THE AFRICAN DEVELOPMENT BANK

AfDB CIF ANNUAL REPORT 2014

FINANCING CHANGE

THE AfDB AND CIF FOR A CLIMATE-SMART AFRICA

AFRICAN DEVELOPMENT BANK GROUP

CLIMATE INVESTMENT FUNDS

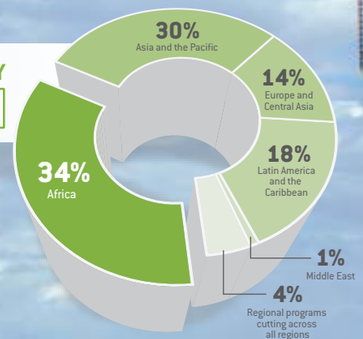
IN THIS EDITION

Cover photo: C. Schubert (CCAFS)

About the CIF

With support from the $8.1 billion CIF, 63 countries around the world are piloting transformations in clean technology, sustainable management of forests, renewable energy access, and climate resilient development. Of these, CIF African pilot countries are running 1 regional and 24 national investment plans through which AfDB is channeling more than $1 billion for low-carbon and climate resilient programs and projects.

CIF ALLOCATIONS BY REGION



CIF

CLIMATE INVESTMENT FUNDS*
$8.1 BILLION
WORLDWIDE

$5.3 BILLION
Clean Technology Fund (CTF) worldwide

$1.2 BILLION
Pilot Program for Climate Resilience (PPCR) worldwide

$785 MILLION
Forest Investment Program (FIP) worldwide

$796 MILLION
Scaling-Up Renewable Energy Program in Low Income Countries (SREP) worldwide

The African Development Bank's Energy, Environment and Climate Change Department (ONEC) produces this report every year as part of its contributions at AfDB to support Africa's move toward climate-resilient and low-carbon development. The report highlights AfDB's work to expand Africa's access to climate financing through the Climate Investment Funds (CIF), and support for Africa's transformations in clean technology, sustainable management of forests, increased energy access through renewable energy, and climate-resilient development.

ADB Asian Development Bank · European Bank for Reconstruction and Development · IDB Inter-American Development Bank · THE WORLD BANK GROUP

ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
AfDB	African Development Bank
CIF	Climate Investment Funds
CO_2	Carbon Dioxide
CSP	Concentrated Solar Power
CTF	Clean Technology Fund
DPSP	Dedicated Private Sector Programs
EBRD	European Bank for Reconstruction and Development
FIP	Forest Investment Program
GDC	Geothermal Development Company, Kenya
GHG	Greenhouse gas
GW	Gigawatt
GWh	Gigawatt hour
Ha	Hectare
IDB	Inter-American Development Bank
IFC	International Finance Corporation (part of World Bank Group)
IP	Investmet Plan
IPP	Independent Power Producer
km	kilometer
kWh	Kilowatt hour
M&E	Monitoring and Evaluation
MDB	Multilateral Development Bank
MENA	Middle East and North Africa
MT	Megaton
MW	Megawatt
ONEC	Energy, Environment and Climate Change Department, AfDB
PES	Payment for Environmental Services
PPA	Power Purchase Agreement
PPCR	Pilot Program for Climate Resilience
PPP	Public-private partnership
PV	Photovoltaic
REDD+	Reducing emissions from deforestation and forest degradation combined with sustainable forest management and protection of carbon stocks
SCF	Strategic Climate Fund
SME	Small and Medium-Scale Enterprise
SREP	Program for Scaling Up Renewable Energy in Low Income Countries
USD	United States dollar
WB	World Bank
WBG	World Bank Group including International Finance Corporation

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FOREWORD

FOR AFRICA, CLIMATE FINANCE HAS BECOME ESSENTIAL FOR JUMP-STARTING EFFECTIVE DEVELOPMENT. The AfDB, as one of Africa's premier development partners, is committed to helping African countries access the climate finance they need to move firmly toward prosperous climate-smart sustainability, and has built this commitment into its 2013-2022 strategy promoting inclusive growth in Africa. The Bank's work with countries through the Climate Investment Funds (CIF), in tandem with several other climate finance instruments, is key to ensuring its well-targeted delivery.

FINANCING DIRECTED AT CLIMATE-FRIENDLY PROGRAMS IS RECOGNIZED AS AN IMPERATIVE for actions many African nations need to take, and indeed are taking, to transform their economies. Climate finance serves development in a number of critical ways: it strengthens national finance so that out-of-reach innovations can be undertaken; it leverages new money from a variety of important public and private sources; it lowers critical barriers to engage private sector and other essential investors; it creates a platform to bring together a broad spectrum of stakeholders from community to global levels; and it supports application of new and innovative technologies, such as renewables and climate resilience mechanisms and forest management solutions which are vital to sustainability but might not be viable otherwise.

IN 2014, THE AFDB AND CIF SUPPORTED 23 COUNTRIES AND 1 REGION IN THEIR TRANSFORMATIVE WORK TO UNDERTAKE GREEN GROWTH. The AfDB CIF portfolio advanced exponentially this past year, moving into full implementation in the 16 original AfDB CIF Investment Plans and in some cases to a second stage of development; adding newcomer African pilots Benin, Ghana, Lesotho, Madagascar, Malawi, Rwanda, Sierra Leone, Uganda and Zambia under the Scaling Up Renewable Energy in Low Income Countries Program (SREP); moving forward in efforts to engage the private sector at the local and national levels, including through innovative private sector projects in Kenya, Mali, Ghana and Mozambique; facilitating innovative financial solutions such as financial intermediation through local commercial banks and long-term debt financing in local currency; and moving into an integrated approach to mitigation and adaptation in the forest and agriculture sectors.

THROUGH THE WORK UNDERWAY, COUNTRIES CAN EXPECT TO SEE TRANSFORMATION FIRST-HAND. Examples of expected results include: 2.1 gigawatt (GW) of increased energy through renewables in CTF, a 390 megawatt (MW) increase in geothermal capacity through SREP, significant poverty reduction through PPCR, and an exponential increase in rural micro-enterprises through FIP.

