

# CLIMATE INVESTMENT FUNDS

# GROWING GREEN

THE AfDB AND CIF FOR A CLIMATE-SMART AFRICA



AFRICAN DEVELOPMENT BANK GROUP



# ABOUT THE CIF

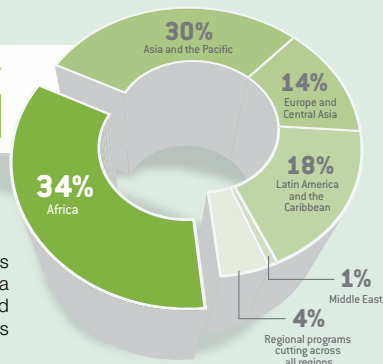
## 2015 IS POISED TO BE A TRANSFORMATIVE YEAR for climate-smart

development. As the global decisions on climate finance unfold, we welcome the global community's reaffirmation of CIF, and are optimistic about Africa's compelling CIF accomplishments. With an expanded portfolio in 27 countries, the AfDB's work with CIF is helping them reshape the pace and breadth of climate-smart development.

## Africa's Green Development on the Upswing

### CIF ALLOCATIONS BY REGION

In recognition of both its need and potential, Africa receives more than a third of CIF global funds

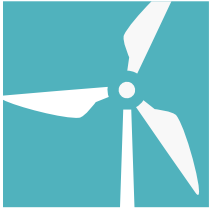


Many CIF-funded projects have advanced to a second stage of development. Under CTF, in Morocco, Noor II and III are generating energy with concentrated solar power, helping diversify the country's energy mix while creating new jobs. In Kenya, Menengai Geothermal is on track to generate 150 MW of power by 2017.

Fourteen low-income African countries are transforming their energy services through CIF's largest SREP portfolio: Benin, Ethiopia, Ghana, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Rwanda, Sierra Leone, Tanzania, Uganda, and Zambia.

New approaches to climate finance have emerged. Projects are underway through SREP, FIP and PPCR to engage new partnerships with independent power producers, power purchase agreements, and public-private partnerships. Innovative finance is stimulated through new mechanisms such as Lines of Credit for local bank on-lending and local currency lending in a cross-currency swap.

The importance of sharing knowledge is a critical CIF element, enhanced through events like a May 2015 civil society forum hosted by CIF and AfDB. And learning is emerging under FIP about forest sustainability tools including Payment for Environmental Services (PES), detailed in a new knowledge product, and piloting forest monitoring and reporting.



## CTF—CLEAN TECHNOLOGY FUND

### 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.

## AfDB 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<sub>2</sub> 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 CO<sub>2</sub> savings of 521,670, potential creation of 11,000 jobs, reduce global CSP cost curve by 3%

### MOROCCO ONE WIND ENERGY

CTF \$125M, AfDB \$448.39M

**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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> emissions in South Africa.

**Key Expected Results:** Annual reduction of 400,000 tons of CO<sub>2</sub>, creation of 1,370 jobs during construction phase and 45 jobs during operation.

## CTF supports INNOVATIVE FINANCING



Such as lines of credit for renewable energy and energy efficiency in Nigeria, partnerships between commercial project developers and local actors in Kenya, and a Fund Risk Management Swap in South Africa.



## FIP—FOREST INVESTMENT PROGRAM

### 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.

## AfDB FIP APPROVED PROJECTS

### 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 \$21.5M\*

**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<sub>2</sub> 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)

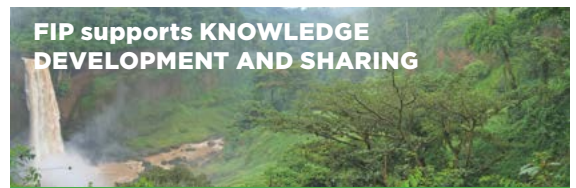
### GHANA ENGAGING LOCAL COMMUNITIES IN REDD+ ENHANCEMENT OF CARBON STOCKS (ELCIR+)

FIP \$9.75M\*, 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.

