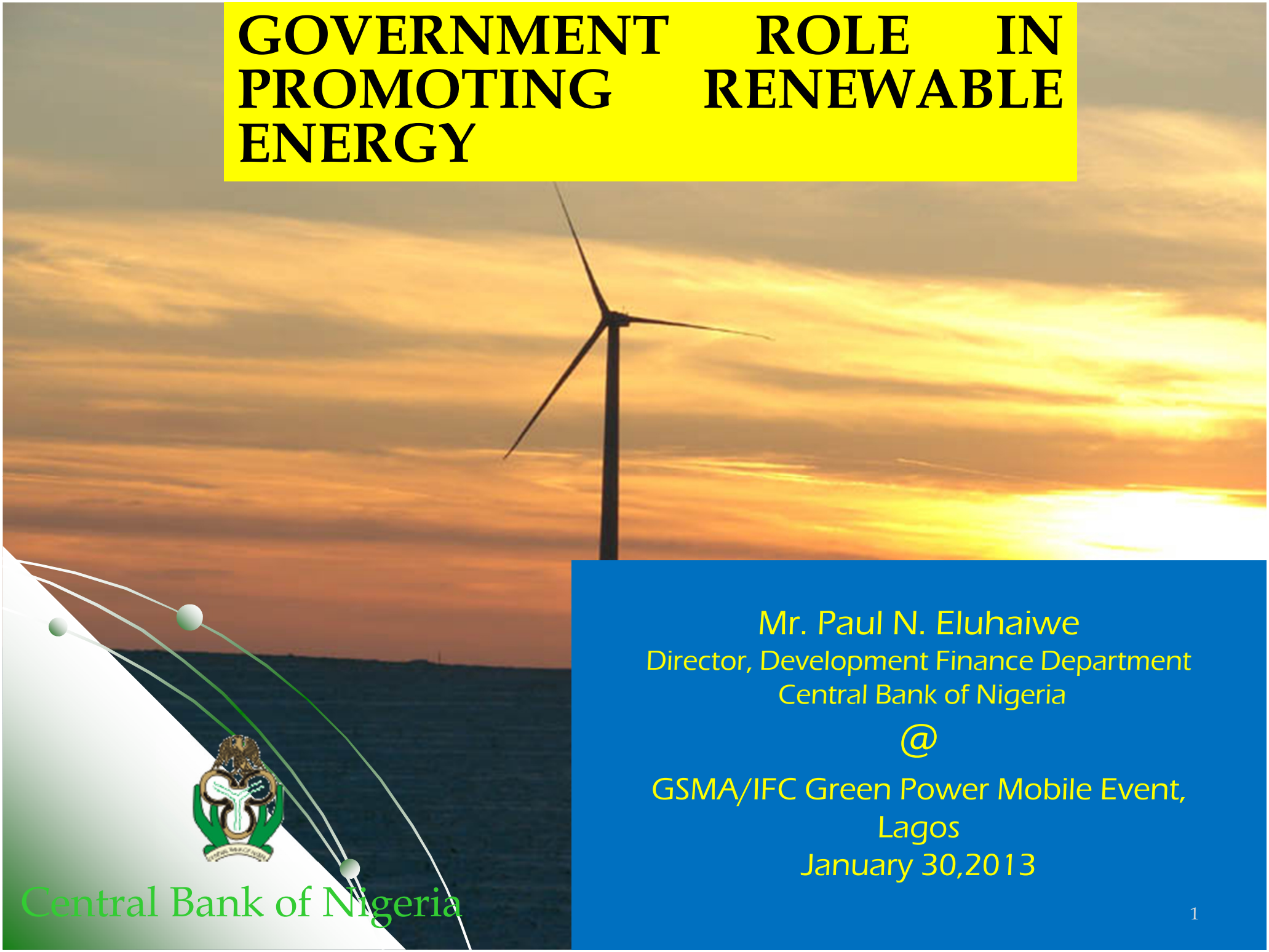
GOVERNMENT ROLE IN PROMOTING RENEWABLE ENERGY