THE REPORT TAKES A LOOK AT THE DETAILS OF THE AFDB PORTFOLIO and highlights some of the important advancements and emerging knowledge achieved during the year. We hope that it brings you a clear sense of the remarkable strides African nations are achieving in their urgent move to green growth, and the evolving ways in which they are overcoming barriers and making their climate-smart development an emerging reality.

Kurt Lonsway
CIF Coordinator, Energy, Environment and Climate Change Department (ONEC), AfDB

AfDB CIF AT A GLANCE

* SREP funding amount will be confirmed when the Investment Plan is endorsed by SREP

CTF FIP PPCR SREP

WIND SOLAR HYDRO GEOTHERMAL TRANSPORT FORESTS AGRICULTURE CLIMATE INFO HYDBRID

CIF AfDB PORTFOLIO

25 INVESTMENT PLANS = **16** APPROVED PROJECTS + **17** PROJECTS TO BE APPROVED

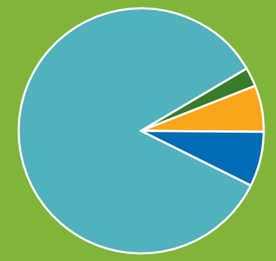
15 ENDORSED COUNTRY INVESTMENT PLANS

1 ENDORSED REGIONAL INVESTMENT PLAN

9 COUNTRY INVESTMENT PLANS TO BE DEVELOPED

21 RENEWABLES + **4** FORESTS + **6** RESILIENCE SOLUTIONS + **2** TRANSPORT

AfDB APPROVED PROJECTS BY PROGRAM ($M)



CTF $1,774
CIF $511, AfDB $1,263
6 PROJECTS

FIP $48
CIF $43, AfDB $5
3 PROJECTS

PPCR $133
CIF $105, AfDB $28
5 PROJECTS

SREP $147
CIF $27, AfDB $120
2 PROJECTS

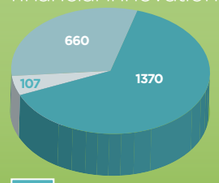
AfDB CIF APPROVED PROJECTS BY SECTOR ($M)

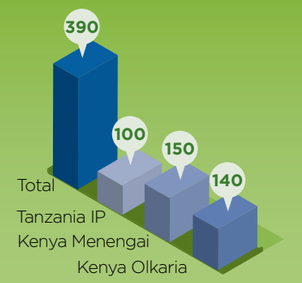
	SOLAR	WIND	CLIMATE INFO	GEOTHERMAL	FORESTS	AGRICULTURE	TOTAL
CIF	$319	$125	$141	$25	$43	$32	$684
AfDB	$640	$448	$175	$120	$5	$28	$1,416
TOTAL	$959	$573	$316	$145	$48	$60	$2,101

AfDB CIF APPROVED PROJECTS
$2.1 billion
AfDB: $1.4 billion
CIF: $0.7 billion

SOME PROJECTED OUTCOMES

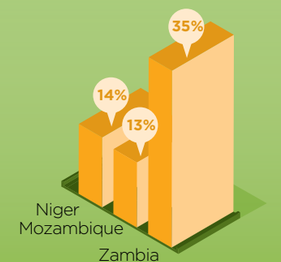
CTF
2.1 GW increased energy through wind, sun, and financial innovation

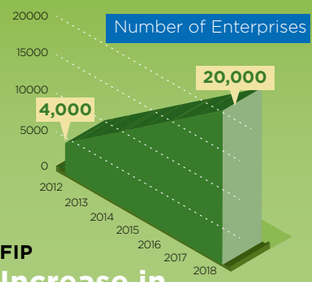




SREP
390 MW increase in **Geothermal Capacity**

PPCR
Poverty reduced in project target areas





FIP
Increase in Number of Rural Micro-Enterprises

Approved projects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Ensuring sustainable progress

Building on a vision of Africa as a powered, interconnected and climate-smart continent, the AfDB and CTF are helping countries pilot and establish renewable energy, energy efficiency, and sustainable transport solutions.

CTF APPROVED PROJECTS

MOROCCO OUARZAZATE CONCENTRATED SOLAR POWER
CTF $100M, AfDB $240M
Purpose: To generate 120-160 MW in its first phase and 500 MW in total
Key Expected Results: 0.24 million tons of CO_2 emissions avoided per year; shifted energy mix

MOROCCO NOOR II AND III CONCENTRATED SOLAR POWER PROJECT (MENA REGION IP)
CTF $119M, AfDB $140M
Purpose: To develop 2,000 MW of concentrated solar power
Key Expected Results: Annual CO2 savings of 521,670, potential creation of 11,000 jobs, reduce global CSP cost curve by 3%

MOROCCO ONE WIND ENERGY
CTF $125M, AfDB $448M
Purpose: To construct two wind farms of 100-300 MW installed capacity and two hydro facilities to supply base-load power
Key Expected Results: Additional 550 MW of wind installed capacity and hybrid-hydro storage and generation of 520 MW; 533,000 new connections

NIGERIA LINE OF CREDIT FOR RENEWABLE ENERGY AND ENERGY EFFICIENCY
CTF $25M, AfDB $75M
Purpose: To facilitate provision of affordable financing through a local bank for indigenous RE/EE projects.
Key Expected Results: 0.15 million tons of CO_2 per year, newly installed capacity of 107 MW

SOUTH AFRICA ESKOM RENEWABLES SUPPORT
CTF $100M, AfDB $260M
Purpose: To introduce CSP to Sub-Saharan Africa and scaled-up wind energy to South Africa
Key Expected Results: 0.58 million tons CO_2 emissions avoided through CSP, 0.24 million tons avoided through wind

SOUTH AFRICA XINA SOLAR ONE PROJECT (SUSTAINABLE ENERGY ACCELERATION PROGRAM)
CTF $41.5M AfDB $100M
Purpose: The construction of a 100MW CSP plant to alleviate peak load demand and reduce CO_2 emissions in South Africa.
Key Expected Results: Annual reduction of 400,000 tons of CO_2, creation of 1,370 jobs during construction phase and 45 jobs during operation.

