Climate Investment Funds

CTF-SCF/TFC.7/3
October 24, 2011

Joint Meeting of the CTF and SCF Trust Fund Committees
Washington, D.C.
November 3, 2011

Agenda Item 3

2011 ANNUAL REPORT ON THE CIF
"CIF FROM THE GROUND UP: INVESTING IN OUR GREEN FUTURE"

WITH FEATURE SECTION:
"SUN, WIND, WATER, EARTH:
RENEWABLES IN THE CIF PORTFOLIO"

(draft version for comments)

Proposed Decision by the Joint CTF and SCF Trust Fund Committees

The joint meeting of the CTF and SCF Trust Fund Committees reviewed the draft *2011 Annual Report on the CIF - "CIF From the Ground Up: investing in Our Green Future"* (CTF-SCF/TFC.7/3) and welcomes the review of the experience and lessons learned from implementation of the CIF, with particular emphasis on renewables in the CIF portfolio. The meeting approves the report, subject to the comments made at the meeting. The meeting requests the CIF Administrative Unit to publish the Annual Report and make an online version available on the CIF website.

Note:

The draft *2011 Annual Report on the CIF - "CIF From the Ground Up: investing in Our Green Future"*, was submitted to the CTF-SCF Trust Committee for review and comment by close of business Friday, October 21, 2011. Based on the comments received during that period and during the joint meeting, the Annual Report will be finalized and sent to the Committee members. An electronic version will be made available on the CIF website. The draft Annual Report has been cleared by the MDB Committee.

CIF From the Ground Up:
Investing in Our Green Future

Contents

Foreword

[Foreword signed by the five MDBs will be inserted once all necessary clearances have been made].

D R A F T: By 2050, there will be nine billion people on the planet. The majority of them will be living in energy-intensive cities. Since the Industrial Revolution, humans have been transforming their economies and the planet at a faster and faster pace. We have lifted millions of people out of poverty and lengthened life expectancy. But there is still much work to be done.

In 2011 we find ourselves on the cusp of another transformation – ideally to a world fueled by sustainable, renewable energy. How long that transformation takes depends on the collective action of many players – of scientists and engineers, of financiers, entrepreneurs and policymakers. We expect this transformation to take many more years, but we believe it is starting to happen. And the Climate Investment Funds are helping.

We are already seeing the very real threats of climate change and the disproportionate damage it does to poor communities. The droughts and floods of recent years, the tragedy of famine in Eastern Africa, are persistent reminders that the world is in urgent need of real climate action and sustainable energy solutions. Fortunately, there are alternative energy sources which, if tapped, could result in clean, renewable energy to power the next generation.

Particularly in large low-income countries with highly dispersed populations, renewables can support access to energy and help lift people out of poverty. Harnessing the solar, wind, and geothermal power that exists will require shifts in mindset, in investment calculations, and in politics. Once technology costs have reached affordable levels, we can expect to see these shifts take place. But until those shifts occur, the world will depend on the early adopters of renewable technology to demonstrate what works, what does not, and why. With the help of the Climate Investment Funds, developing countries are doing just that.

Many developing countries are well on their way to an energy transformation. Middle-income countries like Brazil, Indonesia, Mexico, and South Africa are leading the way with energy policies that integrate solar, wind, water, biomass, and geothermal resources into their energy portfolios. Lower-income countries like the Democratic Republic of Congo, Honduras, Kenya, and Nepal are putting major effort into scaling up renewable energy solutions and increasing their citizens' access to electricity at the same time. In the Middle East and North Africa, a Climate Investment Funds-supported regional solar plan will help deploy about one gigawatt of solar power generation capacity, tripling today's concentrated solar power. This will be a game-changer for solar power across borders and on a large-scale.

The Climate Investment Funds are proud to partner with these countries and all the 45 participating CIF countries. These important steps would not be possible without the generous pledges from our donors or the developing countries' full commitment to strong climate action.

Over the past year, many of these countries have begun to revamp their energy plans around the sun, wind, water and geothermal services. Alongside its broad accounting of countries' CIF-supported 2011 accomplishments and challenges, this report reflects on the accomplishments and challenges countries face as they begin building a world powered by the earth's renewable resources. It is our hope that these accomplishments and challenges clear a path for more countries to tap into their own renewable energy resources.

We are not alone in hoping for a swift transition to low-carbon, clean economies. People all over the world are clamoring for this – some are calling it "The Clean Revolution" – a massive scaling-up of clean energy, clean technologies, and energy efficiency that will create jobs, boost economic growth, protect the environment, and secure clean energy access for all. This transformation will complement efforts countries are making – also with CIF

support – to deepen energy efficiency, green our management of the world's forests, and create economies which are resilient to climate impacts. This sweep of approaches leads us more surely to a world in which our children and grandchildren can mark the success of the Clean Revolution.

The world must scale-up concessional financing to support this revolution, to help defray high technology costs and help countries, especially the poorest ones, address financing constraints and competing priorities. The CIF is one tool in a growing set of available tools to help with this effort.

For our part, we will continue to support the revolution.

Introduction

Three years ago, when a group of countries and multilateral development banks (MDBs) came up with the concept of the Climate Investment Funds (CIF), they chose the CIF's title deliberately.

Concern was mounting about the increasing toll climate change was taking on the world's developing countries, and the corresponding shortfall in support to break that dangerous trend. In response, the CIF's creators decided on a practical interim solution to provide some needed support to developing countries while the world considered more long-term and robust, negotiated solutions.

Significantly, the CIF's founders did not view this support as a handout to developing nations. On the contrary, as the title signals, they looked forward into a future of opportunity and saw the investment value in helping trigger transformation to a more climate-smart world. The CIF design mandates investment in two important and complementary ways.

First, financial investment on the part of developed countries, MDBs, and other partners including the private sector helps buy a substantial shift toward green policies, institutions, technologies and, perhaps most important, markets. Helping create a world in which clean energy is more readily available and affordable goes a long way toward shifting global patterns toward sustainable, climate-friendly life on earth, with green jobs, green cities, and climate-resilient economies.

Second, CIF programs are mandated to invest in knowledge, and to build and leverage learning across the board, North to South, South to North, and South to South. This investment is as critical as filling the financial coffers, because in the greenfield world of climate-smart development solutions, the global knowledge coffers are still empty. However, knowledge solutions—technical, scientific, practical—are bubbling up, and the CIF pilot countries stand at the forefront of that knowledge, at local, regional, and global levels.

Finding ways to effectively collect and disseminate dispersed knowledge and helping it grow is not an easy or obvious task. As a result, the CIF programs are now looking for new avenues to build knowledge through a variety of tools and products.

Beginning with this 2011 edition, we are redirecting the CIF Annual Report to offer a window into some of the knowledge emerging through the CIF. Each year going forward, the Annual Report will focus on one aspect of learning that has been significant to CIF countries. In this sense, the Annual Report will serve as one knowledge product in a growing knowledge portfolio.

This year, we have chosen to focus on renewable energy. In a world struggling with the related challenges of energy, climate change, and poverty, renewable energy stands as a beacon of genuine, practical hope. The services potentially provided by the sun, wind, water, biomass, and heat in the earth are ripe for application. But many challenges remain in moving those services to the front burner, and the CIF has had a strong focus on this effort over the past year. In this report, the CIF partner MDBs take a close look at the 2011 global renewables picture and examine the renewables perspectives for the countries they work with in each of their regions. The story helps make clear that, while there is much work to be done, compelling and powerful movement is afoot in virtually every region to move renewable energy solutions forward.

The MDBs' joint work to craft this story is another sign of their collaborative approach to serving as implementation partners to CIF countries. Together with them, we hope you find this report informative and useful.

Patricia Bliss-Guest, Manager, CIF Administrative Unit

About the Climate Investment Funds

The Climate Investment Funds are a unique set of financing instruments that give developing countries an urgently needed jump-start toward achieving climate-smart development. The CIF provides funding to developing countries to help them mitigate and manage the challenges of climate change. The CIF is designed to deliver strong development outcomes as well as strong climate outcomes.

The CIF's financial architecture is rooted in two trust funds. The Clean Technology Fund (CTF) finances scaled-up demonstration, deployment, and transfer of clean technologies, by piloting investments in countries or regions with potential for significant greenhouse gas (GHG) abatement. The Strategic Climate Fund (SCF) finances three programs that pilot new approaches with the potential for scaling up: the Forest Investment Program (FIP), Pilot Program for Climate Resilience (PPCR), and Scaling Up Renewable Energy Program in Low-Income Countries (SREP).

CIF provides developing countries with grants, concessional funds, and risk mitigation instruments that leverage significant financing from the private sector, MDBs, and other sources. 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)—implement CIF-funded projects and programs.

At the country level, governments and the MDBs work with other development partners, including UN agencies such as the United Nations Development Programme (UNDP), and bilateral development agencies. These partnerships help mobilize national-level engagement, build on ongoing initiatives, and encourage contributions to the achievement of the programmatic objectives of the country's CIF program.

Climate Investment Funds (CIF) $6.5 billion			
Clean Technology Fund (CTF) $4.5 b	**Strategic Climate Fund (SCF) $2 b**		
Demonstrate, deploy and transfer *low emissions technologies* for low-emissions development	*Targeted programs* to pilot new approaches to initiate transformation with potential for scaling up climate resilience		
	PPCR **Pilot Program for Climate Resilience ($1 b)**	**FIP** **Forest Investment Program ($624m)**	**SREP** **Scaling Up Renewable Energy in Low Income Countries ($361m)**
Renewables, energy efficiency, urban transport, commercialization of sustainable energy finance	Mainstream resilience in development planning	Reduce emissions from deforestation and forest degradation	Demonstrate economic, social and environmental viability of low carbon development in low-income countries' energy sectors
14 CTF Investment Plans ($4.5b): Colombia, Egypt, Indonesia, Kazakhstan, Mexico, Morocco, Nigeria, Philippines, South Africa, Thailand, Turkey, Ukraine, Vietnam; regional MENA Concentrated Solar Power (Algeria, Egypt, Jordan, Morocco, Tunisia	**9 PPCR country, 2 regional pilots:** Bangladesh, Bolivia, Cambodia, Mozambique, Nepal, Niger, Tajikistan, Yemen, Zambia, Caribbean, S. Pacific	**8 FIP pilots:** Brazil, Burkina Faso, Democratic Republic of Congo, Ghana, Indonesia, Laos, Mexico, Peru	**6 SREP pilots:** Ethiopia, Honduras, Kenya, Maldives, Mali, Nepal

The CIF Adds Value

The CIF helps countries initiate large-scale adaptation and mitigation with significant sums of money
The CIF is playing a key role in meeting international climate change objectives with activities in 45 countries through 38 country and regional pilots.

The CIF helps countries take the driver's seat on climate action
Set up in 2008 to demonstrate how countries can apply innovative strategies to initiate climate-smart transformation of policies, institutions, and markets, the CIF supports development of country-led climate-smart action in development and poverty reduction plans.

The CIF enables rapid delivery of climate action
As 2012 gets underway, the three-year old CIF is operating in 45 countries. In the CTF, $4.5 billion will fund renewable energy, energy efficiency and sustainable transport in 14 middle-income countries, including a regional solar initiative in the Middle East and North Africa, and leverage an additional $37 billion in co-financing. In the three SCF programs, $2 billion will help low-income countries use programs in forests, renewable energy, and strategic climate resilience to help transform their economies.

The CIF is built on balanced engagement of stakeholders
CIF stakeholders are countries, the United Nations and UN agencies, Global Environment Facility, UN Framework Convention on Climate Change, Adaptation Fund, bilateral development agencies, nongovernmental organizations, indigenous peoples, private sector entities, and scientific and technical experts. In the CIF governing bodies, developing and developed countries work together to make decisions, working along with self-selected representatives of civil society, private sector, and indigenous peoples' groups.

The CIF is reshaping the multilateral development bank partnership
Five MDBs (AfDB, ADB, EBRD, IDB, and World Bank Group) implement CIF-funded projects and programs—and in the process are reshaping their ways of working together as institutions.

The CIF donor base is expanding
Fourteen countries have pledged more than $6.5 billion* in new funds: Australia, Canada, Denmark, France, Germany, Japan, Korea, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom, and United States.

The CIF funds leverage significant financing
CIF recipient countries are offered grants and highly concessional resources through a variety of financial tools, providing flexibility and enabling Investment Plans to be tailored to national priorities. Donor contributions are in grants, capital contributions, and loans. CIF concessional funding provides substantial financial leverage, enables innovation, and reduces risks involved in initiating transformational change.

The CIF's effectiveness is measurable
CIF program results frameworks include clear and measurable results statements, with indicators to measure progress toward each agreed result, and a performance measurement strategy. The frameworks complement each other and link results at the overall CIF level.

CIF knowledge is growing
The CIF Knowledge Management Program will maximize CIF impact by supporting effective stakeholder participation and replication of lessons learned. The Global Support Program is building a community of practice among pilot countries and promoting South-South learning.

The CIF is forward-looking
Looking ahead, the CIF aims to speed up implementation, engage with more stakeholders at different levels, create demand-driven, popular knowledge-sharing tools, and demonstrate tangible, replicable results in all CIF countries.

*Based on exchange rates on the initial pledging date of September 25, 2008

CIF Year in Review 2011

CIF Implementation Is in Full Swing

The three-year old CIF has moved rapidly from design to active implementation of pilot programs in 45 countries, with 29 projects underway in renewable energy, energy efficiency, clean transport, sustainable forest management, and climate resilience.

CIF is a balanced partnership of recipient and contributor countries. The CIF governing structure remains a strong and unique model for effective multi-stakeholder management of the CIF portfolio. Fourteen countries now contribute to the CIF, and they work hand in hand with the 45 countries endorsed for CIF pilots.

Engagement with stakeholders, including the private sector, remains a top priority. A Global Support Program has been established to bring together individual country programs and promote learning among them. A stakeholder engagement plan is moving forward, with new activities unfolding in line with civil society, indigenous peoples, and local communities' concerns. And, with knowledge management serving as a linchpin of CIF effectiveness, new knowledge management activities are being launched in 2012 to create demand-driven learning products out of CIF operations.

The CIF Is On the Move

In 2011, the CIF moved beyond fundraising and policy development to active implementation in several programs, expanding its investment plan portfolio and beginning project-level operations. The momentum stimulated additional contributions and a strong show of interest by countries to take on CIF pilots. Actions in 2011 included:

An expanded donor base: In 2011, Korea contributed $3 million, and Australia, Japan and Norway each raised the amount of their contributions. Total contributions stand at $6.5 billion[1] from Australia, Canada, Denmark, France, Germany, Japan, Korea, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom, and United States.

Advancement in the CTF Investment Plans: The CTF governing body endorsed an Investment Plan for Nigeria, bringing the portfolio to 14 Investment Plans. The CTF now stands at 13 countries (Colombia, Egypt, Indonesia, Kazakhstan, Mexico, Morocco, Philippines, South Africa, Thailand, Turkey, Ukraine, Vietnam) and one regional plan (Middle East and North Africa Region). Within these 14 investment plans, 24 CTF projects have been approved for $1.7 billion in CTF funding with total projected investments of $12.8 billion.

Call-out: Measurable climate impact: *In the 14 CTF Investment Plans, an estimated 1.6 billion tons of CO_2 is projected to be reduced or avoided, the equivalent of Russia's annual emissions. Every CTF dollar invested means one-third ton of CO_2 reduced or avoided.*

Advancement in the Pilot Program for Climate Resilience (PPCR): Eleven Strategic Programs for Climate Resilience (SPCRs) have been endorsed for a total of $684 million, making it the second CIF fund to become operational. In addition, the PPCR has approved 6 projects for $103.9 million in PPCR funding with

[1] Fund pledges in this document are based on exchange rates on the initial CIF pledging date of September 25, 2008.

total project investments of $158.7 million, focusing on climate forecasting, capacity development, community action in climate resilient agriculture and disaster risk management.

Advancement in the Forest Investment Program (FIP): Preparation grants have been approved for six of the eight pilot countries, for a total of $1.45 million. FIP Investment Plans have been endorsed for Burkina Faso and the Democratic Republic of Congo for a total of FIP $90 million. A Dedicated Grant Mechanism for Indigenous Peoples and Local Communities is being designed by them to ensure their effective participation in Reducing Emissions from Deforestation and Forest Degradation (REDD+) activities.

Advancement in the Scaling Up Renewable Energy Program in Low Income Countries (SREP): The first Investment Plan has been endorsed for Kenya; four preparation grants for investment plans have been approved for a total of $1.26 million, in Honduras, Maldives, Mali and Nepal.

Key elements of CIF engagement are moving ahead:

Support to pilot countries and regions is well underway*.** A Global Support Program for pilot countries is up and running, facilitating regular meetings of all pilot countries and creating online and other tools for communications and knowledge sharing. See page 27. Complementing this work, ***broader knowledge management activities are emerging and will become operational in 2012.

A strategy for stakeholder engagement is being formulated collaboratively with stakeholders, with the annual Partnership Forum as a cornerstone of its outreach. See page 25.

Results management frameworks are being put in place for all CIF programs, and provide the structure to ensure measurable and monitorable outcomes. Core indicators have been established for each program to enable the CIF to report back on achievements of investments over time.

A private sector strategy is underway. The private sector has made a robust investment in the CIF: 37 percent of CTF investment plan support comes from the private sector. A strategy and set of tools to further engage the private sector as a crucial stakeholder and implementer is under design in the CIF. *See Shaping Markets: the private sector role in renewables*, page 33.

BOX 1: Interest in CIF participation is expanding around the world

In addition to the 45 countries currently signed up to CIF pilots, more than 80 other countries have expressed interest in receiving CIF support if funds should become available:

- **CTF**: **three additional countries requesting funding** -- **Chile, India and Nigeria.** An investment plan for Nigeria has been endorsed seeking CTF $250 million for which funding is not yet available. An investment plan for India is now being prepared for an expected request of CTF $500 million.
- **FIP*: 40 additional countries requesting funding***. The FIP advisory expert group identified three additional priority countries: Mozambique, Nepal and Philippines. An additional 37 countries expressed an interest in participating in the FIP.
- **PPCR*: 11 additional countries identified as high priority.*** The PPCR advisory expert group recommended 11 additional priority countries: Bhutan, Chad, Ethiopia, India, Mauritania, Morocco, Peru, Philippines, Sierra Leone, Uzbekistan and Vietnam.
- **SREP**: **28 additional countries requesting funding**. Ten additional countries were identified as priority countries by the expert group: Armenia, Liberia, Mongolia, Pacific regional program (Kiribati, Samoa, Solomon Islands, Tonga, Vanuatu) Tanzania and Yemen. An additional 18 countries expressed an interest in participating in the SREP.

Clean Technology Fund (CTF)

Clean technologies can help solve pressing environmental problems. The CTF provides developing countries with positive incentives to scale up the demonstration, deployment, and transfer of technologies with a high potential for long-term GHG emissions savings. Each CTF Investment Plan is tailored by the country to be integrated into national development objectives.

CTF pledges now total $4.5 billion[2]. Since the last Annual Report, Nigeria's Investment Plan has been endorsed by the CTF for implementation when funding becomes available. This brings the total number of CTF endorsed Investment Plans to 14, with 13 country plans and a regional concentrated solar power plan for Algeria, Egypt, Jordan, Morocco and Tunisia. Nearly 40 percent of funding for these plans is in Africa, 27 percent is in Asia, 18 percent in Europe and Central Asia, and 15 percent in Latin America.

