



TOWARDS A CLIMATE-SMART AFRICA

THE AFRICAN DEVELOPMENT BANK AND THE CLIMATE INVESTMENT FUNDS
DRIVING AFRICA'S CLIMATE ACTION

November 2018

www.climateinvestmentfunds.org
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AFRICAN DEVELOPMENT BANK GROUP



Celebrating 10 years of operations in Africa

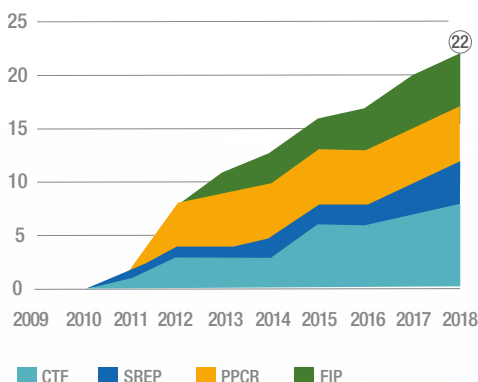
In 2018, the Climate Investment Funds (CIF) is celebrating 10 years of operations. Over the past decade, the CIF has worked to mainstream climate change financing into development activities and catalyze transformational change at scale throughout the world. In Africa, the African Development Bank (AfDB) continues to act as a CIF implementing entity and partner of choice, advancing a growing portfolio of projects in renewable energy, forestry, and resilience solutions across the four CIF programs:

- **Clean Technology Fund (CTF)**
- **Scaling Up Renewable Energy Program in Low Income Countries (SREP)**
- **Forest Investment Program (FIP)**
- **Pilot Program For Climate Resilience (PPCR)**

PORTFOLIO GROWTH

AfDB-CIF Portfolio

Number of approved projects



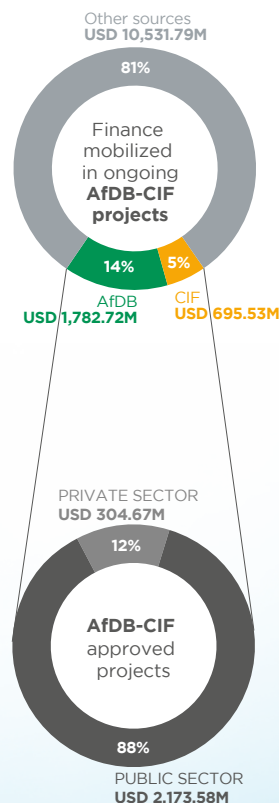
The AfDB and the CIF play an important role in accelerating climate-related investments in African CIF pilot countries. Currently, the Bank is implementing about USD 700 million in CIF investments, which have mobilized an additional USD 12.3 billion in co-financing from a wide array of official and private sector co-financiers.



For every **USD 1** invested by the CIF, an additional **USD 18** has been mobilized

Recognizing private sector development as an engine of climate-smart growth, the CIF and the AfDB are reducing barriers to private sector participation by deploying CIF private sector funds through new national and regional investment plans, dedicated private sector programs (DPSP), and private sector set-asides (PSSA).

Since 2009, the AfDB and the CIF have allocated over USD 300 million to private sector projects in the region.



Climate Investment Funds
USD 8.3 BILLION
WORLDWIDE

USD 5.6 BILLION
CTF worldwide

USD 1.2 BILLION
PPCR worldwide

USD 771 MILLION
FIP worldwide

USD 780 MILLION
SREP worldwide

AfDB-CIF approved projects:
USD 2.5 billion
AfDB: USD 1.8 billion
CIF: USD 0.7 billion

CLEAN TECHNOLOGY FUND (CTF) ENSURING SUSTAINABLE ENERGY

AfDB-CTF Portfolio:

MOROCCO

NOOR I CONCENTRATED SOLAR POWER PROJECT CTF USD 100M, AfDB USD 240M

Purpose: To initiate the development of Concentrated Solar Power (CSP) technology by carrying out Phase I of the Ouarzazate Power Station (125 to 160 MW)