Economic growth through renewables

With a double-faceted objective of bridging Africa's energy deficit and stimulating economic growth, the AfDB is growing its SREP portfolio. Through support from SREP and AfDB and other partners both Kenya and Mali are seeing their respective energy landscapes revolutionized.

SREP APPROVED PROJECTS

KENYA MENENGAI GEOTHERMAL DEVELOPMENT
SREP $25M, AfDB $120M
Purpose: To develop the Menengai geothermal steam field to produce steam for 150 MW power
Key expected results: 540,000 tons CO_2 emissions avoided per year; connecting 185,000 households and 110,000 small businesses.

MALI PROJECT FOR SCALING UP RENEWABLE ENERGY (PAPERM)
SREP $1.5M
Purpose: To foster development of renewable energy by improving policy, strategy, regulatory and institutional frameworks for scaling up renewable energy.
Key expected results: 40 additional RE projects by 2017.


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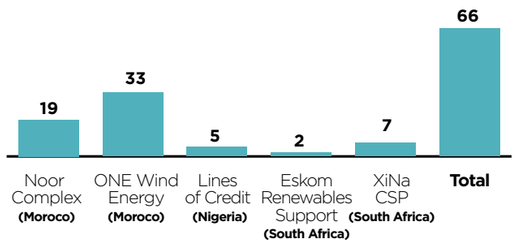
CTF CUMULATIVE GHG REDUCTIONS (MILLION TONS)



Embedding climate resilience into national planning

With PPCR and AfDB support Mozambique, Niger and Zambia have fully approved their AfDB-led PPCR projects. Their scaled-up climate action will lead to significant forest restoration, reduced poverty rates, increased crop production and heightened climate resilience.

PPCR APPROVED PROJECTS

MOZAMBIQUE BAIXO LIMPOPO IRRIGATION AND CLIMATE RESILIENCE
PPCR $15.75M, AfDB $25
Purpose: To provide climate resilient infrastructure for increased agricultural productivity
Key expected results: Increased incomes 150% and crop production in project area, reduced poverty rate to 42%

MOZAMBIQUE SUSTAINABLE LAND AND WATER RESOURCES MANAGEMENT
PPCR $15.75M, AfDB $3.2M
Purpose: To promote community-based watershed/landscape management approaches
Key expected results: 1,500 ha of forests restored and forest fires reduced by 75%.

NIGER IMPROVEMENT OF CLIMATE FORECASTING AND OPERATIONALIZATION OF EARLY WARNING SYSTEMS
PPCR $13M
Purpose: To build capacity in climate data processing, prepare an agropastoral vulnerability map, and scale up the national early warning system
Key expected results: Strengthened food security, 10% reduction in annual crop losses in project areas

NIGER WATER RESOURCE MANAGEMENT AND DEVELOPMENT
PPCR $22M
Purpose: To improve resilience in rural communities dependent on rainfed farming
Key expected results: Reduced rural poverty from 66% to 52%, increased annual agricultural production to 2860 tons in project areas

ZAMBIA STRENGTHENING CLIMATE RESILIENCE IN THE KAFUE SUB-BASIN
PPCR $38M
Purpose: To strengthen 800,000 rural communities to respond to climate change impacts and strengthen roads linking farmers to markets
Key expected results: Increased resilient infrastructure and production systems in project area; increased Integrated Development Plans in districts with mainstreamed resilience

Managing forests for sustainability

With full approval of the FIP portfolio, the AfDB is supporting countries' work to realize a broad range of forest benefits including governance mechanisms, poverty reduction, job creation and sustainable forestry practices.

FIP APPROVED PROJECTS

GHANA ENGAGING LOCAL COMMUNITIES IN REDD+/ ENHANCEMENT OF CARBON STOCKS (ELCIR+)
FIP $10M*, AfDB $4.8M
Purpose: To reduce deforestation and forest degradation and financially benefit local communities.
Key expected results: Emissions reduction; protection of carbon reservoirs; 12,000 direct beneficiaries (50% women) to receive seeds, equipment, financial incentives to develop forestry, agroforestry and alternative livelihoods activities; 175,000 additional indirect beneficiaries.

BURKINA FASO GAZETTED FORESTS PARTICIPATORY MANAGEMENT
FIP $11.5M*
Purpose: To build carbon sequestration capacity in the forests, improving local people's resilience to climate change, and reducing poverty by diversifying income sources, developing gazetted forest wood and non-wood products such as almond and shea processing and beekeeping.
Key expected outcomes: Development of a measurable, reportable, verifiable system for REDD+, improvement of forest governance, securitization and management of 284,000 ha of gazetted forests; establishment of a socio-economic support infrastructure for neighboring municipal councils.

DEMOCRATIC REPUBLIC OF CONGO INTEGRATED REDD+ PROJECT IN THE MBUJI-MAYI/KANANGA AND KISANGANI BASINS
FIP $22M*
Purpose: To reduce forest GHG emissions and poverty in a degraded savannah area and a closed forest area to address land tenure security, agriculture, forestry and energy.
Key expected results: 4 million tons CO_2 emissions reduced; 30,000 improved stoves; 8,500 ha forests sustainably managed; 20,000 rural micro-enterprises; 4,500 land usufruct rights formalized (50% women, youth)

*Project totals include project preparation grant financing

Green Engagement

A SECOND GENERATION OF AfDB AND CIF SOLUTIONS

With Investment Plans (IPs) in place, 2014 ushered in a full implementation phase for the AfDB CIF portfolio. As approved projects began to roll out, the focus shifted to the African villages, forests, farms, and cities where CIF projects are getting underway.

At the same time, AfDB's approach to the portfolio evolved. Projects in place since early CIF days advanced to a second stage. A new group of low-income countries signed up to SREP to transform their energy services. New approaches to enhancing climate finance began to emerge, through deeper engagement of the private sector and creation of innovative financial solutions. And learning began to emerge about forest-based joint mitigation and adaptation strategies. This section explores those shifts in the portfolio.

Christine Roehrer

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MOVING TO THE Second Stage

Over the course of 2014, several of the AfDB CIF portfolio's early-mover projects advanced to a more mature second stage with active procurement, infrastructure creation, and engagement of the private sector and other new stakeholders. These projects remain leaders in advancing transformation and in shifting the learning curve toward effective climate-smart development. Two of these projects are highlighted here.