CTF focuses on large-scale, country-initiated transport, renewable energy, and energy efficiency projects. Nearly two-thirds of CTF funding is concentrated in the renewable energy sector. A fifth is in energy efficiency, 14 percent is in transport, and a small portion is concentrated in smart grid technology. Every $1 of CTF funding is expected to leverage $8 from other sources.

As of September 2011, the CTF governing body approved CTF funding for 24 projects from 12 countries, for $1.7 billion of CIF funding, which will leverage $11 billion in co-financing from governments, multilateral development banks and other sources, with nearly a third funded by private sector money.

When implemented, the CTF plans are projected to have a major impact both on reducing emissions levels and strengthening the viability and availability of renewable energy services at the country and regional levels and globally:

- The Middle East and North Africa Concentrated Solar Power (CSP) plan will support deployment of 1 gigawatt of solar power generation capacity, tripling today's global investments in CSP.
- In Morocco, CTF is helping implement a range of mitigation options to reduce emissions by 25 percent by 2030.
- In Vietnam, CTF is helping reduce national energy consumption by 5-8 percent, develop an urban public transport system, and dramatically scale up use of biomass, hydropower, and wind power.
- In Colombia, CTF is supporting seven major cities to optimize public transport. It is also supporting energy efficiency in industrial, commercial, and residential sectors through financial intermediaries.

CTF strongly focuses on private sector engagement. Private capital, expertise, and commercial discipline can make a big difference in implementing critical clean technology strategies. Governments are recognizing that a combination of appropriate public sector policies and private sector action can achieve sweeping change in climate-resilient development that minimizes the output of GHG emissions.

[2] Based on exchange rates on the initial CIF pledging date of September 25, 2008.

Highlights from the CTF Portfolio

(*also see renewables section, page 28*)

Colombia to green its urban transport across the country

Colombia's economy has become less carbon intensive in recent years. In order to support this trend, Colombia will draw on CTF support to address abatement measures in energy efficiency and urban transport.

In the transport sector, CTF will support seven of the country's 12 major cities to increase modal shifts toward more public and non-motorized transport. The CTF Plan, implemented by the IDB, will increase the low carbon elements in municipal investment plans for transport, making these systems more sustainable. Components can include integration among transit modes to optimize public and non-motorized transport, support for transfer stations, improved public and bicycle lanes, a scrapping program for the old bus fleet, and the possible introduction of low-carbon bus technologies over time.

Indonesia to offer citizens power access from geothermal resources

Indonesia's technical geothermal power potential is estimated at around 27,000MW, roughly 40 percent of the world's resources. Geothermal power has been considered to be a promising energy resource in Indonesia, but even though a third of Indonesians remain without access to electricity, geothermal has not been developed because of cost and regulatory barriers. With CTF support to projects jointly implemented by the ADB and the World Bank, the country will develop more than 500MW of geothermal power generation capacity in Ulubelu and Lahendong and support technical assistance in the Lumut Balai field, leading to a total power generation capacity of 260MW. As a result, an estimated 33 metric tons of CO_{2e} will be reduced over the project's lifetime.

Indonesia is also using CTF funds to support Pertamina Geothermal Energy (PGE), the public sector geothermal developer, in exploration of expanded geothermal power generation by securing an acceptable financial standing. $125 million, blended with an IBRD loan and PGE's own resources, makes the geothermal power plant project viable by reducing the risk of negative returns.

Kazakhstan modernizes district heating

The Republic of Kazakhstan, the largest economy in Central Asia and a country that has recently attained middle-income status, depends to a large degree on revenues from oil as its primary export commodity. An energy-intensive economy, Kazakhstan is rich in fossil fuels. It is also the world's largest exporter of uranium ore. As the region's largest GHG emitter, the country has set a goal to ensure that future economic growth will not harm the environment. To meet this goal, the government has established a national Strategy of Transition to Sustainable Development by 2024 that envisages doubling gross domestic product (GDP) by 2015, tripling labor productivity, and reducing the energy intensity by half.

One of the principal means by which the country will work to reach these objectives is by creating a new brand of energy efficiency, including upgrading the supply of heat to multi-apartment buildings (district heating) during the cold season. The CTF Investment Plan will include modernization of building-level heat exchanger substations, installation of heat and hot water meters at the building level, and installation of modern variable flow pumps at boiler plants. This wide-ranging installation will help ensure much-needed heat to Kazakhstan's citizens in a manner that is both energy-efficient and sustainable.

South Africa to transform its energy efficiency approach

South Africa's historic transformation into a stable and robust economy has resulted in a 60% increase in demand for electricity by industry and households, with coal accounting for 75% of total energy consumption. In response, in addition to a wide-ranging renewables strategy (see page 38), the Government has adopted strategies to accelerate energy efficiency across all sectors; invest in low carbon technology research and development, new clean energy resources and behavioral change; and pursue economic instruments. South Africa has set a national goal of improving energy efficiency by 12% by 2015.

South Africa will draw on CTF support to undertake energy efficiency transformation particularly in the commercial and industrial sectors. The CTF IP will increase potential energy efficiency investments through expansion of bank lending to commercial and industrial sectors through lines of credit to commercial banks, contingent financing to foster energy service companies (ESCOs), and financial incentives or risk products to market leaders. The plan is to address barriers to energy efficiency investments, such as high preparation and other transaction costs and perceived risk of energy efficiency projects.

Box 2: CTF at a Glance

FUNDING
$4.5 billion pledged, valued as of June 30, 2011

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 civil society organizations, indigenous peoples, and the private sector

FINANCING
Concessional financing such as grants and concessional loans; risk mitigation instruments such as guarantees; equity

COUNTRY ELIGIBILITY
Countries eligible for official development assistance and MDB assistance

ENDORSED INVESTMENT PLANS (IPs)
IPs are endorsed for Colombia, Egypt, 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). Chile and India have expressed interest in having IPs endorsed.

APPROVED PROJECTS
The CTF has approved 24 projects under 12 of these IPs, covering a range of technologies: electricity generation, energy conservation, urban transport, Concentrated Solar Power, wind energy, solar water heaters, energy efficiency, transmission and distribution, smart grids, zero emission power from gas network.

Strategic Climate Fund (SCF)

Droughts, floods, and storms are becoming more frequent and severe in many countries, affecting agriculture and food security. Water stress and ecosystem collapse make the situation worse. Deforestation and forest degradation exacerbate it even further and result in loss of livelihoods for indigenous peoples and local communities. Rare biodiversity is pushed to the margins and in danger of extinction. The poorest countries will suffer most, facing higher exposure to environmental risks and with fewer resources to cope. For these countries, taking action to manage climate change has become an imperative. However, even if efforts to reduce GHG emissions are successful, some climate change impact will continue in coming years. An effective response to climate change must combine both mitigation, to avoid the unmanageable, and adaptation, to manage the unavoidable, and must be deeply integrated into countries' development plans.

Today, new technologies and approaches are being developed and indigenous knowledge rediscovered which can help countries build sustainable resilience into their development approaches. The SCF, established to pilot new development approaches for specific climate change challenges, operates through three targeted programs:

- Forest Investment Program
- Pilot Program for Climate Resilience
- Scaling Up Renewable Energy Program in Low-Income Countries

SCF uses the skills and capabilities of the MDBs to leverage CIF financing to significantly reduce carbon emissions and allow countries to shift to a climate-resilient and low-carbon development path. Pledges for SCF's three programs now total $2 billion.

FOREST INVESTMENT PROGRAM (FIP)

Forests, teeming with a wealth of biodiversity and offering life and sustenance for millions of people, provide a compelling opportunity for multiple benefits.

Forests are inextricably linked to climate change and development. Deforestation and forest degradation are the second leading cause of global warming, accounting for nearly 20 percent of global GHG emissions. Forests also store billions of tons of carbon and help regulate the earth's climate. Millions of indigenous people and local communities depend on forests and their rich ecosystems for their livelihoods and cultural survival. Countries urgently need to sustainably manage their forests.

The FIP supports developing country efforts to reduce deforestation and forest degradation and promote sustainable forest management that leads to emissions reductions and enhancement of carbon reservoirs. It finances large-scale investments and leverage additional resources, including from the private sector.

By design, FIP resources complement other REDD+ financing mechanisms such as the Forest Carbon Partnership Facility (FCPF), the Global Environment Facility (GEF) and the UN-REDD Programme. The collaboration among these REDD+ institutions at the country level is crucial, and helps open the door to opportunities to address REDD+ priorities effectively and efficiently.

The FIP helps promote forest mitigation efforts, including protection of forest ecosystem services, and

provides support outside the forest sector to reduce pressure on forests. With FIP investments, countries can strengthen institutional capacity, forest governance, and forest-related knowledge.

The FIP has selected eight FIP pilots to promote sustainable management of forests that leads to emission reductions and the protection of carbon reservoirs (REDD+), with $558 million pledged: Brazil, Burkina Faso, Democratic Republic of Congo (DR Congo), Ghana, Indonesia, Lao People's Democratic Republic (Lao PDR), Mexico and Peru. Of these pilots, FIP has endorsed Investment Plans for DR Congo and Burkina Faso.

BOX 3: Path-breaking cooperation on REDD+

One of the critical aspects of REDD+ -- work to reduce deforestation and forest degradation combined with sustainable management of forests – is the need to integrate multiple institutions and approaches on REDD+ activities. In the DR Congo, the design and implementation of the FIP Investment Plan makes full use of the REDD+ management structures, which were established by decree of the prime minister. FIP investments are fully embedded in the national REDD+ Readiness process, under the leadership of the Ministry of the Environment, Nature Conservation and Tourism, and with the support of the UN-REDD Program and the World Bank-based Forest Carbon Partnership Facility (FCPF).

The FIP-supported efforts will draw on activities supported by the FCPF and the UN-REDD Programme, helping increase efficiency and setting the tone for inter-institutional cooperation, which can serve as a model for REDD+ cooperation in other countries. Joint efforts will include consultations on development of a national REDD+ strategy, design of safeguard mechanisms, including socio-environmental standards for REDD+ initiatives and implementation of a Strategic Environmental and Social Assessment, development of a measurement, reporting and verification system, and mechanisms for financial management including a national REDD+ fund and benefit-sharing schemes.

Highlights from the FIP Portfolio

Democratic Republic of Congo addresses deforestation and forest degradation

With $60 million in grant funding from the FIP, DR Congo is geared up to address deforestation and degradation, providing small grants to promising small-scale REDD+ initiatives, and engaging the private sector in REDD+. DR Congo is looking to provide leadership in inter-institutional cooperation on REDD+ (see Box 3).

FIP investments in DRC will focus on afforestation/reforestation, including agroforestry and assisted natural regeneration, dissemination of improved cook stoves and improved charcoal-making techniques, development of alternative energy sources, and support for community forestry and strengthening communities' capacity to manage forests.

Lao PDR moves to conserve biodiversity, forest ecosystems [pending]

With a request for $30 million in grant funding, Lao PDR intends to reduce emissions from deforestation and forest degradation, while also helping the country adapt to the impacts of climate change. As a country that faces serious endemic poverty and increasing losses in biodiversity and forests, integrating

climate resilience into its development can result in sustainable reduction of poverty and opportunities for improvement in biodiversity and forest ecosystems services.

FIP funding for Lao PDR will support the country's 2020 Forest Strategy, which is designed to attain a 70 percent forest cover in the country. The plan will help place all forest land and resources under participatory and sustained protection, development, and management. Drivers of deforestation and forest degradation will be addressed by protecting forests for delivery of sustainable ecosystem services, building smallholder and private enterprise partnerships, scaling-up participatory sustainable forest management, and creating an enabling environment for sustainable management of forest ecosystems.

BOX 4: FIP at a Glance

FUNDING
$624 million pledged, valued as of June 30, 2011

IMPLEMENTATION
AfDB, ADB, IDB, World Bank Group

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

OBSERVERS
MDBs, Trustee, GEF, Forest Carbon Partnership Facility, UNFCCC, UN Collaborative Program on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD), and self-selected representatives of civil society, indigenous peoples, and the private sector

COUNTRY ELIGIBILITY
Countries eligible for official development assistance and MDB assistance, with priority to countries expressing an interested to participate

PILOTS
Brazil, Burkina Faso, DR Congo, Ghana, Indonesia, Lao People's Democratic Republic, Mexico, Peru

ENDORSED INVESTMENT PLANS
DR Congo ($60 million) and Burkina Faso (provisionally endorsed for $30 million).

Box 5: Indigenous peoples and local communities work to design a FIP grant mechanism

In the forest sector, climate-smart development is more successful when forest-dependent indigenous peoples and local communities are directly engaged in designing and implementing the programs. The Dedicated Grant Mechanism for Indigenous Peoples and Local Communities is being jointly developed by indigenous peoples and local communities and the MDBs to help forest-dependent local groups gain access to FIP resources in the FIP pilot countries, strengthening their capacity to address deforestation and forest degradation. The Mechanism will enable pilot countries' indigenous peoples and local communities to share lessons from their activities related to REDD+. Participatory governance, transparency and accountability are critical to the success of the program.

The mechanism 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, and community-based monitoring, evaluation and reporting.

Pilot Program for Climate Resilience (PPCR)

For the world's poorest countries, managing the effects of climate change is central to effective poverty reduction, economic growth, and sustainable development. But climate change strategies cannot be carried out in a vacuum. They must be based on realistic assessments of vulnerabilities and capacities and their integration into a country's overall development plan.

The PPCR helps countries integrate climate resilience into development and offers additional funding to support public and private sector investments. It provides incentives for scaled-up action and initiates transformational change by catalyzing a transformational shift from "business as usual" approaches to broad-based strategies for achieving climate resilience at the national level.

PPCR pilot programs are designed to be country-led, build on National Adaptation Programs of Action (NAPAs), complement existing adaptation funding, and support actions built on comprehensive planning consistent with countries' poverty reduction and development goals. The PPCR offers countries funding for technical assistance as they work to integrate resilience into their national plans, and public and private sector investments for specific climate resilience plans.

Giving priority to highly vulnerable least developed countries, including the small island developing states, the PPCR is providing grants and highly concessional financing (near-zero interest credits with a grant element of 75 percent) for investments to improve agricultural practices and food security, build climate-resilient water supply and sanitation infrastructure, monitor and analyze weather data, and conduct feasibility studies for climate-resilient housing in coastal areas. PPCR pilot countries may choose to access only PPCR grant resources, or may also apply for credits if supported by a debt sustainability analysis. During 2011, as governments have prepared their strategic programs for adaptation-related investment needs, they have recognized that PPCR credits may bolster their program portfolios, especially in engaging the private sector. A number of PPCR countries have indicated an interest in accessing credits together with grant resources to address their adaptation needs.

PPCR supports nine countries and two regions as pilots. Eleven Strategic Programs for Climate Resilience (SPCRs) have been endorsed by the PPCR with the agreement to the further development of activities foreseen in them. A total of $395million in grant resources and $289 million in PPCR credits was requested for the development and implementation of identified priority actions. Six projects have been approved by the PPCR, allocating a total of $103.9 million in PPCR resources. These resources are expected to leverage a total of approximately $54.8 million in co-financing.

Highlights from the PPCR Portfolio

Nepal builds resilience against floods, droughts and other climate impacts

Nepal, one of the most climate-vulnerable countries in the world, faces enormous challenges from climate change impacts, with floods, droughts and landslides that are endemic and often deadly. Through its SPCR under the PPCR, Nepal is developing a programmatic approach to climate change adaptation, with resilience-building investments to manage these impacts.

With PPCR support, Nepal will be better able to shift away from “business as usual” toward an approach that integrates climate resilience into its core development. To make this shift, Nepal will develop capacity, strengthen institutions, and coordinate among government agencies, private sector and civil society stakeholders, as well as key public and private investments.

Working with ADB, the country will build climate resilience of watersheds in mountain eco-regions to increase agricultural productivity and water availability, and improve human health. This effort will be supported by technical assistance to ensure that development programs, policies, and projects are protected from the impacts of climate change.

In a broad investment project to be implemented by the World Bank, Nepal will create greater resilience against floods, droughts, landslides and glacier lake outburst floods; better medium to long-term weather and flood forecasting; early warning systems; and improved access to financial instruments such as micro-insurance/finance for vulnerable communities, particularly women. The country will work to safeguard habitats of critically endangered species against climate threats.

Niger scales up coping skills to combat climate variability and change

For Niger, one of Africa’s most vulnerable countries to climate impacts, climate resilience and improved food security go hand in hand. Niger’s rural inhabitants need better means of coping with climate variability and change. They also need better tools and skills to meet the challenges of extreme weather events that impact basic welfare.

The PPCR strategic program identifies priority interventions to enhance the country’s resilience through investments in infrastructure and technical assistance. PPCR resources will be used to scale-up good practices in land management and strengthen forecasting and weather data-analysis with a view to contribute to the overall resilience and reduced vulnerability of the country. The program will also integrate innovative activities in the areas of sustainable land management, social protection and pilot initiatives aimed at insuring and guaranteeing agricultural production against risks. It will also support the development of climate resilience instruments.

St. Lucia begins a multi-faceted climate strategy

Due to its high vulnerability St. Lucia is making adaptation to climate change a development priority. The island nation has recognized the country's exposure to threats from changing climate patterns, fragile ecosystems as well limited capacity to manage natural disasters. In response to these concerns, St. Lucia is using resources from the PPCR to invest in critical infrastructure, institutions, human resources and longer term climate change financing solutions.

St. Lucia will focus on building an enabling environment through improved data collection, strengthened legislative, institutional and fiscal frameworks, as well as public education and outreach. These investments in capacity will be well placed to and build on strategic investments in coastal areas, infrastructure improvements and water resources management at the community level. Coupled with the creation of climate change adaptation financing facility the country is using PPCR resources to catalyze transformational change for climate resilient development.

Tajikistan works to strengthen climate capacity

With help from the PPCR, Tajikistan is poised to build climate resilience capacity in the government, and to improve weather, climate and hydrological service delivery and the climate science and modeling program, to enhance resilience in the energy and agriculture sectors. In addition, in Khatlon Province along the Pyanj River and its tributaries, the plan will help increase vulnerable communities' sorely needed resilience to climate-induced extreme events and climate variability.

One critical outcome of these cross-cutting efforts will be that farmers and rural communities will become more resilient to climate change, using land management and agriculture techniques that strengthen local livelihoods, reduce hunger, and restore productive natural resources.

Box 6: PPCR at a Glance

FUNDING
$1 billion pledged, valued as of June 30, 2011

IMPLEMENTATION
AfDB, ADB, EBRD, IDB, WBG

GOVERNANCE
PPCR Subcommittee with representatives from six contributor 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 civil society organizations, 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, and the Caribbean Region (participating countries: Dominica, Grenada, Haiti, Jamaica, St. Lucia, St. Vincent and the Grenadines) and Pacific Region (participating countries: Papua New Guinea, Samoa, Tonga)

ENDORSED STRATEGIC PROGRAMS FOR CLIMATE RESILIENCE (SPCRS)
Bangladesh, Niger, Tajikistan, Cambodia, Mozambique, Nepal, Zambia; Caribbean: Grenada, St. Vincent and the Grenadines, Saint Lucia, Pacific: Samoa

APPROVED PROJECTS
6 projects approved by PPCR for $103.9 million for PPCR funding in Bangladesh, Grenada, Nepal, Niger, St. Vincent and the Grenadines, and Tajikistan. These resources are expected to leverage a total of $54.8 million in co-financing.

