacerbates the plight of the poor because they lack the resources to adapt. However, climate change adaptation actions may not be an immediate priority for low-income countries due to low awareness, especially with regard to potential impacts of climate change and their implications for economic growth, exacerbated by limited availability of funds likely to be channeled to development concerns that appear more pressing. The PPCR addresses this conundrum by demonstrating the benefits of integrating climate risk resilience into low-income countries' core development planning, piloted in selected highly vulnerable low-income developing countries.

In a 2010 study, the World Bank estimated the costs of climate change adaptation in developing countries at \$75–\$100 billion a year during the period 2010–2050.<sup>18</sup> Costs to manage climate change impacts on the infrastructure sector alone represent an estimated \$15–\$30 billion annually during the same period. Urban infrastructure and roads account for most of this estimated adaptation cost. Geographically, more than 40 percent of this cost is expected to be incurred in South and East Asia and the Pacific. The estimates are based on a global mean temperature

increase of 2°C by 2050; adapting to an even warmer world would be much more costly.

Infrastructure is susceptible to changes in the environment in which it is built. Prolonged changes in temperature and precipitation, associated hydrological changes, and increased frequency and intensity of storms and extreme climatic events can exert a toll on the built environment. At the same time, physical infrastructure itself can cause changes in the natural environment and may affect the vulnerability of surrounding areas. Appropriate adaptation measures can reduce the vulnerability of infrastructure—roads, bridges, buildings, water supply, irrigation and drainage, power plants, and other structures—and the communities who depend on these vital assets.

Because infrastructure plays an important role in the socioeconomic development of countries, it is important for infrastructure decisions to reflect accurate assessment of potential sensitivity to a changing climate. A significant feature of the PPCR is that the program promotes use of projected information and accumulated knowledge to demonstrate the benefits of integrating climate risk assessment into countries' core development planning.

Decision-makers in government and the private sector face difficult decisions in determining what, when, and how to adapt infrastructure given the uncertainty of climate outcomes. Resources provided through the PPCR help decision-makers determine the level of vulnerability to climate change and the most appropriate and cost-effective adaptation measures for critical infrastructure by improving the accuracy and availability of data to quantify risks. Tools are being integrated into budgetary and planning processes to screen for climate risks.

Grants and concessional finance are being deployed to cover the additional cost of measures to climate proof infrastructure. Taken together these investments are synergistic: systematic use of better climate data and models improves the ability to accurately assess risks, which leads to more appropriate climate-proofing and adaptation measures in specific projects.

## METHODOLOGIES TO MANAGE RISKS FROM CLIMATE CHANGE

Adjusting to the need for climate-resilient development means integrating actions and responses to the physical, social, and economic impacts of climate change into all aspects of development planning and investment. Consistent with the principles of the PPCR, the ADB seeks to assist its developing member countries to enhance the climate resilience of vulnerable sectors—such as transport, agriculture, energy, water, and health—by “climate proofing” investments in these sectors to ensure their intended outcomes are not compromised by climate change. In 2011, the ADB introduced guidelines for climate proofing road transport designed to present a step-by-step methodological approach to assist project teams to incorporate climate change adaptation measures into road connectivity projects (see Figure 6). While the focus of these guidelines is on the project level, an improved understanding of climate change impacts also should be used in the design of infrastructure planning and development policies and strategies to ensure appropriate resource allocation.<sup>19</sup>

Site-specific analysis is needed to assess and evaluate climate change vulnerabilities, threats, and impacts and identify appropriate adaptation responses for a given project. The ADB seeks to undertake a comprehensive end-to-end climate risk management of projects and has developed a methodological approach encompassing an expanding suite of tools to screen projects for climate vulnerabilities and to identify appropriate and cost-effective adaptation measures. Initially, this approach was used in developing guidance materials for climate proofing investments in the transport sector, focusing on road infrastructure. Similar guidance documents are being prepared for other sectors using this



framework. Application of this methodological approach currently is being tested at the project level across selected projects, including those funded through the PPCR.

Project screening may not result in immediate action; in some cases, climate impacts may not materialize for decades and the cost of immediate action would outweigh the benefits. But screening tools identify risks, improve climate “readiness,” that is, the ability to respond to climate risks when they materialize, and generate awareness about appropriate adaptation measures to be implemented whenever action is warranted.

## CLIMATE PROOFING IN ACTION: BUILDING COASTAL CLIMATE-RESILIENT INFRASTRUCTURE IN BANGLADESH

Bangladesh is one of the most vulnerable countries to climate change, and the impacts of climate change threaten its significant achievements in raising incomes and reducing poverty made in the last two decades. By 2050, climate change could make an additional 14 percent of the country extremely vulnerable to flooding and dislocate more than 35 million people in the coastal districts. Climate models predict that about 87 percent of roads in the country will be substantially inundated due to climate change by 2050.<sup>20</sup> Poor farmers are among the most vulnerable groups to

17. United Nations ESCAP, Asian Development Bank, and UNEP. 2011. *Green Growth, Resources and Resilience: Environmental Sustainability in Asia and the Pacific*. Bangkok: United Nations and Asian Development Bank.