Morocco Noor II and III: Innovating Energy With CSP

In Morocco, the Moroccan Solar Energy Agency (MASEN) is building the Noor Solar Complex as a keystone of its plan to develop 2 GW solar power by 2020 and create transformational impact on Morocco and the region.

With the project's first phase (Quarzazate I) under implementation, CTF, AfDB and the World Bank are now funding the next phase — the NOOR CSP Next Program. The NOOR Program is made up of two path-breaking Independent Power Producer (IPP) projects to design, finance, construct, operate and maintain thermal solar power plants: Noor II, a 200 MW CSP parabolic trough CSP plant, and Noor III, a 100 MW CSP tower plant. The Noor Solar Complex is one of the largest planned CSP plants in the world, and is estimated to reduce CO_2 emissions by 700,000 tons per year and supply power to 1.1 million Moroccans.

The project is also built on an innovative financing structure. MASEN has instituted a bidding process to bring on board a consortium of IPPs which will sell the power generated by the plant back to the government in a Public-Private Partnership (PPP) arrangement. The project's financing support mechanism, including the CIF $238 million, will bring down the capital cost of CSP to levels comparable with traditional technologies and the wholesale cost of power in Morocco, and can be expected to reduce the CSP global cost curve by 3%. Financial closure is expected in April 2015, and plant construction would begin after that with commissioning in mid-2017.

The project will help diversify Morocco's energy mix,
enhance energy security, contribute to industrial development, and help create an estimated 11,000 jobs.

Lessons Learned from the First Phase

- ***Optimized technical design***: The Noor technical specs are more flexible than the first phase, specifying the minimum amount of peak hour generation needed and leaving it to bidders to propose an optimized plant design.
- ***Accelerated schedule***: Based on delays in the first phase, MASEN will include legal agreements in the upfront procurement documents to shorten negotiations
- ***Accelerated environmental and social impact assessments***: MASEN has included consultant terms of reference during the procurement process, speeding up the timeframe for project start.

Kenya Menengai Geothermal: Full Steam Ahead

Kenya, Africa's largest geothermal producer, is scaling up the search for steam to produce at least 5, 000 MWe by 2030. As a keystone of that plan, the Menengai Geothermal Project is moving full-steam ahead. Menengai, a SREP early starter with SREP $25 million and AfDB $120 million to develop the Menengai geothermal steam field, is now paving the way for significant private sector engagement, with funding to support exploration and drilling risks. The project should lead to 150 MW power generated by IPPs, serving as a test pilot for a replicable investment and project structure.

The Menengai project, the first to be approved by SREP, is leading the CIF portfolio in terms of CIF disbursements. To date, the project has disbursed a total of $2.3 million loans and $4.8 million grants.

"The success of Menengai is an indication of how good policies and support from the government and donors can bring change and hope."

Ben Kubo
GDC Area Manager, Central Rift, and Manager Environment, Safety & Community Liaison

CIF

"Menengai will be the fastest developed field in the world to produce in just less than five years,"

Dr .Silas Simiyu
GDC Managing Director

Operationally, the project is on track to generate 150 MW of power by 2017. As reported by the government-funded Geothermal Development Company (GDC) that is running the project, drilling is ongoing. The steam field has water systems, an elaborate road network and a basecamp. The environment section is running a tree nursery, with seedlings given to local communities to support afforestation. More indigenous trees are being planted within the caldera to improve depleted tree cover. GDC is also operating automatic weather stations at the site to monitor daily weather in the area.

In addition, the SREP and AfDB funding is helping leverage new forms of private financing. Building on the CIF-funded project, AfDB is funding a project to create a Partial Risk Guarantee (PRG) to catalyze private sector investment and help mitigate risks associated with government offtake obligations on Power Purchase Agreements (PPAs) and fuel supply agreements, as well as political risk, expropriation, and foreign exchange risks.


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EXPANDING THE GREEN ENERGY LANDSCAPE: The Evolution of SREP

With support from AfDB and SREP, the landscape of green energy generation in low-income African countries stands to evolve significantly. Along with up and running projects Kenya Menengai and Mali PAPERM, the five original AfDB-supported SREP pilot countries are working to move their programs ahead, even where they face challenging circumstances such as disease and operational complexities. In addition, nine new African countries have won SREP endorsement and are beginning preparation of their Investment Plans.

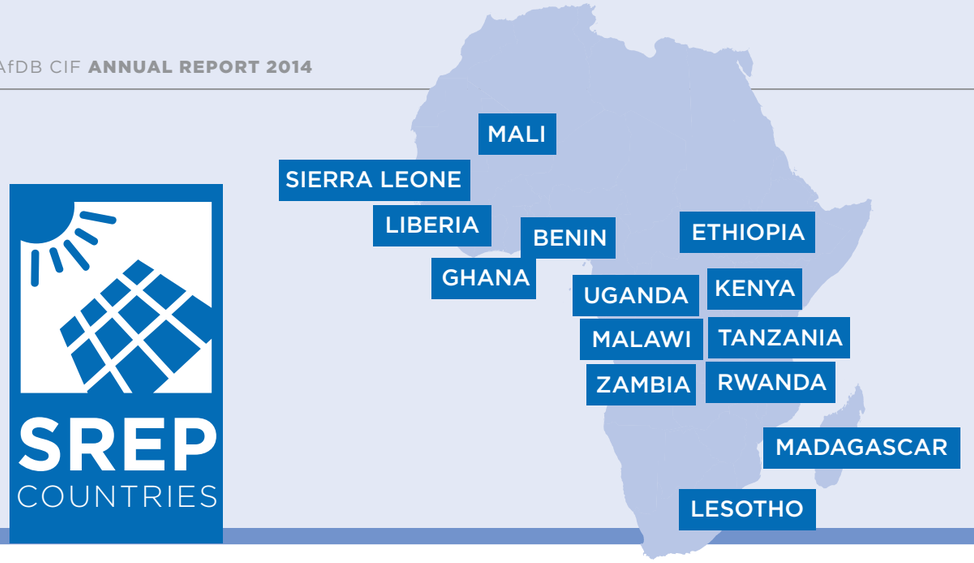
Newcomer African Countries

Five African countries are underway with their SREP programs, as outlined on the next page. In addition, with a growing interest in gaining SREP help to enhance green energy services, many other countries have expressed interest in qualifying for funding. An Expert Group recommended a set of new low-income countries based on agreed criteria: lack of energy access, relative poverty, enabling environment, good governance in the sector, and capacity for implementation.