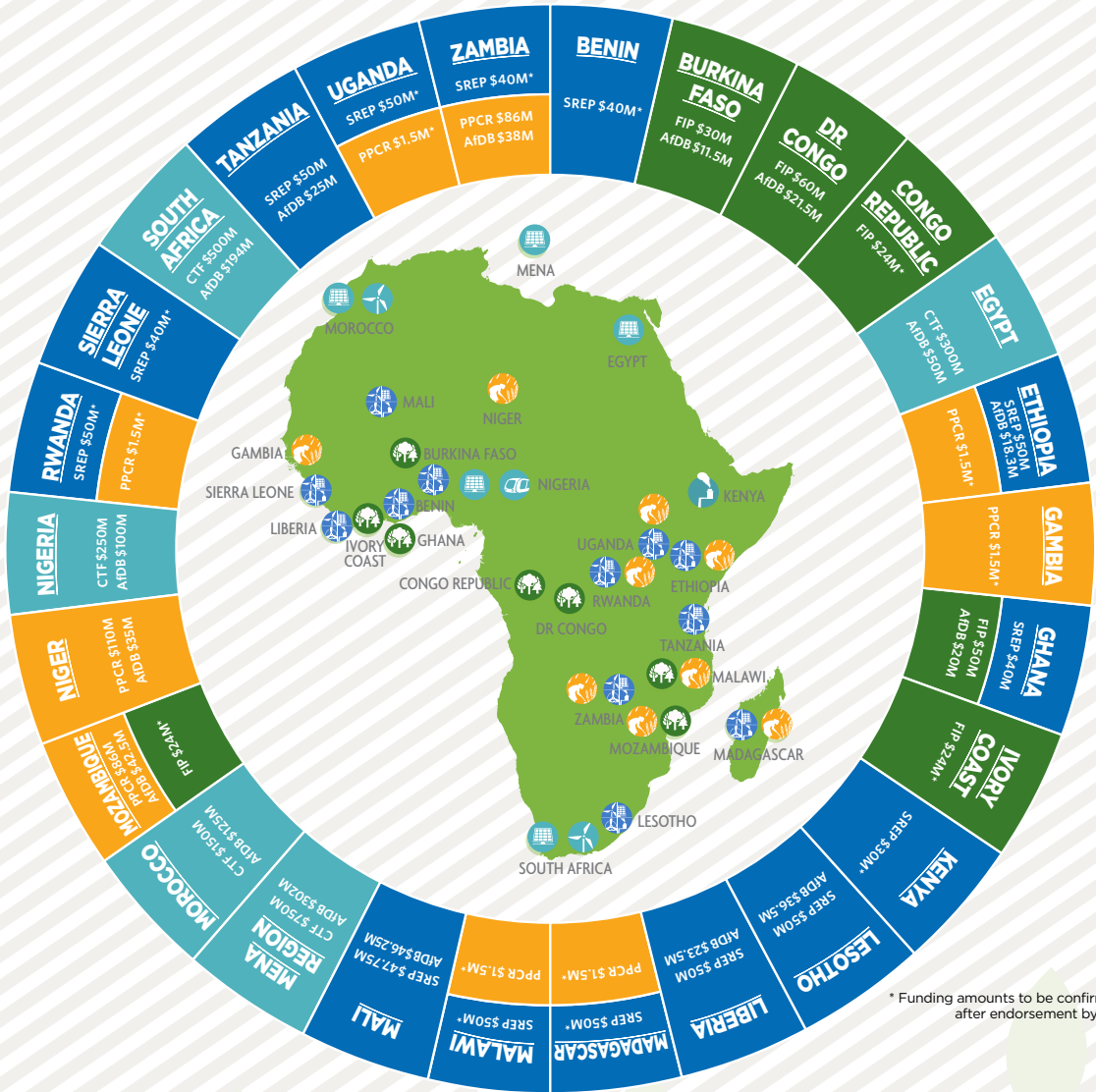
## FIP supports KNOWLEDGE DEVELOPMENT AND SHARING



Such as exploration of Payment for Environmental Services (PES), a promising tool for joint mitigation and adaptation, creating new opportunities to enable institutional frameworks and make PES work in Africa, including for ecosystem-based adaptation.

\*Project totals include project preparation grant financing

# AfDB CIF SUPPORTED INVESTMENT PLANS



\* Funding amounts to be confirmed after endorsement by CIF



CTF



FIP



PPCR



SREP



WIND



SOLAR



HYDRO



GEOTHERMAL



TRANSPORT



FORESTS



AGRICULTURE



CLIMATE INFO



HYBRID



HYBRID

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

## FIP offers start-up support to five additional forest nations

In May 2015, FIP approved start-up support to Cameroon, Rwanda, Tunisia, Uganda, and Zambia to help them develop investment plans; the countries will then seek funding from other bilateral and multilateral sources to implement the plans.