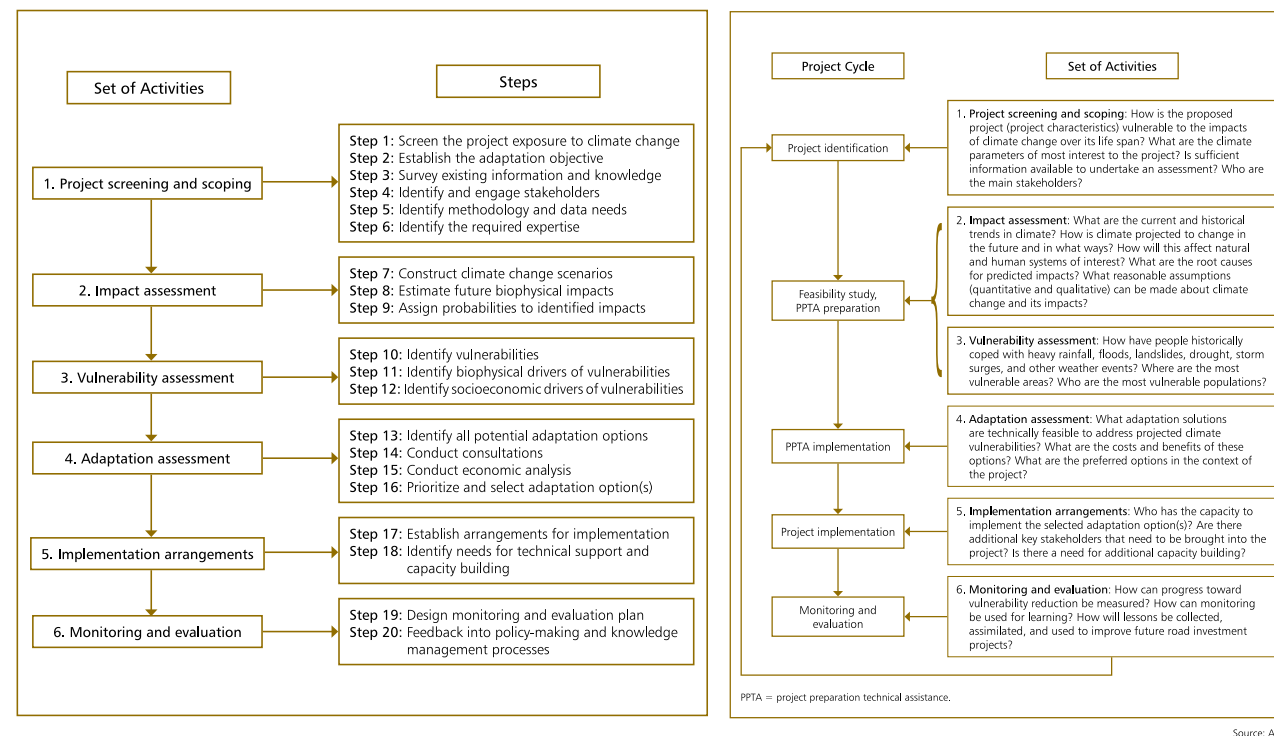
18. World Bank. 2010. *Economics of Adaptation to Climate Change: Synthesis Report*. Washington, DC: World Bank.

19. Asian Development Bank. *Guidelines for climate proofing investment in the transport sector: Road infrastructure projects*. Mandaluyong City, Philippines: Asian Development Bank, 2011.

20. Dasgupta S. et al. 2010. *Policy Research Working Paper 5469, Climate Proofing Infrastructure in Bangladesh: The Incremental Cost of Limiting Future Inland Monsoon Flood Damage*, Washington, DC: World Bank Development Research Support Team.



**FIGURE 9. ASSESSING ADAPTATION NEEDS AND OPTIONS: 6 SETS OF ACTIVITIES AND 20 STEPS FROM THE ADB**



climate change in Bangladesh because extreme climate events rob them of their livelihoods, as well as their assets.

Supported by financing provided through the PPCR, the ADB recently approved the Coastal Climate Resilient Infrastructure Project. It aims to safeguard livelihoods in 12 rural coastal districts by enhancing the resilience of coastal infrastructure to climate change. The project targets two critical classes of assets for resilience measures: roads and market facilities. In addition, the project supports actions to enhance communities' adaptive capacity, including upgraded disaster shelters. The project also supports local governments' efforts to develop climate assessment and planning tools, such as a climate-resilient rural infrastructure management plan, and to integrate these into development planning. PPCR financing will support the incremental cost of climate-proofing measures, which are estimated at 30 to 40 percent above "business as usual" standards.

During the project's design stage, the design team applied climate risk screening similar to the methodology described in Figure 6 to assess climate impacts and identify appropriate adaptation measures for the different types of infrastructure. For the roads, resilience measures include widening and raising embankments, improving cross drainage to reduce waterlogging of adjacent lands, and protecting against erosion through planting along embankments. The project provides for quality assurance measures during construction to ensure that construction meets engineering and resilience standards, as well as providing a maintenance plan for proper upkeep of the roads. At the large market facilities, new market sheds will be constructed on concrete plinths raised to account for maximum high tides and sea-level rise and the central market areas will be paved at a similar level. Cyclone shelters will be connected to paved climate-resilient roads and upgraded with adequate water storage, sustainable power supply, and appropriate toilet facilities to ensure that they are accessible and usable during disasters.

A key feature of the project is that climate-proofed and disaster-resilient designs not only withstand extreme climate events but serve people when they need them most by facilitating delivery of goods and services across disaster-affected areas and by safeguarding lives and livestock during extreme weather events. An estimated 3.5 million people are expected to directly benefit from the project.

Consistent with the programmatic approach fostered by the PPCR, this project will have synergistic benefits with other projects included in Bangladesh's strategic program for climate resilience, which targets climate-resilient housing and climate-resilient water supply and sanitation in coastal areas.

**BOX 16**

**Incorporating climate resilience into the energy sector in Tajikistan**

Hydropower provides 98 percent of Tajikistan's electricity. Hydropower facilities also play critical roles in water management and irrigation with some facilities such as Kairakkum on the Syr Darya River constructed for irrigation, as well as power generation.

Tajikistan's hydropower plants are highly vulnerable to climate change threats as they depend upon river basin discharge fed by glacial and snow melt. Consequent to global warming, significant increases in glacial melt and melting of accumulated snow in Tajikistan are expected in the next few decades, leading to drastic seasonal water deficits as the mass of glacial ice and accumulated snow shrinks. The vulnerability of Tajikistan hydropower industry is exacerbated by the fact that the physical infrastructure has been weakened by low maintenance and investment owing to civil war, natural disasters, financial constraints, and poor management.

The EBRD, with the support of the PPCR, is helping to find solutions to these serious problems. In 2010, the Government of Tajikistan requested EBRD financing to rehabilitate the 126-MW Kairakkum hydropower plant. In response, the EBRD launched an innovative research program to analyze the vulnerability of Tajikistan's hydropower facilities to climate change and to identify options for improving the climate resilience of both the facilities and the hydropower sector overall. A major investment program is now under development with PPCR grant support anticipated. This will support specific climate resilience measures and appropriate climate-proofing options to be determined through a detailed feasibility study that is currently underway.

PPCR financing also will support institutional measures to strengthen climate resilience in the hydropower sector, such as improved monitoring systems at Kairakkum and other hydropower plants to track changes in key climate or hydrological parameters and adjust plant management accordingly.

**THE ASIAN DEVELOPMENT BANK**



During the past decade, Asia and the Pacific have made significant progress in achieving the Millennium Development Goals. However, accelerating climate change is threatening to reverse these gains and those who are already economically and socially vulnerable are likely to suffer soonest and most. To enable member countries to cope with the inevitable impacts already locked into the climate system, as well as to transition them to low-carbon economies, the ADB is working with urgency to put in place integrated solutions that will address both the causes and consequences of climate change in the region.