On review, SREP endorsed a cadre of new low-income countries to develop Investment Plans (IPs) to ramp up climate-smart energy services. Of these countries, nine are in Africa. AfDB will be the lead MDB to support preparation of five IPs— Benin, Ghana, Malawi, Sierra Leone, Uganda — and provide support on the other four — Lesotho, Madagascar, Rwanda, and Zambia. Each country can request up to $300,000 to enable them to work with the MDBs to develop their full IPs.


AfDB Photo Library

SREP supports technologies such as solar, wind, bio-energy, geothermal, and small hydro technologies, works with governments to build renewable energy markets, engages the private sector, and explores productive energy use.



Ethiopia

Assela Wind Farm: AfDB approval is planned for December 2015. Procurement of a consultancy firm to undertake year-long feasibility studies is at the final stage.

Kenya

In addition to **Menengai Geothermal** (*see page 11*), in August 2014 an MDB joint mission to Kenya took place to assess all projects in the IP; and based on the findings the government will seek to submit a revised IP in early 2015.

Liberia

Renewable Energy for Electrification in Eastern Liberia Project-Stand-Alone PV: AfDB approval is planned for October 2015. To support the government, AfDB is hiring consultants to undertake feasibility studies for mini hydro and biomass. Due to Ebola, missions have been moved to early 2015, with an appraisal mission in May and presentation for approval in Fall 2015.

Scoping missions help shape new SREP approaches

With support from AfDB as lead MDB and the World Bank, Ghana, Uganda, and other selected African countries are hosting scoping missions to launch preparations for their SREP Investment Plans, and identify priority areas, stakeholder engagement, and timing. Focus areas some countries are considering include hydropower, solar energy, wind energy, biomass and waste-to-energy resources including agricultural to forest and urban energy, and the national transmission and distribution infrastructure.

Mali

Promoting the Scaling Up of Renewable Energy in Mali (PAPERM): AfDB approved the project for SREP $1.5 million in October 2014, to improve the enabling environment and knowledge dissemination to facilitate public and private renewable energy investments. The project is intended to benefit future investors and Malian citizens with more reliable, sustainable power generated by renewable energy. The launching mission is expected to take place in March 2015.

Tanzania

Geothermal Development: AfDB approval is planned for 2016. The preparation grant agreement was signed in August 2014. The government is finalizing its geothermal strategy and legal and regulatory framework for geothermal exploration. Expected results include 7 million beneficiaries.


CIF

Mali Expands Mini-Hydro and Solar

In addition to PAPERM, AfDB and Mali are preparing two other projects. One project is dedicated to mini-hydro (about 13 MW), due for approval in 2016; the Bank is at final stages of procuring a consultancy to undertake feasibility studies. The other project is a 33 MW solar IPP project in Segou due for approval in mid-2015, which the Bank is financing in partnership with IFC and SREP.

SHIFTING THE CLIMATE MARKET: Enabling Private Sector Leadership

As the global economy begins its essential shift to a climate-smart pathway, major financial investments are needed to ensure that this shift can take place as rapidly and effectively as possible. In few places is climate-smart development and its accompanying investment more needed than in Africa. But public funding is scarce, and the AfDB and CIF have recognized the central role the private sector must play in mobilizing considerable finances to aid Africa's climate-smart development.

Private enterprises are uniquely positioned to contribute to climate action, through innovative emission-reducing technologies, novel business models, and financial instruments which embed sustainability into business operations. Ultimately, they can also stand to profit from their investment, as demand increases for renewable energy, efficient power plants, better public transport, high quality agricultural products, and climate-resilient infrastructure.

But for the private sector, this shift carries inherent risks including project-specific risk, perceived country risk and financing risk. These risks are further compounded by conditions in some of Africa's emerging markets. As a result, the CIF has set aside funding to mobilize private sector engagement and have worked with the AfDB and other MDBs to put in place mechanisms which address barriers and attract private investment.

Linking Mozambican farmers to markets through Public-Private Partnerships

A key feature of Mozambique's Baixo Limpopo Irrigation and Climate Resilience Project (BLICRP) is the use of market service providers (MSPs), expected to be agricultural consulting companies or NGOs, to support the 8,000 Mozambican farmers who are project stakeholders and beneficiaries.

As part of the project, two competitive MSPs will be proposed, and the farmers can decide if they want to enter into a contractual agreement with one.

The selected MSP will provide farmers who are willing to be supported with training and technical advice on crops and agronomic techniques, and will help them seek markets, including corporate retail chains, and negotiate on the farmers' behalf. While the project will cover the MSP's costs for the first two years, it will then be up to the farmers to pay for these services.

This Public Private Partnership (PPP) is expected to bring more efficiency and sustainability to the project's implementation, particularly due to the performance-based remuneration for the MSPs.

The Evolving Private Sector Set-Asides

In 2013, with the support of AfDB and other MDBs, the CIF created key windows to attract the private sector in combating some of Africa's most pressing challenges — climate resilience, forestry and renewable energy — and invited potential investors to submit concepts. After two rounds of competitive selection, five AfDB-supported project concepts are slated to move ahead. These projects are projected to result in a number of compelling development results, including reducing CO_2 emissions, electricity generation, reforesting degraded forests, and creating new jobs and economic opportunities.

SREP

Kenya: Kopere Solar Park
The project will construct a 22.7 GWh/year Solar Photovoltaic (PV) power plant to be implemented under an IPP scheme, and as the first utility-scale solar PV IPP in Kenya will open doors for other investors in renewable energy. AfDB expects the project to be ready for AfDB approval by December 2015.

