



Powering a Green Africa:

The Role of Climate Finance

Leveraging Climate Finance for Private and Public
Sector Climate Change Mitigation Actions

Clean Development Mechanism and Nationally
Appropriate Mitigation Actions Capacity Building
Workshop for Zimbabwe

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The context:

Only 1 in 4 Africans has access to energy...



Africa at night

To reduce poverty, improve Africans' living conditions, and mobilize resources for the continent's economic and social development, this situation must be reversed.



Energy resources abundant in Africa

Energy resources	Potential	Environmental impact/ Climate change
Crude Oil	Moderate	Has a negative impact on environment
Hard coal	High	Has a negative impact on environment
Natural Gas	High	Limited impact
Hydro Electric	Very high	Limited impact
Geothermal	High	Limited impact
Wind	High	Limited impact
Solar	Very high	Limited impact
Co-gen	Moderate	Limited impact



Energy access must be sustainable

Access to energy is closely correlated with observed reduction in the levels of poverty indicators

Sub-Saharan Africa has a disproportionately high percentage of households without electricity.

Africa has significant energy resources, including renewables, yet energy production remains low

Africa currently contributes only 4% of GHG emissions, yet if industrial and economic development continues along a “business as usual” course, Africa’s emissions will increase significantly

Objective

Programs in the energy sector must be targeted to scale up access to energy services while helping Africa adopt a sustainable path to a low-carbon and climate-resilient economy.

AfDB's energy objective



Increasing **access**
to energy while
helping Africa
adopt a **green**
growth path.



AfDB New Deal on Energy for Africa...

Africa is blessed with limitless potential for solar, wind, hydropower and geothermal energy resources. We must unlock Africa's energy potential – both conventional and renewable.

Akinwumi Adesina, AfDB President

To achieve universal access to energy in Africa by 2025 for:

- ➔ 100% access in urban areas
- ➔ 95% access in rural areas
- ➔ leveraging on and off-grid solutions, technological advances

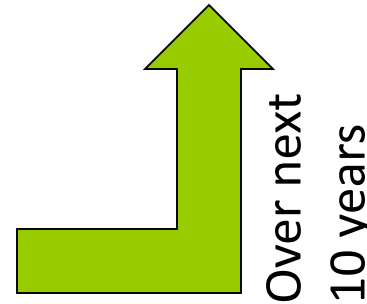




To accomplish universal access by 2025 requires an exponential increase in mobilizing resources...



\$22.5B
in 2014



\$40-70B annually



Climate Finance is key

Climate finance supports development objectives:

- Strengthens national finance to support out-of-reach policies and innovations
- Leverages new money from public and private sources
- Lowers risk barriers to engage private sector, other investors
- Creates a platform to bring together stakeholders
- Supports new and innovative technologies
- Works through multiple funding channels that offer:
 - Climate finance grants
 - Concessional loans
 - Guarantees
 - Equity



AfDB Role in Climate Finance

- Will triple its climate financing to reach \$5B by 2020
- Works through 9 climate finance mechanisms

FUNDS MANAGED BY AfDB ENERGY, ENVIRONMENT AND CLIMATE CHANGE DEPARTMENT (ONEC)



Premier global instrument for low-carbon, climate-resilient development



Champion of the global commons, global UN treaty instrument



UN fund to help developing countries achieve adaptation and mitigation

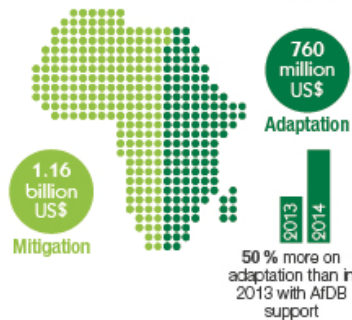


Unique mechanism for private investment in small/medium scale renewables, energy efficiency



Fund for African readiness for climate-resilient, low-carbon development

1.92 billion US\$ of climate finance mobilized by AfDB in 2014



FUNDS MANAGED BY AfDB WATER AND SANITATION (OWAS) AND AGRICULTURE AND AGRO-INDUSTRY (OSAN) DEPARTMENTS



African Water Facility

Fund for innovative water projects in Africa



Multi-donor Trust Fund to support rural water supply and sanitation programs.



