

# GROWING GREEN

THE AfDB AND CIF FOR  
A CLIMATE-SMART AFRICA  
2016



Solar cells in South Africa  
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AFRICAN DEVELOPMENT BANK GROUP



# AfDB AND CIF

## AN EVOLVING PARTNERSHIP

2016 has been marked by a tectonic shift in development and climate change goals in Africa. As countries look to integrate their development paths with their commitments under the Paris Agreement on climate change and the UN Sustainable Development Goals (SDGs), AfDB is reshaping its institutional approach to bolster that shift. The AfDB CIF portfolio serves as one important proving ground to effectively integrate these ambitions.

## Africa's deepening approach to integrating climate and development

Today's AfDB CIF portfolio contains 39 policy-based Investment Plans in various stages of preparation and development. Of these, 21 contain a total of 41 projects going through the range of development from preparation to implementation.

Of the 17 projects already approved and underway, 8 are in renewables for middle- and low-income countries, 5 address resilience and adaptation, and 4 address renewal of the forest sector.

But as countries work to carry out these urgent innovations, they must also align this work with new and shifting climate and sustainable development commitments. AfDB's CIF support must now also embrace:

- **NDC capacity building:** Helping countries fulfill their Nationally Determined Contributions (NDCs) under the Paris Agreement, including accounting, institutional, and regulatory questions.
- **Balancing climate change modalities:** Ensuring African countries successfully balance mitigation and adaptation in their climate responses.
- **Effective use of climate finance channels:** Helping countries maneuver among various climate funding sources, including the private sector, to engage climate finance to support their CIF-based operations.

To support countries' shifting commitments, a number of the newer CIF Investment Plans are being designed in a manner flexible enough to allow the pilot countries to seek project support from other climate finance sources, if no CIF operational money is identified. In addition, AfDB is analyzing how best to incorporate true support for pilot countries to take account of their redefined commitments.