# AfDB CIF PORTFOLIO

**39**

INVESTMENT PLANS

**16**

ENDORSED COUNTRY INVESTMENT PLANS

**1**

ENDORSED REGIONAL INVESTMENT PLAN

**22**

COUNTRY INVESTMENT PLANS TO BE DEVELOPED\*

\*Five of these plans are for start-up only under FIP; see box

**= 16 =**

APPROVED PROJECTS

**+ -**

**18**

PROJECTS TO BE APPROVED

**22**

RENEWABLES



**+**

**4**

FORESTS



**+**

**6**

RESILIENCE SOLUTIONS



**+**

**2**

TRANSPORT



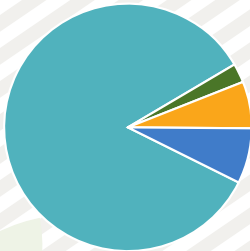
AfDB CIF APPROVED PROJECTS

**\$2.1 billion**

AfDB: \$1.4 billion  
CIF: \$0.7 billion



## 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 APPROVED PROJECTS BY SECTOR (\$M)

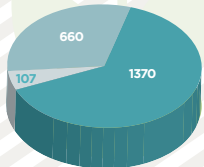
	SOLAR	WIND	CLIMATE INFO	GEOTHERMAL	FORESTS	AGRICULTURE	TOTAL
<b>CIF</b>	\$319	\$125	\$141	\$25	\$43	\$32	\$684
<b>AfDB</b>	\$640	\$448	\$175	\$120	\$5	\$28	\$1,416
<b>TOTAL</b>	\$959	\$573	\$316	\$145	\$48	\$60	\$2,101

## AfDB CIF SOME PROJECTED OUTCOMES

**CTF**

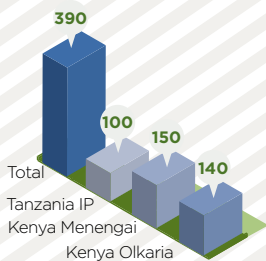
**2.1 GW increased energy** through wind, sun, and financial innovation

through wind, sun, and financial innovation



Wind  
Solar

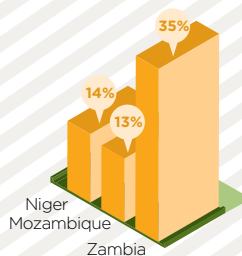
Financial Innovation



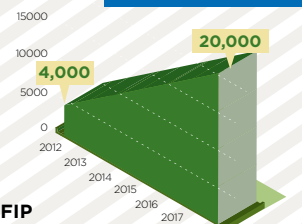
**SREP**  
**390 MW increase in Geothermal Capacity**

**PPCR**

**Poverty reduced** in project target areas



**Number of Enterprises**



**FIP**

**Increase in Number of Rural Micro-Enterprises**



## PPCR—PILOT PROGRAM FOR CLIMATE RESILIENCE

### 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.

## AfDB PPCR APPROVED PROJECTS

### MOZAMBIQUE BAIIXO 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 \$3.23M

**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

### PPCR supports PRIVATE SECTOR ENGAGEMENT



Such as Mozambique's Lurio Green Resources Forestry private sector project, which will develop a sustainable, 24,000 ha eucalyptus forest plantation to generate revenues through the sale of diverse forest products.



## SREP—SCALING UP RENEWABLE ENERGY IN LOW INCOME COUNTRIES PROGRAM

### 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, 14 low income African countries will see their energy landscapes revolutionized.

## AfDB 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 outcomes:** 540,000 tons CO<sub>2</sub> 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.

### SREP supports CIVIL SOCIETY ENGAGEMENT



Such as in the May 2015 CIF and AfDB-hosted workshop with civil society to consider best ways to ensure civil society involvement in the exponentially expanded SREP portfolio of 14 African countries.

PROJECT/PROGRAM TITLE	INVESTMENT PLAN	PROJECT STATUS	CIF FUNDING (US\$ MILLION)	AfDB FUNDING (US\$ MILLION)
<b>CLEAN TECHNOLOGY FUND (CTF)</b>				
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	
<b>FOREST INVESTMENT PROGRAM (FIP)</b>				
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
<b>PILOT PROGRAM FOR CLIMATE RESILIENCE (PPCR)</b>				
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	
Strengthening climate resilience Kafue sub-basin	Zambia	AfDB Approved	38.00	
<b>SCALING-UP RENEWABLE ENERGY PROGRAM (SREP)</b>				
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	
Renewable Mini-grids and Stand-alone Systems	Ghana	Identification	17.50	
Net Metered Solar PV for SMEs and Lighting Project	Ghana	Identification	12.50	

## CLIMATE INVESTMENT FUNDS

For more information on the CIF  
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