

GROWING GREEN

THE AfDB AND CIF FOR
A CLIMATE-SMART AFRICA

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Cover: Lino Siouss harvests catfish and perch from canals that are part of the Baixo Limpopo Irrigation and Climate Resilience Project Limpopo Irrigation and Climate Resilience. Photo: Jeffrey Barbee/TRF



AFRICAN DEVELOPMENT BANK GROUP



1964 2014

50 ANS AU SERVICE DE L'AFRIQUE
50 YEARS SERVING AFRICA

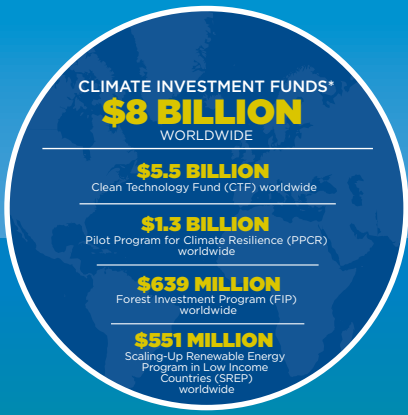
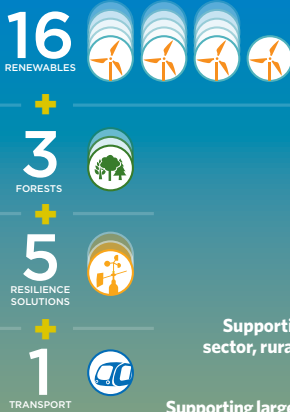
AfDB CIF INVESTMENT PORTFOLIO

16 = **13** = **16**

COUNTRY INVESTMENT PLANS APPROVED PROJECTS RENEWABLES

12

PROJECTS TO BE APPROVED

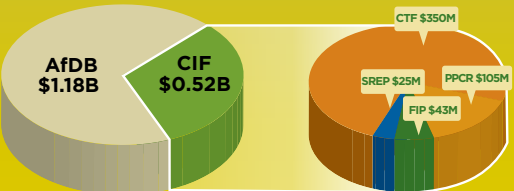


AfDB CIF APPROVED PROJECTS

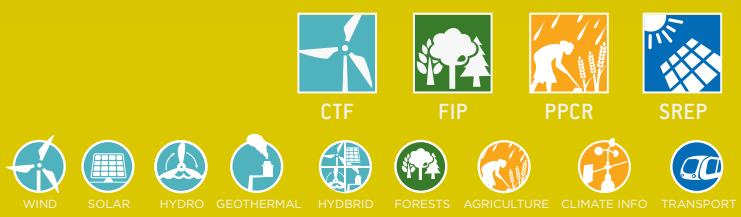
\$1.7 billion

AfDB: \$1.2 billion
CIF: \$0.5 billion

AfDB CIF APPROVED PROJECTS



CIF funding is Investment Plan envelope; AfDB funding includes private sector set-aside allocations



With more than half of the AfDB CIF projects approved, the second half of 2014 will focus on action in ongoing projects and new initiatives to expand the portfolio's impact and help increase evidence-based learning. The evolution to this point has been complex but has benefited from committed engagement of all stakeholders. Change does not come easy, but the tipping point for climate-smart development is on the horizon, and we have the African countries' dedication to look to for inspiration.

Mafalda Duarte

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



POWERED, RESILIENT AND GREEN: IMPLEMENTING THE NEXT STAGE

CREATING NEW FINANCING OPTIONS

Effectively mobilizing climate financing demands innovative financing options, including ones that engage stakeholders such as Small and Medium Scale Enterprises (SMEs) and entrepreneurs. Engaging these groups requires work with local financial institutions to support their readiness to make climate-smart investments. One such innovation is the use of Lines of Credit (LOC) for local banks to on-lend to SMEs for renewable energy and energy efficiency projects. In May 2014, AfDB and CIF approved the first \$50 million LOC for Nigeria, a first-mover in this approach, to on-lend for renewable energy and energy efficiency.

RAMPING UP KNOWLEDGE THROUGH TECHNICAL ASSISTANCE (TA)

Under CIF, scaling up knowledge is as critical as scaling up financing. The \$10 million MENA CSP TA Program is expected to do just that, supporting large-scale CSP deployment by facilitating technology and know-how transfer, strengthening capacities, and addressing market barriers. Activities will include just-in-time assistance, seed funding, a platform for industry cooperation and knowledge exchange, training and education, and fostering an enabling framework.

MOVING FORWARD WITH TRANSFORMATIONAL CONCENTRATED SOLAR POWER (CSP)

CSP remains a greenfield technology, and CIF with AfDB has committed to supporting Africa's efforts to embed this transformational technology as a key ingredient in the region's energy solutions. This support will move substantially forward in the second half of 2014.

- **MOROCCO NOOR II AND III:** Morocco, the Middle East and North Africa's largest energy importer, is at the forefront of climate-friendly policies in the region. In this context, the Moroccan Solar Energy Agency (MASEN) decided to focus a large part of its 2,000 MW program on CSP through development of the Noor Solar Complex, a project slated to create transformational impact on Morocco, the region. With the project's first phase under implementation, CTF, AfDB and the World Bank are funding the project's second phase, consisting of a 200 MW parabolic trough CSP plant (Noor II) and a 150 MW tower CSP plant (Noor III).

NEW SREP PILOTS ON TAP

With a number of countries seeking access to CIF funding, the CIF governing bodies worked with an Expert Group to identify new pilot countries under SREP, and selected them in its June 2014 meetings.

