



**7th Global Forum on Sustainable Energy
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**7th Global Forum on Sustainable Energy
Energy Efficiency for Developing Countries:
Strong Policies and New Technologies**

**Renewable Energy and Energy
Efficiency: Engaging Governments and
Policy Makers in Africa
Experiences from Kenya and the East
African Region**

David Yuko

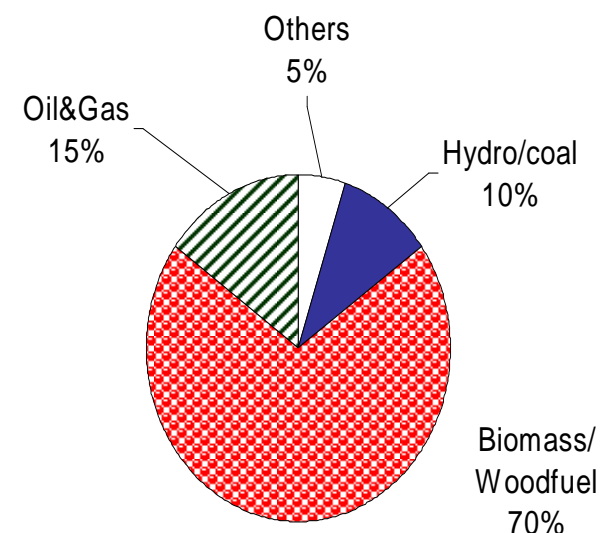
**Institute of Research in Sustainable Energy and
Development**





Africa Energy Sector

- Energy use in sub-Saharan Africa - dominated by biomass (wood, charcoal, bio residues)
- Low levels of access to modern energy services
- Rich renewable resource base: hydro (small hydro), geothermal, solar, wind and biomass - largely unexploited



Typical National Energy Supply





Background to the sector

- Traditional emphasis on Large Scale Conventional Energy Options
- Limited formal structures prior to the oil crises of the 1970s
- Bulk of funding allocated to conventional energy sector - large-scale hydro and petroleum
- Power development planning is the responsibility of the public sector, Governments, by nature are conservative





Key Constraints

- Politician and policy makers have to address priority issues of the day such as poverty and HIV/AIDS
- Political Expediency, Short term considerations, need to win votes, and corruption often interfere with long term policy issues in the energy sector
- Investments in the energy sector are long-term and generally large, Renewable energy technologies need long-lasting, stable, predictable policy frameworks.
- Private sector investors want early returns to minimise uncertainty risks





Progress to date

- Post Colonial Africa: Low oil prices, Government ownership, Large state projects
- Oil crises of 1973 and 1979, Ministries of Energy were created to address energy issues
- Liberalisation, Structural Adjustments resulting in Power Sector reforms
- Policy formulation driven by African scholars and researchers led by AFREPREN, CEEEZ
- Others include SEI, RISO and a select number of African Universities





- Electric utilities privatised
- Restructured or restructuring
- No restructuring or privatisation

African Power Utilities Unbundling and Privatisation Process

■ NIGERIA

Unbundled. Deregulation on its way

GHANA

Unbundling followed by privatization

CAMEROON

Privatised electricity utilities

GABON

Privatized water and electricity utility companies

ZAMBIA

No privatization nor unbundling
Transmission and distribution privatized

RWANDA

Vertically integrated Electrogaz
Recently concessioned.

ZIMBABWE

Fully unbundled. Plans for privatization

ETHIOPIA

Generation is fully state owned

UGANDA

Fully unbundled.
Main generation privatized.