AfDB CIF  
APPROVED PROJECTS

**\$2.1 Billion**

AfDB: \$1.4 Billion  
CIF: \$0.7 Billion

CLIMATE INVESTMENT FUNDS  
**\$8.3 BILLION**  
WORLDWIDE

**\$5.6 BILLION**  
Clean Technology Fund (CTF) worldwide

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

**\$771 MILLION**  
Forest Investment Program (FIP) worldwide

**\$780 MILLION**  
Scaling-Up Renewable Energy Program in Low Income Countries (SREP) worldwide

6 PROJECTS

**CTF \$1.774B**

CIF \$511M, AfDB \$1,263M



2 PROJECTS

**SREP \$147M**

CIF \$27M, AfDB \$120M



4 PROJECTS

**FIP \$58M**

CIF \$53M, AfDB \$5M



5 PROJECTS

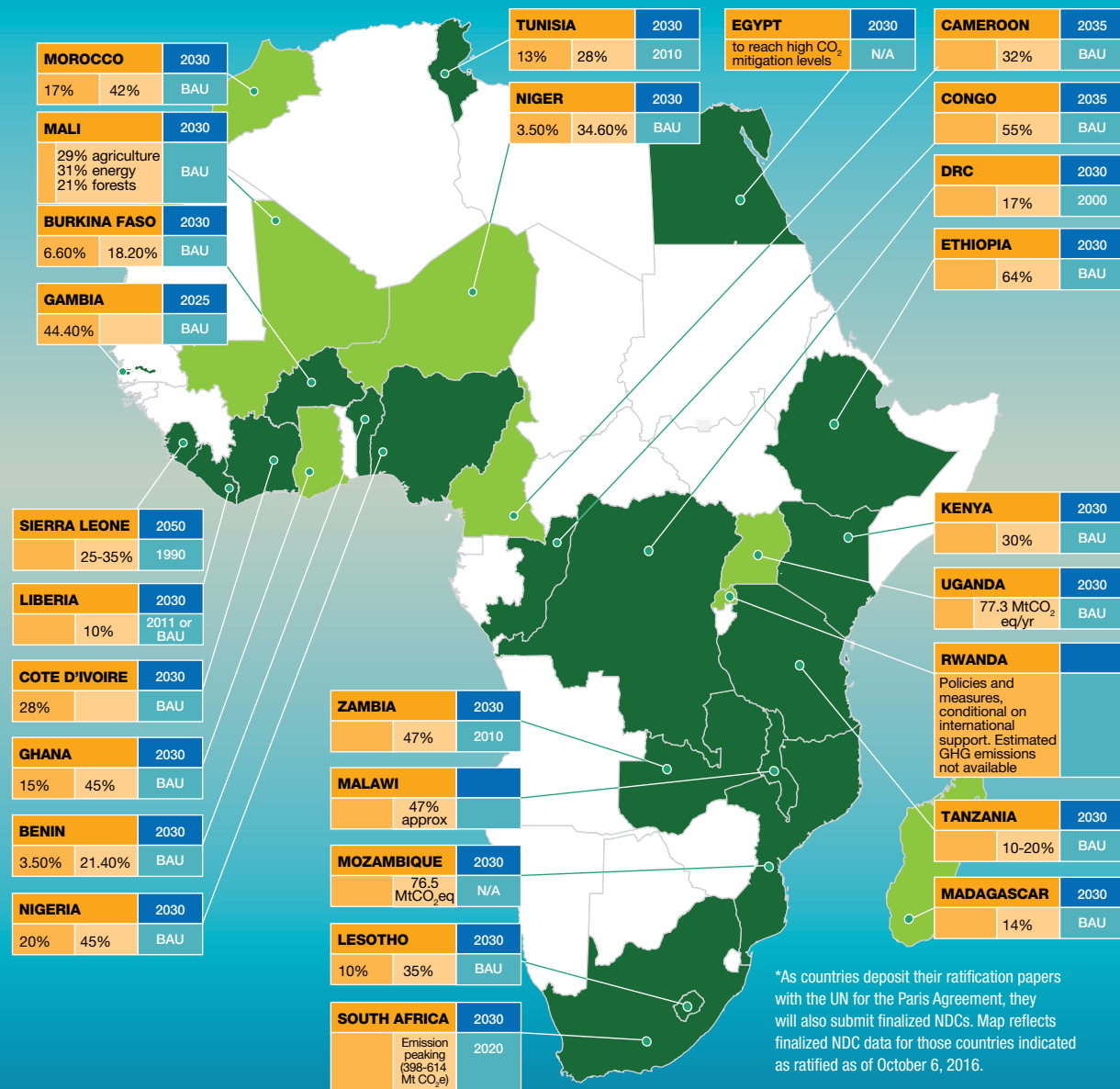
**PPCR \$134M**

CIF \$105M, AfDB \$29M



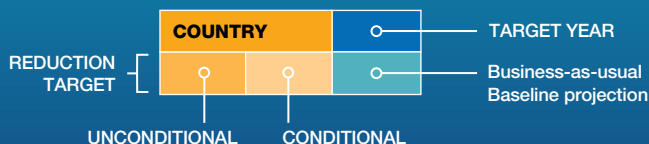
# INTENDED NATIONALLY DETERMINED CONTRIBUTIONS IN **AfDB CIF PILOT COUNTRIES**\*

Nationally Determined Contributions (NDCs) are a new type of instrument under the United Nations Framework Convention on Climate Change (UNFCCC) in the Paris Agreement. The historic Paris Agreement will go into force in November 2016. The NDC process is the vehicle under the Paris Agreement through which participating countries agree to contribute to the global goal of constraining greenhouse gas emissions to achieve liveable global temperatures as spelled out in the Agreement. In the run-up to Paris, countries submitted Intended Nationally Determined Contributions (INDCs) identifying the likely amount of constraint they would place on greenhouse gas emissions by a target date. With the Paris Agreement adopted, it is understood that as each country ratifies the Agreement, it will submit its more final Nationally Determined Contribution (NDC). In Africa, some countries have determined their projected contributions are conditional on receipt of climate finance support. AfDB and CIF stand ready to support African countries in that process.