AfDB is poised to engage the selected African countries to help them quickly establish viable investment plans and associated projects. Nine African countries were selected:

Benin, Ghana, Lesotho, Madagascar, Malawi, Rwanda, Sierra Leone, Uganda, and Zambia

THE AfDB CIF PROJECT PIPELINE

PROJECT/PROGRAM TITLE	PLAN	STATUS	CIF US\$M	AfDB US\$M
CLEAN TECHNOLOGY FUND (CTF)				
200MW Gulf of Suez Wind Farm	Egypt		50.00	140.00
120 - 160 MW CSP Complex in Ouarzazate Morocco	MENA		100.00	240.00
Morocco Noor II and III	MENA		119.00	
Egypt Kom Ombo CSP	MENA		62.00	
Tunisia Akarit	MENA		31.00	
One Wind Energy Plan	Morocco		125.00	448.39
Abuja Mass transit	Nigeria		50.00	
Renewable Energy	Nigeria		25.00	
Line of Credit for Renewable Energy and Energy Efficiency	Nigeria		25.00	25.00
Eskom Renewable supp projects (Wind & CSP)	South Africa		100.00	260.00
Sustainable Energy Acceleration Program	South Africa		41.50	100.00
RE - Sustainable Transport	South Africa		57.50	
SCALING-UP RENEWABLE ENERGY PROGRAM (SREP)				
Assela wind farm project	Ethiopia		18.30	
Menengai Geothermal Development	Kenya		25.00	120.00
RE-Electrification Eastern Liberia	Liberia		23.50	
Mini/Micro hydro development	Mali		10.20	
Solar photovoltaic	Mali		11.05	
Geothermal Power Development	Tanzania		25.00	
FOREST INVESTMENT PROGRAM (FIP)				
Gazetted forests participatory management REDD+	Burkina Faso		11.50	
Addressing deforestation & degration in the Mbuji Mayi/Kananga/Kisangani Supply area	DRC		21.50	
Engaging Local communities in REDD+/Enhancing carbon stocks	Ghana		9.75	4.80
PILOT PROGRAM FOR CLIMATE RESILIENCE (PPCR)				
Sustainable land and water management	Mozambique		15.75	3.23
Baixo Limpopo irrigation & climate resilience program	Mozambique		15.75	3.23
Water resources mobilization & development (PROMOVARE)	Niger		22.00	
Climate information dev & forecasting (PDIPC)	Niger		13.00	
Strengthening climate resilience Kafue sub-basin	Zambia		38.00	

Identification

Preparation

AfDB Approved



CTF APPROVED PROJECTS

MOROCCO OUARZAZATE I 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 CO₂ emissions avoided per year; shifted energy mix

MOROCCO ONE WIND ENERGY

CTF \$125M, AfDB \$448M

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 RENEWABLE ENERGY AND ENERGY EFFICIENCY THROUGH LOCAL BANKS

CTF \$25M, AfDB \$25M

Purpose: To address energy efficiency in power, agribusiness, transport, telecommunications, and education by targeting local financial institutions to invest in the shifts to clean, efficient and affordable energy.

Key Expected Results: Increased energy efficiency in key development sectors; increased capacity of local financial institutions to invest in clean energy

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 CO₂ emissions avoided through CSP, 0.24 million tons avoided through wind



SREP APPROVED PROJECTS

KENYA MENENGAI GEOTHERMAL DEVELOPMENT

SREP \$25M, AfDB \$120M

Purpose: To develop the Menengai geothermal steam field to produce enough steam for 400 Mw power

Key expected results: 2 million tons of CO₂ emissions avoided per year; connecting 500,000 households and 300,000 small businesses.



SPOTLIGHT MOROCCO

Morocco is unique in CTF, showcasing both wind and solar and leading on transformative CSP. As CSP moves front-burner, the country also continues to develop its vast wind energy, aiming to increase power generation from wind farms to 2,000 MW by 2020, in line with its policy goal of covering 42% of its energy with renewables by 2020.



SPOTLIGHT KENYA

The Menengai Geothermal Project, a SREP early starter, is now paving the way for significant private sector engagement with funding to support exploration and drilling risks. The project should lead to 400 MW power generated by Independent Power Producers, serving as a test pilot for a replicable investment and project structure.





PPCR APPROVED PROJECTS

FIP APPROVED PROJECTS

MOZAMBIQUE BAIXO LIMPOPO IRRIGATION AND CLIMATE RESILIENCE

PPCR \$15.75M, AfDB \$3.2M

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 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

NIGER IMPROVEMENT OF CLIMATE FORECASTING AND OPERATIONALIZATION OF EARLY WARNING SYSTEMS

PPCR \$13M

Purpose: To build capacity in climate data processing, prepare an agro-pastoral 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

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

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 their poverty by diversifying their 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, and 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 CO₂ 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

SPOTLIGHT MOZAMBIQUE

SPOTLIGHT DR CONGO

To combat increasingly adverse climate effects on agriculture, Mozambique is using PPCR/AfDB support to transform an old set of canals into a water management system with a new pumping station in Xai-Xai. The beneficiaries include smallholder and large-scale farms, and cooperatives. As an innovation, the government is working with a para-statal company to help finance stakeholders.

Heavily-forested DR Congo is focusing on an integrated FIP project to invest in its forests' sustainability. As part of this, the country will be a proving ground for Payment for Environmental Services (PES), through which an environmental service is bought in a voluntary transaction, building market forces and providing financial incentives for sustainable ecosystem management.