KENYA

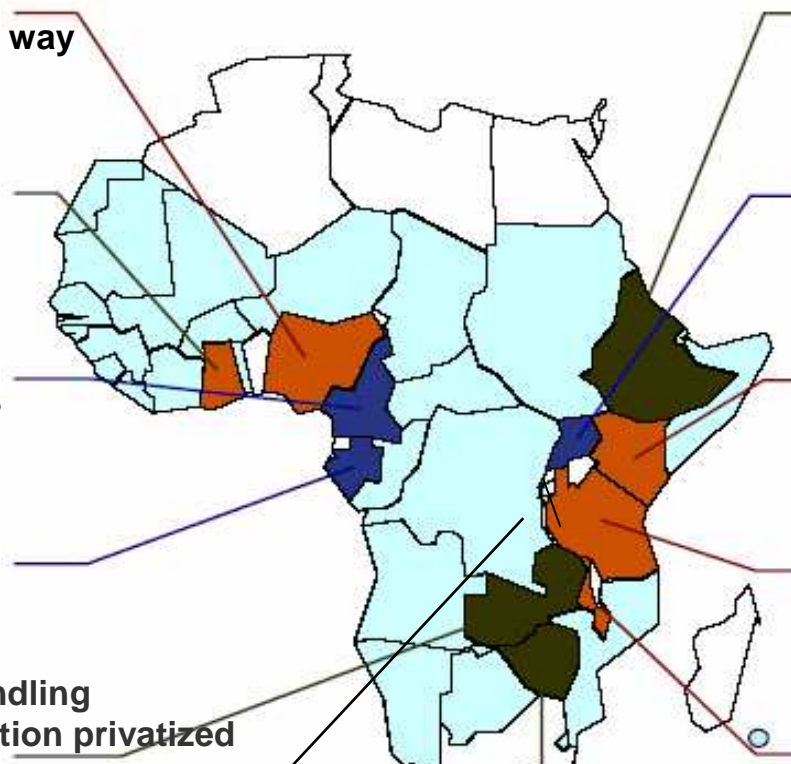
Unbundling since 1998.

TANZANIA

State owned but privately managed

MALAWI

State owned. But restructuring ongoing



OPPORTUNITIES FOR POLICY MAKING IN RENEWABLE ENERGY



- Promotion And Awareness Creation: demand side management, cogeneration opportunities
- Transport Biofuels: ethanol in Brazil, biodiesel from jatropha
- Power Sector Restructuring
- Distributed Power Generation, Rural Electrification and Rural Energy, Wealth Creation, Poverty Alleviation,
- Financial Sustainability: Subsidies, Incentives, levelling the playing field
- Environmental Protection: GHG Emissions, deforestation





Develop a New Agenda

- strengthen the cadre of African energy experts capable undertaking policy research, project development planning and implementation actions.
- Increased use of policy research and project implementation through research. Use of NGO, private sector and regional research networks.
- Incorporate all key stakeholders including NGOs, academic institutions, private sector and regional research institutions





Action Plan (1)

- Institute proactive advocacy, with regular reviews of past policies, projects and initiatives, and incorporate lessons learned into future projects
- limit the role of government policy makers to creating an enabling environment for the sector to thrive
- distance the power sector from the concerns and interests of the political class and state bureaucracy





Action Plan (2)

- Market-led options and private sector participation should be addresses from a local perspective to create a sustainable mix of public and private sector support and financing
- keep expectations ambitious but close to reality; develop proposals which are sustainable, affordable and bankable
- Ultimately, the African electricity consumer and tax-payer will pay all the costs





Mobilisation of Financial Resources

- Establish indigenous and reliable sources of funds with low bureaucracy, to provide long term loans for energy projects
- Involve local banks and financial agencies in energy projects
- Improve financial performance of local energy supply companies to attract local and external finance
- Involve local and regional research units in identifying energy development mechanisms





Regional Efforts

- Promote regional cooperation in energy resource assessment, development and distribution
- Regional dissemination of efficient use of biomass in households, small and medium scale industries in rural and urban areas
- Promote regional efforts in use of industrial biofuels in the transport sector



Thank You!



David Ndinya Yuko

**Institute for Research in Sustainable Energy and
Development**

P.O BOX 3576-00100

Nairobi, Kenya

TEL:+254 722 846260

+254-20-2074436

Fax: +254 20 3870938

E-mail: dnyuko@yahoo.com david.yuko@reeep.org

www.irsead.org

