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Africa, sustainable development and climate change
Prospects of Paris and beyond

ClimDev-Africa



Achieving Sustainable Development Through Low Carbon Pathway In Africa

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Problem statement 1/2

- **In their quest for industrialized economies, Africa countries risk depleting their natural resource base and increasing GHG in the atmosphere**
- **Africa has a high energy-intensity use far more energy for every dollar of Gross Domestic Product (GDP) - typified by the use of expensive, imported, and environmentally unsustainable fossil fuels**
- **The realities of global warming and climate change impact on this fragile continent compel society to rethink current development pathways**



Problem statement 2/2

- Pursuing a LCD pathway can effectively reduce high-carbon energy use intensity and increases resilience to the physical impacts of climate change
- We examine the current situation of low-carbon pathway for sustainable development of Africa's economy;
- Explore the future of governance and practice for mainstreaming low-carbon pathways into national planning and development





Methods

- **Mix of approaches for data collection and analyses**
 - **A desk based content analyses**
 - scientific literature, national policy documents, climate mitigation and action plans, web content, conference documents, summit reports, national reports, and analyses of initiatives .
 - **Expert consultation workshops and other participatory learning platform**
 - involving researchers, representatives from government ministries and agencies responsible for climate data and information services, non-governmental organizations, and policymakers





Key Findings

- Africa continues robust economic growth has not translated into tangible sustainable development outcomes.
 - Africa's urbanization has not been driven by industrialization.
 - Fossil fuels are dominant material export and import of Africa.
 - Africa is a net exporter of non-renewable resources and a net importer of renewable resources.
 - In 2008, the share of fossil fuels in total exports was 75 per cent, which is well above the global average of 50 per cent.
 - Non-renewable resources account for a large share of domestic material consumption in African countries that are at a relatively higher level of industrial development.
 - Progress registered in terms of energy infrastructure and diversity of sources, but energy insecurity remains high.
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- Energy use in Africa is low, and has been increasing much less rapidly than material use.
 - In 2009, Africa's per capita electricity consumption was only 561 kilowatt-hours (KWh), compared to 741 KWh for Asia, 1,884 KWh for Latin America, and 2,730 KWh for the world.
 - Africa has contributed the least to global greenhouse gas emissions but is the region most affected by climate change.
 - In 2009, total CO2 emission from Africa was 928 million tons (only 3.2 per cent of global emissions),
 - compared to 10,030 million tons from Asia and 12,045 million tons from OECD countries
 - Africa needs about US\$30-35 billion per year to deliver a higher level of LCD
 - Africa has benefited least among all continents from the numerous climate funds



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Key Findings



Some LCD Initiatives:

- **In South Africa -the Kuyasa Clean Development Mechanism (CDM) project**
 - to retrofit 2,309 low-income houses in the urban township of Kuyasa, Khayelitsha, with solar water geysers, insulated ceilings and compact fluorescent light (CFL) bulbs.
- **In Ghana - the Toyola Energy Limited produces and sell sustainable charcoal cook-stove.**
 - The cook-stove is projected to reduce charcoal use by 26,000 tons per year, thereby saving trees and cutting carbon dioxide emissions by 150,000 tons per year.
- **The Nigeria Electricity Supply Company (NESCO) operates a network of small hydroelectric power stations**
 - with total installed capacity of 21MW to serve a number of industrial customers and communities, and also sells to the national grid.

Some LCD Initiatives:

- **Kenya's Mumias Sugar Company (MSC) uses sugarcane bagasse**
 - to generate 35MW of electricity, with 10MW for internal consumption by the factory and 25MW exported to the national grid.
- **In Ethiopia, the Solar Energy Foundation (SEF) Solar Home Systems**
 - has met the lighting and audiovisual needs of about 3,704 rural homes and business.
- **Rwanda's National Domestic Biogas Programme (NDBP) is part of an effort to encourage people and businesses to move away from using wood fuel to using biogas for energy.**
- **Southern Africa Power Pool (SAPP)- SADC and West Africa Power Pool (WAPP)- ECOWAS**
 - which aim to provide reliable and economical electricity supply to member countries

Conclusions/Recommendation

While the potential benefits of LCD pathway to transform Africa's economy cannot be overemphasized:

- **Pursuing low carbon development agenda will require**
 - substantial creativity in harnessing financial and human resources, and
 - building the institutions to support local and national innovation
 - capitalize on existing climate finance and technology transfer mechanisms,
 - lead in framing new instruments for action and funding to transform development priority sectors, particularly the energy sector.
- **Future regional governance practices for successful deployment Low-carbon strategies in Africa**
 - Multi-stakeholder Processes and Institutions
 - Integrated Development Planning With Respect to Vertical and Horizontal Collaboration
 - Cross-cutting Policies
 - Monitoring, Reporting and Accountability Processes