Key results:



217,000 tons CO₂ avoided in 2017 alone



Over 814 GWh of clean energy produced and delivered through the national electric grid since 2016



More than 2,000 green jobs created

CTF Approval 6/11 AfDB Approval 5/12 Project Start 12/13 Project End 2016

MOROCCO

NOOR II AND III CONCENTRATED SOLAR POWER PROJECT (MENA REGION IP) CTF USD 119M, AfDB USD 140M

Purpose: To reduce Morocco's energy dependence on external markets by developing concentrated solar power (350 MW)

Key results:



Estimated GHG emissions reductions on track to take effect in 2019



Construction of NOOR II and NOOR III facilities nearing completion



At least 6,687 green jobs created through construction of NOOR II and Noor III facilities

Key expected results: Reduce national energy dependence and volume of fuel imports at the national level; increase share of renewable energies in electricity generation by 30%; and around 0.5 million tons of CO₂ emissions saved per year

CTF Approval 6/14 AfDB Approval 12/14 Project Start 8/15 Project End 2019

MOROCCO

ONE WIND ENERGY PROGRAM CTF USD 125M, AfDB USD 512M

Purpose: To contribute to energy supply security through the diversification of energy sources, reduction in greenhouse gas emissions, and the harmonization of rural and urban access rates

Key results:



Wind farm construction ongoing in 2018



Over 75,000 new households from 2,590 villages connected to the grid through the program's leveraged co-financing

Key expected results: Three wind farms constructed with total installed capacity of 750 MW (250 MW per wind farm); increased capacity of hybrid hydro storage systems by 350 MW; and an estimated 86,000 new rural household grid connections through leveraged co-financing

CTF Approval 10/11 AfDB Approval 6/12 Project Start 11/15 Project End 2021

MOROCCO

MIDELT CONCENTRATED SOLAR POWER PROJECT CTF USD 25M, AfDB USD 240M

Purpose: To increase innovative solar power generation in Morocco through an innovative hybrid CSP and Solar Photovoltaic (PV) solution

Key expected results: 1.2 million tons annual GHG emissions reduced; up to 800 MW installed capacity of renewable energy

CTF Approval 6/17 AfDB Approval 12/17 Project Start 1/19 Project End 2023

SOUTH AFRICA

ESKOM RENEWABLES SUPPORT PROJECTS: SERE WIND FARM CTF USD 42.33M, AfDB USD 265M

Purpose: To facilitate the accelerated development of large-scale renewable energy production capacity in support of the long-term carbon mitigation strategy of South Africa

Key results:



100 MW of installed capacity

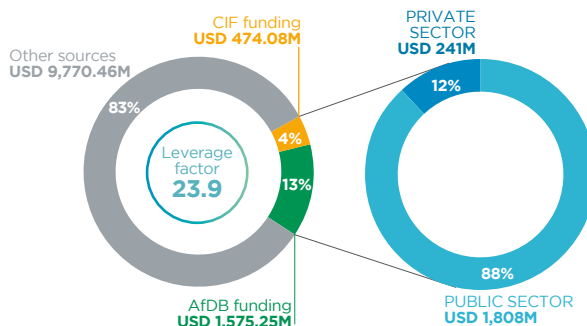


315,000 MWh of annual production



Over 400 green jobs created

CTF Approval 11/10 AfDB Approval 5/11 Project Start 12/10 Project End 2018



NIGERIA

LINE OF CREDIT FOR RENEWABLE ENERGY AND ENERGY EFFICIENCY PROJECT CTF USD 1.25M, AfDB USD 48.75M

Purpose: To support a local bank to finance on-lending to small and medium enterprises and renewable energy/energy efficiency projects in Nigeria

Key expected results: Between 10 and 15 loans extended to small and medium enterprises and renewable energy/energy efficiency projects; 158,500 tons of CO₂ eq reductions per year, and increase in installed capacity by 107 MW