Mr. Paul N. Eluhaiwe

Director, Development Finance Department

Central Bank of Nigeria

@

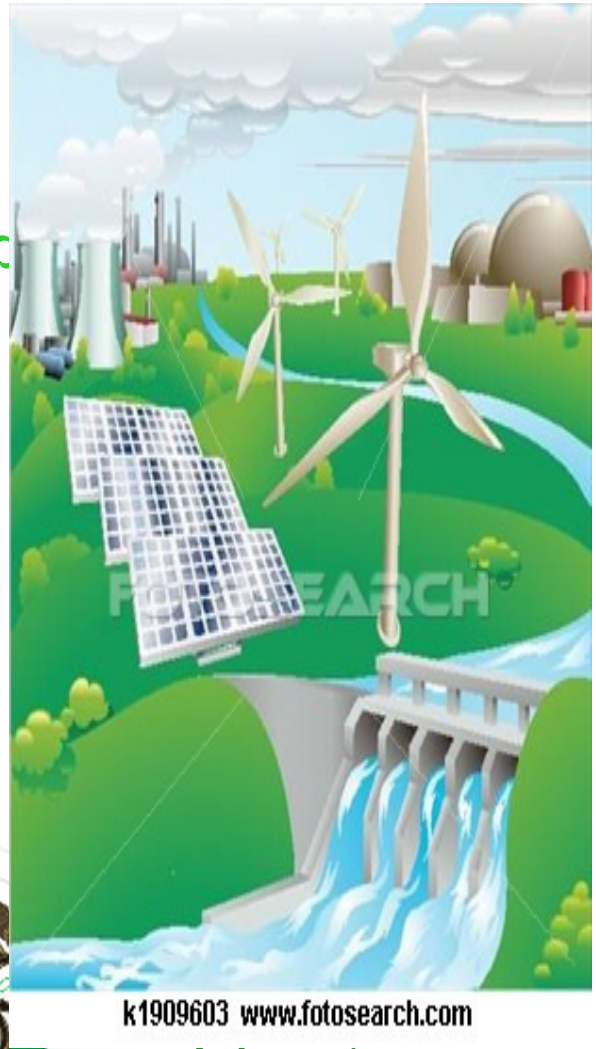
GSMA/IFC Green Power Mobile Event,

Lagos

January 30,2013

Central Bank of Nigeria

Outline



- Introduction
- Nigeria's Electricity Requirements
- Benefits of Renewable Energy to the Country
- Government Efforts in Promoting Sustainable Energy Development for Economic Growth
- CBN's Role in Promoting the Development of the Nigerian Power Sector
  - N300 Billion Power and Airlines Intervention Fund (PAIF)
  - CBN's Role in Promoting Renewable Energy
- Strategies for Funding Renewable Energy in Nigeria
- Conclusion

1.0 Introduction

- Urbanization and Industrialization has continued to push up the world energy needs coupled with increase in oil prices
- Experts agree that decentralization of energy supply is indispensable and inevitable.
- These scenario have triggered the search for alternate energy sources that are both renewable and sustainable world wide.
- Nigeria with its large population of over 167million people has an enormous energy demand, this calls for the need to adequately harness the renewable energy sources to meet the growing demands.



2.0 Nigeria's Electricity Requirements.

Central Bank of Nigeria

Different experts have given different estimates on Nigeria's electricity requirements

- 100gw- NERC (2012) reported that Nigeria should currently be generating this level of electricity.
- 11.5gw– projected over the next five years(AFC, 2012) generated over the were The Power sector requires approx.
- US$15bn over the next five years of new investment; US$10.5bn in debt funding based on 70:30 D:E ratio.(**Source**: RPS reform)
- 10% improvement in power supply could increase GDP by 2-3% pa: reducing the gap between Nigeria's current GDP (6.4%) and potential GDP (21%)