## LEGEND

% = projected percentage of GHG emission reduction from baseline projection



Country has already ratified the Paris Agreement.

Country has signed the Paris Agreement but has not ratified it. NDC data may be modified upon ratification.



# AfDB CIF EVOLVING GREEN ENERGY AND SUSTAINABLE DEVELOPMENT GOALS

## THE AfDB HIGH 5s FOR GREEN AND INCLUSIVE GROWTH

Last year African leaders, along with other world leaders, agreed to an ambitious set of Sustainable Development Goals by 2030 and to their Nationally Determined Contributions (NDCs) setting greenhouse gas emissions limits under the Paris Agreement on climate change. With these goals on the horizon, AfDB is supporting countries' inclusive and green growth by focusing on five priority areas, referred to as the High 5s. The CIF portfolio is evolving in consideration of these new transformative goals.



**Light up & power Africa**



**Feed Africa**



**Industrialize Africa**



**Integrate Africa**



**Improve the quality of life for the people of Africa**

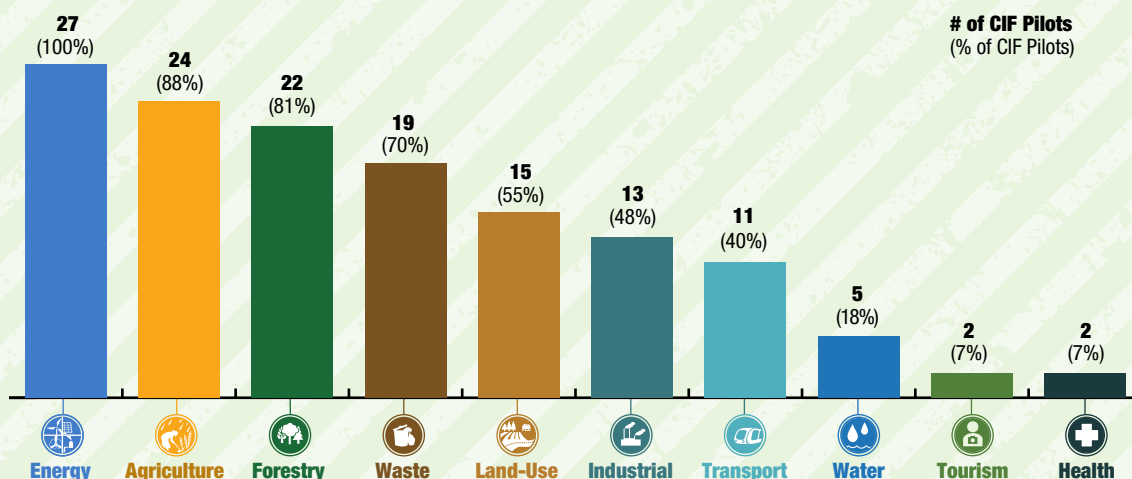
## SUPPORT FOR AFRICA'S NATIONALLY DETERMINED CONTRIBUTIONS (NDCs)

To help African CIF pilot countries integrate their NDC commitments with their broader green development goals, AfDB is analyzing the individual and aggregate data submitted by countries under the Paris Agreement, considering features such as:

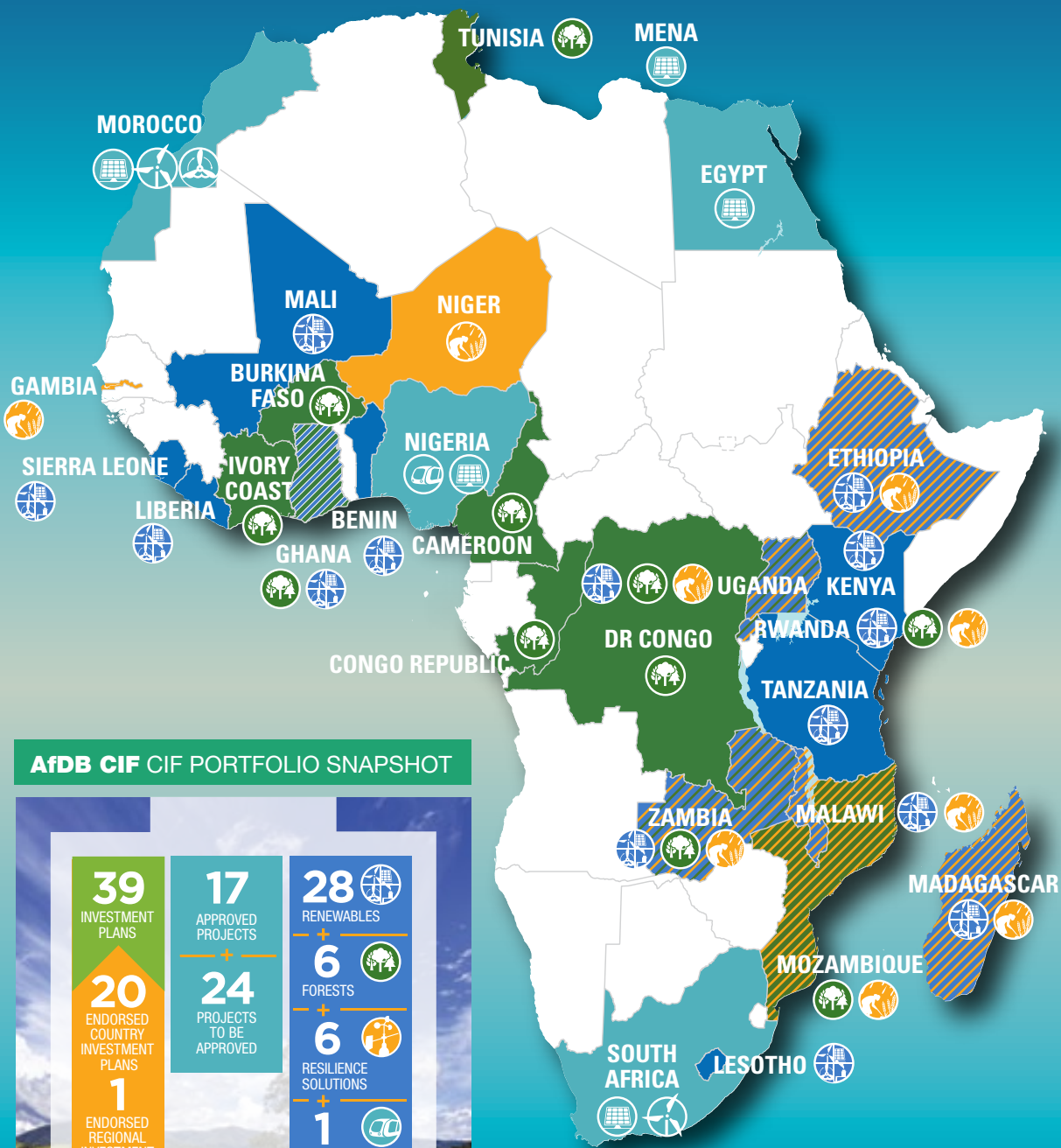
- How governments intend to plan and design greenhouse gas mitigation policies and measures to achieve their NDCs;
- If the interlinkages of NDCs and sustainable development priorities improve countries' ambition to achieve low-carbon development;
- If the countries' plans are consistent with their current and planned CIF activities;
- The extent to which NDCs reflect government mitigation plans include Nationally Appropriate Mitigation Actions (NAMAs), including those under market mechanisms;
- How plans for ratifying the Paris Agreement will link to an upgraded change to countries' initial INDCs to reflect mitigation policy landscape in the NDCs.