CTF Approval 4/14 AfDB Approval 5/14 Project Start 2/16 Project End 2028

SOUTH AFRICA

SUSTAINABLE ENERGY ACCELERATION PROGRAM: XINA SOLAR ONE PROJECT CTF USD 41.5M AfDB USD 100M

Purpose: To add new, reliable, dispatchable solar energy generation capacity, thus closing the energy supply gap, reducing dependence on coal, saving carbon emissions, generating local employment, and building a domestic solar power industry

Key expected results: 100 MW renewable energy generation capacity installed. Reduction of 400,000 tons of CO₂ eq per year. Creation of over 1,400 green jobs. Save ESKOM approximately 188,000 tons of coal per year

CTF Approval 11/10 AfDB Approval 6/14 Project Start 3/15 Project End 2018

KENYA

DPSP II: CONCESSIONAL FINANCE PROGRAM FOR GEOTHERMAL GENERATION: 35MW Geothermal IPP Project CTF USD 20M, AfDB USD 29.5M

Purpose: To support socio-economic development in Kenya by increasing installed energy capacity, diversifying the country's energy mix with geothermal power, and fostering private sector development

Key expected results: Increase installed geothermal energy capacity by 35 MW; increase average annual energy production by 291 GWh per year; approximately 95,100 tons CO₂ eq in GHG emissions savings per year; and creation of over 300 green jobs

CTF Approval 4/16 AfDB Approval 6/18 Project Start 1/19 Project End 2023

FOREST INVESTMENT PROGRAM (FIP)

REDUCING EMISSIONS THROUGH REFORESTATION AND REDD+*

AfDB-FIP Portfolio:

BURKINA FASO

GAZETTED FORESTS PARTICIPATORY MANAGEMENT

FIP USD 11.5M

Purpose: To reduce deforestation and degradation of gazetted forests while increasing the sustainable income of local communities

Key results:



Over **550 households** benefiting from clean biogas energy and another **4,282** from clean cookstoves

Reforestation of 7,482 ha of gazetted forests



A total of **284,000 ha** of gazetted forests **secured** for sustainable management



At least **713 individuals** trained on sustainable income generating activities, such as beekeeping and shea butter production

Key expected results: Development of a measurement, reporting and verification system for REDD+; at least 4.7 million tons of CO₂ sequestered; increased revenue from sustainable forestry activities in the project area; 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

FIP Approval AfDB Approval Project Start Project End
8/13 11/13 1/14 2019

DEMOCRATIC REPUBLIC OF CONGO

INTEGRATED REDD+ IN THE MBUJI-MAYI/KANANGA AND KISANGANI BASINS

FIP USD 21.5M

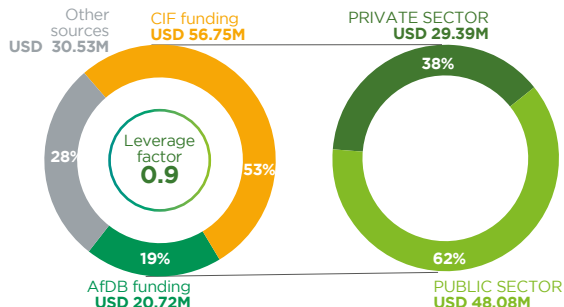
Purpose: To reduce forest GHG emissions and poverty in a degraded savannah area and a closed forest area by addressing land tenure security, agriculture, forestry, and energy

Key expected results: 4 million tons CO₂ emissions reduced; 30,000 improved stoves disseminated; 8,500 ha of forests sustainably managed; 20,000 rural micro-enterprises established; 4,500 land usufruct rights formalized (50% women, youth)

FIP Approval AfDB Approval Project Start Project End
8/13 9/13 1/14 2019



Restoration of Degraded Forest Reserves through Certified Plantation Project - Ghana
Photo courtesy of CIF