Kenya: Olkaria IV Geothermal Power Plant
The project aims to construct a 140 MW geothermal power plant for Phase I of the Olkaria geothermal field under a Build, Own, Operate and Transfer (BOOT) scheme. The project will test a unique financial scheme among Sub-Saharan IPPs. Following successful due diligence, AfDB expects the project to be ready for AfDB approval by November 2015.

Mali: Segou Scatec Solar Park
The project seeks to develop, finance, build and operate a Solar PV power plant with an installed capacity of 33 MW that will provide about 4% of Mali's electricity demand. The negotiations on the Power Purchase Agreement (PPA) are underway between the project sponsor and the off-taker. AfDB expects the project to be ready for AfDB approval by November 2015.

FIP

Ghana: Public-Private Partnership for restoration of degraded forest reserve through VCS and FSC certified plantations
The project's objective is to create a Public-Private Partnership between Form Ghana (FG) and the government to expand its Restoration of Degraded Forest Reserves Program by establishing 8,000 ha (hectares) of new commercial forest plantation. The project is under due diligence with expected approval from FIP during the first half of 2015 and approval from the AfDB soon after.

PPCR

Mozambique: Lurio Green Resources Forestry private sector project
Lurio Green Resources (LGR) will develop a sustainable, 24,000 ha eucalyptus forest plantation. The plantation will generate revenues through the sale of diverse forest products. The project is expected to win PPCR approval during the first quarter of 2015 with approval from the AfDB coming soon afterward.

The Scatec project document indicates that there will be:

44-50,000 tons of CO_2 saved per year

Similarly, the Kopere project document indicates

approximately 8,000 tons of CO_2 substitution per year totaling 160,000 tons during the life of the project.

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INNOVATING WITH financial solutions

Effectively mobilizing climate finance depends on innovative financing options, including ones that engage locally-based stakeholders such as Small and Medium Scale Enterprises (SMEs), local banks, and entrepreneurs to provide incentives, help overcome barriers, and support their readiness to make climate-smart investments. The influx of support from AfDB and other MDBs and mechanisms like the CIF can help address this.

Line of Credit for Renewable Energy and Energy Efficiency in Nigeria

One such innovation is the use of a *Line of Credit (LOC)* for a local commercial bank to on-lend to SMEs for renewable energy and energy efficiency projects. In May 2014, AfDB and CIF approved the first $100 million LOC ($75 million AfDB, $25 million CTF) for Nigeria, a first-mover in this approach.

The investment will complement other AfDB efforts to support the private sector to help the country address green energy concerns in the power, agribusiness, transport, telecommunications, and education sectors.

In Nigeria, where half of the country's 160 million inhabitants live without energy services and the energy which the country does generate is oil-dependent, the funding is an opportunity for the country to implement green energy services and apply an innovative approach to private sector financing at the same time.

The funding will stimulate investment in downstream opportunities designed to lead to greater energy efficiency through a range of technologies, including industrial energy efficiency investments, renewable energy, renewable-based hybrid systems, and cleaner fuels and combustion processes.

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Supporting Innovative Financial Partnerships

Kenya's Olkaria project is creating new partnerships between commercial project developers, local banks, local suppliers, and the Government of Kenya.

CIF

Local Currency Lending in South Africa

Another innovation is the use of local currency lending that will be possible through the undertaking of a ***cross-currency swap***, an agreement between two parties to exchange interest payments and principals denominated in two different currencies.

As a path-breaker for the CIF, the first-ever CTF cross-currency swap was initiated by AfDB as a mechanism in South Africa's XiNa Solar One project, to align the CTF loan with the currency of the rest of the lending group. This cross-currency swap mechanism will allow the CTF to lend in South Africa's currency and contribute toward a lower tariff.

XiNa Solar One is a project to design, construct, operate and maintain a 100 MW Concentrated Solar Power (CSP) generation plant to be built in the Northern Cape Province, South Africa as an IPP entered into between the seller and purchaser of the power generated. The project also involves construction of a 3 kilometer (km) transmission line to evacuate the power. Preliminary calculations point to total savings of up to the South African equivalent of $25 million.

Funded Risk Management Swap: An AfDB Innovation

The decision to use the South African cross-currency swap grew out of a CTF request to MDBs for a **study on using local currency funding in private sector projects**. In cooperation with CIF partners, AfDB led the drafting of the *Use of Local Currency for Private Sector Projects under the CTF*, approved in January 2014 and setting principles for CTF local-currency lending. In June 2014, CIF approved AfDB's Fund Risk Management Swap (FRMS), a new financial instrument allowing AfDB to provide local-currency lending through CTF.

The FRMS approach is designed to help reduce foreign exchange risk, enhance viability of projects denominated in local currencies, and enable blending with other non-concessional AfDB financing for green growth.

The FRMS:

- Allows project recipients to receive local currency funding
- Eliminates foreign currency risk
- Mitigates currency and interest rate risk related to CTF lending in local currency
- Avoids commingling of CTF resources with AfDB's capital resources
- Provides the most competitive cross-currency swap pricing
- Protects the CTF loan against foreign exchange, interest rate and translation/conversion risks
- Transforms the African local currency cash flows into US dollar cash flows with a US dollar-based interest rate and margin.

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PILOTING FOREST-BASED Joint mitigation and adaptation strategies

An emerging agenda

The need to develop **joint mitigation and adaptation strategies** has recently been highlighted in international climate change negotiations. This is particularly important for the forest sector, and sustainable forest management's potential adaptation benefits have been increasingly emphasized.

REDD+, initially seen solely as a mitigation strategy, is now also being linked to adaptation. Indeed, there appears to be good potential for synergies between REDD+ and the adaptation agenda. While more money may soon be available for climate change adaptation, it has been difficult to identify a solid pipeline of climate resilience projects. Conversely, while large investments have been made to prepare REDD+ plans, the lack of finance for REDD+ implementation appears now to be as the main obstacle.

Through its FIP and PPCR portfolio, AfDB is piloting forest-based joint mitigation and adaptation strategies.

Through the FIP and PPCR, AfDB is helping countries strengthen synergies between climate change mitigation and adaptation in the forest sector.