Box 7: Climate Resilience Can Open the Door to Successful Development

Helping climate-vulnerable low-income countries integrate resilience into their development is an investment that opens a door to opportunity for more sustainable development into the future. With CIF support, countries can take a range of actions, such as:

- Engaging key stakeholders – policy-makers, economic decision-makers, academia, NGOs, and the private sector – in knowledge-building on climate impact scenarios to strengthen their understanding of how climate change will affect economic development and growth,
- Establishing hydromet networks, flood and drought early warning systems, and their links to humanitarian responses,
- Supporting research on crops and tree species to suit recent and future changes in local climate conditions to benefit small farmers and forest-dependant people,
- Strengthening policies, strategies, and regulations to integrate climate resilience into development planning and policy reform across sectors, taking advantage of ongoing policy reform efforts,
- Improving the enabling environment and/or access to finance to invest in adaptive measures to engage the private sector in climate change adaptation,
- Enhancing links between disaster risk management and proactive adaptation measures,
- Implementing measures for integrating climate resilience into infrastructure design and spatial planning, or modifying building construction standards/codes and creating 'no-construction' areas,
- Offering concessional financing to attract private sector investments that may on their own not deliver the required rates of return.

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

More than 1.5 billion people in developing countries do not have access to electricity and other basic energy services. As developing countries strive to overcome poverty and advance economic growth, governments are faced with the critical challenge of transforming the energy sector to increase access and ramp up modern energy use.

Increasingly, governments are recognizing that renewable energy has the potential to leapfrog old approaches and embrace a new pattern of energy generation and use. The benefits of a strategy that minimizes GHG emissions extend far beyond climate change mitigation. Not only can renewable energy free countries from dependence on expensive fossil fuel imports, it can also open up new sources of growth and jobs and give poor countries a comparative advantage.

The good news is that many low-income countries have exceptional, but largely untapped, renewable energy resources. However, the barriers to greater reliance on renewable energy are complex:

- Most low-income countries have inadequate policy, legal, regulatory, and economic frameworks.
- Commercial lenders frequently perceive renewable energy investments as too risky.

- Private sector engagement is extremely limited.
- Potential customers do not have sufficient financial resources to purchase renewable energy on a scale that would make it affordable.

SREP was established to scale up the deployment of renewable energy solutions and expand renewable markets in the world's poorest countries. SREP aims to pilot and demonstrate the economic, social, and environmental viability of development pathways that do not exacerbate global warming. SREP finances solar, wind, bio-energy, geothermal, and small hydro technologies. Private sector investment is encouraged.

SREP has selected 6 pilot countries (Ethiopia, Honduras, Kenya, Maldives, Mali, Nepal) to receive scaled-up financing for renewable energy investments that will help countries to leap-frog into a new pattern of energy generation and use. An additional 6 pilots have been selected for a reserve list should additional resources become available (Armenia, Liberia, Mongolia, Pacific Regional Program, Tanzania, and Yemen).

By obtaining government support for opening renewable energy markets and removing barriers to private sector investments, SREP is designed to have a transformative demonstration effect for other countries that are researching the economic, social and environmental viability of low carbon development pathways in the energy sector, by creating economic opportunities and increasing energy access through the use of renewable energy.

Highlights from the SREP Portfolio

Kenya to transform its energy mix

Leading the way as the first endorsed SREP Investment Plan, Kenya is drawing on SREP resources to help implement "Vision 2030", its national policy recognizing energy infrastructure as one of the foundations and enablers of the country's socio-economic transformation.

Kenya's energy objective is to ensure that its citizens have adequate, quality, cost-effective and affordable energy supply using indigenous energy sources. This is critical in a country where the electricity sector faces competing challenges, as demand for electricity grows but only 15% of Kenyans have electricity access, and the high dependence on hydroelectric generation is becoming increasingly unreliable in the face of climate change. To overcome this situation, the government has put in place some emergency fossil fuel power programs as a short-term solution.

To address these challenges in a more sustainable and long-term manner, Kenya is undertaking a SREP Investment Plan which is designed to help transform the country's energy mix by adding geothermal power generation, mini-grids and solar water systems.

In a first phase, the plan will focus on removing barriers for private sector participation in the geothermal generation; together with a feed-in tariff policy and regulatory framework, this will allow future development of around 5000MW of geothermal resources. In the mini-grids project, the Plan will help increase the proportion of solar and wind energy in the grids. A second phase, if funding is made available, will include refinement of the geothermal drilling plan and a solar water heating project for

commercial and residential buildings. The leverage potential for the Plan would reach around one dollar of climate finance to 8 dollars in co-financing for the two phases.

BOX 8: SREP at a Glance

FUNDING
$361 million pledged, valued as of June 30, 2011

IMPLEMENTATION
AfDB, ADB, IDB, WBG

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

OBSERVERS
MDBs, Trustee, GEF, UNDP, UNEP, and self-selected representatives of civil society, 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 to countries expressing an interest to participate

PILOTS
Ethiopia, Honduras, Kenya, Maldives, Mali, and Nepal

ENDORSED INVESTMENT PLANS
SREP has endorsed one Investment Plan for Kenya.

The 2011 CIF Partnership Forum

As a hallmark of its structure, the CIF engages all stakeholders to ensure effective CIF action at the global and country levels. The CIF Partnership Forum is the centerpiece of CIF's outreach to stakeholders. The Forum, co-hosted each year by the CIF and one of its multilateral development bank partners, is designed to facilitate stakeholder dialogue on CIF's strategic directions, results and impacts, and to showcase promising practices, technologies, and lessons learned in the CIF's growing bank of experience.

The 2011 CIF Partnership Forum was held on June 24-25, 2011 in Cape Town, South Africa. The Forum, which was hosted by the CIF and the African Development Bank (AfDB), was the first to be held since the CIF became operational, and offered a compelling opportunity for stakeholders to raise real on-the-ground issues. The Forum brought together 500 CIF stakeholders, including governments, United Nations agencies, non-governmental organizations, indigenous peoples, private sector, and scientific and technical experts.

At the Forum, learning briefs were presented as background to the dialogue and helped stimulate discussions on ways to maximize the CIF's impact at the country and sectoral levels. During the two days, participants convened in a civil society organization (CSO) panel, and engaged in sessions on private sector engagement in adaptation; climate-smart mobility; clean technology manufacturing; innovative partnerships; climate modeling; financing transformation; wind energy; and working as partners at the country level. Participants also heard messages from CIF pilot country meetings and from civil society and private sector consultations convened right before the Forum, and joined in a technical session organized by UN Environment Program (UNEP) on the opportunities for near-term climate protection and air quality benefits.
The Forum provided an opportunity for CIF stakeholders to share their experiences about how the CIFs are working in their countries, exchange lessons learned about what is effective and how the CIF can be expanded or improved, and share on-the-ground knowledge. The Forum also helped raise awareness of the CIF and the country selection process, provide feedback to the CIF governing bodies, and identify opportunities for further stakeholder participation.

Pull Quotes

"*The Forum provides a valuable space for lesson sharing and learning, which are such an important part of the CIFs*." Ben Green, UK representative, SCF

"*I appreciate very much that every opinion counted and was taken into account*." Partnership Forum survey respondent

"*CIF is a pioneer, showing a new way of addressing global issues and new coping mechanisms.*" Pravin Gordhan, Minister of Finance, South Africa, opening speech, 2011 CIF Partnership Forum

"*The CIF is a useful transitional instrument to learn from as Heads of State gear up to discuss the future of climate finance in Durban.*" AfDB Vice President Bobby Pittman, welcoming address, 2011 CIF Partnership Forum.

SOME FORUM REFLECTIONS[3]

At the pilot country level: ensure leadership, coordination and country ownership, prioritize when determining where to allocate CIF resources, build social capital, engage stakeholders in the design process, create incentives for the private sector, enhance institutional and human capacity.

CTF LESSONS: align CTF plans with development strategies, catalyze coordination among partners, create ways for all stakeholders to contribute to investment plan design, ensure time for meaningful outreach.

PPCR Lessons: address the steep learning curve, ensure adaptive management at the grassroots level, engage stakeholders' different approaches, acknowledge countries' differing priorities.

Governance: CIF governance structure is efficient; equitable governance structure is appropriate; experiences from programs and pilots should inform Committees; stakeholder involvement enhances Committees' work.

Civil Society Engagement: including non-governmental observers in CIF governance is innovative; civil society observers must be enabled to help constituencies engage with CIF; local realities must inform decisions; observer selection process is key; knowledge and experience should be stressed in observer selection.

Greening Clean Energy Sources: wind energy is an exciting low-carbon option but with environmental and social impacts which should be addressed in the project cycle; environmental sensitivity and zoning maps are essential for site selection; wind farms should minimize bird and bat mortality; monitoring should continue after construction.

Tapping Growth Potential in Climate Change through Innovative Partnerships: Success factors for innovative partnerships are political stability; regulatory and government support; strong private sector; quality of partners; leveraging concessional funding; balanced structures and contracts based on risk-reward considerations.

Financing Transformation: In Costa Rica, good public policies, elimination of perverse incentives and payments for environmental services have helped stop deforestation, support forest restoration, and promote economic growth. In Kenya, mobile banking includes water and crop insurance, among other applications.

State of the Art in Climate Modeling and its role in the CIF: A "credible and defensible" message about climate change can be created through consistent weather/climate data series and climate phenomena, robust and high resolution climate projections from credible models; realistic perceptions about model accuracy; analysis and projections of extreme events.

Why Adaptation should be a Priority for the Private Sector in the PPCR: Climate change can negatively affect companies but there is also potential to leverage action and finance. The right market signals are needed and profit opportunities will enhance their effect. Governments can provide incentives such as regulation, information as a driver for action, awareness raising, and targeted finance.

Greening Growing Cities: "avoid, shift, improve, invest" model can be used for sustainable transport systems; carbon dioxide mitigation must be placed higher on the transport planning agenda; scalable, good models for sustainable transport must be created.

Leap into Green Growth: challenges for a country to promote clean technology manufacturing are: need for regulatory frameworks; access to financing; markets and policies; fostering innovation systems; procurement processes allowing for local demand.

Working as Partners at the Country Level: Programmatic approaches help partners coordinate; common communication platforms help ensure transparency and information access; inter-ministerial coordination is key; local stakeholders must participate and benefit from plans; public-private partnerships "crowd in" the private sector.

[3] For the full Proceedings and recorded sessions, visit www.climateinvestmentfunds.org/CIF/partnership_forum_2011_home

Reflections from Pilot Countries

From the ground up

Every year, the people who work on CIF-financed operations in CIF pilot countries gather in a series of open and collaborative Pilot Country Meetings. In these meetings, representatives of CIF pilot country governments are joined by their counterparts from the multilateral development banks, contributor country governments, and other stakeholders to share knowledge, learn from experience in CIF implementation, and foster mutual trust and accountability.

CTF pilot countries meet annually, SCF pilot countries meet semi-annually, and all CIF pilot countries meet once a year to address CIF issues as a whole. A total of 8 Pilot Country Meetings were organized between July 2010 and July 2011.

These forums have already demonstrated added value. Participants have begun to establish cross-country relationships, creating a growing global network of practitioners that can be relied upon for knowledge and support. By discussing common issues, pilot country representatives have also found areas of common understanding, and have transmitted their views on how to improve the CIF to the CIF's governing bodies.

Cross-fertilizing knowledge

Pilot Country Meetings have provided a space for cross-fertilization among CIF programs. In early 2011, at an early stage in their CIF programming, SREP countries had the opportunity to learn from PPCR experiences as they prepared their Strategic Programs for Climate Resilience for endorsement. PPCR advice included the need for multi-stakeholder engagement and ongoing inter-ministerial collaboration and coordination, as well as a clear understanding of the state of knowledge, awareness and policies to address climate change, and the importance of political will to bridge capacity gaps.

Views on transformation

***Call-out**: "Building a low carbon economy goes beyond incremental innovations. It requires profound structural changes in the economy, technological shifts, news sets of policies, reorientations in the research and education sectors and low carbon oriented investment priorities."* Professor Dr. Dirk Messner, Vice Chair, German Advisory Council on Global Change, German Development Institute (DIE), closing statement All-Pilot Countries Meeting, Cape Town, June 2011

Transformation toward low-carbon, climate-resilient economies, a hallmark of CIF engagement, featured prominently at the first meeting of all pilot countries on June 26, 2011. Participants discussed the meaning of transformation in the context of the CIF and their own countries, and the potential of investment plans to contribute to that transformation. Representatives from countries stressed the importance of the government's commitment to change social attitudes as a prerequisite for successful outcomes.

Looking ahead

In the coming years, based on the principle that each meeting should be targeted to countries' individual stage of programming, Pilot Country Meetings will focus on implementation, including country leadership and coordination, the development and establishment of systems for monitoring and evaluation, stakeholder engagement and involving the private sector, and others.

BOX 9: Global Support Program gets up and running

The CIF Global Support Program was established to promote training, build a community of practice and share lessons learned among the countries benefitting from the CIF. Since its endorsement by the CTF-SCF trust fund committee in November 2010, it has scaled up efforts to bring countries together by organizing pilot country meetings, developing platforms for communication and cooperation and establishing other channels to address challenges identified by countries in relation to the development and implementation of investment plans. CIFNET, the online country support tool, opened for business in October 2011 and provides an active portal for pilot countries and other stakeholders to interact with the CIF and with each other.
http://www.climateinvestmentfunds.org/cifnet/

Box 10: Learning by doing: building Investment Plans together

In 2011, Pilot Country Meetings focused on defining and preparing country investment plans. Participants largely referred to challenges faced during the preparation of investment plans. They noted that addressing these challenges guarantees robust investment plans that respond to country priorities. The main challenges identified include:

- Coordination among multiple national institutions and donors
- Civil society engagement, with attention to local communities, women, and indigenous peoples
- Identification of incentives for private sector engagement
- Capacity and resources for robust monitoring and evaluation

Sun, Wind, Water, Earth: Renewables in the CIF Portfolio

Intro page (against photo)

Today, renewable energy is a sector ripe for global transformation. As technologies which tap the sun, wind, water, biomass, and earth's deep heat move to the global forefront as sustainable sources of energy, the CIF supports countries in their work to help transform their economies through this greenfield approach.

This section looks at the CIF's work globally and across all regions to help countries transform their renewables sector.

THE GLOBAL PICTURE:

Policies Are Driving Energy Transformation

By the World Bank Group (WBG)

*"Today, private sector and government leaders are seeing that climate-smart policies lead to more investments, better technology, more jobs and a greener future. CIF pilot countries provide a powerful illustration that green growth can improve competitiveness, deepen technological know-how, improve energy security and extend access to energy to poor households."*Andrew Steer, World Bank Special Envoy, Climate Change, and SCF Co-Chair

Renewables Overview: Global Trends

Commitment to renewable energy development is growing worldwide, especially over the last decade. Many governments around the world have introduced diverse policy instruments to promote investments in renewable energy, highlighting the growing enthusiasm and commitment to global green growth. The motivations are many: addressing climate change, enhancing energy security, improving rural energy access, and promoting economic growth.

To a large extent, the renewable energy market is a policy-driven market. By early 2011, at least 118 countries – more than 60% of today's world -- had some type of national policy target or renewable support policy, doubling the number of countries from 2005. Developing countries now represent more than half of all countries with policy targets and half of all countries with renewable support policies. The majority of these countries are using feed-in tariff[4] policy schemes, although the use of quota instruments[5] is being increasingly adopted.

In fact, policy trends show that countries are increasingly using both price and quota based instruments as complementary measures to address different segments of the renewable energy market, most notably in emerging and high income economies. Moreover, the use of renewables to supply the rural market has been primarily supported through public-private partnerships (PPPs) and standardized power purchase agreements (SPPAs), in many cases with innovative contract designs.

These policies are helping drive the transformation of energy systems around the world. Investments in renewable energy jumped 32 percent in 2010 to a record $211 billion. In this year, new investment in renewables – including asset finance and investment by venture capital, private equity and public markets – was the highest in developing countries (UNEP, BNEF, 2011).

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[4] A feed-in tariff (FIT, standard offer contract, advanced renewable tariff, or renewable energy payments) is a policy mechanism designed to accelerate investment in renewable energy technologies by offering contracts to renewable energy producers at a guaranteed, preferential price for a guaranteed period.

[5] Generally called Renewable Portfolio Standard (RPS), renewables obligations or quota policies are standards requiring that a minimum percentage of generation sold or capacity installed is provided by renewable energy. Obligated utilities are required to ensure that the target is met.

However, the magnitude of additional renewable energy capacity needed to help address the global climate change challenge is immense, and efforts by all countries remain crucial. To meet this, various sources of funding are needed, including grants, concessional, public, and private investment finance, along with appropriate risk mitigation measures. Inevitably, developing countries will have to prioritize strengthening their domestic energy regulatory frameworks to gain access to climate finance mechanisms.

What Have We Learned?

Important lessons have already emerged from countries' experience with different policy instruments to support the scale-up of renewable energy. In some countries, renewable energy policies have not always proven effective and efficient in rapidly or substantially increasing renewable energy deployment. There are many reasons for poor policy performance, some of which are associated to the design (or compatibility among different instruments) and actual policy implementation.

First, policy choice and design have to be aligned to the system's conditions and sequenced and adjusted as both markets and technologies evolve. This requires a customized but dynamic approach. Policies must also be coordinated with the wider set of domestic – or even regional or international – policies that impact the energy market as a whole.

Second, the regulatory process and content have to be transparent, predictable and robust, even if the instruments are initially simple or restricted to a particular project scale or technology. Critically, the design and implementation of incremental cost recovery mechanisms need to be transparent, sustainable and termed, and their impacts well understood. To a large extent, the success of RE policy depends on the availability of resources to cover this viability gap sustainably.

Finally, the trade-offs have to be balanced, particularly the need to introduce economically efficient incentives while delivering sustainability goals expeditiously. As a matter of fact, access to climate and other forms of finance will mainly depend on the investment climate and degree of market readiness (that is, robust markets that exhibit manageable risks).

The Way Forward in the Policy Arena

A structural shift requires systematic development of policy frameworks that reduce risks and enable attractive returns. An appropriate and reliable mix of instruments is even more important where energy infrastructure is still developing and energy demand is expected to increase in the future, an issue many developing countries must face head-on. At the same time, policy and regulation has to be designed in such a way as to allow technology innovation and the integration of long term societal goals.

The way forward on policy and regulation will need to focus on balancing economic efficiency with expeditious delivery of sustainability goals to achieve green economic growth. Such an effort calls for participation by a diverse set of stakeholders and a strong coalition of the committed and willing.

RENEWABLE ENERGY TECHNOLOGIES

Innovative Technologies and Deployment Policies at the Forefront

The renewable energy sector is the fastest growing component of the global energy system, but also the sector most in need of scientific, technical, financial, and policy innovation and evolution. The need for accelerated innovation and deployment in the sector stem from two distinct aspects of the global energy system, and together highlight the CIFs' transformative role in developing a sustainable local and global energy economy.

Box 11: Renewable Energy Supply

In 2010, renewable energy accounted about 13% of the total 490 Exajoules (EJ) of primary energy supply. The largest renewable energy contributor was biomass (over 10%), with the majority (roughly 60%) being traditional biomass used in cooking and heating applications in developing countries but with rapidly increasing use of commercial-scale biomass as well. Hydropower contributed over 2%, whereas other renewable energy sources accounted for 0.5%.