GHANA

ENGAGING LOCAL COMMUNITIES IN REDD+/ENHANCEMENT OF CARBON STOCKS

FIP USD 9.75M, AfDB USD 5.33M

Purpose: To increase carbon stocks and poverty reduction in the off reserve areas of the High Forest Zones by engaging communities in land management approaches that generate direct financial and environmental benefits

Key results:



Climate-smart cocoa systems promoted in over **38,658 ha** of forest



Climate-smart agroforestry systems promoted in over **11,686 ha** of forest



At least **7,092 members** of local communities and government benefiting from capacity building activities



More than **309 ha** of forests rehabilitated or woodlots established by community actors

Key expected results: 3.9 million tons of CO₂ emissions sequestered; 22,400 hectares of forest plantations sustainably managed; 1,000 sustainable jobs created; 12,000 beneficiaries to receive seeds, equipment, and financial incentives for alternative livelihood activities

FIP Approval AfDB Approval Project Start Project End
9/13 1/14 11/14 2019

GHANA

RESTORATION OF DEGRADED FOREST RESERVES THROUGH CERTIFIED PLANTATION

FIP USD 10M, AfDB USD 14M

Purpose: To catalyze private sector involvement in the establishment and maintenance of sustainable commercial forestry plantations on degraded forest reserves in Ghana

Key results:



Almost **1,100 green jobs** created



Over **2,000 ha** of degraded forest land restored and transformed into commercial forestry plantations since 2017



FSC Certification for ongoing sustainable business practices



Successful benefit-sharing agreement put into place between private sector, local communities surrounding forest reserves, and Government of Ghana

Key expected results: 11,700 ha covered by sustainably managed forest plantations; 2.8 million tons CO₂ eq in GHG emissions reductions over 40 years; 40% of all jobs created earmarked for women

FIP Approval AfDB Approval Project Start Project End
7/16 9/16 6/17 2031

BURKINA FASO

CLIMATE CHANGE MITIGATION AND POVERTY REDUCTION THROUGH THE DEVELOPMENT OF THE CASHEW SECTOR

FIP USD 4M, AfDB USD 1.36M

Purpose: To increase carbon sequestration capacity and reduce poverty in rural areas through promotion of cashew sector production, value chain, and sustainability

Key expected results: 3.6 million tons of CO₂ sequestered; a 50% increase in cashew productivity per hectare; a quadrupling of the quantity of processed and certified cashew nuts; at least 1,500 cashew producers trained on sustainable practices; and 3,200 green jobs created overall

FIP Approval AfDB Approval Project Start Project End
12/16 2/17 2017 2022

* Reduce emissions from deforestation and forest degradation, and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks

PILOT PROGRAM FOR CLIMATE RESILIENCE (PPCR) EMBEDDING RESILIENCE IN NATIONAL PLANNING

AfDB-PPCR Portfolio:

MOZAMBIQUE

BAIXO LIMPOPO IRRIGATION AND CLIMATE RESILIENCE PROGRAM

PPCR USD 15.75M, AfDB USD 25.40M

Purpose: To contribute to poverty reduction through increased value addition and provision of climate resilient infrastructure for increased agricultural productivity

Key results:



Annual production of rice and vegetables nearly doubled in project area



390 additional hectares covered for rice production



2722 additional hectares covered for vegetable production



Annual income of small-holder farmers and rural entrepreneurs in the project area increased by 50%



New irrigation scheme fully installed and pre-existing irrigation scheme fully rehabilitated

Key expected results: A quadrupling of national rice and vegetable production; and a 150% increase in income within the project area

PPCR Approval AfDB Approval Project Start Project End
5/12 9/12 6/13 2019

MOZAMBIQUE

SUSTAINABLE LAND AND WATER RESOURCES MANAGEMENT PROJECT

PPCR USD 15.75M, AfDB USD 3.23M

Purpose: To strengthen capacity of communities to address interlinked challenges of adverse impacts of climate change, rural poverty, food insecurity, and land degradation through promotion of community-based watershed/landscape management

Key results:



Average yields for major crops increased from 1.5 – 2.0 tons/ha to approximately 2.0-3.5 tons/ha and growing



Acacia, cashew, and mango seedlings planted on 290 ha of restored land



All 56 small irrigation systems installed across 360 ha and farmers trained on their usage

Key expected results: Major arable crops (maize and rice) to double yields up to 4 tons per ha; 1,500 ha of forests restored

PPCR Approval AfDB Approval Project Start Project End
8/12 10/12 10/13 2019

NIGER

CLIMATE INFORMATION DEVELOPMENT AND FORECASTING PROJECT

PPCR USD 13M

Purpose: : Improve the population's resilience to climate change through the generation and dissemination of reliable climate information

Key results:



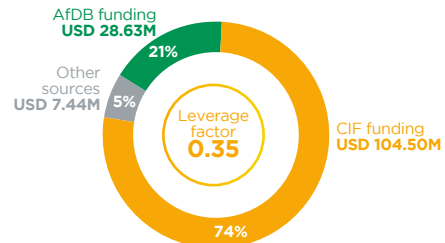
7 regional climate information centers now operational, with one more expected to become operational by the end of 2018



414 rain gauges installed with additional installations currently underway

Key expected results: Eight regional centres operationalized to generate climate data; at least 50% of district councils integrating climate into their local development plans; at least 65,000 farmers (5% of Niger's farmers) systematically using climate information data, and 1,800 rain gauges installed

PPCR Approval AfDB Approval Project Start Project End
5/12 9/12 12/13 2019



NIGER

WATER RESOURCES MOBILIZATION AND DEVELOPMENT PROJECT

PPCR USD 22M

Purpose: : To enhance the resilience of rural communities to climate variability and change through water resource management

Key results:



Over 650 ha of degraded land restored, with another 200 ha of restoration ongoing



Approximately 357 ha of trees planted to date



Over 117 km of agro-pastoralist water corridor restored



Nearly 23 km of service roads constructed adjacent to water resources



11 community management committees established and trained on sustainable water management practices

Key expected results: Contribute to the reduction of rural poverty; increase annual agricultural production to 22,100 tons in project areas, develop water mobilization infrastructure throughout project areas

PPCR Approval AfDB Approval Project Start Project End
7/12 9/12 12/13 2019

ZAMBIA

STRENGTHENING CLIMATE RESILIENCE IN THE KAFUE SUB-BASIN PROJECT

PPCR USD 38M

Purpose: : To reduce poverty and enhance food security of rural communities in the Kafue Basin by strengthening their climate change adaptive capacity and roads infrastructure

Key results:



A total of 320 community-driven micro-projects and farm-level support systems have been funded by the project, ranging from fish ponds to poultry houses, goat rearing, piggyeries, vegetable gardening, and solar-powered boreholes



Over 82 km of climate-proofed roads completed



11 districts trained in climate-mainstreaming their district development plans

Key expected results: Contribute to the reduction of rural poverty; increase annual agricultural production to 22,100 tons in project areas, develop water mobilization infrastructure throughout project areas

PPCR Approval AfDB Approval Project Start Project End
9/13 10/13 7/14 2021

SCALING UP RENEWABLE ENERGY PROGRAM IN LOW INCOME COUNTRIES (SREP) ECONOMIC GROWTH THROUGH RENEWABLES

AfDB-SREP Portfolio:

KENYA

MENENGAI GEOTHERMAL DEVELOPMENT PROJECT

SREP USD 25M, AfDB USD 120M

Purpose: To meet Kenya's rapidly increasing demand for power by developing the Menengai geothermal steam field for power generation

Key results:



Successful preparation of Menengai steam field to generate **144.5 MW geothermal power** for 25 years at a total mass extraction flow rate of 327 kg per second



Over 40 wells drilled toward end construction goal of 50 wells

Key expected results: 192 MW installed geothermal capacity, including 20% reserve; 124,830 GWh of power consumption; 540,000 tons of CO₂ emissions avoided per year