# UNLOCKING THE POTENTIAL OF THE PRIVATE SECTOR IN ADAPTING TO CLIMATE CHANGE

BY THE EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT (EBRD)



**European Bank**  
for Reconstruction and Development

Adapting to climate vulnerability and change is not just the responsibility of the public sector; entire economies must be transformed in order to meet the challenge. The huge adaptation financing needs faced over the coming decades cannot be met by public budgets alone. Furthermore, adaptation also is in businesses' own interests, as they need to ensure that their assets and operations are resilient to climate change.

**Business perceptions of the relevance of climate change are changing.** Climate change was ranked as the most significant risk to the global economy over 2010–2020 at the 2012 World Economic Forum. Climate change has a diverse range of impacts that may affect businesses. Primary impacts such as shifts in temperature and precipitation and sea-level rise may have a range of complex secondary impacts on water resources, agriculture, coastal areas, human health, forests and natural habitats that may have serious implications for businesses, the resource bases they use, and the markets on which they rely.

**FIGURE 10. CONSIDERATIONS FOR A CLIMATE RESILIENT ECONOMY**



However, there remain important challenges in spreading this awareness among businesses in low-income countries, where the impacts of climate change often are most keenly felt. The CIF, through the PPCR, plays an important role in this respect by mainstreaming private sector considerations into its programs and projects in PPCR pilot countries. The PPCR process pays special attention to engaging with the private sector, alongside a broad range of other stakeholders, in the development of country-level strategic programs for climate resilience.

**Unmanaged climate risks pose important threats to businesses.** Climate change will result in changes in demand for the goods and services that businesses produce. It may have negative effects on their output and accelerate the deterioration of key assets. For example, buildings and machinery may be vulnerable to extreme events such as storms and floods. Such impacts will result in increasing maintenance and operating costs for businesses, as well as the cost of insuring their assets. Left unmanaged, these threats may harm businesses' competitiveness and profit margins. Climate vulnerability and change represents a challenge to which businesses will need to adapt in order to remain competitive.

Specific types of climate risks that affect businesses include the following:

- **Financial:** Debt repayment capacity and underlying cash flows may be affected by climate change impacts on revenue generation. Climate change impacts on business performance also may affect the valuation of those businesses.
- **Operational:** Climate change may result in direct physical impacts on facilities, such as storm damage to buildings, as well as indirect impacts, such as disruption to power supplies or transport links.
- **Environmental and social:** Climate change may exacerbate the impacts that businesses have on the local environment

and communities, for example, by worsening soil erosion or intensifying competition for increasingly scarce water resources.

- **Legal and reputational:** Climate change impacts may now be regarded in some jurisdictions as “reasonably foreseeable,” which means that businesses that fail to prepare for them may find themselves liable.

**Addressing climate change risks can create business opportunities.**

These may include competitive advantages in view of the changing conditions, as well as opportunities for new products and markets. Seizing these opportunities requires taking action and building a business case for adaptation, which may include the following actions:

- Providing better information on climate-related risks and opportunities
- Adopting regulation and enacting legislation that provide incentives to business adaptation
- Setting investor standards that specify climate risk management that are required, for example, by MDBs and Equator Banks

- Developing financial incentives for private sector adaptation, for example, concessional finance through PPCR programs
- Creating corporate governance for climate risk management through, for example, shareholder pressure and ratings agencies
- Managing reputational risk in order to avoid, for example, conflict about climate-sensitive resources such as water

Through the PPCR, the CIF helps to create opportunities for adaptation action by businesses. For example, in Tajikistan, the World Bank is working with the State Hydro-Meteorological Agency to enable them to provide improved weather and hydrological forecasts that will benefit farmers and hydropower operators. The PPCR also is supporting the authorities in St. Lucia to develop a Climate Adaptation Loan Facility that will provide affordable loans to small businesses to help them invest in climate resilience measures such as flood protection.

**Climate change matters for businesses, in both the short and the long term.** In the short term, businesses need to be able

**Snapshot of PPCR private sector project pipeline (as of December 31, 2012)**

PPCR PILOT	PROJECT	SECTORAL FOCUS
Bangladesh	Promoting Climate-Resilient Agriculture and Food Security	Agriculture/food security
Bangladesh	Feasibility Study for a Pilot Program of Climate Resilient Housing in the Coastal Region	Infrastructure
Mozambique	Developing Climate Resilience in the Agricultural and Peri-Urban Water Sectors Through Provision of Credit Lines from Mozambican Banks	Agriculture/food security
Mozambique	Developing Community Climate Resilience Through Private Sector Engagement in Forest Management	Forestry
Nepal	Building Climate Resilient Communities through Private Sector Participation	Agriculture/food security
Niger	Project for the Improvement of Climate Forecasting Systems and Operationalization of Early Warning Systems (PDIPC)	Forecasting and early warning systems
Niger	Community Action Project for Climate Resilience (CAPCR)-Private Sector Investment to Build Climate Resilience in Niger's Agricultural Sector	Sustainable land management
Niger	Project for Sustainable Management and Control of Water Resources (PROMOVARE)	Water management
Tajikistan	Enhancing the Climate Resilience of the Energy Sector	Hydropower generation
Zambia	Private Sector Support to Climate Resilience	Agriculture/food security

BOX 17

to cope with the immediate climate vulnerabilities created by existing climate stresses, such as water scarcity and climatic variability that may affect agricultural production, for example. In the long term, it is important for businesses to be able to make decisions that are informed by a sound understanding of anticipated climate change. For example, ports built in the 1990s using information based on historic sea-level records may be vulnerable during the coming decades. In some countries, water utilities are developing forward-looking plans that use experience gained through recent past weather events in the future planning of water supplies.

Adaptation relates to both of these challenges: managing businesses' vulnerability to short-term, extreme events and coping with long-term changes in climate patterns. These challenges need different responses, which in turn require an understanding of the barriers that businesses face, and the development of partnerships to promote business action on adaptation.

**There are important barriers to private sector action on adaptation.** The obstacles to adapting to climate change in the private sector must be overcome so that businesses can make better-informed decisions that enable them to identify and manage climate change risks.