Also in 2010, renewable energy contributed over 20% of global electricity supply (led by hydropower at 16%, wind at 2%) while biofuels contributed over 2% of global road transport fuel supply. Traditional biomass (17%), modern biomass (8%), solar thermal and geothermal energy (2%) together fuelled 27% of the total global demand for heat.

First, from household and village-scale deployments to the largest utility-scale renewable energy and energy efficiency programs, multiple benefits exist. GHG emissions from energy services have contributed significantly to increase in GHG concentrations.[6] Renewable energy not only has the potential to mitigate resulting climate change but can also contribute to social and economic development, energy access, a secure energy supply, and reducing negative impacts on the environment and health. Further, renewable energy deployments can often be accomplished more rapidly and flexibly than traditional fossil fuel systems, contributing to greater and more flexible energy access in emerging economies. Increasingly, these externalities can even exceed the financial value of the energy provided.

Second, despite these benefits, renewable energy and energy efficiency deployments face a very uneven financial landscape. The International Energy Agency (IEA) and World Bank estimate that subsidies encouraging wasteful consumption by artificially lowering fossil fuel end-user prices amounted to over $300 billion in 2009. These mechanisms include tax expenditures, under-priced access to scarce resources under government control, and transfer of risks to governments via concessional loans or guarantees. Phasing out fossil fuel subsidies represents a triple-win solution, enhancing energy security, reducing GHG emissions, and bringing immediate economic gains. The IEA concludes that if fossil fuel subsidies were phased out by 2020, growth in global energy demand would be cut by 5%, equal to the combined consumption of Japan, Korea, and New Zealand. The savings amount to 4.7 million barrels of oil a day, around one-quarter of current US demand. It would also represent an integral building block for tackling climate change as expected growth in carbon-dioxide emissions would be cut by 2 gigatonnes.

In several countries, renewables represent a rapidly growing share of total energy supply, including heat and transport. The CIF has been active in all of these areas, and in the scaling-up and market expansion of renewable energy technologies.

[6] The IPCC Fourth Assessment Report (AR4) concluded that "Most of the observed increase in global average temperature since the mid-20th century is very likely (90% probability) due to the observed increase in anthropogenic greenhouse gas concentrations."

Hydropower: A number of nations are designing and implementing new approaches to make hydropower projects more ecologically and locally sustainable. The Pilot Programme for Climate Resilience (PPCR) has supported studies of ecological resilience and hydropower sustainability, and efforts to refurbish older dams to operate in more ecologically sustainable ways.

Wind Power: The CIF has been active in expanding the number and size of wind power projects, supporting project design, and grid integration of wind in Latin America, Africa, and Asia. The CIF has also expanded assessment tools to ensure that wind projects are ecologically sustainable. The World Bank's 2010 *Winds of Change* report on wind and other renewable energy resources in Asia found that through large-scale deployment of energy efficiency and low-carbon technologies East Asia's CO_2 emissions can be stabilized by 2025, and energy security can be enhanced, without compromising economic growth.

Solar Energy: Perhaps the most dramatic changes have taken place in solar energy. The CIF has helped launch giga-watt scale solar thermal projects in North Africa that could meet domestic and international energy needs, and jump-start new clean-tech industrial sectors in emerging economies critically in need of new engines of economic growth and job creation. At the very local level, a household energy solar photovoltaic effort has tremendous promise.

Biomass Energy: The year 2011 has shaped up as a golden age of biomass. The World Bank/ESMAP are partnering with the Global Alliance on Clean Cookstoves to achieve dramatic energy savings and pollution reduction, coordinated with a growing set of stove programs worldwide. The CIF has also been active in supporting approaches to sustainable commercial bioenergy through the capture of combined heat and power from industrial facilities, sugar mills, and through waste to energy programs.

Geothermal Energy: The CIF has assisted many nations in their clean energy planning through the promotion of geothermal development. As a base load generation technology that can help enhance the country's energy security, geothermal power investments can reduce the carbon footprint of the power sector by displacing alternative fossil fuels-based capacity. Furthermore, countries such as Indonesia and Kenya have identified the potential for geothermal and included investments in this technology in their CTF and SREP country investment plans, respectively.

Systems Integration and Systems Thinking: The CIF has been instrumental in supporting programs to plan and deploy electricity transmission and distribution and through the Scaling-Up Renewable Energy Program in Low Income Countries, making clean energy planning a central component of national energy and infrastructure design and implementation. As part of this effort, a range of low-carbon approaches have been put into practice to address energy access, as well as local and global environmental protection.

Shaping Markets:

The Private Sector Role in Renewables

By the International Finance Corporation (IFC)

The private sector has a critical and significant role in addressing environmental and climate change impacts. The World Bank's 2010 *World Development Report* estimated global costs of coping with climate change at roughly US$140-175 billion for mitigation and US$30-100 billion for adaptation through 2020. Current levels of official development assistance, including new climate financing for developing countries, fall significantly short of these estimated needs. Demands on public finances are acute, particularly

following the financial crisis of 2008 and the continuing fiscal crisis in many countries. Private sector participation and investment, is therefore, critical in filling the financing gap, and public sector resources, such as the Climate Investment Funds, play a crucial role in catalyzing private financing.

According to the International Energy Agency, two-thirds of the global demand for energy is expected to come from developing countries over the next 20 years. Many CIF-eligible countries, therefore, face the very real challenge of meeting growing demand while reducing greenhouse gas emissions. For the private sector, this demand represents an opportunity to invest in renewable energy production, transmission, and distribution. And yet, private entrepreneurs also face impediments in making investments for a variety of reasons including:

- knowledge gaps in the market such as the availability of data on resource mapping (wind, insolation, etc.);
- limited local skills and capacity;
- limited or expensive commercial financing;
- uncertain or insufficient revenue stream (weak feed-in tariff policies, etc.);
- inadequate regulatory framework;
- geopolitical risk; and
- high commercial risk associated with being an early mover in the market.

As a development institution and a financial institution, IFC has a distinct role to demonstrate a business case for private investment in emerging sectors such as renewable energy in emerging and frontier markets. IFC is investing in and providing advisory services to businesses in the renewable energy and energy efficiency sectors, throughout emerging markets. Its partnership with the CIF and other MDBs has been vital to achieving these goals and drawing the private sector into renewable energy.

CIF resources deployed by IFC take the form of concessional financing for investments and grants for advisory services that support renewable energy projects with the aim of demonstrating commercial viability. IFC takes a structured finance approach to ensure minimum concessionality in these projects with maximum leverage from other private investors. The goal is to avoid creating market distortions, to increase the probability of market transformation, and result in a sustainable, financially viable market for future projects.

To that end, IFC uses a variety of products and structures — including risk-sharing products, lower interest rate, longer tenors, subordinated rank/lower security for loans, or lower returns for equity investments— to invest CIF funds, alongside IFC's own funds, in renewable energy projects. These concessional finance solutions enable private companies to undertake and act on investment opportunities in RE that are just below full commercial viability, demonstrate success, and pave the way for fully commercial financing to follow (See Box 12). IFC also uses funds from CIF to complement project financing or investments with Advisory Services programs to build local capacity and skills within firms and in the market-at-large by bringing in international best practice experience, devising and implementing industry standards, and promoting the innovation of new business models. These activities improve transparency, build knowledge, and lower risk perception thus enabling market transformation.

Call-out: The CIF encourages participation of the private sector in all investments. Private sector arms of MDBs actively support the CIF in this effort.

BOX 12: La Mata - La Ventosa: CIF Catalyzes Wind Power in Mexico

In 2010, IFC used CTF concessional financing to support an early private sector wind farm under the Mexican self-supply framework. In addition to high costs (early market entrants had to contribute toward construction of new transmission lines), the sponsor faced an evolving regulatory regime and lack of a sector track record.

IFC/CTF helped rebalance the project's risk-reward profile and demonstrate that wind projects in Mexico can sustain more debt and risk than believed. IFC/CTF was able to cover approximately 18% of the sponsor's additional costs, reduce perceived risk for future developers and investors, and promote development of Mexico's vast wind resource. The project expects to generate roughly 295 gigawatt hours of renewable energy and allow Mexico to avoid over 156,000 tons of GHG emissions a year, displace new fossil-fuel generation, and improve air quality.

Alongside CTF funding, IFC provided $24 million commercial financing from its own account. Other lenders included the Inter-American Development Bank and US Export-Import Bank, contributing to overall project costs of $195 million, enabling CTF funding to achieve a leverage ratio of 1:12. The project has demonstrated the viability of private sector development of the wind industry. While the first CTF transaction was unable to attract commercial banks, the second transaction attracted two commercial banks. There are now a number of large wind developers moving into this market on the basis of full commercial financing.

See also a description of a similar wind project financed by IDB, IFC and CTF, page 57.

Box 13: Engaging the private sector is critical to CIF success

The private sector has a vested interest in engaging in climate initiatives. Many private entities face serious risks from climate impacts and must find long-term ways to manage those risks. At the same time, private enterprises are uniquely positioned to contribute to climate action, such as in innovative technologies to reduce greenhouse gas emissions, innovative business models around sustainable supply chains, and climate-resilient infrastructure design. Furthermore, climate action can generate lucrative business opportunities, particularly in technologies which are attractive to private enterprise, as demand increases for renewable energy, efficient power plants, better public transportation, and climate-resilient infrastructure, among others.

BOX 14: The World Bank Group

Access to energy is essential to reduce poverty. About 1.4 billion people are without access to electricity worldwide, almost all of them in developing countries. Half of the developing world's people use biomass for cooking and heating. Every year, indoor smoke kills 1.9 million people, mostly women and children. More than 80 percent of energy consumed worldwide comes from burning fossil fuels, which produce greenhouse gases that cause climate change.

The World Bank Group is a key player in a worldwide effort to address both challenges: provide the poor with access to modern energy services, while also supporting transitions to low-carbon renewable energy, and enhancing energy efficiency. Since 2003, the Bank Group has committed US$41 billion to projects and programs in the energy sector. Its energy portfolio is multifaceted, including financing for power generation, transmission and distribution, as well as household fuels. The Bank Group also offers governments advice on energy reforms and regulation to develop renewable energy and enhance energy efficiency, as well as to improve governance and transparency in the energy sector.

AFRICA

Turning renewable energy potential into reality

By the African Development Bank (AfDB)

"*Through the CIFs we're learning important lessons on climate action and helping inform the discussions on climate finance. It's clear that Africa needs financing that reflects its priorities and challenges in responding to climate change,*" Bobby Pittman, AfDB Vice President for Infrastructure, 2011 CIF Partnership Forum co-hosted by the AfDB, Cape Town, South Africa, June 2011

Africa has the world's highest reserves of renewable energy resources; half of the world's 35 most endowed countries in terms of total renewable energy reserves are located on the continent. Volatile world oil prices and ever-increasing energy demands have long prompted African nations to consider alternative energy production sources. But new and expanding flows of dedicated financial and technical support are helping some countries turn renewable energy potential into reality.

CIF financing channeled through the African Development Bank (AfDB) is being augmented by AfDB's own co-financing and technical assistance to bring innovative energy projects to life in countries like South Africa, Morocco, Egypt, and Kenya. From CIF investment plan development to project implementation and beyond, the AfDB is teaming with these and other African countries to actualize plans that can inspire replication and growth in Africa's emerging renewable energy market.

Greening the Energy Gap

Africa's strong economic performance over the past ten years, as well as its projected economic growth, mean ever-increasing energy demands across the continent. Unfortunately, power supply has not kept pace. Approximately 560 million people in Africa do not have access to modern energy, hindering the provision of health and education services and economic development continent-wide.

The key challenges facing Africa's power sector are inadequate generation capacity, limited electrification, low power consumption, unreliable services, high costs, and an annual financing gap of approximately $23 billion. Compounding the problem are the frequency and intensity of extreme weather conditions caused by global climate change. While Africa has contributed less to climate change than other continents, the relative costs are significantly higher. Until 2030, estimated costs are about 3% of Africa's GDP annually (or $40 billion).

Tapping Africa's vast renewable resources—solar, wind, geothermal, and hydropower—is key to expanding energy security, economic growth and diversification, and regional integration. These renewable, sustainable sources of energy are best positioned to respond to the access needs of much of Africa's large rural population which can only be reached in the medium term by off-grid technologies. Moreover, they can provide the necessary scale to avoid reliance on costly small-scale national power systems, which are heavily reliant on expensive and polluting oil-based generation.

Africa is not yet taking full advantage of its renewable energy resources. For example, Morocco's current installed wind capacity is about 280 MW, but exploitable potential is as much as 25,000 MW. Kenya is accessing about 198 MW of its 7,000 MW geothermal potential. Throughout Africa, institutional and

regulatory barriers, as well as high start-up costs, slow investment maturity, and other risks, have made renewable energy projects unattainable to most African nations and unattractive to most private investors.

Closing the financing gap requires improving the creditworthiness of utilities and sustaining the recent increase in external finance to the sector. New power financiers, particularly Chinese and Indian export-import banks, have emerged and increased their investments in Africa. The AfDB and the World Bank are channelling around 40% of all CIF funds ($2.6 billion), along with their own co-financing, to one regional and 13 national investment plans in Africa covering renewable energy and energy efficiency initiatives, as well as clean urban transport, climate-compatible development planning, and sustainable forest management.

About one-third of all CTF and SREP financing to Africa will flow through the AfDB: approximately $625 million in CTF and $75 million in SREP funding. To this, the AfDB will be adding over $1 billion from its own resources to support renewable energy and clean technology programs in Egypt, South Africa, Morroco, Nigeria, Kenya, Mali, Ethiopia, and the Middle East and North Africa (MENA) region.

Policy Transformation for Energy Transformation

Some African nations are taking definitive steps to address the need for additional energy capacity, beginning with institutional and policy reforms.

South Africa, the continent's largest energy producer, is revising the longstanding state-owned generation and distribution system, diversifying the energy mix, and making institutional frameworks and pricing more attractive to outside investors. These initiatives include specific targets for renewables: 4%, or 10,000 GWh, of electricity supply by 2013 and 42% of all new generation capacity by 2030. Renewable Energy Feed-in Tariffs (REFIT) and associated procurement processes and policies for independent power producers (IPP) are also being designed. Between March and June 2011, the South African government received public comments on an Independent System and Market Operator (ISMO) Draft Bill which will facilitate buying from IPPs.

Kenya is also trying to encourage private investment in its geothermal potential by establishing the Geothermal Development Company (GDC) to promote rapid development of geothermal resources through surface exploration and drilling for steam. Creating GDC is part of the government's larger energy policy to unbundle the key players in the electricity sector to ensure efficiency. Kenya is targeting a geothermal capacity of 1,700 MW by 2020 and 5,530 MW by 2031.

Morocco formulated a new energy strategy in 2009 to address the structural challenges in its energy sector. The strategy calls for 10% of energy generation to come from renewable sources by 2012. This figure is being backed by Morocco's public utility, Office National de l'Électricité (ONE), which plans to install 2,000 MW each of wind, solar and hydro energy to increase installed renewable energy capacity to 42% by 2020.

Egypt has targeted 20% of its energy generation to be derived from renewable sources by 2020. To meet this goal, Egypt is engaging the private sector through various models, such as a competitive bidding process and new Private-Public Partnership (PPP) and energy laws and regulations, which are expected to provide 2,500 MW of additional capacity.

Putting Earth, Wind, and Sun to Work

Early front-runners in Africa's energy diversification are solar, wind and geothermal power. South Africa is focusing on Concentrating Solar Thermal Power (CSTP) technology, which utilizes numerous large, flat, sun-tracking mirrors (heliostats) that focus sunlight onto a receiver at the top of a tower. A heat-transfer fluid heated in the receiver is used to generate steam, which, in turn, is used in a turbine generator to produce electricity. The solar power tower is favored over the parabolic trough design because tower system can use fluids other than oil for heat transfer and boasts high solar-to-electrical conversion efficiencies. Moreover, heat storage is possible which can increase the load factor to as much as 60-65%.

On 25 September 2011, the AfDB and South Africa's public utility, Eskom, signed two loan agreements for $265 million from the AfDB's own resources and $100 million from CTF to inject financing into the first large-scale implementation of renewable wind and solar generation in Eskom's history: a 100 MW solar power tower and plant at Upington and the 100 MW wind farm in the Western Cape. The procurement process has commenced on both projects.

Wind is also being harnessed in Egypt, Morocco and Tunisia, which hold over 97% of the continent's wind generation capacity. The 200 MW wind farm on Egypt's Gulf of Suez is in the project feasibility stage under the guidance of the AfDB. The feasibility study is expected to provide a thorough assessment for wind farm implementation, including integration of wind generated capacity into the unified Egyptian grid, and an estimation of the site-specific costs of wind energy generation. A draft of a standard power purchase agreement (PPA) for PPPs will also be produced.

Morocco's ONE wind initiative features a wind/hydro hybrid generating system and a rural electrification project that aims to increase capacity by 1,070 MW and bring electricity to Morocco's most isolated and vulnerable districts. The wind/hydro component will also support new transmission infrastructure and water storage facilities. The hybrid system can maximize production from wind, use excess wind energy to store water for the later production of hydroelectricity, and supply water for the generation of hydroelectricity during the dry season.

AfDB plans to contribute $250 million of its own resources and will channel $125 million of CTF financing to the project.

SREP financing will be channelled through the AfDB to support Kenya's geothermal project at Menengai, which aims to produce 400 MW of its 1,650 MW potential by 2018. This project is currently in the preparation phase prior to being submitted to the AfDB Board for approval.

Kenya is focused on geothermal energy production due to its cost-effectiveness (nil fuel costs and low plant-field maintenance costs) and independence from climatic fluctuations that affect other natural energy sources, particularly hydro. The environmental impact is also minor with minimum space requirements for a small light-industry building complex and only slightly cooler water re-injected into the ground. Initial estimates indicate that the first phase of steam development and support for 400 MW of power generation at Menengai could lead to 1.5 billion tons of CO2 emission savings per year and over 30 billion tons over 20 years.

Bringing Down Costs and Building Up Industry

Increased backing from CIF, the AfDB, and other early financiers is enabling some African nations to develop and execute renewable energy programs that could transform their energy sectors and influence regional change if momentum continues.

For example, demonstration and replication potential of CSTP plants in southern Africa is considerable. In South Africa alone, an estimated 30 to 38 GW of commercially viable CSTP may be available. Potential replication in Namibia and Botswana could double or triple this amount. An estimated 4 GW of economic wind potential could be developed along the east and west coasts of South Africa.
While the potential is real, so are the high capital costs of CSTP and wind technologies. Even after adjusting for fuel and operating and maintenance costs, a conventional supercritical coal-fired power plant still costs less and poses less commercial and performance risks and cost uncertainties. Concessional financing will help bring down these extra costs and establish cost and performance benchmarks for the broader deployment of the technologies by public and private providers in South Africa and throughout the South African Development Community (SADC) region.