Multi-donor fund to support agriculture infrastructure projects



Multi-donor fund for information for climate-resilient development



Specialized Climate Funds

- ❑ **Sustainable Energy Fund for Africa (SEFA)** – supports small clean energy businesses –\$95 million multi-donor trust fund (DANIDA, DFID, Italy and USAID)
- ❑ **Africa Climate Change Fund (ACCF)** – German-funded trust fund African readiness for climate-resilient, low-carbon development
- ❑ **Climate Investment Funds (CIF)** – channel more than \$2 billion – 39 Investment Plans (19 endorsed): 26 renewables projects in middle- and low-income African countries
- ❑ **Global Environment Facility (GEF)** – enables coverage of 8 more countries & Lake Chad Basin Organization – initiating PPP Platform (\$20 million) and Climate Change Technology Network
- ❑ **Green Climate Fund (GCF)** – \$10 billion UN-based fund: AfDB is confirmed implementing agency, plans being developed





Showcase Projects





Front-runners in renewables

- **Cape Verde, Egypt, Ethiopia, Kenya, Morocco and South Africa** have launched major initiatives to utilize solar, wind and geothermal energy, resulting in over 10 GW of capacity contracted



Menengai Geothermal, Kenya



- ❑ The project is situated within the Eastern sector of the African Rift system, about 180 km Northwest of Nairobi.
- ❑ The field has a potential of up to 1600MW, and the AfDB Group support will help develop the steam field for generation capacity of up to 400MW in a first phase
- ❑ The project cost is circa. \$500 million and financed by a group of lenders including the AFD, EIB and GoK. It will be completed by July 2016.
- ❑ Financed through an ADF loan of \$124 million and grant totaling \$ 25 million from SREP for which AfDB Group is an implementing agency



Buseruka small-scale hydroelectric power project

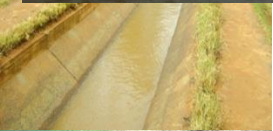
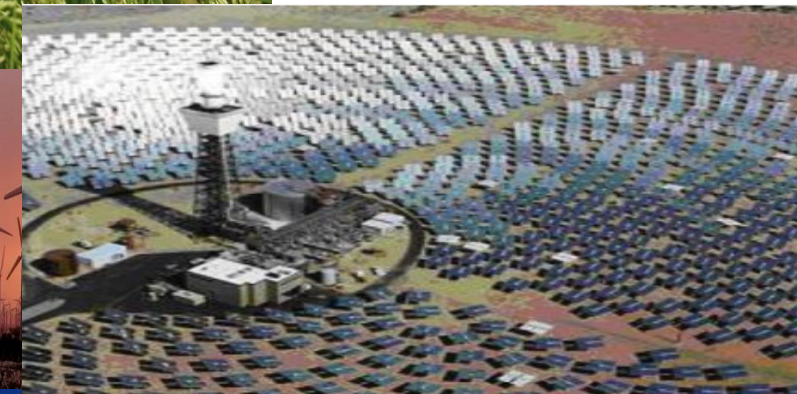
- ▣ 9 MW plant in Uganda
- ▣ Independent power project (IPP)



- Connection of rural population
- Reduce generation cost
- Long-term socio economic benefits
- Project cost: \$40 million
- AfDB loan: \$9 million



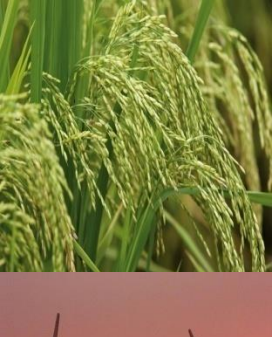
Eskom Wind and Concentrating Solar



- ❑ 100 MW Wind in Sere and and CSTP Plant in Uppington
- ❑ AfD mobilizing \$265 million, as well as co-financing from other sources
- ❑ CIF CTF channeling \$100 million through AfDB
- ❑ Expected to catalyze Wind and CSP IPP's throughout the sub-region.



Itezhi-Tezhi, Zambia



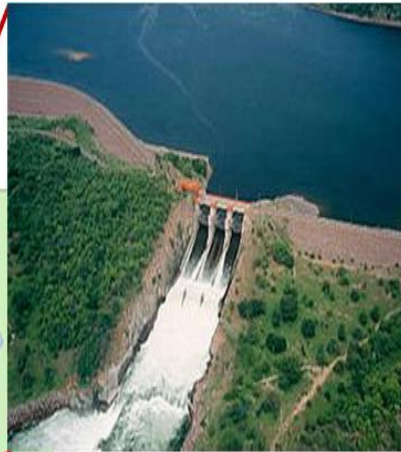
■ A Plant with capacity of 120 MW
Located on the Itezhi Tezhi Dam (built in 1978) on the Kafue River, adjacent to the Kafue National Park.

■ Sinohydro was awarded EPC contract through International Competitive Bidding Basis (“ICB”) process based on World Bank Guidelines.

■ ZESCO to develop 220KV/330 KV transmission line (circa 280 km) from Itezhi-tezhi to Lusaka with a Substation at Mumbwa

■ **Investor** **Share in ITT**

- TATA 50%
- ZESCO 50%





Thank you!