In addition to a regional overview, six CIF pilot countries — Uganda, South Africa, Ethiopia, Cameroon, Tunisia, and The Gambia — have been selected as case studies as they go through the process of moving from INDCs to full-blown ratified NDCs. The countries were selected based on criteria including size, development status, geographic spread, language, ambition, and CIF engagement.

## MAJOR SECTORS CIF PILOT COUNTRIES HAVE INDICATED AS ACTIONS UNDER THE PARIS AGREEMENT



# AfDB CIF PILOTS



## AfDB CIF CIF PORTFOLIO SNAPSHOT





# AfDB CIF APPROVED PROJECTS



## CLEAN TECHNOLOGY FUND (CTF) Ensuring sustainable energy

### MOROCCO OUAZAZATE CONCENTRATED SOLAR POWER

CTF \$100M, AfDB \$240M

**Purpose:** To generate 120-160 MW in its first phase by 2014 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 three 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 during construction phase and 45 jobs during operation.

### 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.



## SCALING UP RENEWABLE ENERGY PROGRAM IN LOW INCOME COUNTRIES (SREP) Economic growth through renewables

### KENYA MENENGAI GEOTHERMAL DEVELOPMENT

SREP \$25M, AfDB \$120M

**Purpose:** To develop the Menengai geothermal steam field to produce steam for 120 MW power

**Key expected results:** 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 (PAPER M)

SREP \$1.5M, AfDB \$0.53M

**Purpose:** To foster development of renewable energy by improving policy, strategy, regulatory and institutional frameworks for scaling up renewable energy

**Key expected results:** Approval of 40 RE projects between 2015 and 2017



Menengai Geothermal Development  
Project drilling platform  
© AfDB Photo Library



## PILOT PROGRAM FOR CLIMATE RESILIENCE (PPCR) Embedding resilience in national planning

### MOZAMBIQUE BAIXO LIMPOPO IRRIGATION AND CLIMATE RESILIENCE

PPCR \$15.75M, AfDB \$25.79M

**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 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 households 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



## FOREST INVESTMENT PROGRAM (FIP) Reduced emissions through reforestation and REDD+

### BURKINA FASO GAZETTED FORESTS PARTICIPATORY MANAGEMENT

FIP \$12M\*

**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 \$22.3M\*

**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 \$10M\*, AfDB \$5.33M

**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

### GHANA RESTORATION OF DEGRADED FOREST RESERVE THROUGH CERTIFIED PLANTATION

FIP \$10M, AfDB \$14M

**Purpose:** To catalyze private sector involvement in large-scale sustainable and commercial teak plantations in degraded forest reserves by expanding an existing forest plantation; utilizing debt to catalyze private sector investment.

**Key expected results:** Emissions reduction; 11,700 ha of sustainably managed forest plantation; 400 direct full-time jobs and 600 direct seasonal jobs created