Concessional financing is inspiring increased investor confidence and participation in Morocco where $150 million of CTF funding is expected to leverage an additional $2.24 billion in funding, representing a leveraging factor of 18. Without AfDB and CTF funding, ONE's financial capacity to launch the program would be significantly compromised and the program could be delayed or its scope reduced. ONE's financial equilibrium would be made vulnerable by the higher cost of wind generation and the associated infrastructure, compared with the average cost of energy generated by ONE using conventional sources. Promoting local industries to support clean energy generation will also inject vitality and sustainability into Africa's emerging renewables market. The challenges are two-fold: donors must ensure procurement processes allow for local demand to develop and flourish, and local suppliers must be able to provide quality equipment and highly-skilled work force.

South Africa aims to localize production of major elements of the value chain for both solar and wind technologies. By establishing itself as a regional renewables manufacture and servicing hub, South Africa strives for domestic economic benefits, as well as accelerated renewables development across the region. Egypt and Morocco are also showing their commitment to develop local manufacturing of wind equipment and services and are launching, with the help of the AfDB and other donors, additional programs to support their local industries.

Staying the Course

The high initial investments inherit to renewable energy development remain one of the main challenges to replication and penetration throughout Africa. Institutional and regulatory barriers, as well as inadequate technical knowledge and experience, also hamper progress. Nonetheless, Africa is on its way to greening its energy sector.

Leveraging and accelerating the disbursement of concessional climate financing, like CIF, is essential to achieve economic viability of renewable energy solutions, and it is a priority of the AfDB. Successful completion of AfDB and CIF-backed projects will help blaze the way for more wide-spread development of renewable energy across the continent. African nations can look to early implementers like South Africa, Kenya, Morocco and Egypt to learn from successful policy reforms, tax incentives, PPP frameworks and other systems that stimulate clean energy markets.

Africa has the opportunity to accelerate on a low-carbon, clean energy path that not only bridges its energy gap, but also attracts significant private investment in the energy sector in support of strong growth, job creation, and poverty reduction on the continent.

*MENA: Middle East and North Africa

BOX 15: South Africa leading solar and wind development

The South African energy crisis is looking up—literally. South Africa is turning to the sky, and the nation's vast solar and wind power potential, to sustainably increase and diversify energy generation and reduce GHG emissions, which nearly double the world average (224 million tons of CO2 in 2010).

South Africa's public utility, Eskom, is embarking on a capacity expansion program that includes a 100 MW concentrating solar thermal power (CSTP) plant at Upington and a 100 MW wind farm in the Western Cape, both partly financed by the AfDB and CTF, and both in the procurement phase. South Africa is hopeful these initiatives, along with IPP-friendly policy reforms, will spur greater investment in CSTP and wind technologies throughout the South Africa Development Community (SADC). An estimated 4 GW of wind potential could be developed along the east and west coasts of South Africa, while another 30 to 38 GW of commercially viable CSTP may be available. Potential replication in Namibia and Botswana could double or triple this amount.

BOX 16: Winds of change in Morocco

A heavy reliance on fossil fuels, rising energy demands, and mounting GHG emissions are pushing Morocco to invest further in one of its most abundant natural resources: the wind.

While Morocco's current installed wind energy capacity is about 280 MW, an estimated 25,000 MW could be available. Harnessing this potential has begun with a new national energy strategy to target wind, as well as other renewable energy, development (10% by 2012). Morocco's main public utility, Office National de l'Électricité (ONE), with the support of the AfDB, CTF, and other financiers, plans to install 2,000 MW each of wind, solar, and hydro power by 2020.

A unique aspect of the ONE wind project is a hybrid generating system and a rural electrification program that aims to increase capacity by 1,070 MW and bring electricity to 79,436 households in 24 of Morocco's most isolated and vulnerable districts. This program combines wind farms with water storage and pumping to help stabilize the grid so it can absorb intermittent wind power.

BOX 17: The African Development Bank

The African Development Bank (AfDB) is responding to climate change with a clear focus on Africa's most critical challenges and on expanding access to international climate change financing, like CIF, and dedicated internal mechanisms designed to meet Africa's specific needs.

Broadening Africa's energy access and diversifying energy generation through renewable energy sources are priority action areas of the AfDB and those in which it has built a comparative advantage. Over the next three years, the AfDB intends to invest more than $3.5 billion to improve Africa's energy access, with more than one-third going to renewable energy. This three-year $1 billion commitment disbursement equates to more than 30% of the current total annual global investment in Africa's energy sector.

The AfDB has been involved with CIF since their inception in 2008, and today, the Bank is poised to channel around USD 900 million in CIF financing over the next few years to Africa's energy, transport, and other sectors that advance clean energy solutions in industrial, commercial, and residential settings. As CIF investment plans turn to action, the AfDB is striving to speed project implementation and financial disbursement.

Despite this, there is still an urgent need to improve Africa's access to climate finance at the scale required for transformational impact and with a focus on the continent's particular needs. "The challenge is how do we generate the right level of urgency, which is what ordinary citizens, the billions of people who live on this earth, want," stated South Africa's Finance Minister Pravin Gordhan during the 2011 CIF Partnership Forum hosted by the AfDB in Cape Town, South Africa. "They don't want years and years of negotiations, they don't want long bureaucratic processes to decide whether $100 million is going to be lent to someone."

While 560 million people in Africa remain without access to modern energy, the time to act is now. The AfDB is urging the international community to follow its example and increase investments in Africa's renewable energy market.

ASIA AND THE PACIFIC

Harnessing the Power of Steam, Sun, Water and Other Renewable Energy Sources

By the Asian Development Bank (ADB)

Energy Needs in the Region

The Asia-Pacific region is in the midst of a prolonged period characterized by very high rates of economic growth, far outpacing the global average, and continuing population growth. These two factors pose a formidable challenge to ensuring access to adequate and clean energy supplies at affordable prices, especially for the region's national governments to meet their economies' ever-increasing energy demands. Energy has fueled Asia's growth, and energy demand in developing Asia is predicted to continue increasing at a much higher rate than the rest of the world. At the same time, there are more people in the region who have no access to electricity – 800 million - than anywhere else in the world. CIF is supporting crucial planning and investments in Indonesia, Thailand, Nepal, and Maldives to catalyze renewable energy development, while improving energy security, enhancing actions to mitigate climate change, and increasing energy access.7

CTF countries Indonesia and Thailand have experienced sustained economic expansion since recovering from the Asian crisis in the late 1990s, and have weathered the recent global turmoil with continued growth. The energy sector narrative is similar for both countries, as it is elsewhere in developing Asia, with power generation struggling to keep pace with rising energy demand.

Straddling the Pacific ring of fire, Indonesia has one of the largest geothermal reserves in the world, yet less than 4% of this potential, about 1,052 MW, has been tapped. An ideal renewable base-load source that would directly displace an equivalent need for future coal-fired power plants, geothermal energy is one of the best renewable energy options in Indonesia. As Indonesia is among the top greenhouse gas emitters in the world, geothermal energy offers a "win-win" solution that contributes to both the country's energy and climate change mitigation goals.

Energy security is a major concern for Thailand as it imports more than half of its primary energy supply. Thailand is endowed with abundant renewable energy resources, including biomass, biogas, small-scale hydropower, solar, and waste-to-energy (WTE), with estimated total potential of 57,000 MW. Less than 3% of this potential has been developed. This presents an opportunity to channel investment into renewable energy production in order to reduce reliance on imported natural gas and to stem the country's growing greenhouse gas emissions.

SREP pilot country Nepal is grappling with a unique set of low-carbon development challenges: greenhouse gas emissions are low, but only 56% of the population has access to electricity. Hydropower provides almost all (95%) of Nepal's electricity, but with only 706 MW installed capacity and seasonal variations in water flow, demand continuously outstrips supply by a wide margin. The government has made investment in renewable energy a priority and is targeting a variety of renewable sources, including small hydro, solar and biogas, to deliver electricity and modern cooking fuel.

[7] Indonesia and Thailand have approved CIF investment plans. Nepal's investment plan is expected to be endorsed in November 2011, while the Maldives is expected to submit an investment plan to the SREP Sub-Committee for approval in the first quarter of 2012.

Fueling Change through Enabling Policies

The region holds exponential growth opportunities for renewable energy production, but barriers for scaling up market penetration of renewable energy technologies remain. In recent years, decision makers have put considerable effort toward introducing supportive policy frameworks and setting renewable energy targets in order to overcome both economic and non-economic barriers that slow investments in this sector.

The Second Fast-Track Program adopted by the Government of Indonesia intends to add an additional 10,000 MW in energy generation capacity by 2014 with 60% derived from renewables, mainly geothermal. By 2025, Indonesia aims to achieve installed geothermal capacity of 9,500 MW. To support these targets, Indonesia has developed a pricing policy to favor geothermal power development and generation. The drive towards developing the country's renewable energy capacity, with particular focus on geothermal, springs from the government's strategy to reduce greenhouse gas emissions while protecting against price fluctuations of imported fuels. A Geothermal Law8 is now in place and the government is pursuing reforms to ensure transparent and competitive tendering of new geothermal concessions that address sector risks and promote domestic capacity.

Thailand is building upon its Renewable Energy Development Plan of 2008-2022, which sets a path towards increasing the country's energy mix to 20.3% share from renewables by 2022. The Electricity Generating Authority (EGAT) Power Development Plan (2010-2030), released in 2010, calls for progressive decarbonization of electricity supplies, which will require continued addition of clean energy to the generation mix, complemented by conservation and efficiency gains. With the private sector showing increased interest in solar power, the Government is planning to double the target for electricity from solar energy, from 500MW to 1000 MW installed capacity.

As a least cost solution to providing energy in a sustainable and inclusive manner, Nepal has made renewable energy deployment a priority. The government is developing and enacting policies and programs to attract interest and invite private sector participation. These policies include targeted subsidies and funding mechanisms, tax and duty concessions, and the exemption of mini-, micro- and pico-hydro projects from royalties and licensing requirements.

Nepal has goals of increasing the share of renewable energy in its total energy mix from less than 1% to 10% and increasing access to electricity from alternative energy sources from 10% to 30% within the next 20 years. Nepal's current Three Year Plan (2010-2013) targets an addition of 15 MW of mini-/micro-hydropower, 225,000 solar home systems, 90,000 domestic biogas plants, 1 MW from wind power, and 4,500 improved water mills.

Scaling-up Renewable Energy Generation through Innovative Financing

Geothermal energy is stored in rock and trapped in steam, which can be harnessed to produce electricity. Geothermal is a reliable renewable energy resource because it is generally immune from weather effects and is not seasonal. It is an abundant resource in Indonesia located in proximity to the country's largest and fastest growing power demand centers. With an economically viable potential of nearly 10 GW,

[8] The Geothermal Law of Indonesia was enacted in 2003 by the Ministry of Energy and Mineral Resources, Directorate of Geothermal Enterprise Supervision and Groundwater Management to provide upstream geothermal energy developments with a stronger legal basis, as well as to expand regional autonomy to support sustainable energy alternatives to fossil fuels.

geothermal power development can have a transformational impact since it can be expanded at a significant scale to serve the country's burgeoning energy needs.

The government of Indonesia has opted to use CTF resources to immediately scale up the development of geothermal resources that are under public control with key state-owned enterprises. CTF will co-finance 500 MW of geothermal investments in Indonesia, administered through public sector loans led by ADB and the World Bank, which are expected to have a catalytic effect on future geothermal power development and deployment. CTF co-financed investments have the potential to reduce CO_2 emissions by 3.2 million tons per year and 63 million tons over a projected 20-year plant life. These investments will also help establish benchmarks for cost and performance for improved sector policy reforms, promote learning among public and private stakeholders, and create economies of scale that, over time, could reduce the cost of geothermal development making it more competitive with conventional power.

Thailand is looking to CTF to support the development of large-scale renewable energy projects led by the private sector. Utility-scale WTE using municipal solid waste (MSW) and wind power are at the pioneer stage and face additional costs and risks which are not covered by commercial financing. Utility-scale solar projects are also at an early commercial scale. While some biomass potential is being successfully developed, there are still substantial resources that remain untapped, including MSW. CTF is expected to have strong demonstration effect in Thailand by reducing the first mover risk and accelerating replication and scale-up of private sector renewable energy projects in the near term.

Swift rivers flowing south through the Himalayas have massive hydroelectric potential to service domestic power needs and growing demand in Nepal, however, no more than 2% of the country's hydroelectric potential is currently tapped. SREP financing will prioritize investments to increase energy access through grid-connected small hydropower, as well as off-grid mini- and micro-hydropower and solar PV for lighting. SREP financing will also help Nepal to deploy up to 160,000 domestic biogas systems to provide clean cooking fuel to households dependent on firewood as their primary fuel. Biogas is a clean-burning renewable fuel derived from livestock manure. In addition to reducing GHG emissions (each biogas system saves about 2 tons CO_2 equivalent), the use of biogas brings multiple co-benefits, including improved air quality and health, and reduced drudgery for women and children who are tasked with gathering fuel. Overall, 75% of HH in rural areas and 36% of HH use in urban areas use firewood for cooking.

Shaping the Markets

The Government of Indonesia is already undertaking considerable reforms with the assistance of its development partners to address some of the barriers that have hampered the development of its vast geothermal resources. The CTF co-financed geothermal projects will complement and augment the ongoing efforts to reduce barriers that presently curtail development, so the sector can continue to expand on a sustained basis. For example, CTF-supported investments are expected to result in a better understanding of geothermal field development costs and performance benchmarks, which could contribute towards refining the pricing policy to more accurately reflect the sector requirements. This will be essential to attract the level of private investment required to develop this attractive, but capital intensive, renewable energy resource.

Thailand will use CIF co-financing for creative financial structuring of utility scale renewable energy projects. The country's investment plan intends to use CIF financing to attract enough private sector investments by reducing risks and up-front capital costs to successfully develop and deploy large-scale renewable energy-based power generation.

Nepal's CIF co-financing through SREP will supply more than 900,000 households with electricity or cleaner fuel through energy capacity addition from both on-grid and off-grid sources. To encourage domestic financial institutions in Nepal to expand debt financing for small hydropower development, SREP is expected to support a structured financing facility that will provide both a line of credit as well as risk mitigating mechanisms, including partial credit guarantees and cover for foreign exchange risk. To promote mini- and micro-energy initiatives including biogas, SREP is expected to support the establishment of a Central Renewable Energy Fund, which will aggregate funding from multiple donors and other sources and disburse this in the form of grants for subsidies and technical assistance, as well as credit financing through a revolving fund. The SREP-financed facilities are explicitly designed to leverage additional funds for renewable energy investments from other sources including public investments, funds from development partners, and commercial financing.

The Way Forward: Challenge and Change

Countries in Asia and the Pacific region need to develop enough capacity to meet growing energy needs and lift hundreds of millions of their people out of poverty. With very limited public finance available to invest in the many requirements for continued economic growth, governments will turn to available least-cost options to secure their energy supplies. Fortunately, a combination of advancements in renewable energy technologies, the introduction of favorable policy frameworks by governments in the region, and the availability of low-cost financing through CIF and other sources, has begun to improve the environment for investments in this sector.

Many governments in Asia and the Pacific have adopted ambitious renewable energy targets, and with more and more projects coming online, there is now growing confidence that renewable energy technologies are a viable option for expanding the region's energy supply, while contributing to sustainable and inclusive growth. However, much more work is required to ensure that the gridlock of policy, regulatory, cost and other barriers that prevent the large-scale diffusion of renewable energy technologies are broken down.

The Climate Investment Funds through the Clean Technology Fund (CTF) and the Program for Scaling-Up Renewable Energy in Low Income Countries (SREP) provide much-needed support to help get country-specific investment plans in renewable energy to fuel economic growth and provide access to the 800 million people in the region who live without electricity.

With investment plans now in place for most of the participating countries in the region, there is now an urgency to act quickly and mobilize plans into action in order to maintain momentum towards achieving each country's bold and necessary targets.

BOX 18: Asian countries use CIF support for policy-based transformation

he Asia-Pacific region faces the daunting challenge of balancing rapidly growing demand for energy with the imperatives of energy security, climate change, and inclusive growth. The Climate Investment Funds through the Clean Technology Fund and Program for Scaling-Up Renewable Energy in Low Income Countries, are supporting key investments with transformational potential that are linked to country-specific policy and targets for commercial-scale renewable energy technology development and deployment.

Through co-financing from CIF, Indonesia is poised to harness its mostly untapped geothermal potential. In Thailand, CIF will support private sector investment in utility-scale renewable energy generation from wind, solar, and waste-to-energy, which is expected to have a strong knock-on effect in spurring further private investment by reducing first-mover costs and risks. In Nepal, CIF will support investments that will help the country tap into its hydropower potential, as well as off-grid solutions to help bring access to nearly half of the country's population without electricity, and to displace the use of firewood as the main cooking fuel.

BOX 19: Indonesia poised to tap geothermal potential

CTF co-financing for Indonesia will be used to support large-scale geothermal power development to increase the currently installed geothermal capacity in the country by 50%. The government anticipates that these investments will help establish benchmarks for cost and performance for improved sector policy reforms, promote institutional learning, and create economies of scale that will reduce the cost of geothermal development and spur interest among the private sector in geothermal investment.

Indonesia plans to tap $400 million in CTF funds, mainly to support geothermal energy. ADB and IBRD will each administer $125 million through public sector loans. In addition, ADB's private sector operations and IFC will each administer $75 million in CTF funds to co-finance private sector geothermal loans and establish facilities with commercial banks to mitigate risks for renewable energy and energy efficiency.

The expected 500MW of geothermal investments supported by CTF can reduce CO2 emissions by 3.2 million tons per year and 63 million tons over the plant's projected life. CTF financing is expected to catalyze as much as $2.7 billion in additional funding for the associated investments.

BOX 20: Nepal transforms hydropower and off-grid initiatives

In Nepal, $40 million SREP financing will contribute to the country's achievement of its Road Map for Low-Carbon Development, which includes a framework for hydropower development to enable water resources in the long-term to meet domestic electricity needs and eventually produce enough energy for export. SREP will also support a consolidated approach to financing off-grid energy initiatives through the establishment of a Central Renewable Energy Fund that will dispense grants for subsidies and technical assistance, and debt financing through a revolving fund. Nepal intends to leverage additional funds for renewable energy investments from other sources, including public investments, funds from development partners, and commercial financing. The SREP financing plan also provides for technical assistance for training and capacity building of stakeholders, including domestic banks and the private sector.

BOX 21: The Asian Development Bank

With over two decades of solid experience supporting clean energy development, ADB is uniquely positioned to administer CIF co-financing in Asia and the Pacific to assist in filling financing gaps to increase installed renewable energy capacity, and improve energy efficiency, energy security, and access to energy in ADB's developing member countries (DMCs).

ADB's thrust towards clean energy development began in the early 1990s when it provided fundamental preparatory support to help its DMCs mitigate greenhouse gas emissions in line with its policy to support increased energy efficiency in production, transportation, and the end use of energy, in addition to integrating environmental concerns into energy planning. Then in 2005, ADB launched the Energy Efficiency Initiative to expand the clean energy program and increase investment in clean energy projects to $1 billion by 2008, a target which was met and nearly doubled that same year. ADB's most recent Energy Policy, approved in 2009, affirms the clean energy agenda by officially scaling up ADB's annual clean energy investment target to $2 billion by 2013.

From preparatory support to DMCs, to mainstreaming clean energy development in its operations, the Clean Energy Program has evolved to become the cohesive program that encompasses and guides ADB's investments, initiatives and plan of action for greener, low-carbon growth. It identifies complementarities and convergences in clean energy development and energy security; renewable energy and increasing access to energy; and between the energy and non-energy sectors. It does this by developing programs and investments that aggregate markets to achieve economies of scale; promote large-scale low carbon technology transfer and deployment; and create new market-based instruments that break down barriers to clean energy development across the region.