SREP Approval AfDB Approval Project Start Project End
11/11 12/11 6/12 2019

MALI

PROMOTING THE SCALING UP OF RENEWABLE ENERGY PROJECT (PAPERM)

SREP USD 1.5M, AfDB USD 0.53M

Purpose: To foster the development of renewable energy in Mali by improving policy, strategy, regulatory, and institutional frameworks

Key results:



Supported approval of **22 renewable energy projects** in Mali since 2015



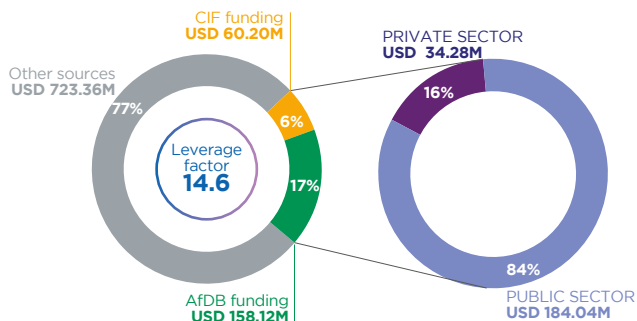
Contributed to a **6% increase** in the proportion of sector investments going toward renewable energy projects with an increased proportion expected



Advances in support of 3 communications activities, 6 dissemination workshops, and a harmonized results measurement framework for the renewable energy sub-sector

Key expected results: Approval of 40 renewable energy projects; 800 million USD in public and private financing going toward renewable energy projects; 40% of all investments in the sector going toward renewable energy projects; updated communications and monitoring and evaluation systems in place

SREP Approval AfDB Approval Project Start Project End
9/14 10/14 12/14 2019



MALI

MINI HYDROPOWER PLANTS AND RELATED DISTRIBUTION NETWORKS DEVELOPMENT PROJECT

SREP USD 8.7M, AfDB USD 28.31M

Purpose: To increase power production capacity and improve the rural population's access to modern energy services

Key expected results: 8.9 MW of installed energy capacity; 12,500 new households connected to the network; 15,800 tons CO₂ eq per year avoided in greenhouse gas emissions; creation of 420 green jobs

SREP Approval AfDB Approval Project Start Project End
4/18 9/18 pending 2023

MALI

SEGOU SOLAR PV PROJECT

SREP USD 25M, AfDB USD 9.28M

Purpose: To design and construct a 33 MW Solar PV power plant and a 33kV transmission line

Key expected results: Increase the national energy supply availability by 57 GWh per year; contribute 33 MW of installed solar energy capacity; reduce CO₂ emissions by 55,000 tons CO₂ eq per year; creation of 160 green jobs