- Long-term impacts versus short-term needs: There is often a mismatch between the longer-term nature of climate change impacts, which can have a time-horizon of decades, and the shorter-term planning horizons of up to two to three years that many businesses use.
- Poor information: Businesses frequently suffer from a lack of information about climate change impacts, as well as a lack of useable information about both shorter-term weather conditions and longer-term climate change.
- Lack of good-quality data: In many developing countries there is an acute lack of good-quality weather and climate data. This often is due to a lack of monitoring stations or local capacity for modeling and forecasting.
- Management of uncertainty: A degree of uncertainty is inherent in all climate change projections. This uncertainty, however, is exacerbated by poor data availability and limited analytical capacity. Uncertainty about the nature, scale, and timing of climate change impacts also makes it

more difficult for businesses to make decisions about how to manage climate change risks.

**Partnerships are the key to private sector action on adaptation.**

Governments and regulators have an important role to play in setting the right incentives for business action on adaptation, while financing mechanisms like the CIF can encourage innovative partnerships with businesses and creating an enabling environment. PPCR pilot countries have begun to develop innovative approaches for unlocking the potential of businesses to contribute toward climate resilience. The challenge for the emerging international climate finance architecture will be to scale up these approaches in the years ahead.

**Targeted support for businesses can help them to manage climate change impacts.**

In some countries, dedicated programs exist to help businesses understand and respond to climate risks. For example, in the United Kingdom, the UK Climate Impacts Programme offers support and guidance to businesses in the form of research, decision-making tools, and information resources. The UK Meteorological Office provides a range of business-oriented weather and climate information services. MDBs also are instituting research to support climate resilient development in emerging economies (see Box 18).

Through the PPCR, the CIF helps developing countries to begin to strengthen these kinds of capacities through its support for the development of improved meteorological and hydrological forecasting systems in countries as diverse as Tajikistan, Mozambique, and Yemen. The longer-term challenge will be to strengthen these capacities further so that they can provide the kinds of information services that help businesses to make better decisions around managing risks posed by climate variability and change.

**Climate-resilient businesses contribute towards national climate resilience.**

Promoting climate resilience at the level of an individual business is part of a wider picture. Businesses need to ensure that their own assets and the operations on which they rely, such as infrastructure and supply chains, are resilient to climate change in order to ensure financial, environmental, and social sustainability and to safeguard growth opportunities and market share. The climate resilience of businesses is essential for national-level climate resilience, as well as for sustainable economic development.

**How knowledge on climate risk can help businesses create adaptation responses**

BY THE INTERNATIONAL FINANCE CORPORATION (IFC)

Recognizing the gaps in information of how climate change will affect the private sector and of the potential significance of the risks to investors, IFC has initiated the Climate Risk Program, a series of studies that analyzes climate risks and develops methodologies for adaptation options for projects taken from sectors such as hydropower, ports, agribusiness and manufacturing, and from a variety of the world's regions.

One example is IFC's Climate Risk and Business: Ports study, done in collaboration with IFC's client port Muelles el Bosque (Cartagena, Colombia). Ports play a vital role in the world economy; more than 80 percent of goods traded worldwide are transported by sea. Ports also are located in the sectors most exposed to climate change. However, a survey of several hundred ports found that although almost all respondents planned investing in new infrastructure in the next few years, most were not considering climate change impacts.

The study identified possible reasons for not planning, including a general lack of information specific to the ways in which a port's operations and key components will be materially affected by climate change impacts. Additionally, very few businesses, particularly in developing countries, have the capacity and resources to produce such information.

IFC's ports study produced a methodological framework for assessing climate risks and opportunities of ports and helped Muelles el Bosque develop its adaptation strategy and investment priorities. One of the immediate outcomes of the work was the port's announcement of multimillion-dollar investments in adaptation actions recommended by the study. At the same time, the study's general approach is designed in such a way to allow other ports to follow the same steps toward increasing its climate resilience.

Despite the challenges and uncertainties inherent in undertaking such assessments, the Climate Risks Program studies generated new information related to climate risks and recommend specific adaptation actions to a variety of businesses across different locations. They also demonstrate some of the practical approaches that can be applied by businesses to understand these risks better, to react as necessary, and to reduce uncertainty about the future. Ultimately the ability of businesses to adapt to climate change will depend not only on their own actions but also on the actions that may be needed from the public sector, non-governmental organizations, the scientific community, and other stakeholders.

VISIT [WWW.IFC.ORG/CLIMATERISKS](http://WWW.IFC.ORG/CLIMATERISKS)



BOX 18

## THE EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT



The most immediate and tangible impacts of climate change are felt through its influence on water—either not enough, which can lead to droughts, or too much in the form of storms, floods, and rising sea levels. Climate change is thought to be a real threat to water resource management in some of the more water-stressed parts of Central Asia and the Caucasus, southeastern Europe, Turkey, and the Southern and Eastern Mediterranean. In response to this, the EBRD is developing innovative investments to help businesses and communities cope with increased water stress and an increasingly variable climate.

The EBRD region is home to many businesses that are intensive users of water, for example, food production, mining, and manufacturing. Industrial water efficiency is a challenge for many of EBRD's private sector clients in these sectors. In response, the EBRD is now conducting water use audits, usually combined with analyses of climate change impacts on water availability, as part of the development of its investments in water-intensive businesses. For example, in Bosnia and Herzegovina, the EBRD carried out a water use audit of a paper and pulp mill that led to the identification of significant potential water savings that were subsequently incorporated into the €11 million refit of the facility.

The EBRD also recognizes that innovative approaches are needed toward achieving a better understanding of climate vulnerabilities and adaptation priorities of businesses and of the private sector more broadly. In response to this, in Turkey, the EBRD and IFC are collaborating on a pilot climate change adaptation market study to understand businesses' vulnerability to climate change and the kinds of technical and financial support that they might need to cope.





