African Development Bank Group

Climate finance for Africa in Action

20 October, 2012

Outline

I. The Challenges Ahead

II. Climate change finance instruments

III. Project examples

I. The Challenge Ahead for Africa

- The cost of putting Africa on a **low-carbon growth pathway** with significant emission reductions could amount to **$9–12 billion by 2015**, including $5–6 billion per year for forestry, $2–4 billion per year for agriculture, and $2 billion per year for the energy sector. The total cost is expected to rise to **$31–41 billion by 2030** ***(source:*** *Grantham Research Institute and the International Institute for Environment and Development)*

- Annual **adaptation costs for Africa** are expected to increase from about US$ 13 billion per year in 2010 to **US$ 23 billion per year by 2030**. This implies an additional US$ 18 billion per year in development programming assistance to Africa, over and above current ODA commitments ***(source:*** *World Bank, Economics of Adaptation)*

II. Climate Change finance instruments

- **Concessionary** (non-exhaustive list)
  - ✓ Climate Investment Funds (CTF and SCF)
  - ✓ Global Environment Facility (GEF)
  - ✓ Congo Basin Forest Fund (CBFF)
  - ✓ Africa Water Facility (AWF)
  - ✓ Sustainable Energy Fund for Africa (SEFA)
  - ✓ ClimDev-Africa Special Fund
  - ✓ Bilateral trust funds

- **Private capital** (non-exhaustive list)
  - ✓ Clean Energy Bonds

- **Market mechanisms** (non-exhaustive list)
  - ✓ Africa Carbon Support Program

II.a Climate Investment Funds

CLIMATE INVESTMENT FUNDS			
Clean Technology Fund (CTF)		**Strategic Climate Fund (SCF)**	
CTF Worldwide	USD 5 billion	SCF Worldwide	USD 2 billion
CTF in Africa	USD 1.9 billion	SCF in Africa	USD 615 million
AfDB Channeling	USD 757 million	AfDB Channeling	USD 250 million
Demonstrate, deploy and transfer of low-carbon technologies for low emission development		Targeted programs to pilot new approaches to initiate transformation with potential for scaling up climate resilience	
		Pilot Program for Climate Resilience (PPCR)	**Forest Investment Program (FIP)**	**Scaling Up Renewable Energy Program in Low Income Countries (SREP)**
Renewables, energy efficiency, urban transport, commercialization of sustainable energy finance		Mainstream resilience in development planning	Reduce emissions from deforestation and forest degradation	Create economic opportunity, increase energy access through renewables
Egypt, Morocco, Nigeria, South Africa and MENA Region (Algeria, Egypt, Jordan, Morocco, Tunisia)		Mozambique, Niger, Zambia	DRC, Burkina Faso, Ghana	Ethiopia, Mali, Kenya, Tanzania, Liberia

II.a How CIF are helping Africa

Put plans into action

- In 2012 alone AfDB approved USD 225 million CIF with USD 752 million additional AfDB financing

Make green technologies viable

- MENA regional Concentrated Solar Power program will increase global installed CSP two-fold

Stimulate learning by doing

- Kenya Menengai geothermal project will create replicable scale-up in this under-used technology

Inspire investor confidence

- Morocco USD 125 million CTF wind power will leverage USD 2 billion+, unprecedented leveraging factor of 18

Enable climate-smart change

- Niger USD 110 million PPCR program mainstreams climate resilience in national development plans

Encourage cooperation

- Burkina Faso USD 30 million FIP will build multi-sectoral synergies and muli-stakeholder capacity building

Offer a platform for learning and knowledge

- Plans feed into global knowledge pool and inform key decision-makers

II.b Global Environment Facility

- Financial mechanism of four multilateral environment agreements (CBD, UNFCCC, POPs, UNCDD)

- Funds available:

  - ➢ <u>GEF trust fund</u>: finances activities within the GEF focal areas, which strategic focus areas in climate change mitigation, land degradation, biodiversity , international waters. 4 years country allocation (STAR) by focal area

  - ➢ <u>Climate Change Adaptation</u>
    - ✓ *Least Developing Countries Fund (LDCF):* voluntary trust fund established under the UNFCCC to address the special needs of least developing countries (LDCs) vulnerable to the impacts of climate change as identified in the National Adaptation Program of Actions (NAPA). As of October 2012, US 20m ceiling per country

    - ✓ *Special Climate Change Fund (SCCF):* voluntary trust fund that finances activities, programs and measures relating to climate change adaptation and technology transfer

II.b GEF: Potential for African countries

- **At the Strategic level:** Integrate GEF potential projects in Bank investment at CSP level

- **Projects and program development:**
  - Development of adaptation projects (LDCF, SCCF) component in specific projects (ex: OWAS project in Uganda is under preparation);
  - Identification and development of projects under the GEF trust fund (Climate change mitigation, Biodiversity conservation and Land Degradation management);
  - Development of a **regional adaptation component** under regional initiatives (for instance program for pastoralist livelihoods adaptation to climate change under the OSAN HoA program in Ethiopia, Djibouti, Sudan and Kenya -LDCF/SCCF);

- **Financial support – Private Sector :** Debt and equity investments in renewable energy private sector projects through the **Public-Private Partnership Platform** managed by OPSM (USD 20 million);

- **Technical Support : Climate Change Technology Transfer and Finance Center** will provide technical assistance to support the deployment of environmentally sound technologies on the ground based on countries' demand (project proposal under preparation)

II.c Sustainable Energy Fund for Africa

SEFA net resources USD 50 million		
Component	**Project Preparation**	**Equity Investment**
Budget (approx)	USD 14 million	USD 36 million
Instruments	Grants < USD 1 M	Direct equity investment and in-kind Technical Assistance
Management	AfDB	Private Fund Manager
Project Size	USD 30-75 million	USD 10-30 million

SEFA is currently developing into a multi-donor multi-component platform and is ready to accommodate new partners.