SREP Approval AfDB Approval Project Start Project End
11/16 3/17 pending pending

Menengai Development Project - Kenya
Photo courtesy of AfDB

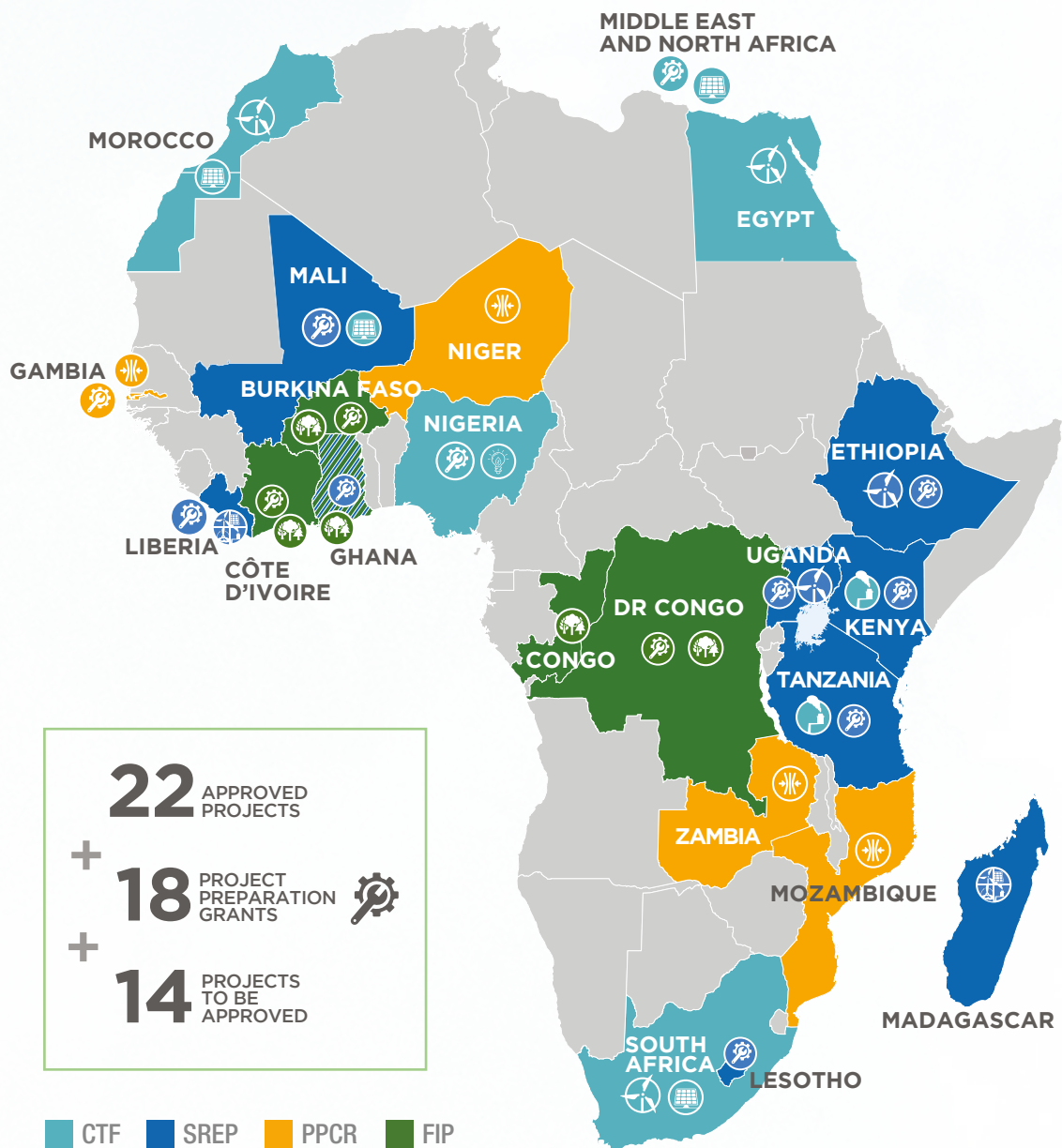


AfDB-CIF pipeline

PROJECT/PROGRAM TITLE	INVESTMENT PLAN	PUBLIC/PRIVATE	PROJECT STATUS	CIF FUNDING (USD MILLION)	AfDB FUNDING (USD MILLION)
CLEAN TECHNOLOGY FUND (CTF)					
Helping countries implement renewable energy, energy efficiency, and sustainable transport					
Noor I Project	MENA	Public	AfDB Approved	100.00	240.00
Noor II and III Concentrated Solar Power Project	MENA	Public	AfDB Approved	119.00	140.00
One Wind Energy Program	Morocco	Public	AfDB Approved	125.00	512.00
Line of Credit for Renewable Energy and Energy Efficiency Project	Nigeria	Private	AfDB Approved	1.25	48.75
Eskom Renewable Support Projects - Sere Wind Farm	South Africa	Public	AfDB Approved	42.33	265.00
Sustainable Energy Acceleration Program - Xina CSP Project	South Africa	Private	AfDB Approved	41.50	100.00
Geothermal Concessional Finance Program For Geothermal Generation: 35MW Geothermal IPP Project	Kenya DPSP	Private	AfDB Approved	20.00	29.50
Midelt Concentrated Solar Power Project	MENA	Public	AfDB Approved	25.00	240.00
Eskom Renewable Support Projects - Battery Storage	South Africa	Public	CIF Approved	57.67	
Utility-Scale Solar IPP Program	Nigeria DPSP	Private	Identification Sealed Pipeline	24.00	
Geothermal Concessional Finance IPP Program	Kenya DPSP	Private	Identification Reserve Pipeline	20.00	
FOREST INVESTMENT PROGRAM (FIP)					
Helping countries pioneer payment for environmental services, build landscape management, and support REDD+					
Gazetted Forests Participatory Management REDD+ Project	Burkina Faso	Public	AfDB Approved	11.50	
Integrated REDD+ Project in the Mbuji-Mayi/Kananga and Kisangani Basins	DRC	Public	AfDB Approved	21.50	
Engaging Local Communities in REDD+/Enhancing Carbon Stocks Project	Ghana	Public	AfDB Approved	9.75	5.33
Restoration of Degraded Forest Reserve through VCS and FSC Certified Plantations Project	Ghana	Private	AfDB Approved	10.00	14.00
Climate Change Mitigation and Poverty Reduction through the Development of the Cashew Sector Project	Burkina Faso	Private	AfDB Approved	4.00	1.39
Forest Cover Recovery and Resilience Improvement Project	Côte d'Ivoire	Public	CIF Approved	9.00	