*Greening  
Infrastructure  
in Vietnam*  
by Ross Hughes,  
prize winner of  
the 2012 CIF Climate  
in Focus photo contest

## ANNEXES

# ANNEX A Contribution Status

## CLEAN TECHNOLOGY FUND

TABLE 1: CONTRIBUTIONS AS OF DECEMBER 31, 2012 (IN MILLIONS)

Contributor	Contribution Type	Currency	Pledges Outstanding and Contributions Finalized			Historical Value of Total in USD eq. <sup>a</sup> (1)	Current Value of Total in USD eq. <sup>b</sup> (2)	FX changes (3) = (2) - (1)	Receipts in USD eq. <sup>b</sup>
			Pledges Outstanding	Contributions Finalized	Total				
Australia	Grant	AUD	-	100	100	84	86	2	86
Canada	Loan	CAD	-	200	200	193	199	6	199
France <sup>c</sup>	Loan	EUR	-	203	203	300	268	(33)	268
Germany <sup>d</sup>	Loan	EUR	-	500	500	739	615	(124)	615
Japan <sup>e</sup>	Grant	USD	-	1,000	1,000	1,000	1,114	114	1,114
Spain	Capital	EUR	-	80	80	118	109	(9)	70
Sweden	Grant	SEK	-	600	600	92	80	(13)	80
United Kingdom <sup>f</sup>	Capital	GBP	-	610	610	1,135	973	(161)	927
United States <sup>g</sup>	Grant	USD	778	714	1,492	1,492	1,492	-	714
						<b>5,154</b>	<b>4,937</b>	<b>(218)</b>	<b>4,073</b>

- a Represents pledges valued on the basis of exchange rates as of September 25, 2008, the CIF official pledging date.  
b Represents realized amounts plus unrealized amounts valued on the basis of exchange rates as of December 31, 2012.  
c France pledged EUR 500 million, including: 1) concessional loan of USD 300 million and 2) USD 200 million in co-financing from the French Development Agency (ADF). The second commitment was fulfilled with ADF loans to solar power projects of South Africa (USD 14.4 million in January 2012) and Morocco (USD 12.4 million in July 2011) under the Clean Technology Fund.  
d The EUR 500 million pledge was committed in USD in the amount of USD 615 million.  
e The USD 1 billion pledge was committed in JPY in the amount of JPY 93 billion.  
f Represents the amount pledged under the Strategic Climate Fund and allocated to the Clean Technology Fund.  
g The total pledge made by the United States to the CIF is USD 2 billion; the allocation across the programs is indicative.

## STRATEGIC CLIMATE FUND

TABLE 2: CONTRIBUTIONS AS OF DECEMBER 31, 2012 (IN MILLIONS)

Contributor	Contribution Type	Currency	Pledges Outstanding and Contributions Finalized			Historical Value of Total in USD eq. <sup>a</sup> (1)	Current Value of Total in USD eq. <sup>b</sup> (2)	FX changes (3) = (2) - (1)	Receipts in USD eq. <sup>b</sup>
			Pledges Outstanding	Contributions Finalized	Total				
Australia	Grant	AUD	-	86	86	72	79	7	79
Canada	Grant	CAD	-	100	100	97	84	(13)	84
Denmark	Grant	DKK	-	238	238	47	45	(3)	36
Germany <sup>c</sup>	Grant	EUR	-	59	59	88	78	(10)	78
Japan <sup>d</sup>	Grant	USD	-	200	200	200	218 <sup>d</sup>	18	218
Korea	Grant	KRW	-	6,565	6,565	6	6	0	6
Netherlands	Grant	USD	-	76	76	76	76	-	76
Norway	Grant	NOK	-	1,336	1,336	241	229	(12)	180
Spain	Grant	EUR	-	3	3	4	4	(1)	4
	Capital	EUR	-	20	20	30	26	(4)	26
Sweden	Grant	SEK	-	270	270	42	41	(1)	41
Switzerland	Grant	USD	-	26	26	26	26	-	26
United Kingdom <sup>e</sup>	Capital	GBP	-	455	455	846	725	(121)	725
	Grant	GBP	-	70	70	130	113	(17)	92
United States <sup>f</sup>	Grant	USD	308	200	508	508	508	-	200
						<b>2,413</b>	<b>2,257</b>	<b>(156)</b>	<b>1,871</b>

- a Represents pledges valued on the basis of exchange rates as of September 25, 2008, the CIF official pledging date.  
b Represents realized amounts plus unrealized amounts valued on the basis of exchange rates as of December 31, 2012.  
c Out of the total EUR 59 million pledged, EUR 9.45 million is not yet allocated to any programs.  
d The USD 200 million pledge was committed in JPY in the amount of JPY 19 billion.  
e The total contribution made by the United Kingdom through the SCF is GBP 1.2 billion, which includes allocation of GBP 610 million to CTF, GBP 3.5 million to Readiness Fund of the Forest Carbon Partnership Facility (FCPF), GBP 11.5 million to the Carbon Fund of the FCPE, and GBP 50 million to the Congo Basin Fund.  
f The total pledge made by the United States to the CIF is USD 2 billion; the allocation across the programs is indicative.

## STRATEGIC CLIMATE FUND

TABLE 3: PPCR — CONTRIBUTIONS AS OF DECEMBER 31, 2012 (IN MILLIONS)

Contributor	Contribution Type	Currency	Pledges Outstanding and Contributions Finalized			Historical Value of Total in USD eq. <sup>a</sup> (1)	Current Value of Total in USD eq. <sup>b</sup> (2)	FX changes (3) = (2) - (1)	Receipts in USD eq. <sup>b</sup>
			Pledges Outstanding	Contributions Finalized	Total				
Australia	Grant	AUD	-	40	40	34	33	(0)	33
Canada	Grant	CAD	-	100	100	97	84	(13)	84
Denmark	Grant	DKK	-	123	123	24	23	(2)	14
Germany	Grant	EUR	-	50	50	74	66	(8)	66
Japan <sup>c</sup>	Grant	USD	-	100	100	100	111 <sup>c</sup>	11	111
Norway	Grant	NOK	-	91	91	16	16	(1)	16
Spain	Capital	EUR	-	10	10	15	13	(2)	13
United Kingdom	Capital	GBP	-	255	255	474	406	(69)	406
	Grant	GBP	-	70	70	130	113	(17)	92
United States <sup>d</sup>	Grant	USD	206	84	290	290	290	-	84
						<b>1,254</b>	<b>1,154</b>	<b>(100)</b>	<b>918</b>

- a Represents pledges valued on the basis of exchange rates as of September 25, 2008, the CIF official pledging date.  
b Represents realized amounts plus unrealized amounts valued on the basis of exchange rates as of December 31, 2012.  
c The USD 100 million pledge was committed in JPY in the amount of JPY 9.3 billion.  
d The total pledge made by the United States to the CIF is USD 2 billion; the allocation across the programs is indicative.