II.d Africa Carbon Support Program highlights

- New CDM Methodology for "Interconnection between electricity systems for energy exchange" approved by UNFCCC
- New Methodology is opportunity for up to USD 590 million per year for transmission of clean electricity in the continent
- Technical support provided to a total of 11 projects
- Potential CERs conservatively estimated at 5 million/year
- At USD 3/CER, revenues could reach USD 15 million/yr, USD 150 million over 10 year crediting period

Title of the project	Company/Country	Est. ERs CO2/yr
Itezhi Tezhi Hydro Power plant 120 MW	ITPC Ltd. /Zambia	537,000
Concentrated Solar Power plant, 125-160 MW	MASEN/Morocco	236,000
Lagos Cable Propelled Transit	Ropeway Transport Ltd./ Nigeria	91,000
Ethiopia-Kenya Power Interconnection (2000 MW)	EEPCo/Ethiopia KETRACO/ Kenya	7,000,000
CODER Hydropower (36 + 56 MW)	CODER / Gabon	216,000
KISCOL Cogeneration (18 MW)	KISCOL/ Kenya	91,000
ESKOM Sere Wind farm (100 MW)	ESKOM/ RSA	205,000
Domestic Biogas-Digesters (10,000 bio-digesters)	Ministry of Agriculture / Zambia	27,000
Menengai Geothermal (200 MW)	GDC/ Kenya	720,000

II.d ACSP opportunities

CDM has strategic advantage in larger scale project types:

Cost effective Renewable Energy:

- Hydropower (Ethiopia, Zambia, DRC), CSP (Morocco, Botswana), Geothermal (Kenya)

Electrification:

- Only 31% of the population with access to electricity in Africa
- World Energy Outlook 2011 for the first time recognized the role of carbon finance for energy access

Fuel switch:

- Industrial scale use of biomass in cement industry (Nigeria, Kenya, Zambia)
- Significant natural gas finds in Tanzania and Mozambique

Flare gas recovery:

- ”Old” flares - Nigeria, Gabon, Cameroon
- ”New” flares - Kenya, Uganda, Sudan

III. Project examples

Menengai Geothermal Development

GOAL
Meeting Kenya's increasing demand for power & diversifying sources of power supply by developing Kenya's geothermal potential.

EXPECTED RESULTS
-Increase of 26% of the current total installed generation capacity in the country
-Provide energy to 500,000 households
-Generate 1,000 GWh of energy to businesses & industries
-Avoid the release of 2 million tons of CO_2 per annum
-Health & education opportunities
-Empowerment of women

FINANCING
AfDB → USD 125 million
CIF → USD 25 million

III. Project examples

Integrated Wind Energy, Hydro Power & Rural Electrification Program – Morocco

GOAL
Increasing the proportion of renewable energy in the energy mix.

EXPECTED RESULTS
-Increase the proportion of renewable energy from 10% (2007) to 42% (2020)
-Provide energy to 86,000 households
-Generate 6,000 MW of renewable energy
-Reduce imports of energy products
-Avoid the release of 65 million tons of CO_2

FINANCING
AfDB → EUR 359 million
Clean Technologies Fund (**CTF**) → USD 125 million channeled through AfDB

Thank you!

III. Climate Change work at AfDB

- **Mainstreaming of climate change in CSPs** has started since late 2011; the work was done for instance in Madagascar, Morocco, Nigeria, Congo, DRC, Burkina, etc.

- In line with the new Energy Policy, this work will help build ONEC pipeline as follows:
  - Highlighting national GHG emissions, including opportunities for carbon finance, should help build the rationale for renewable energy projects;
  - Identifying new sources of finance (« climate finance ») as part of the CSP preparation process, such as CIF/GEF/SEFA/NDF, can support the development of new RE projects, buying down the up-front costs;
  - Exploring climate risks & vulnerabilities, this mainstreaming work should allow for the development of climate resilient energy projects, for instance better taking into consideration changes in water flows to dimension hydro-electricity projects.

III. Climate Change Program

Mitigation

- Enhanced Investments in Renewable Energy (RE) and Energy Efficiency
- Promoting Sustainable Transport
- Promoting Sustainable Land & Forestry Management

Adaptation

- Promoting Sustainable Land Use and Water Resources Management
- Building Resilience Key Infrastructure & Urban Systems
- Climate Proofing of AfDB's Projects

Financing Tools

- Mobilizing Concessionary Resources
- Catalyzing Private Capital
- Maximizing Market Mechanisms

Policy reform & knowledge generation/competency building