Community and Fuelwood Agroforestry Project	Congo	Public	Identification	8.00	
PILOT PROGRAM FOR CLIMATE RESILIENCE (PPCR)					
Helping countries improve climate forecasting and early-warning, reduce poverty, increase crop production, and build climate resilience					
Sustainable Land and Water Resources Management Project	Mozambique	Public	AfDB Approved	15.75	3.23
Baixo Limpopo Irrigation and Climate Resilience Program	Mozambique	Public	AfDB Approved	15.75	25.40
Water Resources Mobilization and Development Project	Niger	Public	AfDB Approved	22.00	
Climate Information Development and Forecasting Project	Niger	Public	AfDB Approved	13.00	
Strengthening Climate Resilience Kafue Sub-basin Project	Zambia	Public	AfDB Approved	38.00	
SCALING-UP RENEWABLE ENERGY PROGRAM (SREP)					
Helping countries revolutionize their energy landscape, bridging their energy deficit through renewables and stimulating economic growth					
Menengai Geothermal Development Project	Kenya	Public	AfDB Approved	25.00	120.00
Mini Hydropower Plants and Related Distribution Networks Development Project	Mali	Public	AfDB Approved	8.70	28.31
Ségou Solar PV Project	Mali	Private	AfDB Approved	25.00	9.28
Promoting the Scaling Up of Renewable Energy Project	Mali	Public	AfDB Approved	1.50	0.53
Renewable Energy for Electrification in Eastern Liberia Project Stand-Alone PV	Liberia	Public	CIF Approved	23.50	
Kopere Solar PV Project	Kenya	Private	Identification Sealed Pipeline	11.60	
Olkaria VI Geothermal Power Plant Project	Kenya	Private	Identification Sealed Pipeline	20.00	
On-Grid Renewable Energy Technologies Project	Lesotho	Public	Identification Sealed Pipeline	5.00	
Hybridization of Isolated Diesel Generation Centers with Solar Technologies	Madagascar	Public	Identification Sealed Pipeline	8.00	
Renewable Mini-grids and Stand-alone Systems Project	Ghana	Public	Identification Reserve Pipeline	16.60	
Solar PV Based Net Metering with Battery Storage	Ghana	Public	Identification Reserve Pipeline	11.89	
Decentralized Renewables Development Program	Uganda	Public	Reserve Pipeline	7.10	
Wind Resource Map and Pilot-Wind Power Development Project	Uganda	Public	Reserve Pipeline	4.93	

AfDB-CIF AT A GLANCE

NOVEMBER 2018



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