## STRATEGIC CLIMATE FUND

TABLE 4: FIP — CONTRIBUTIONS AS OF DECEMBER 31, 2012 (IN MILLIONS)

Contributor	Contribution Type	Currency	Pledges Outstanding and Contributions Finalized			Historical Value of Total in USD eq. <sup>a</sup> (1)	Current Value of Total in USD eq. <sup>b</sup> (2)	FX changes (3) = (2) - (1)	Receipts in USD eq. <sup>b</sup>
			Pledges Outstanding	Contributions Finalized	Total				
Australia	Grant	AUD	-	36	36	30	35	5	35
Denmark	Grant	DKK	-	54	54	11	10	(0)	10
Japan <sup>c</sup>	Grant	USD	-	60	60	60	65 <sup>c</sup>	5	65
Norway	Grant	NOK	-	855	855	154	146	(8)	106
Spain	Capital	EUR	-	10	10	15	13	(2)	13
Sweden	Grant	SEK	-	100	100	15	15	(1)	15
United Kingdom	Capital	GBP	-	100	100	186	159	(27)	159
United States <sup>d</sup>	Grant	USD	81	87	168	168	168	-	87
						<b>639</b>	<b>611</b>	<b>(28)</b>	<b>491</b>

- a Represents pledges valued on the basis of exchange rates as of September 25, 2008, the CIF official pledging date.  
b Represents realized amounts plus unrealized amounts valued on the basis of exchange rates as of December 31, 2012.  
c The USD 60 million pledge was committed in JPY in the amount of JPY 5.6 billion.  
d The total pledge made by the United States to the CIF is USD 2 billion; the allocation across the programs is indicative.



## ANNEX B Endorsed Investment Plans and Approved Projects

### STRATEGIC CLIMATE FUND

TABLE 5: SREP — CONTRIBUTIONS AS OF DECEMBER 31, 2012 (IN MILLIONS)

Contributor	Contribution Type	Currency	Pledges Outstanding and Contributions Finalized			Historical Value of Total in USD eq. <sup>a</sup> (1)	Current Value of Total in USD eq. <sup>b</sup> (2)	FX changes (3) = (2) - (1)	Receipts in USD eq. <sup>b</sup>
			Pledges Outstanding	Contributions Finalized	Total				
Australia	Grant	AUD	-	10	10	8	10	2	10
Denmark	Grant	DKK	-	61	61	12	12	(1)	12
Japan <sup>c</sup>	Grant	USD	-	40	40	40	43 <sup>c</sup>	3	43
Korea	Grant	KRW	-	6,565	6,565	6	6	0	6
Netherlands	Grant	USD	-	76	76	76	76	-	76
Norway	Grant	NOK	-	390	390	70	67	(3)	58
Spain	Grant	EUR	-	3	3	4	4	(1)	4
Sweden	Grant	SEK	-	170	170	26	26	(0)	26
Switzerland	Grant	USD	-	26	26	26	26	-	26
United Kingdom	Capital	GBP	-	100	100	186	160	(26)	160
United States <sup>d</sup>	Grant	USD	21	29	50	50	50	-	29
						<b>505</b>	<b>480</b>	<b>(25)</b>	<b>450</b>

a Represents pledges valued on the basis of exchange rates of September 25, 2008, the CIF official pledging date.

b Represents realized amounts plus unrealized amounts valued on the basis of exchange rates as of December 31, 2012.

c The USD 40 million pledge was committed in JPY in the amount of JPY 3.7 billion.

d The total pledge made by the United States to the CIF is USD 2 billion; the allocation across the programs is indicative.

### CLEAN TECHNOLOGY FUND APPROVED PROJECTS SUMMARY AS OF DECEMBER 31, 2012

PROJECT TITLE	MDB	SECTOR	TFC APPROVAL	MDB APPROVAL	CTF FUNDING (\$ M)	LEVERAGED FUNDING (\$ M)
<b>CHILE IP: \$200 MILLION ENDORSED MAY-12</b>						
Concentrated Solar Power Project (CSPP)	IDB	Private	Sep-12		67.0	359.0
<b>COLOMBIA IP: \$150 MILLION ENDORSED MAR-10</b>						
Strategic Public Transportation Systems Program (SETP)	IDB	Public	Aug-11	Sep-11	20.0	651.2
Sustainable Energy Finance Program	IDB	Private	Dec-10		6.1	130.0
Sustainable Energy Finance Program	IFC	Private	Dec-10	Jun-11	11.4	102.6
<b>EGYPT IP: \$300 MILLION ENDORSED JAN-09, REVISED IP ENDORSED NOV-12</b>						
Wind Power Development Project (Transmission)	IBRD	Public	May-10	Jun-10	150.0	646.0
<b>INDIA IP: \$775 MILLION ENDORSED NOV-11</b>						
<b>INDONESIA IP: \$400 MILLION ENDORSED MAR-10</b>						
Indonesia Geothermal Clean Energy Investment Project	IBRD	Public	Dec-10	Jul-11	125.0	449.7
<b>KAZAKHSTAN IP: \$200 MILLION ENDORSED MAR-10</b>						
Renewable Energy I-Waste Management Framework	EBRD	Private	Jun-11	Dec-12	22.5	80.0
Renewable Energy II-Kazakh Railways Sustainable Energy Program	EBRD	Private	Oct-11		7.3	28.3
District Heating Modernization Framework	EBRD	Private	Jan-11	Mar-11	42.0	160.0
Renewable Energy III-Kazakhstan Renewable Energy Finance Facility (KAZREFF)	EBRD	Private	Oct-12		29.5	100.0
<b>MIDDLE EAST AND NORTH AFRICA REGION IP: \$750 MILLION ENDORSED DEC-09</b>						
Morocco Ouarzazate CSP	IBRD	Public	Jun-11	Nov-11	97.0	585.3
Morocco Ouarzazate CSP	AfDB	Public	Jun-11	May-12	100.0	634.9
<b>MEXICO IP: \$500 MILLION ENDORSED JAN-09</b>						
Urban Transport Transformation Project	IBRD	Public	Oct-09	Mar-10	200.0	1,975.0
Efficient Lighting and Appliance Project	IBRD	Public	Sep-10	Nov-10	50.0	663.4
Renewable Energy Program	IDB	Private	Nov-09	Jun-10	53.4	600.0
Public Sector Renewable Energy	IDB	Public	Nov-11	Nov-11	70.6	2,530.0
Energy Efficiency Program-Part 1	IDB	Private	May-11		24.4	88.0
Private Sector Wind Development (La Ventosa)	IFC	Private	May-09	Jan-10	15.6	174.0
ECOCASA Program-Energy Efficiency Program Part II	IDB	Public	Aug-12	Dec-12	51.6	533.0
<b>MOROCCO IP: \$150 ENDORSED OCT-09, REVISED IP ENDORSED OCT-11</b>						
One Wind Energy Plan	AfDB	Public	Oct-11	Jun-12	125.0	2,296.6
<b>NIGERIA IP: \$250 MILLION ENDORSED NOV-10</b>						
<b>PHILIPPINES IP: \$250 MILLION ENDORSED DEC-09, REVISED IP ENDORSED AUG-12</b>						
RE Accelerator Program (REAP)	IFC	Private	Sep-10	Feb-12	20.0	12.2
Sustainable Energy Finance Program	IFC	Private	Feb-11		10.0	209.0
Energy Efficient Electric Vehicles Project	ADB	Public	Oct-12		105.0	399.0
Philippines Cebu Bus Rapid Transit (BRT) Demonstration Project	IBRD	Public	Nov-12		25.0	150.0
<b>SOUTH AFRICA IP: \$500 MILLION ENDORSED OCT-09</b>						
Energy Efficiency Program	AfDB	Private	Oct-10		7.5	40.0
Sustainable Energy Acceleration Program	AfDB	Private	Oct-10		42.5	305.0
Sustainable Energy Acceleration Program	IFC	Private	Oct-10	Oct-11	42.5	1,382.3
ESKOM Renewable Support Project-Wind	AfDB	Public	Nov-10	May-11	50.0	190.8