EUROPE AND CENTRAL ASIA

Backing Cleaner Energy: Renewables in the Transition Region

By the European Bank for Reconstruction and Development (EBRD)

Background

The 29 countries in which the EBRD operates possess vast renewable energy resources, thanks to their favourable geographic locations and climates. In the past three years the EBRD has been able to more actively support the region's efforts to sustain greener power policies with the help of the Climate Investment Funds. Already, several major investments by EBRD have significantly expanded the capacity of these countries to tap into renewable energy resources.

Renewable energy – such as wind, solar and biomass – currently makes up only a small portion of the energy supply to the transition countries. This is partly because weak institutional and regulatory frameworks hamper the further development of the sector. Most often, hydro-power is the largest source of renewable energy throughout the region, but despite the technical potential many countries fail to add wind or solar to their energy mix.

Nevertheless, governments are becoming more committed to introducing renewables in their drive to mitigate climate change and improve energy security. Renewables are an important part of the CTF investment plans in all three countries in the EBRD region, Ukraine, Kazakhstan, and Turkey, and of the PPCR in Tajikistan.

Bringing In the Private Sector

The private sector has a vital role to play in the long-term growth of renewable energy. With taking a more dynamic approach, and with a reduced legacy of fossil fuel power generation, it is more likely that private players will be willing to provide the much-needed investment to boost the use of renewable energy in the region.

The EBRD's mission, to support the private sector in helping the transition countries move towards a market economy, along with its focus on the region to implement a low-carbon economy model, is well supported by the resources of the Climate Investment Funds (CIFs).

The Sustainable Energy Initiative

Promoting the use of renewable energy in the transition region is an important component of the EBRD's Sustainable Energy Initiative (SEI), a programme that includes development of renewables as well as energy efficiency improvements to reduce waste and harmful greehouse gas emissions.

The Clean Technology Fund (CTF) is playing a major role in helping the EBRD to increase the region's capacity for renewables, from providing project finance to offering technical cooperation and leading discussions with governments to shape the regulatory frameworks that support investments.

Since its launch in 2006, SEI renewable energy financing reached nearly US$ 1 billion in 28 stand alone renewable energy projects. Stand-alone renewable projects are most likely to be viable in countries with an established renewable energy support framework, such as feed-in tariffs or green certificate schemes, which pay generators for their renewable energy production. The CIFs are now supporting the expansion of these support regimes and investments in additional countries in the region.

While the EBRD has considerable expertise in financing renewables, major barriers remain, especially outside the new EU member states. These countries are mostly not supported by the CIFs, and CIF support will be vital to enable market transformation away from fossil fuels in the Transition region.

Technical Cooperation and Policy Dialogue

As well as investing in projects, the EBRD provides important technical advice through consultants. The Bank also undertakes policy dialogue initiatives related to renewable energy. Policy dialogue – that is, discussions with governments and local authorities – can be much more effective in bringing about change than stand-alone projects.

In 2010 the EBRD developed several initiatives to strengthen the policy and regulatory frameworks that support renewable energy transactions and investments. Sustainable Energy Action Plans – which define the areas in which the EBRD and a government can work together on sustainable energy – have now been signed with authorities in Bulgaria, Kazakhstan (see the box below), Moldova, Russia, Turkey and Ukraine and these provide a road map to increased investments in renewables for each country. Technical co-operation assignments to support the investment into renewables are under way or planned in Kazakhstan, Turkey, Ukraine, and Russia.

As well as using its own funds and being an active participant in the CIFs, the EBRD works closely with other international and multilateral financial institutions to provide substantial finance for climate change mitigation in the region. CTF-funded facilities benefit from the EBRD's ability to bring together international climate finance programmes like the CTF with other instruments, such as EU funds, or the Global Environment Facility (GEF), as well as the private sector, to mobilise as much co-financing as possible.

Sustainable Energy Financing Facilities (SEFFs)

Lending to large-scale renewable energy projects is only half the story. Small and medium-sized enterprises are integral to a country's economy but they can also be very energy-intensive and so contribute to a country's carbon emissions. However, they often lack the access to financing to make much-needed energy efficiency improvements or to add renewable energy supply.

To tackle this problem, the EBRD has set up long-term credit lines to commercial banks for on-lending to industrial and small-scale renewable and energy efficiency projects. Credit lines are combined with technical assistance (for example, scoping and environmental impact assessments of renewable energy potential or training) to banks and prospective borrowers. CTF funding will support such credit lines in Turkey, Ukraine, and possibly Kazakhstan.

The EBRD uses its Sustainable Energy Financing Facilities (SEFFs) as the vehicle for this and in 2010 signed 30 transactions under the SEFF model for a total of US$ 600 million. These included four transactions for a total of US$ 200 million of loans to Turkish banks for the first phase of a CTF-supported facility, and the

establishment of the Western Balkans Sustainable Energy Direct Financing Facility, a new instrument for the EBRD, which enables it to closely combine policy dialogue and investment in small- and medium-sized renewable energy projects normally considered too small for EBRD funding.

Support Through PPCR

In Tajikistan, the only PPCR country in the EBRD region, the EBRD is leading on PPCR activities in the energy sector dominated by hydropower. Tajikistan has considerable hydropower potential, which is estimated at around 40,000 MW, with an energy potential of 527 billion kWh per year.

It presently generates 98 per cent of its electricity through hydropower. However, only a fraction of this potential is currently being realized, and the hydropower sector is extremely sensitive to climate change. As Tajikistan's hydropower sources are located in the country's river basins fed by glacial melt-water and snowmelt, the sector is highly dependent on hydrology and is greatly exposed to climate change risks.

The PPCR ensures that climate resilience is considered in the design and implementation of urgently needed investments in Tajikistan's hydropower facilities over the coming years. Under Phase I of the PPCR, the EBRD is working with the Tajik authorities to conduct an analysis of the climate vulnerability of Tajikistan's hydropower sector, supported by a US$ 300,000 grant from the PPCR. This will provide recommendations on how climate resilience can be built into the management and investment planning of the hydropower sector.

Under Phase II, the EBRD intends to use this analysis to inform the rehabilitation of Kairakkum hydropower plant as a pilot project that will demonstrate how to build climate resilience measures into the reconstruction and management of hydropower facilities. This will help to safeguard Tajikistan's energy sector in the face of climate change. A grant of US$ 10 million from the PPCR has been earmarked for the climate resilience component of this project.

Through this innovative pilot work, the EBRD aims to generate transferable lessons and methodologies that can be applied in other climate-vulnerable countries in the Bank's wider region.

Box 22: From policy to investments: Supporting progress on renewables in Kazakhstan

Kazakhstan has set itself an ambitious goal: to supply its grid with 10 billion kWh of renewable electricity a year by 2024, from an installed capacity of 3,000 MW of renewable energy sources. This is equal to a large coal-fired power plant. To achieve this target, the Kazakh government is drawing on the support and expertise of the EBRD. Since 2008, when the EBRD President signed a Sustainable Energy Action Plan with Kazakhstan's President, the Bank has been providing direct technical support on new legislation to support the implementation of renewable energy projects.

As part of the Kazakh government reorganization in 2010, the responsibilities for developing renewable energy sources in Kazakhstan were transferred from the Ministry of Energy and Mineral Resources to a new Ministry of Industry and New Technologies (MINT). The EBRD is providing technical assistance to help MINT further develop existing and planned primary and secondary legislation. It is also helping assessing how best to introduce a market-based approach to developing renewable energy and supporting energy efficiency to create an environment that will attract external investment into the sectors.

The EBRD is also assisting the government in implementing the CTF Investment Plan in Kazakhstan, and in developing modern waste legislation that will include provisions for safe recovery of energy from waste. Once the new and revised renewable energy legislation and regulations come into effect, the EBRD will move towards establishing the facilities needed to bring private sector investment into this emerging sector.

BOX 23: The European Bank for Reconstruction and Development

CTF Projects

Investment Projects Approved ***$99 million (CTF) $550 million (CTF+EBRD))***

Turkey Sustainable Energy Finance Facility US$ 50 million US$ 235 million
Purpose: The facility (TURSEFF) is a credit line to five private Turkish banks, with a cofinancing ratio of 1:4 between the CTF and EBRD, and total ratio expected of 1:6, once project sponsor funds are considered. While primarily aimed at energy efficiency, it can also support renewable energy projects. The facility is also supported by the European Commission's Instrument of Pre-Accession for Turkey, with $7 million technical assistance.

Ukraine Sustainable Energy Lending Facility $27 million $140 million
This facility (USELF) is a direct lending facility with the aim to create a market for small and medium sized renewable energy projects (primarily hydropower, wind, and biomass) in Ukraine, enabled by the recent Ukrainian renewable energy law. The facility can provide project developers with a range of financial and technical support measures, to help them overcome the major barriers in establishing projects in a market that does not exist at present. Technical assistance is provided by the Global Environmental Facility, with up to US$ 8.45 million in support for legislative, regulatory, and project preparation activities.

Kazakhstan Waste Management Framework $22 million $100million
This facility (KWMF) aims to support municipalities with at least 100,000 inhabitants in establishing modern waste collection and recycling systems, waste-to-energy facilities, and to improve the management of landfill sites, thereby significantly reducing CO2 emissions.

Kazakhstan Railways Renewables in Buildings $15 million $75 million
This facility will support the development of building-integrated renewable energy installations in the property portfolio of Kazakh Railways. The technologies foreseen are heatpumps and solar thermal generators. By creating demand pull from a single large buyer, the facility is expected to encourage market entry and expansion by technology suppliers, bring down unit cost, and establish the technologies in the market. Renewable heat is a form of energy supply that has good potential in the EBRD region.

ii) Technical Assistance Projects Approved ***$1 million*** ***$1 million***

Kazakhstan Renewable Project Preparation $1 million $1 million
This technical assistance project will provide continuing advice to the Kazakh authorities on the implementation and future development of renewable energy legislation and regulations. It will also finance the establishment of an initial pipeline for the planned Kazakhstan Renewable Energy Fund (see below).

Investment Projects Under Preparation ***$42 million*** ***$200 million***

Ukraine Renewables Phase II $22 million $100 million
This will either take the form of a replenishment of USELF, or a stand-alone investment in one or two larger renewables projects.

Kazakhstan Renewable Energy Fund $20 million $100 million
This will be similar to the USELF concept, but amended to reflect experiences made in Ukraine with USELF. The launch of the facility is set for 2012, subject to the revision of the renewable energy law in Kazakhstan.

LATIN AMERICA & THE CARIBBEAN
Powering Up With Renewables

By the Inter-American Development Bank (IADB)

The Region's Unique Context

The impact of energy related greenhouse gases (GHG) emissions in the Latin America and Caribbean Region (LAC) is quite modest, accounting to 26% compared to global levels (59%)[9]. This is mainly due to the high reliance of the region's power sector on hydropower, which accounts for 62% of the installed capacity and 70% of the actual power generation.

However, historic trends and forecasts indicate that LAC's energy consumption and GHG emissions are on the rise, with electricity demand growing at a rate of 4.8% annually over the next 10 years, and with large energy infrastructure investments programmed in the upcoming decades[10].

In addition, climate change impacts, such as glacier melt and higher rainfall variability, create new risks and higher costs for the operation of hydropower plants, driving energy planners to rely more on fossil fuel technologies to cover future energy demands.

The region has a small but quickly growing capacity for producing RE and has made important progress in several technologies. Latin America (excluding Brazil) saw the biggest absolute increase in renewable energy investment among all the regions of the developing world in 2010, and Mexico and Brazil were among the top 15 countries for new RE asset finance. Wind capacity rose in the region 54% during 2010, with Brazil and Mexico each adding about 0.3 GW. LAC is the leading global region for hydro power additions after China, with Brazil at the forefront of additionsi.

A number of Latin American countries have set targets and policies in place to support renewables. Some, such as Chile and Argentina, have set nation-wide renewable energy targets, while others (e.g. Brazil) have set GHG voluntary targets with renewable energy as part of policies to achieve these.

Some examples of the increased investment and development of regulatory framework in the region to promote renewable energy include the below.

Mexico is the seventh largest oil producer in the world, but is facing declines in production and related federal revenue. An increase in imported gas offsets these declines but will only increase dependency on imported fuels and continue to create GHG emissions. In response to these issues Mexico has been building a new RE policy framework. The government is implementing strong policies following its 2009 announcement that it was increasing its renewables target from 3.3% to 7.6 % by 2012. The country in 2010 achieved the largest gain within Latin America in RE development (at 348%). This growth was a result of the successful financing of large wind projects and one geothermal project. RE is growing on

[9] Augusto de la Torre, Pablo Fajnzylber, John Nash (2009) Low carbon, high growth: Latin American responses to climate change: an overview. World Bank Latin American and Caribbean studies

[10] Between 1970 and 2007 energy consumption rates in LAC rose at higher rates that the world average (3.15% versus 2.11%). ECLAC (2009b) estimates that LAC will have, on average, a 2.3% annual increase in per capita CO2 emissions under a business-as-usual scenario. It is estimated that between 2008 and 2030, LAC's energy needs will expand 75%, requiring as much as US$1.5 trillion in investment in energy supply infrastructure (IEA, 2009).

several fronts: Mexico has the third most geothermal power installed in the world at 1GW, and it has experienced strong growth in wind under the new self-supply framework, and significant growth in biomass. Mexico also has a pilot CSP plant with plans announced for more investment.

Brazil is also an oil producer that is seeking to reduce its emissions; and also a leader in renewables. The country received the fifth-most investment globally in RE in 2010 and has been adding new hydropower, biomass, and wind power plants, as well as solar heating systems. With enormous swaths of arable land, Brazil is the clear LAC leader in biomass and biofuel energy production. It produces virtually all of the world's sugar-derived ethanol, which accounts for 42% of light duty transport fuel domestically, though it was recently overtaken by US' corn-based production as the number one ethanol producer. As a country it added the second most biodiesel and ethanol production in 2010. It has the most biomass power generation capacity in the world, mostly bagasse-fired CHP, and when including hydro, Brazil has the third most renewable energy capacity in the world. Deriving 80% of its power from hydro resources, Brazil brought 5GW into operation in 2010. Brazilian firms are also emerging as major manufacturers of solar hot water systems, and the country has strong leading programs in that sector, with the 7th most capacity additions in the world. Brazil has also been making strides in wind due to programs like PROINFA. It held a recent successful wind power auction and doubled wind investment in 2010.

Colombia is also an important ethanol producer globally (#15) and has a strong biomass CHP sector due to its large sugarcane industry. Along with Brazil, it has biofuel blending mandates but a fairly weak regulatory framework for RE. With no domestic hydrocarbon production,

Honduras has a high dependency on imported fuels, and consumes the most fossil fuels for electricity generation in Central America. Fully 42% of final consumption is met by firewood. The country has committed to a shift toward renewable energies, and has a good federal policy commitment to RE including FITs, power auctions, and a major cookstove programs. Peru's RE investments doubled last year to $480M. It has a solar-residential program and biofuels blending mandates.

Policies Driving Energy Transformation

Mexico and Honduras are the Latin American countries that benefit or will benefit from the CIF's support in the renewable energy sector, under CTF and SREP Investment Plans, respectively. Even though their circumstances are very different, both countries understand that renewable energy delivers important development benefits, and in addition enable them to contribute to the global fight against climate change. Both countries have therefore developed favorable policy or regulatory frameworks: Mexico has regulations for self-supply projects, and Honduras has both a feed-in-tariff system and a tender system, as well as a national guarantee that backs the payments by the public utility. Renewable energy projects that arise from these policies and regulations are already in operation in both countries. Yet this development has been timid, if measured against the potential and the scale of the challenge, due in particular to financial barriers. In both countries the CIFs are supporting or will support the creation of appropriate financial instruments to scale-up this process.

Technologies at the Forefront

CTF and SREP funds were key to promote technology piloting and dissemination.
Favorable wind conditions for wind technology deployment have been identified in the Tehuantepec region of southern Mexico, where CTF resources have been allocated to two large wind power projects. Both projects have been very successful using and developing different wind turbine technologies, with

high wind energy productivity. Reinforcements in geological survey and foundations studies, further technology development for high wind regimes, and more accurate monitoring of adjusted operational procedures for wind energy dispatch, are among the most challenging technology adjustments to cope with the geographical conditions on site for a future scale-up effect.

Hydropower is the oldest technology available in the region, and still today the largest renewable primary energy source in LAC. With countries like Brazil, Colombia, Ecuador and Peru with a hydro-predominant power system on the forefront of technology application, small countries are acknowledging the relevant contribution to their energy matrixes of hydroelectric technology lately. Run-of-river small hydropower systems have been growing within the existing power systems, particularly in small and/or isolated systems. In this context, there are several technology developments to adjust to the application conditions on site, special attention has been focused in innovative materials, penstock design, hydraulic models and energy control systems. These improvements have been implemented in all new projects lately. State-of-the-art of hydro technology and best practices in the sector will be strategic in the context of the Honduras SREP, since it is foreseen that small hydropower will be one of the priority technologies to be deployed in the near future.

Shaping the Markets

The financing problem for the renewable energy sector as a whole relates to the way the resource is priced in the market compared with energy generated by conventional fossil fuels. Changing investment patterns make it important to think about markets for renewable energy and require increased decision-making and participation from a wider variety of stakeholders— not just traditional donor agencies and governments, but also manufacturers, entrepreneurs, individual households, local technicians, NGOs, community groups, utility companies, and local development and commercial banks.

The blending of IDB finance to private sector and support of CIF funds in Mexico, Colombia and Honduras has allowed for broader participation of private sector stakeholders in the renewable energy market. In particular, these programmes are supporting commercial banks to develop specific financial lines for renewable energy and energy efficiency improvements; strengthening capacity of local stakeholders such as ESCOS to promote energy auditing, certification and access by SMEs to finance from commercial banks; and enhancing awareness and capacity for participation of venture capital investments in renewable energy.

Asset finance in new utility-scale new renewable energy projects has increased in LAC in 2011. State-owned development banks have been pillars of investment in renewable energy during recent years. Just as an example, in Latin America Brazil's national development bank (BNDES) was one of the global leading investor with a $3.1 billion contribution. Development Banks also play a key role in promoting innovative financial instruments and, through their financial intermediaries, allow a higher capillarity of climate related investment. IDB and CTF funds allowed supporting national development banks in Colombia and Mexico (Bancoldex and Nafin) to enhance their internal capacity to structure innovative financial instruments and lines to promote renewable energy and energy efficiency programmes and to capacitate their own staff and clients.

The Way Forward: Challenge and Change

Summary of the path ahead

Primary limiting factors affecting LAC's current and future ability to promote the use of RE in LAC are lack of institutional capacities, insufficient governance structures, and inadequate regulatory frameworks to facilitate a cleaner energy matrix.

The region's traditional, short-term-focused energy framework, which is based on a least-cost energy-planning model, must be aligned with a longer-term, cleaner, sustainable energy-planning model. This entails a greater effort regionally and in each nation, supported by capacity-building programs, technology transfers, and financing, taking into account the diverse country conditions, legal frameworks, and cost structures underlying the viability of RE.