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Sustainable Forest Management is increasingly recognized as a strategy not only for climate change mitigation but also for ecosystem-based adaptation, an approach to conserve, sustainably manage, and restore ecosystems to help people adapt to climate change impacts.

By piloting REDD+ in dry forests as a joint mitigation and adaptation strategy, FIP Burkina Faso will offer important lessons for international replication.

Forest-based adaptation in the PPCR in Mozambique

In Mozambique, the AfDB and CIF are supporting forest-based adaptation through the *Sustainable Land and Water Resources Management* project to increase communities' capacity to address poverty, food insecurity, land degradation, and climate-resilience. The project should help 40,000 people in drought-prone areas get increased access to water infrastructure for agriculture, livelihood diversification, and sustainable land management, including reforestation, fire control, more efficient cook stoves, and charcoal production units.

AfDB is also conducting due diligence for Mozambique's PPCR-supported *Lurio Green Resources Forestry Project*. The forest plantation project's contribution to mitigation will be certified through the Verified Carbon Standard, but it is also designed to bring substantial resilience benefits to the local population, particularly by alleviating the pressure on natural forests, providing alternative income-generating activities, and supporting soil conservation.

Strengthening climate-resilience benefits of REDD+ through the FIP

Adaptation co-benefits of REDD+ are particularly relevant for Sahelian countries with dry forests, storing relatively low quantities of carbon but are also important for sustainable land management, particularly through soil and water conservation benefits.

In Burkina Faso, the FIP investment is designed to achieve a triple-win: poverty alleviation, mitigation, and resilience. It is built on a landscape approach combining sustainable forest management, agroforestry, agriculture, sylvo-pastoralism and development of non-timber forest products. AfDB is supporting the participatory management of gazetted forests to optimize local populations' benefits from the forests in a changing climate.

In Ghana, AfDB's FIP- supported *Engaging Local Communities In REDD+/ Enhancement of Carbon Stocks* is also considering important adaptation co-benefits. The project will support development of climate-smart cocoa by increasing tree densities in cocoa plantations, enhancing carbon stocks and strengthening plantations' resilience.

Payment for Environmental Services (PES): A promising tool for joint mitigation and adaptation

Following the organization of an **international workshop** on PES, AfDB is preparing to release a knowledge document titled "Payment for Environmental Services (PES): A promising tool for Natural Resources Management in Africa". The document assesses the potential of PES in Africa, reviews their current development in the continent, including new case studies, and presents some recommendations to build PES- enabling institutional frameworks and make PES work in Africa. It highlights the opportunity to use PES for ecosystem-based adaptation.

Piloting the first round of FIP monitoring and reporting in Burkina Faso

As the lead MDB for the FIP in Burkina Faso, AfDB has been at the forefront in supporting the government for the first round of **FIP monitoring and reporting**, in which the theory of change underlying the FIP program was reflected, and Indicators, targets, baselines for various objectives of the FIP were defined. In that perspective, it was necessary to harmonize some calculations, such as the duration period to calculate emission reductions. Considering the little time available since the adoption of the FIP monitoring and reporting toolkit, it was not possible this year to consult with a wide range of stakeholders on this report, as will be the case for the next monitoring and reporting exercises.

AfDB PIPELINE

INVESTMENT PLAN/ COUNTRY	FUND	CIF ENDORSEMENT	CIF FUNDING (US$ MILLION)
South Africa	CTF	Oct-09	500
MENA	CTF	Dec-09	750
Morocco	CTF	Oct-11	150
Egypt	CTF	Jan-09	300
Nigeria	CTF	Nov-10	250
Liberia	SREP	Oct-13	50
Tanzania	SREP	Sep-13	50
Ethiopia	SREP	Mar-12	50
Mali	SREP	Nov-11	65
Kenya	SREP	Sep-11	82
Ghana	FIP	Nov-12	50
DRC	FIP	Jun-11	60
Burkina Faso	FIP	Jun-11	30
Mozambique	PPCR	Jun-11	91
Zambia	PPCR	Jun-11	91
Niger	PPCR	Nov-10	110
		Total	**2,679**

NEW SREP COUNTRIES								
Benin	Lesotho	Ghana	Madagascar	Malawi	Rwanda	Sierra Leone	Uganda	Zambia

PROJECT PREPARATION GRANT	COUNTRY	CIF FUNDING (US$ MILLION)
Egypt Kom Ombo CSP	CSP-MENA	0.996
200MW Wind Farm	Egypt	1.000
Abuja Mass transit	Nigeria	0.950
Energy Efficiency program	South Africa	0.500
Sustainable Energy Acceleration program	South Africa	0.500
Gazetted forests participatory management project REDD+	Burkina Faso	0.500
Addressing deforestation & degration in the Mbuji Mayi/Kananga/Kisangani Supply area	DRC	0.800
Engaging Local communities in REDD+/Enhancing carbon stocks	Ghana	0.250
Assela wind farm project	Ethiopia	1.700
RE-Electrification Eastern Liberia	Liberia	1.500
Mini/Micro hydro development	Mali	2.200
Solar photovoltaic IPP	Mali	0.950
Geothermal power development	Tanzania	0.700