\*Project totals include project preparation grant financing

# AfDB PIPELINE

PROJECT/PROGRAM TITLE	INVESTMENT PLAN	PUBLIC/ PRIVATE*	PROJECT STATUS	CIF FUNDING (US\$ MILLION)	AfDB FUNDING (US\$ MILLION)
<b>CLEAN TECHNOLOGY FUND (CTF)</b>					
200MW Gulf of Suez Wind Farm	Egypt	Public	Preparation	48.95	
120–160 MW CSP Complex in Ouarzazate Morocco	MENA	Public	AfDB Approved	100.00	240.00
Morocco Ouarzazate CSP – Project II	MENA	Public	AfDB Approved	119.00	140.00
One Wind Energy Plan	Morocco	Public	AfDB Approved	125.00	448.39
Abuja Mass transit	Nigeria	Public	Identification	49.00	
Renewable Energy Utility-scale Solar PV – Bauchi Solar PV	Nigeria	Private	Preparation	25.00	
Line of credit for Renewable Energy / Energy Efficiency	Nigeria	Private	AfDB Approved	25.00	75.00
Eskom Renewable supp projects (Wind & CSP)	South Africa	Public	AfDB Approved	100.00	260.00
Sustainable Energy Acceleration Program – Xina CSP Project	South Africa	Private	AfDB Approved	41.50	100.00
Utility Scale renewable Energy: Geothermal (Kenya)/ Concessional Finance Program for Geothermal Generation	Kenya	Private	Preparation	30.00	
Utility Scale renewable Energy: Geothermal	Regional	Private	Preparation	20.00	
Utility Scale Renewable Energy: Solar Photovoltaic Financing (Cameroon/ Burkina)	Regional	Private	Preparation	20.00	
Utility Scale Renewable Energy: Solar Photovoltaic Financing	Regional	Private	Preparation	20.00	
<b>SCALING-UP RENEWABLE ENERGY PROGRAM (SREP)</b>					
Assela wind farm project	Ethiopia	Public	Identification	18.30	
Menengai Geothermal Development	Kenya	Public	AfDB Approved	25.00	120.00
Menengai Geothermal Project	Kenya	Public	Identification	15.00	
Kopere Solar Park	Kenya	Private	Identification	11.60	
Olkaria VI Geothermal Power Plant	Kenya	Private		20.50	
RE-Electrification Eastern Liberia	Liberia	Public	Identification	23.50	
Mini/Micro hydro development	Mali	Public	Identification	8.70	
Solar photovoltaic	Mali	Private	Identification	11.05	
Solar Mali Ségou PV	Mali	Private	Identification	25.00	
Promoting the Scaling Up of Renewable Energy	Mali	Public	AfDB Approved	1.50	0.53
Geothermal Power Development	Tanzania	Public	Identification	24.30	
Renewable Mini-grids and Stand-alone Systems	Ghana	Public	Identification	16.60	
Net Metered Solar PV for SMEs and Lighting Project	Ghana	Public	Identification	11.89	
Development of 130MW of Geothermal in Uganda	Uganda	Public	Identification	31.80	
Decentralized Renewables Development Program	Uganda	Public	Identification	7.10	
Wind Assessment and Pilot Wind Farms	Uganda	Public	Identification	4.93	
<b>FOREST INVESTMENT PROGRAM (FIP)</b>					
Gazetted forests participatory management REDD+	Burkina Faso	Public	AfDB Approved	11.50	
Integrated REDD+ Project in the Mbuji-Mayi/Kananga and Kisangani Basins	DR Congo	Public	AfDB Approved	21.50	
Engaging Local communities in REDD+/Enhancing carbon stocks	Ghana	Public	AfDB Approved	9.75	5.33
Restoration of degraded forest reserve through VCS and FSC certified plantations	Ghana	Private	AfDB Approved	10.00	14.00
Climate change mitigation and poverty reduction through the development of the cashew sector in Burkina Faso (Wouol project)	Burkina Faso	Private	Identification	4.02	
Tai National Park Management Support Project (PAGT)	Ivory Coast	Public	Identification	3.00	
<b>PILOT PROGRAM FOR CLIMATE RESILIENCE (PPCR)</b>					
Sustainable Land & Water Resources Management Project (SLWRMP)	Mozambique	Public	AfDB Approved	15.75	3.23
Baixo Limpopo irrigation & climate resilience program	Mozambique	Public	AfDB Approved	15.75	25.79
Lurio Sustainable Forestry Project	Mozambique	Private	Identification	11.00	
Water resources mobilization & development (PROMOVARE)	Niger	Public	AfDB Approved	22.00	
Climate information dev & forecasting (PDIPC)	Niger	Public	AfDB Approved	13.00	
Strengthening climate resilience Kafue sub-basin	Zambia	Public	AfDB Approved	38.00	

\*Projects marked "private" are funded under the CIF private sector set-aside program, designed to increase private sector investment through competitive allocation of concessional funds.