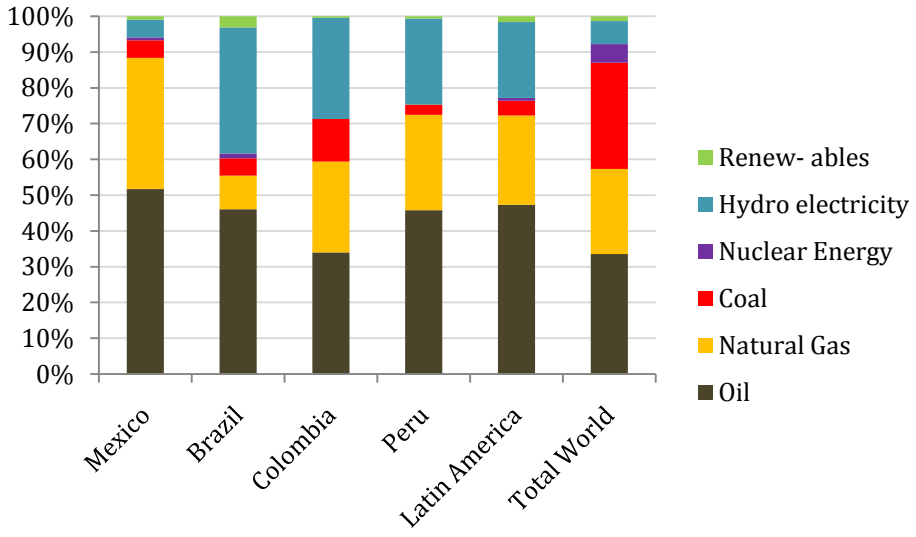
Lending and technical assistance in the areas of energy efficiency and renewable energy needs to be developed, addressing at the same time the financial challenges (high up-front cost technology) and technical and institutional barriers (particularly regulatory issues).

At the same time innovative financial instruments for the adoption of sustainable energy solutions need to be developed, such as "green" financial products for financial intermediaries (sustainable lines). There is also the need to support regional integration of energy markets to cover current deficits and improve the long-term energy supply.

CIFs funds are helping the region to shift from a short-term approach to a medium-long term programmatic approach. The programs developed through the Clean Technology Fund (CTF) in Colombia and Mexico as well as the Investment plan of the Scaling up renewable Energy Program (SREP) in Honduras are clear examples in this regard.

CHART

Total Primary Energy Consumption by Fuel Type and Percentage – 2010
Source of Data: BP Statistical Review of World Energy, Download September 27, 2011. Chart by IDB.



Box 24: The wind industry in Mexico

Mexico is implementing a new renewable energy framework, and has a strong RE power generation target at 7.6% by 2012 including wind power at 4.3%. The CTF RE Program provided important catalytic support for the development of the wind industry. It targeted technical and financial learning in the sector and a strong demonstration effect, and had important components in environmental and social risk. Several successful wind investments supported by the program addressed risk and cost barriers and piloted Mexico's new self-supply framework. In 2010 the CTF was used to in order to support the 251 MW Eurus project. IDB utilized $30M of CTF funds in the form of a concessional loan, leveraging a total project financing of $600M from MDBs and private investors. To date this is still the largest wind project in Latin America. The 67.5MW wind project called La Ventosa (see page 34) was also financed with $15M in CTF funds through the IFC. Since the financing of these first projects, about twenty more wind projects under the self-supply framework have been financed or begun construction, and they are demonstrating decreased dependence on public sector financing.

Box 25: Improving access to finance for MSMEs in Colombia

The IDB approved a $650 million conditional credit line for second tier bank Bancoldex to finance investment, productive transformation and export development projects in MSMEs. The purpose of the line is to support government efforts to strengthen the competitiveness of the productive sector by providing medium and long-term financing for projects geared towards improving productivity and competitiveness, technological innovation, expansion of international markets, and reduction of environmental and social impacts. Apart from traditional loan programs to MSMEs through intermediary financial institutions, the credit line allows for risk sharing programs with IFIs for project finance, as well as alternative funding options in which the sub-borrower can choose to obtain funding either in the form of loans or partial credit guarantees for the credit enhancement of a bond issue in the local capital market. In addition to finance, the IDB is providing technical assistance to Bancoldex in order to identify underserved market niches with a potential for emissions reductions, including RE projects which could fall within the purview of the CTF.

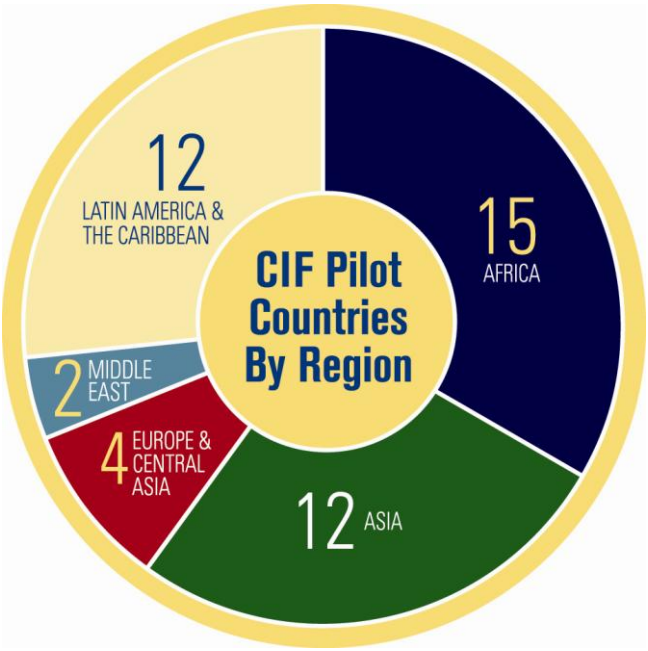
Box 24: The Inter-American Development Bank

Since 2000 the IDB has financed more than US$2.1 billion in renewable energy projects in LAC, including hydropower, wind power, and geothermal, in addition to improved energy efficiency in power transmission. Financing has been extended to both the public and private sectors. Since 2005, the Inter-American Investment Corporation, an IDB Group member, has financed more than 10 renewable energy projects, including hydro, biofuels, and landfill methane. The Bank's Multilateral Investment Fund has provided funding for renewable energy and invested in four clean-energy venture capital funds.

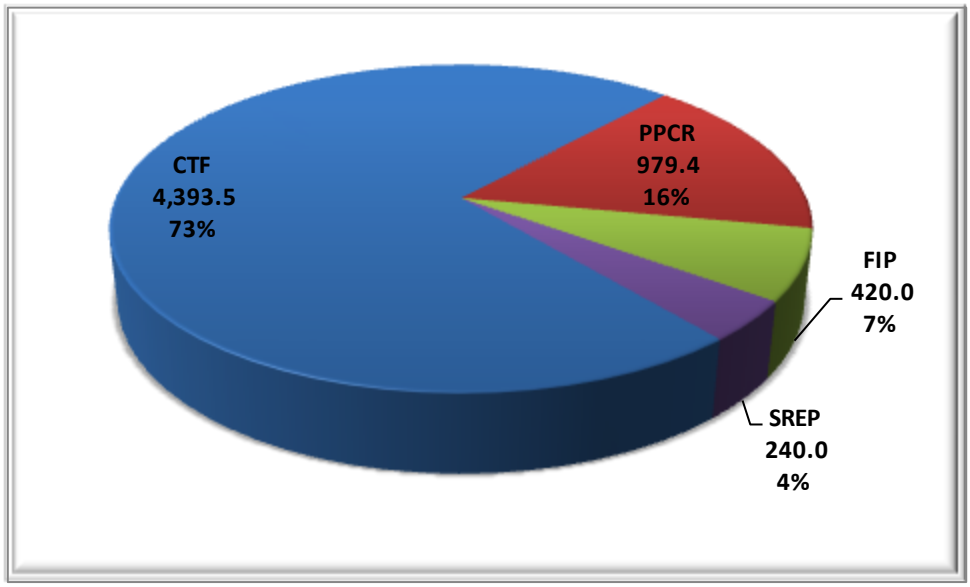
These numbers are expected to increase. In fact, the Inter-American Development Bank (IDB) Board of Governors approved the Bank's Ninth General Capital Increase (GCI 9) at its 2010 Annual Meeting, and established that the Bank will promote sustainable growth in LAC. Within this milestone there is a clear mandate to IDB operations to improve its technical capacity to assist the region in its transition to a green economy, including the development of suitable institutional and regulatory frameworks to allow investments in areas such as sustainable transport, renewable energy and energy efficiency, as well as to build up resilience to reduce vulnerability to climate change impacts. This capital increase established an annual target of 25% of lending by 2015 for climate change, renewable energy and environmental sustainability.

Furthermore, the IDB launched its Sustainable Energy and Climate Change Initiative (SECCI) in 20071 with a goal to provide comprehensive sustainability options in areas related to the energy, water and environmental sectors, in addition to building climate resilience in key priority sectors, which are vulnerable to the impacts of climate change.

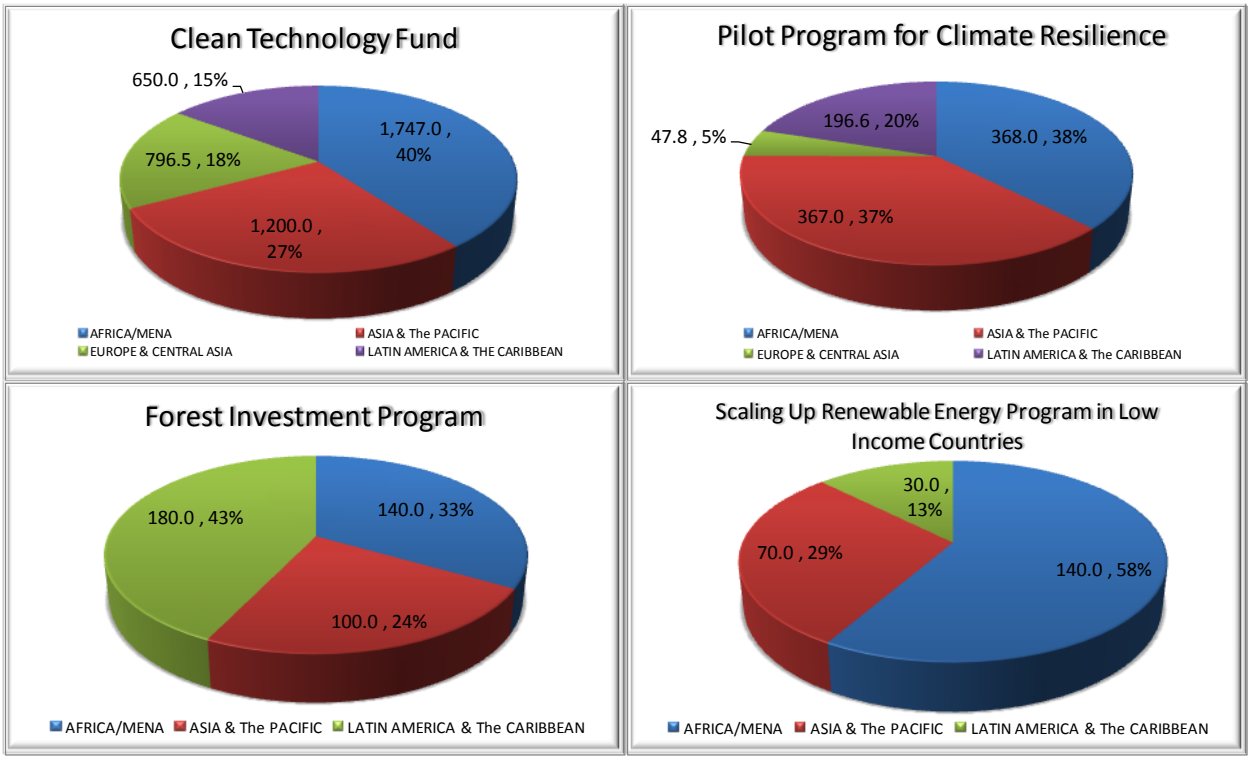
The CIF in Numbers



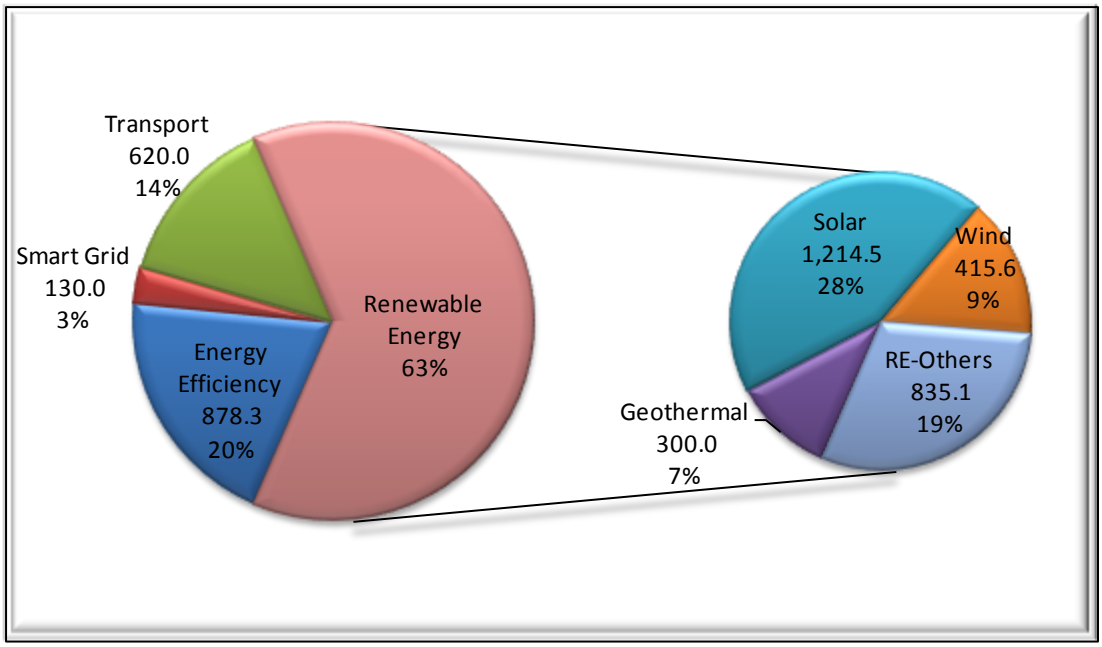
CIF Funding By Program, in $ million



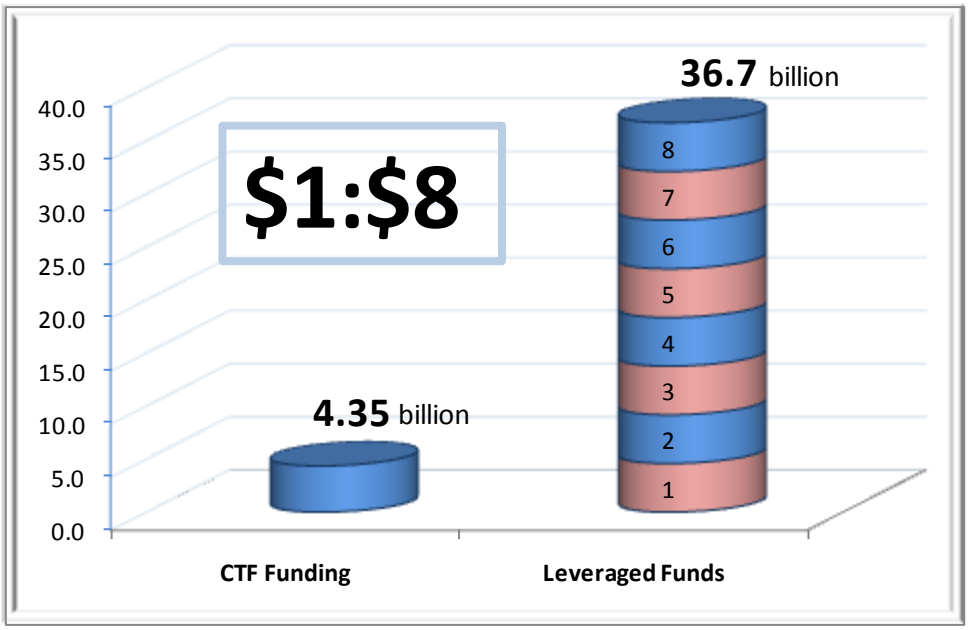
Funding Distribution by Region, in $ million



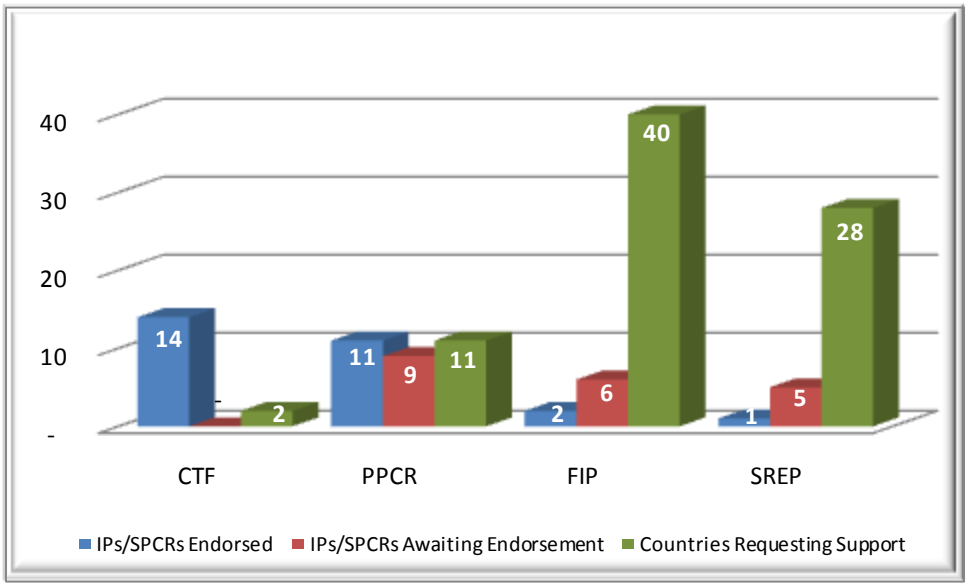
CTF Funding By Technology, in $ million



CIF Leverage Ratio



Growing Interest in the CIFs



ANNEXES: FINANCIAL STATEMENTS

Climate Investment Funds – Contributions as of June 30, 2011 (in US$ million)

I. CTF Status of Contributions

CLEAN TECHNOLOGY FUND
Table 1: Contributions
as of June 30, 2011
(in millions)

Contributor	Contribution Type	Currency	Contribution Amounts Pledged	Committed	Total	Historical Value in USD eq. a/	Current Value in USD eq. b/	FX changes	Receipts in USD eq. b/
Australia	Grant	AUD	-	100	100	84	86	2	86
France	Loan	EUR	-	203	203	300	294	(6)	294
Germany c/	Loan	EUR	-	500	500	739	615	(124)	615
Japan d/	Grant	USD	-	1,000	1,000	1,000	1,131	131	382
Spain	Capital	EUR	-	80	80	118	113	(5)	70
Sweden	Grant	SEK	-	600	600	92	81	(12)	65
United Kingdom e/	Capital	GBP	-	385	385	716	614	(102)	614
United States f/	Grant	USD	1,065	427	1,492	1,492	1,492	-	427
						4,543	**4,426**	**(117)**	**2,554**

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 June 30, 2011.
c/ The EUR 500 million pledge was committed in USD in the amount of USD eq. 615 million.
d/ The USD 1 billion pledge was committed in JPY in the amount of JPY eq 93 billion.
e/ Amount pledged under the Strategic Climate Fund and allocated to the Clean Technology Fund.
f/ The total pledge made by the United States to the CIFs is USD 2 billion; the allocation across the programs is indicative and based on an extrapolation of current allocations by the United States.