PROJECT/PROGRAM TITLE	INVESTMENT PLAN	PROJECT STATUS	CIF FUNDING (US$ MILLION)	AfDB FUNDING (US$ MILLION)
CLEAN TECHNOLOGY FUND (CTF)				
200MW Gulf of Suez Wind Farm	Egypt	Preparation	50.00	140.00
120 - 160 MW CSP Complex in Ouarzazate Morocco	MENA	AfDB Approved	100.00	240.00
Morocco Ouarzazate CSP - Project II	MENA	AfDB Approved	119.00	140.00
Egypt Kom Ombo CSP	MENA	Preparation	61.50	
Tunisia Akarit	MENA	Preparation	31.00	
CSP Technical Assistance Program	MENA	Preparation	2.92	
One Wind Energy Plan	Morocco	AfDB Approved	125.00	448.39
Abuja Mass transit	Nigeria	Preparation	50.00	
Renewable Energy Utility-scale Solar PV - Bauchi Solar PV	Nigeria	Preparation	25.00	89.00
Line of credit for Renewable Energy / Energy Efficiency	Nigeria	AfDB Approved	25.00	75.00
Eskom Renewable supp projects (Wind & CSP)	South Africa	AfDB Approved	100.00	260.00
Sustainable Energy Acceleration Program - Xina CSP Project	South Africa	AfDB Approved	41.50	100.00
RE - Sustainable Transport	South Africa	Preparation	52.50	
SCALING-UP RENEWABLE ENERGY PROGRAM (SREP)				
Assela wind farm project	Ethiopia	Preparation	18.30	
Menengai Geothermal Development	Kenya	AfDB Approved	25.00	120.00
Kopere Solar Park	Kenya	Private Sector set-aside	11.50	
RE-Electrification Eastern Liberia	Liberia	Identification	23.50	
Mini/Micro hydro development	Mali	Preparation	10.20	
Solar photovoltaic	Mali	Identification	11.05	
Solar Mali Ségou PV	Mali	Private Sector set-aside	25.00	
Promoting the Scaling Up of Renewable Energy	Mali	AfDB Approved	1.50	
Geothermal Power Development	Tanzania	Identification	24.30	
FOREST INVESTMENT PROGRAM (FIP)				
Gazetted forests participatory management REDD+	Burkina Faso	AfDB Approved	11.50	
Addressing deforestation & degration in the Mbuji Mayi/Kananga/Kisangani Supply area	DRC	AfDB Approved	21.50	
Engaging Local communities in REDD+/Enhancing carbon stocks	Ghana	AfDB Approved	9.75	4.80
Restoration of degraded forest reserve	Ghana	Private Sector set-aside	10.30	7.00
PILOT PROGRAM FOR CLIMATE RESILIENCE (PPCR)				
Sustainable land and water management	Mozambique	AfDB Approved	15.75	3.23
Baixo Limpopo irrigation & climate resilience program	Mozambique	AfDB Approved	15.75	25.00
Lurio project Private Sector set-aside	Mozambique	Private Sector set-aside	11.00	
Water resources mobilization & development (PROMOVARE)	Niger	AfDB Approved	22.00	
Climate information dev & forecasting (PDIPC)	Niger	AfDB Approved	13.00	
Strenghening climate resilience Kafue sub-basin	Zambia	AfDB Approved	38.00	

LOOKING AHEAD TO 2015

2015 IS POISED TO BE A TRANSFORMATIVE YEAR for climate-smart development globally. As the global decision-making processes on climate finance unfold, we welcome the global community's reaffirmation of the CIF mandate and infusion of new monies for CIF support, and will continue our work with pilot countries to effectively implement their CIF portfolio. On a number of key fronts, we will also strengthen our support:

IN SREP, we will help the large number of new CIF pilot countries develop their Investment Plans to help ensure their endorsement by the CIF Committees and the AfDB Board.

WITH KNOWLEDGE MANAGEMENT at the forefront of scaled-up activity in the CIF, we will contribute to learning in a variety of ways.

IN FIP, we will support new African countries to become part of the FIP and existing FIP African pilot countries to access additional funding to complement their existing FIP Investment Plans through public or private sector projects.

IN CTF, we will produce studies on cross-country cost factors for Concentrated Solar Power and on jobs creation and economic efficiency.

IN PPCR, we will support new African countries to become part of the PPCR and will look to supporting impact evaluations in countries such as Mozambique.

WE WILL MAINTAIN THE MOMENTUM ON PRIVATE SECTOR ENGAGEMENT. We will continue to use the Bank's convening power to raise awareness and commitment within countries and globally for Africa's green growth path, and deepen the Bank's role as knowledge broker.

THE AFDB'S WORK WITH CIF IS HELPING AFRICAN COUNTRIES RESHAPE the pace and breadth of climate-smart development in Africa. Going forward into 2015, we rededicate ourselves to that mission.

BROKERING CLIMATE KNOWLEDGE

The Evolving Knowledge Base

With the AfDB CIF portfolio increasingly under implementation, the AfDB is committed to capturing lessons emerging from countries' work and ensuring that they are widely shared. In the process, the Bank will strive to reinforce recipient countries' voice on the international stage to share what they have learned about resilience, energy, forests and green growth.

Over the course of 2014, the Bank commissioned several knowledge products, contributed brief knowledge pieces to the **CIF blog**, and actively participated in international conferences.

The first knowledge product highlights Payment for Environmental Services (PES), a mechanism to ensure that ecosystems stewards are equitably compensated by the beneficiaries of the environmental services they provide (See Box page 18-19). The second knowledge product explores how CIF projects are propelling REDD+ readiness in Africa.

The AfDB also produced a **knowledge piece** exploring the CIF's innovative programmatic approach to development planning, and created three RE profiles for SREP programs in Mali, Tanzania and Ethiopia.

In addition to these products, the Bank also had an active presence on behalf of Africa at the **CIF Partnership Forum** in Jamaica, the 5th **African Rift Valley Geothermal Conference** in Tanzania and an International Impact Evaluation workshop in Rwanda.

Impact Evaluation: Advancing Project Knowledge

In 2014, the AfDB helped AfDB CIF pilot countries **Zambia**, **Mozambique**, and **Burkina Faso** to engage in the design of an impact evaluation for their CIF projects. The evaluations are expected to contribute to improving AfDB's quality of intervention, scaling up best practices, speeding up implementation, informing policy-making, and generating key knowledge.

An impact evaluation seeks to assess a development intervention's effectiveness and generate knowledge to refine future similar interventions at national and international levels.

Workshops on Impact Evaluation

In June, 2014, a World Bank-led international **workshop on impact evaluation** took place in Rwanda, focused on generating knowledge to bolster agriculture. In the workshop, Mozambique and Zambia drafted notes on their CIF projects establishing the projects' rationale and results chain, identifying key constraints and research questions, and suggesting a preliminary impact evaluation design. At a **later workshop** in Lisbon in October, Burkina Faso also put forward a concept note for an impact assessment of its FIP program. Mozambique and Burkina Faso are now seeking preparation grants to further develop their concepts for the impact evaluations.

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