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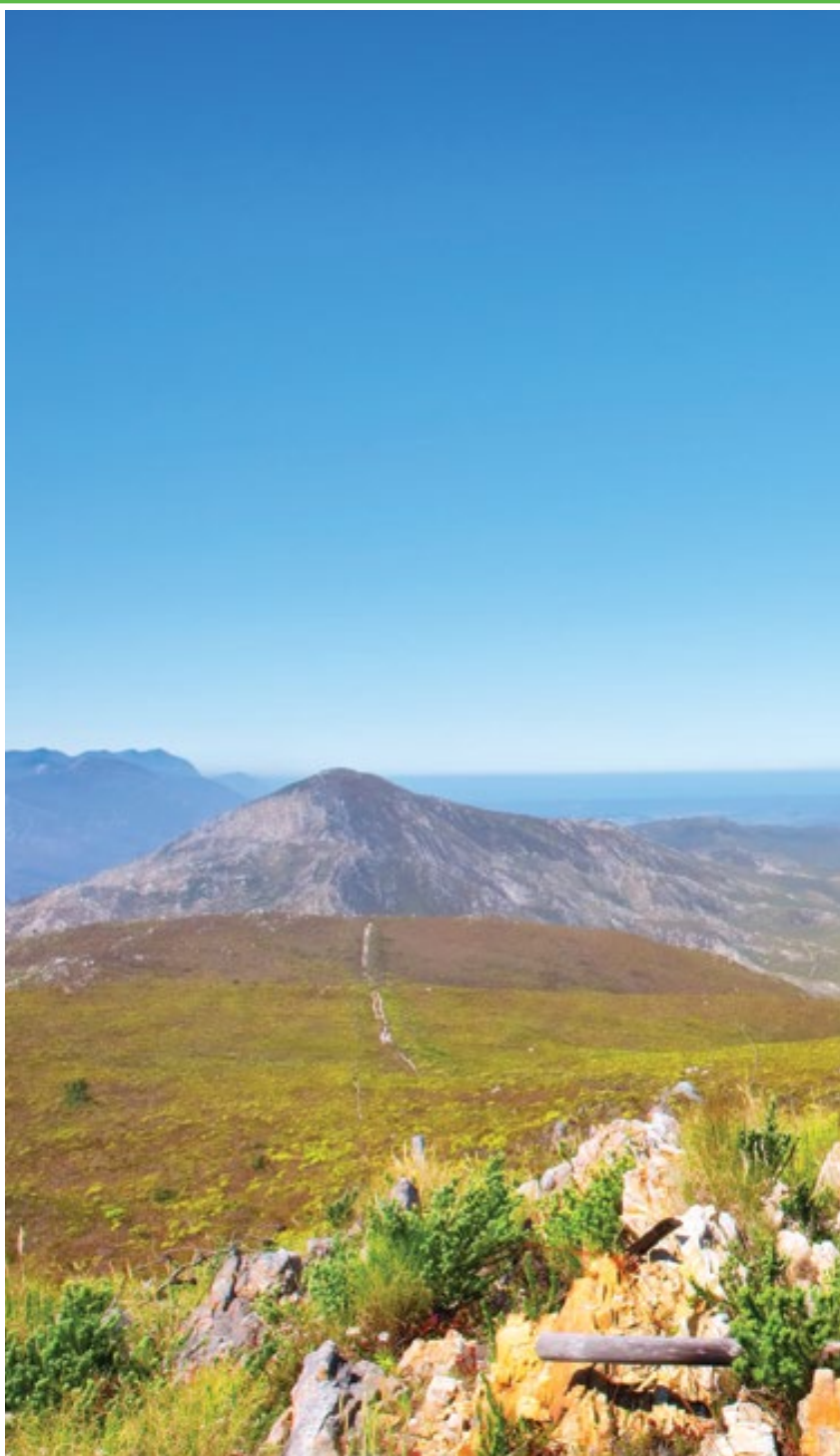
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