2.0 Nigeria's Electricity Requirements

Central Bank of Nigeria

Projected Electricity Demand

Scenario	*2005*	*2010*	*2015*	*2020*	*2025*	*2030*
Reference (7%)	*5,746*	*15,730*	*28,360*	*50,820*	*77,450*	*119,200*
High Growth (10%)	*5,746*	*15,920*	*30,210*	*58,180*	*107,220*	*192,000*
Optimistic (11.5%)	*5,746*	*16,000*	*31,240*	*70,760*	*137,370*	*250,000*
Optimistic (13%)	*5,746*	*33,250*	*64,200*	*107,600*	*172,900*	*297,900*

Source: Prof Abubakar S. Sambo (2010) World Future Council Workshop on Renewable Energy Policies, 10th October, 2009, Addis Ababa, Ethiopia



Central Bank of Nigeria

2.3 Nigeria's Renewable Energy Resources

Central Bank of Nigeria

S/N	Resource Type	Reserves		Production	Domestic utilization (natural units)
		Natural units	Energy Units (Btoe*)		
1	Crude Oil	36.22 billion barrels	5.03	2.5 million barrels/day	450,000 barrels/ day
2	Natural Gas	187 Trillion SCF	4.19	6 Billion SCF/day	3.4 billion SCF/day
3	Coal and lignite	2.175 billion tonnes	1.52	(insignificant)	(insignificant)
4	Tar Sands	31 billion barrels of equivalent	4.31	-	-
5	Nuclear Element	Not yet qualified	-	-	-

*Tonnes of oil equivalent

Source: Prof Abubakar S. Sambo (2010) World Future Council Workshop on Renewable Energy Policies, 10th October, 2009, Addis Ababa, Ethiopia.

3.0 Benefits of Renewable Energy to the Country



- Facilitating the creation of a Green Economy in Nigeria
- Reducing environmental degradation and health risks
- Stimulate empowerment, employment and economic growth
- Alternative source of income – Income will accrue to Governments and institutions through Carbon Trading
- Increased Foreign Direct Investment for MDAs and other institutions interested in Certified Emissions Reduction Certificates (CERs)



4.0 Government Efforts in Promoting Sustainable Energy Development for Economic Growth- Policy & Institutional Approach

- 2001 National Electric Power Policy
- 2003 National Energy Policy with the overall thrust of optimal utilization of the nation's energy resources; both conventional and renewable
- National Integrated Power Projects (NIPP) initiative
- 2005 Electric Sector Reform Act (ESRA)
- 2005 Nigerian Electricity Regulatory Commission (NERC)
- 2005 Rural Electrification Agency

4.0 Government Efforts in Promoting Sustainable Energy Development for Economic Growth- Policy & Institutional Approach

Central Bank of Nigeria

- 2006 Renewable Energy Master plan for Nigeria
- Presidential Action Committee on Power (PACP) created to remove "red-tape" and achieve policy consistency
- 2010 Power Sector Roadmap
- Energy Commission of Nigeria (ECN)
- Federal Ministry of Environment and Ministry of Power
- Divestiture of the PHCN successor companies
- Nigerian Electricity Liability Management Company (NELMCO)
- Infrastructure Concession and Regulatory Commission (ICRC)

4.0 Government Efforts in Promoting Sustainable Energy Development for Economic Growth- Policy & Institutional Approach

- Transmission Company of Nigeria (TCN)
- 2011 Access to Renewable Energy Project
- Nigeria is one of the 41 African countries that endorsed Agenda 21. A key recommendation of Agenda 21 is the initiation and transition in rural economies from unsustainable energy sources to structured and diversified sources.

4.1 Targets for Renewable Energy Contribution to Electricity Generation (MW) in Nigeria

Central Bank of Nigeria

RE Source	Short Term (MW)	Medium Term (MW)	Long Term (MW)
Hydro-Large	1,930	5,930	48,000
Hydro-Small	100	734	19,000
Solar-PV	5	120	500
Solar-Thermal	-	1	5
Biomass	-	100	800
Wind	1	20	40
All RE Sources	2,036	6,905	68,345
All Energy Sources	16,000	30,000	192,000
% Contribution of Renewables	13%	23%	36%

Source: Prof Abubakar S. Sambo (2010) World Future Council Workshop on Renewable Energy Policies, 10th October, 2009, Addis Ababa, Ethiopia, Energy Commission of Nigeria

5.0 CBN's Role in Promoting the Development of the Nigerian Power Sector

Central Bank of Nigeria

- Establishment of the N300 Billion Power and Airlines Intervention Fund (PAIF) to enable businesses achieve optimal uptime.
- Concomitantly, the Bank is also at the forefront in pushing for the adoption of the Nigerian Sustainable Banking Principles (NSBP) by the banking industry.
- The Bank is inspired by the need to protect the environment, hence the decision to ensure that financial intermediation should be focussed on the funding of environmentally friendly projects.