PROJECT TITLE	MDB	SECTOR	TFC APPROVAL	MDB APPROVAL	CTF FUNDING (\$ M)	LEVERAGED FUNDING (\$ M)
ESKOM Renewable Support Project-CSP	AfDB	Public	Nov-10	Oct-11	50.0	190.8
ESKOM Renewable Support Project-Wind	IBRD	Public	Nov-10	May-11	50.0	100.2
ESKOM Renewable Support Project-CSP	IBRD	Public	Nov-10	Oct-11	200.0	489.2
Energy Efficiency Program	IFC	Private	Oct-10	Jun-11	7.5	8.4
<b>THAILAND IP: \$170 MILLION ENDORSED FEB-12 (REVISED IP)<sup>a</sup></b>						
Renewable Energy Accelerator Program (TSEFF)	IFC	Private	Jun-10	Jun-11	40.0	37.6
Sustainable Energy Finance Program (T-SEF)	IFC	Private	Oct-10	Jun-11	30.0	65.3
Private Sector Renewable Energy Program	ADB	Private	May-12	Jun-12	100.0	113.3
<b>TURKEY IP: \$250 MILLION ENDORSED JAN-09, REVISED IP ENDORSED NOV-12 WITH ADDITIONAL \$140 MILLION</b>						
Private Sector Renewable Energy and Energy Efficiency Project	IBRD	Public	Mar-09	May-09	100.0	1,359.6
Commercializing Sustainable Energy Finance Program (CSEF)	IFC	Private	Sep-09	Apr-10	21.7	40.0
Turkish Private Sector Sustainable Energy Financing Facility (TurSEFF)	EBRD	Private	Jan-10	May-10	43.3	280.0
Turkish Private Sector Sustainable Energy Financing Facility (TurSEFF)	EBRD	Private	Aug-10	Jul-11	6.8	48.0
Impact Assessment of CTF in Renewable Energy and Energy Efficiency Market in Turkey	IBRD	Public	Aug-12		0.3	-
<b>UKRAINE IP: \$350 MILLION ENDORSED MAR-10</b>						
Renewables Direct Lending Facility-Creating Markets for Renewable Power	EBRD	Private	Oct-10	Nov-10	27.6	122.0
Renewable Energy II - Novoazovsk Wind Project	EBRD	Private	Oct-11	Oct-12	20.7	103.6
<b>VIETNAM IP: \$250 MILLION ENDORSED DEC-09</b>						
Sustainable Energy Finance Program	IFC	Private	Sep-10	Oct-10	30.0	98.0
Vietnam Distribution Efficiency Project	IBRD	Public	Jun-12	Sep-12	30.0	280.0
				<b>TOTAL</b>	<b>2,328.6</b>	<b>18,811.2</b>

a. Original Thailand CTF IP endorsed Dec-09 for \$300 million.

**PILOT PROGRAM FOR CLIMATE RESILIENCE** ENDORSED STRATEGIC PROGRAMS FOR CLIMATE RESILIENCE (SPCR) AND APPROVED PROJECTS AS OF DECEMBER 31, 2012

PROJECT TITLE	MDB	SECTOR	SC APPROVAL	MDB APPROVAL	PPCR FUNDING (\$ M)	LEVERAGED FUNDING (\$ M)
<b>BANGLADESH SPCR: \$110 MILLION ENDORSED NOV-10</b>						
Technical Assistance 1: Climate Change Capacity Building and Knowledge Management	ADB	Public	Jun-11	Aug-11	0.5	0.1
Investment Project 3: Coastal Climate Resilient Water Supply, Sanitation, and Infrastructure Improvement-Component 2-Climate Resilient Infrastructure Improvement in Coastal Zone Project	ADB	Public	Sep-12	Sep-12	30.0	120.0
<b>BOLIVIA SPCR: \$86 MILLION ENDORSED NOV-11</b>						
<b>CAMBODIA SPCR: \$86 MILLION ENDORSED JUN-11</b>						
Component 3-Project 1-Climate Proofing of Roads in Prey Veng, Svay Rieng, Kampong Chhnang and Kampong Speu Provinces	ADB	Public	Nov-11	Dec-11	17.0	62.1
Component 4-Cluster Technical Assistance: Mainstreaming Climate Resilience into Development Planning of Key Vulnerable Sectors	ADB	Public	Aug-12	Oct-12	7.0	-
Component 1-Project 2-Enhancement of Flood and Drought Management in Pursat and Kratie Provinces	ADB	Public	Oct-12	Dec-12	9.8	38.0