II. SCF Status of Contributions

STRATEGIC CLIMATE FUND
Table 1: Contributions
as of June 30, 2011
(in millions)

Contributor	Contribution Type	Currency	Contribution Amounts Pledged	Committed	Total	Historical Value in USD eq. a/	Current Value in USD eq. b/	FX changes	Receipts in USD eq. b/
Australia	Grant	AUD	10	76	86	72	79	7	69
Canada	Grant	CAD	-	100	100	97	84	(13)	84
Denmark	Grant	DKK	-	191	191	38	36	(2)	36
Germany	Grant	EUR	-	50	50	74	70	(4)	20
Japan c/	Grant	USD	-	200	200	200	230 c/	30	58
Korea	Grant	KRW	-	3,690	3,690	3	3	(0)	3
Netherlands	Grant	USD	-	76	76	76	76	-	76
Norway	Grant	NOK	720	506	1,226	221	221	0	69
Spain	Grant/Capital	EUR	-	23	23	34	30	(4)	30
Switzerland	Grant	USD	-	20	20	20	20	-	20
United Kingdom d/	Capital	GBP	-	375	375	698	597	(101)	597
United States e/	Grant	USD	401	107	508	508	508	-	107 f/
						2,041	**1,956**	**(85)**	**1,168** f/

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 June 30, 2011.
c/ The USD 200 million pledge was committed in JPY in the amount of JPY 19 billion.
d/ The total contribution made by the United Kingdom through the SCF is GBP 825 million, which includes allocation of GBP 385 million to CTF, GBP 3.5 million to Readiness Fund of the Forest Carbon Partnership Facility (FCPF), GBP 11.5 million to Carbon Fund of the FCPF and GBP 50 million to the Congo Basin Fund.
e/ The total pledge made by the United States to the CIFs is USD 2 billion; the allocation across the programs is indicative and based on an extrapolation of current allocations by the United States.
f/ Includes USD 31.8 million not yet allocated to a specific program as of June 30, 2011.

STRATEGIC CLIMATE FUND
Table 2: PPCR - Contributions
as of June 30, 2011
(in millions)

Contributor	Contribution Type	Currency	Contribution Amounts Pledged	Committed	Total	Historical Value in USD eq. a/	Current Value in USD eq. b/	FX changes	Receipts in USD eq. b/
Australia	Grant	AUD	-	40	40	34	33	(0)	33
Canada	Grant	CAD	-	100	100	97	84	(13)	84
Denmark	Grant	DKK	-	76	76	15	14	(1)	14
Germany	Grant	EUR	-	50	50	74	70	(4)	20
Japan c/	Grant	USD	-	100	100	100	115 c/	15	58
Norway	Grant	NOK	-	71	71	13	12	(1)	12
Spain	Capital	EUR	-	10	10	15	13	(2)	13
United Kingdom	Capital	GBP	-	225	225	419	358	(61)	358
United States d/	Grant	USD	235	55	290	290	290	-	55
						1,056	**990**	**(65)**	**647**

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 June 30, 2011.
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 CIFs is USD 2 billion; the allocation across the programs is indicative and based on an extrapolation of current allocations by the United States.

STRATEGIC CLIMATE FUND
Table 3: FIP - Contributions
as of June 30, 2011
(in millions)

Contributor	Contribution Type	Currency	Contribution Amounts Pledged	Committed	Total	Historical Value in USD eq. a/	Current Value in USD eq. b/	FX changes	Receipts in USD eq. b/
Australia	Grant	AUD	-	36	36	30	35	5	35
Denmark	Grant	DKK	-	54	54	11	10	(0)	10
Japan c/	Grant	USD	-	60	60	60	69 c/	9	-
Norway d/	Grant	NOK	570	285	855	154	154	(0)	48
Spain	Capital	EUR	-	10	10	15	13	(2)	13
United Kingdom	Capital	GBP	-	100	100	186	159	(27)	159
United States e/	Grant	USD	148	20	168	168	168	-	20
						624	**609**	**(15)**	**286**

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 June 30, 2011.
c/ The USD 60 million pledge was committed in JPY in the amount of JPY 5.6 billion.
d/ NOK 285 million was received in 2010, with a higher level of funding to be released over the following two years contingent upon (i) the significant participation of other donors; (ii) operational progress of the program; and (iii) outcome of UNFCCC deliberations on financing for REDD.
e/ The total pledge made by the United States to the CIFs is USD 2 billion; the allocation across the programs is indicative and based on an extrapolation of current allocations by the United States.

STRATEGIC CLIMATE FUND
Table 4: SREP - Contributions
as of June 30, 2011
(in millions)

Contributor	Contribution Type	Currency	Contribution Amounts Pledged	Committed	Total	Historical Value in USD eq. a/	Current Value in USD eq. b/	FX changes	Receipts in USD eq. b/
Australia	Grant	AUD	10	-	10	8	11	2	-
Denmark	Grant	DKK	-	61	61	12	12	(1)	12
Japan c/	Grant	USD	-	40	40	40	46 c/	6	-
Korea	Grant	KRW	-	3,690	3,690	3	3	(0)	3
Netherlands	Grant	USD	-	76	76	76	76	-	76
Norway	Grant	NOK	150	150	300	54	55	1	9
Spain	Grant	EUR	-	3	3	4	4	(1)	4
Switzerland	Grant	USD	-	20	20	20	20	-	20
United Kingdom	Capital	GBP	-	50	50	93	80	(13)	80
United States d/	Grant	USD	50	-	50	50	50	-	-
						361	**356**	**(5)**	**204**

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 June 30, 2011.
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 CIFs is USD 2 billion; the allocation across the programs is indicative and based on an extrapolation of current allocations by the United States.

III. CIF Program Funding Commitments and Disbursements as of June 30, 2011

Program	Contribution Type	Current Value of Donor Pledges in USD eq. a/	Receipts (Donor Contributions) b/	Commitment (TFC-Approved Funding for Project Activities)	Trustee Transfer to MDBs c/	Disbursements (as of June 2011) c/
CTF	Grant/Loan/Capital	4,426	2,554	1,700	271	172
PPCR	Grant/Capital	990	646	53	13	2
FIP	Grant/Capital	609	286	1	-	-
SREP	Grant/Capital	356	204	1	-	-
TOTAL		**6,382**	**3,690**	**1,755**	**284**	**174**

a/ Represents realized amounts plus unrealized amounts valued on the basis of exchange rates as of June 30, 2011.

b/ represents realized amounts valued on the basis of exchange rates as of June 30, 2011.

c/ Based on Trustee's Disbursement Report as of June 30, 2011.

- The donors have ***pledged*** [11] $6.5 billion.
- The CIF Trustee has ***received*** [12] close to $3.7 billion from donors.
- The CIF Trust Fund Committee has ***allocated*** [13] $5.1 billion to country Investment Plans and Strategic Programs for Climate Resilience that they have endorsed.
- The CIF Trust Fund Committee has ***committed*** [14] a total of approximately $1.8 billion for approved Projects and Preparation Grants.
- The Trustee has ***transferred*** [15] $284 million to MDBs for Projects and Preparation Grants approved by the Trust Fund Committee.
- As of June 30, 2011, the MDBs have **disbursed** [16] $174 million for CTF Projects ($172 million) and PPCR grants ($1.7 million) that have been approved by their Boards of Directors.

From Pledge to Disbursement: the Evolving CIF Operational Cycle

During 2011, the three year old CIF became fully operational, with projects underway in several of the CIF programs, marking a rapid move from design to implementation. With the door to implementation open, pilot countries can present projects for CIF approval. Every CIF project is approved in a two-step process: by the CIF governing body, and then by the implementing MDB governing body. Once the MDB governing body has approved a project, the pilot country can begin operations, and funds for the project's operations are then disbursed to the pilot country by the MDB in tranches at the country's request over the life of the project as needed.

The current status of disbursements reflects the evolving operational work of the CIF. Over the coming years, the disbursement rate is expected to increase rapidly, as already approved projects move forward with their operations and as more projects move into approved status and begin their operations.

[11] Represents CIF pledges valued on the basis of exchange rates of September 25, 2008, the CIF official pledging date.
[12] Amount received by Trustee from donors for CIF specific programs
[13] Amount set aside for countries to develop programs and projects
[14] Amount approved by CIF Governing Council to fund country programs developed by the MDBs.
[15] Amount transferred by Trustee to MDBs for country project development and preparation
[16] Amount paid out by MDBs to countries for project development and preparation

CIF ENDORSED INVESTMENT PLANS AND APPROVED PROJECTS

CLEAN TECHNOLOGY FUND ENDORSED INVESTMENT PLANS(IPs) AND APPROVED PROJECTS						
PROJECT TITLE	**MDB**	**IP ENDORSEMENT**	**TFC APPROVAL**	**MDB BOARD APPROVAL**	**CTF FUNDING ($ M)**	**LEVERAGED FUNDING ($ M)**
COLOMBIA - IP: $150 million		Mar-10				
Sustainable Transport System(SETP)	IDB		Aug-11	Sep-11	20.0	300.0
Sustainable Energy Finance Program	IDB		Dec-10	Dec-11	6.1	99.3
Sustainable Energy Finance Program	IFC		Dec-10	Sep-11	11.4	185.7
EGYPT - IP: $300 million		Jan-09				
Wind Power Development Project(Transmission)	IBRD		May-10	Jun-10	150.0	646.0
INDONESIA - IP: $400 million		Mar-10				
Indonesia Geothermal	IBRD		Dec-10	Jul-11	125.0	449.7
KAZAKHSTAN - IP: $200 million		Mar-10				
District Heating Modernization Framework	EBRD		Jan-11	Mar-11	42.0	168.0
Waste Management Framework	EBRD		Jun-11	Jan-12	22.5	90.0
MENA-CSP - IP: $750 million		Dec-09				
Ouarzazate CSP	AFDB		Jun-11	Dec-11	100.0	474.0
Ouarzazate CSP	IBRD		Jun-11	Oct-11	97.0	460.0
MEXICO - IP: $500 million		Jan-09				
Public-Private Sector Proposal Renewable Energy CTF Program	IDB		Nov-09	Jun-10	53.4	961.2
Private Sector Wind Development	IFC		May-09	Jan-10	15.6	120.0
Urban Transport Transformation Project	IBRD		Oct-09	Mar-10	200.0	2,025.0
Efficient Lighting and Appliance Project	IBRD		Sep-10	Nov-10	50.0	663.4
Private Sector Energy Efficiency	IDB		May-11	Nov-11	24.4	88.0
MOROCCO - IP: $150 million						
NIGERIA - IP: $250 million*						
PHILIPPINES - IP: $250 million		Dec-09				
Sustainable Energy -RE Accelerator Program (REAP)	IFC		Sep-10	Mar-12	20.0	330.0
Sustainable Energy Program	IFC		Feb-11	Nov-11	10.0	209.0
SOUTH AFRICA - IP: $500 million		Oct-09				
EE Program	IFC		Oct-10	Jun-11	7.5	40.0
ESKOM Renewable Support Project-Wind	AfDB		Nov-10	May-11	50.0	125.6
ESKOM Renewable Support Project-CSP	AfDB		Nov-10	May-11	50.0	125.6
EE Program	AfDB		Oct-10	Dec-11	7.5	40.0
Sustainable Energy Acceleration Program	AfDB		Oct-10	Dec-11	42.5	305.0
Sustainable Energy Acceleration Program	IFC		Oct-10	Apr-12	42.5	305.0
ESKOM Renewable Support Project-Wind	IBRD		Nov-10	Oct-11	50.0	125.6
ESKOM Renewable Support Project-CSP	IBRD		Nov-10	Oct-11	200.0	502.2
THAILAND - IP: $300 million		Dec-09				
Renewable Energy Accelerator Program(TSEFF)	IFC		Jun-10	Dec-11	40.0	260.0
Sustainable Energy Finance Program(T-SEF)	IFC		Oct-10	Sep-11	30.0	120.0
TURKEY - IP: $250 million		Jan-09				
Turkish Sustainable Energy Financing Facility(TurSEFF)	EBRD		Jan-10	May-10	43.3	303.1
Turkish Sustainable Energy Financing Facility(TurSEFF)	EBRD		Aug-10	Jul-11	6.8	47.9
Commercialized Sustainable Energy Finance Program (CSEF)	IFC		Sep-09	Apr-10	21.7	140.0
Private Sector RE and EE Project	IBRD		May-09	May-09	100.0	1,050.0
UKRAINE - IP: $350 million		Mar-10				
Ukraine Sustainable Energy Finance Program	EBRD		Oct-10	Nov-10	27.6	140.0
VIETNAM - IP: $250 million		Dec-09				
EE - Sustainable Energy Finance Program	IFC		Sep-10	Oct-10	30.0	155.0
TOTAL					**1,696.6**	**11,054.3**

*Nigeria IP was conditionally approved by the TFC in Nov. 2010. Project funding is subject to resource availability.

PILOT PROGRAM FOR CLIMATE RESILIENCE ENDORSED STRATEGIC PROGRAM FOR CLIMATE RESILIENCE(SPCRs) AND APPROVED PROJECTS					
PROJECT TITLE	**MDB**	**SPCR ENDORSEMENT**	**SC APPROVAL**	**MDB BOARD APPROVAL**	**PPCR FUNDING ($ M)**
BANGLADESH - SPCR: $110 million		Nov-10			
Climate Change Capacity Building and Knowledge Management	ADB		Jun-11	Aug-11	0.5
CAMBODIA - SPCR: $86 million		Jun-11			
MOZAMBIQUE - SPCR: $86 million		Jun-11			
NEPAL - SPCR: $86 million		Jun-11			
Mainstreaming Climate Change Risk Management in Development	ADB		Oct-11	Nov-11	7.2
NIGER - SPCR: $110 million		Nov-10			
Community Action Project for Climate Resilience	IBRD		Oct-11	Dec-11	63.0
TAJIKISTAN - SPCR: $47.75 million		Nov-10			
Improvement of Weather, Climate and Hydrological Service Delivery	IBRD		Mar-11	May-11	7.0
ZAMBIA - SPCR: $86 million		Jun-11			
CARIBBEAN-ST. LUCIA - SPCR: $17 million		Jun-11			
CARIBBEAN-GRENADA - SPCR: $20 million		Apr-11			
Disaster Vulnerability and Climate Risk Reduction	IBRD		May-11	Jun-11	16.2
CARIBBEAN-ST. VINCENT AND THE GRENADINES - SPCR: $10 million					
Disaster Vulnerability and Climate Risk Reduction	IBRD	Apr-11	May-11	Jun-11	10.0
PACIFIC-SAMOA - SPCR: $25 million		Apr-11			
TOTAL					**103.9**

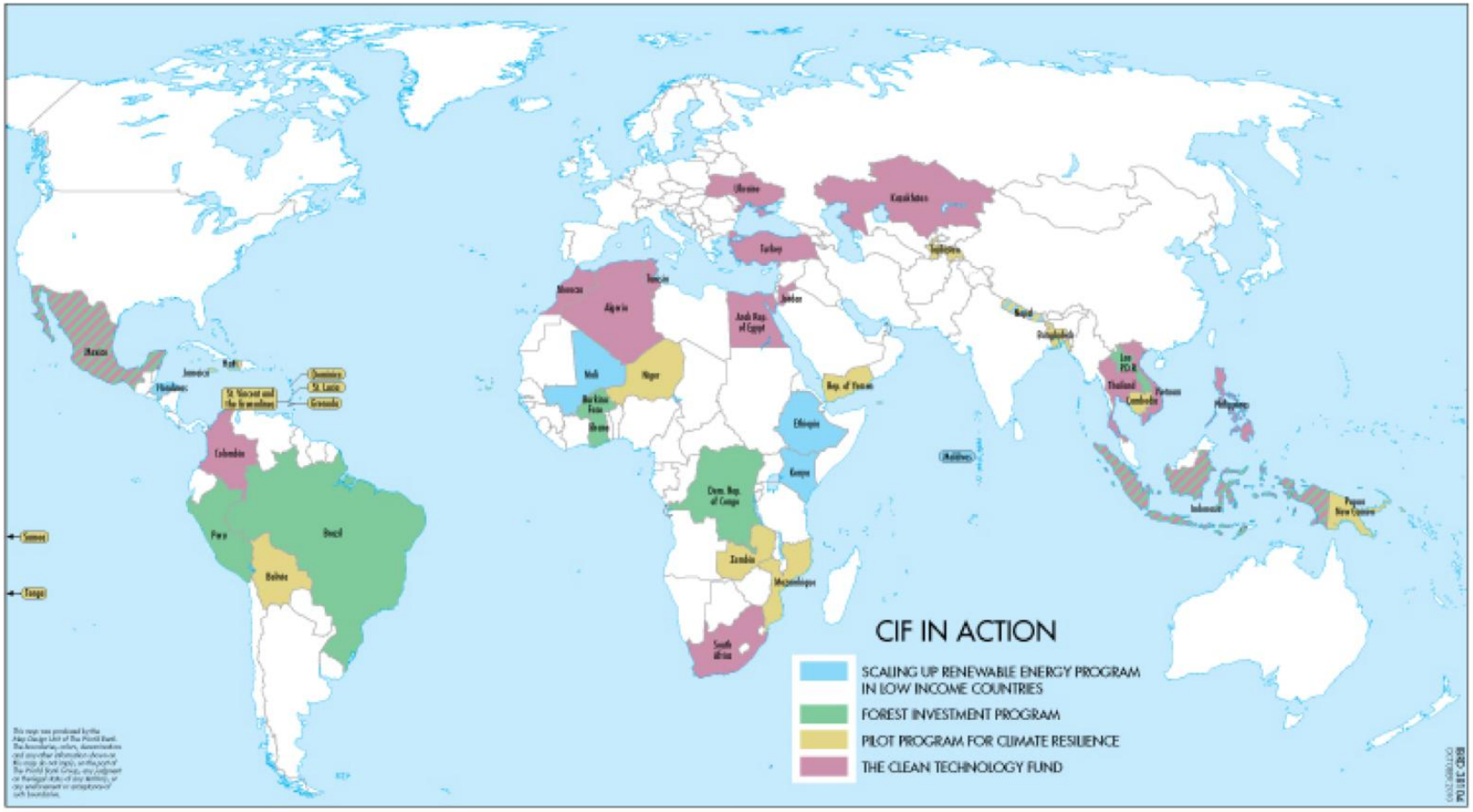
FOREST INVESTMENT PROGRAM ENDORSED INVESTMENT PLANS
BURKINA FASO - IP: $30 million (endorsed Jun-11)
DEMOCRATIC REPUBLIC OF CONGO - IP: $60 million (endorsed Jun-11)

SCALING UP RENEWABLE ENERGY PROGRAM ENDORSED INVESTMENT PLAN
KENYA - IP: $50 million (endorsed Sep-11)

Members of Trust Fund Committees

[list to be completed

CIF in Action



[S] Business News Americas, "The role of multilateral banks", December 2010. Garten Rothkopf, A Blueprint for Green Energy in the Americas, Volume One. Government of Honduras, Investment Plan for SREP. EIA Country Profile, Mexico