5.1 N300 Billion Power and Airlines Intervention Fund

- N183.20 billion - As at the end of December, 2012, cumulative amount released to the Bank of Industry, which is the managing agent,
- N181.415 billion for 20 (twenty) power and 15 (fifteen) airline project disbursed through Participating Banks (PBs) by BOI
- 568.4MWgenerated by 10 power projects of which 349.2 MW was added to the national grid.

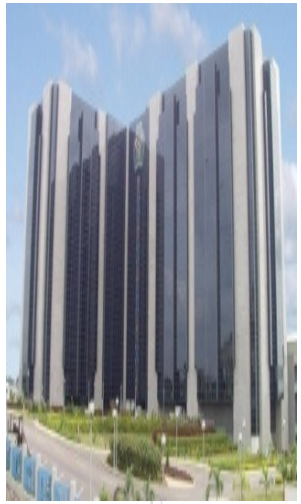






5.2 CBN's Agricultural Interventions

- These interventions include:
  - N200 Billion Commercial Agriculture Credit Scheme (CACS)
  - Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL)
  - N50 Billion Agricultural Credit Support Scheme (ACSS)
  - Agricultural Credit Guarantee Scheme (ACGS)
- The agricultural interventions of the Bank provide fund for investments in energy crops such as cassava, maize and jatropha.



6.0 CBN's Role in Promoting Renewable Energy

- Developed the Nigerian Sustainable Banking Principles with the Bankers' Committee for sustainable long-term growth in Nigeria.
- The Sustainable Banking Principles is to ensure that banks fund only economically viable, socially relevant and environmentally responsible projects

6.0 CBN's Role in Promoting Renewable Energy

Central Bank of Nigeria

- The objective of the Principles is to guide banks and ensure their investment and business decision-making balances environmental, social and economic considerations in line with internationally accepted good practice.
- The Bank spearheaded the development of the Principles and Guidance notes for specific sectors (Agriculture, Power, and Oil and Gas) of the economy
- The guidelines have been approved and adopted for implementation.

7.0 Strategies for Funding Renewable Energy in Nigeria

- It is evident that there is a financing gap in energy generation in Nigeria.
- For instance to generate 40,000MW to meet the Vision 20:2020 target a minimum of US$3.5 billion investments would be required per annum for the next 10 years.

Strategies for Funding Renewable Energy in Nigeria

- To promote funding of renewable energy in Nigeria, some of the following strategic measures must be taken:
  - Tax incentives for long-term projects requiring huge funds
  - Improved legal reforms to promote private-public partnership (PPP)
  - Reform of the capital market to provide long term finance for renewable energy sub-sector
  - Strengthen of the bond market to enhance long-term renewable energy financing
  - Evolvement of a framework for the utilization of Pension funds to finance renewable energy sub-sector.
  - Funding of indigenous technology development for renewable energy
  - Stakeholders' mobilisation for the adoption of renewable energy and
  - Full implementation of the Roadmap for Power Sector Reform

Central Bank of Nigeria

8.0 Conclusion



- The country faces enormous challenges in addressing its energy deficit as well as meeting its development objectives.
- However, renewable energy looks promising as the solution to meet the future energy needs, since Nigeria has abundant resources in this area.
- It is time for the country to plan for the future and lead Africa in this sub-sector.
- The country should develop technology to explore fully all the alternative sources of energy and create data bank to track its utilization.
- Government and other stakeholders must fund renewable energy, indigenous technology and also double and sustain efforts so far put.

Central Bank of Nigeria



Thank you for your Attention