PROJECT TITLE	MDB	SECTOR	SC APPROVAL	MDB APPROVAL	PPCR FUNDING (\$ M)	LEVERAGED FUNDING (\$ M)
Component 3-Project 2-Climate Proofing Infrastructure in the Southern Economic Corridor Towns	ADB	Public	Oct-12	Dec-12	9.4	38.5
<b>CARIBBEAN-DOMINICA SPCR: \$16 MILLION ENDORSED NOV-12</b>						
<b>CARIBBEAN-GRENADA SPCR: \$20 MILLION ENDORSED APR-11</b>						
Disaster Vulnerability and Climate Risk Reduction	IBRD	Public	May-11	Jun-11	16.2	13.0
<b>CARIBBEAN-JAMAICA SPCR: \$25 MILLION ENDORSED NOV-11</b>						
<b>CARIBBEAN-ST. LUCIA SPCR: \$22 MILLION ENDORSED JUN-11</b>						
<b>CARIBBEAN-ST. VINCENT AND THE GRENADINES SPCR: \$10 MILLION ENDORSED APR-11</b>						
Disaster Vulnerability and Climate Risk Reduction	IBRD	Public	May-11	Jun-11	10.0	11.9
<b>CARIBBEAN-REGIONAL SPCR: \$10.6 MILLION ENDORSED APR-12</b>						
<b>MOZAMBIQUE SPCR: \$86 MILLION ENDORSED JUN-11</b>						
Baixo Limpopo Climate Resilient Agriculture Report	AfDB	Public	May-12	Sep-12	15.8	25.0
Climate Change and Technical Assistance Project	IBRD	Public	May-12	Jun-12	2.0	0.5
Sustainable Land and Water Management	AfDB	Public	Aug-12	Oct-12	15.8	20.0
<b>NEPAL SPCR: \$86 MILLION ENDORSED JUN-11</b>						
Technical Assistance 1: Mainstreaming Climate Change Risk Management in Development	ADB	Public	Oct-11	Dec-11	7.2	-
Building Resilience to Climate-Related Hazards	IBRD	Public	Aug-12		31.0	-
Building Climate Resilient Communities Through Private Sector Participation	IFC	Private	Sep-12	Nov-12	8.7	19.8
<b>NIGER SPCR: \$110 MILLION ENDORSED NOV-10</b>						
Project for the Improvement of Climate Forecasting Systems and Operationalization of Early Warning Systems (PDIPC)	AfDB	Public	May-12	Sep-12	13.0	0.9
Community Action Project for Climate Resilience (CAPCR)	IBRD	Public	Nov-11	Jan-12	63.0	-
Water Resources Mobilization and Development Project (PROMOVARE)	AfDB	Public	Jul-12	Sep-12	22.0	1.4
<b>SOUTH PACIFIC-PAPUA NEW GUINEA SPCR: \$25 MILLION ENDORSED NOV-12</b>						
<b>SOUTH PACIFIC-SAMOA SPCR: \$25 MILLION ENDORSED MAR-11</b>						
Enhancing the Climate Resilience of the West Coast Road (Apia to Airport)	IBRD	Public	Oct-12	Dec-12	14.8	2.6
<b>SOUTH PACIFIC-TONGA SPCR: \$15 MILLION ENDORSED APR-12</b>						
<b>SOUTH PACIFIC-REGIONAL SPCR: \$10 MILLION ENDORSED APR-12</b>						
<b>TAJIKISTAN SPCR: \$47.75 ENDORSED NOV-10</b>						
Building Capacity for Climate Resilience	ADB	Public	Apr-12	Jun-12	6.0	-
Improvement of Weather, Climate and Hydrological Service Delivery	IBRD	Public	Mar-11	May-11	7.0	12.0
<b>YEMEN SPCR: \$50 MILLION ENDORSED APR-12</b>						
<b>ZAMBIA SPCR: \$86 MILLION ENDORSED JUN-11</b>						
					<b>SUBTOTAL</b>	<b>306.1</b>
						<b>365.8</b>



# ANNEX C Members of Trust Fund Committees

## FOREST INVESTMENT PROGRAM ENDORSED INVESTMENT PLANS (IP) AND APPROVED PROJECTS AS OF DECEMBER 31, 2012

PROJECT TITLE	MDB	SECTOR	SC APPROVAL	MDB APPROVAL	FIP FUNDING (\$ M)	LEVERAGED FUNDING (\$ M)
<b>BRAZIL IP: \$70 MILLION ENDORSED MAY-12</b>						
<b>BURKINA FASO IP: \$30 MILLION ENDORSED NOV-12</b>						
<b>DEMOCRATIC REPUBLIC OF CONGO IP: \$60 MILLION ENDORSED JUN-11</b>						
<b>GHANA IP: \$50 MILLION ENDORSED NOV-12</b>						
<b>INDONESIA IP: \$70 MILLION ENDORSED NOV-12</b>						
<b>LAO PEOPLE'S DEMOCRATIC REPUBLIC IP: \$30 MILLION ENDORSED JAN-12</b>						
<b>MEXICO IP: \$60 MILLION ENDORSED OCT-11</b>						
Mexico Forests and Climate Change Project	IBRD	Public	Nov-11	Jan-12	42.0	683.0
Financing Low Carbon Strategies in Forest Landscapes	IDB	Public	Sep-12	Nov-12	15.0	20.0
<b>TOTAL</b>					<b>57.0</b>	<b>703.0</b>

## PROGRAM FOR SCALING UP RENEWABLE ENERGY IN LOW INCOME COUNTRIES

ENDORSED INVESTMENT PLANS (IP) AND APPROVED PROJECTS AS OF DECEMBER 31, 2012

PROJECT TITLE	MDB	SECTOR	SC APPROVAL	MDB APPROVAL	SREP FUNDING (\$M)	LEVERAGED FUNDING (\$M)
<b>ETHIOPIA IP: \$50 MILLION ENDORSED MAR-12</b>						
<b>HONDURAS IP: \$30 MILLION ENDORSED NOV-11</b>						
Strengthening the Renewable Energy Policy and Regulatory Framework (FOMPIER)	IDB	Public	Oct-12	Nov-12	0.9	0.3
<b>KENYA IP: \$50 MILLION ENDORSED SEP-11</b>						
Menengai Geothermal Project-200 MW Geothermal-Phase A-Resource and Infrastructure Development and Mobilization of Private Sector	AFDB	Public	Nov-11	Dec-11	25.0	478.0
<b>MALDIVES IP: \$ 30 MILLION ENDORSED OCT-12</b>						
<b>MALI IP: \$40 MILLION ENDORSED NOV-11</b>						
<b>NEPAL IP: \$40 MILLION ENDORSED NOV-11</b>						
Small Hydropower Development	IFC	Private	Oct-12		10.0	46.7
Small Hydropower Development	ADB	Private	Oct-12		10.0	46.8
<b>SUBTOTAL</b>					<b>45.9</b>	<b>571.7</b>

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*\*Within the contributor country group, it was agreed that countries may partner in a “twinning” arrangement to share one seat. The two partnering countries will agree how to rotate representatives to serve as the Member for the seat.*

*The CIF also has a Joint Committee, which is made up of representatives of all Member seats of both the CTF and SCF Trust Fund Committees.*

2012 CIF ANNUAL REPORT

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*Second Victory for  
Locality: 150KW Solar  
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