Promoting Low Carbon Development Strategies - The Nigeria Experience

James OGUNLEYE
CARBON LIMITS NIGERIA
According to Raffaello Cervigni, Lead Environmental Economist at the World Bank “Various climate models indicate that average temperatures across Nigeria are expected to rise an average of 1–2°C by 2050 and even more during the winter, In this way, climate change is likely to make food, energy, and water security harder for Nigeria to achieve.”

- Extracted from the world bank website
Outline

- LCDS status in Nigeria
- Initiatives in Nigeria
  - Gas flare reduction
  - Clean Electricity projects
  - Initiatives in Lagos state
- Issues and Way forward
Overview – LCDS status in Nigeria

- No LCDS policy yet in Nigeria
- Few initiatives at Federal and State levels
- Lagos state at the forefront of LCDS initiatives
  - Few initiatives in other states but largely unknown
Gas flare locations

Gas flares in Nigeria as seen from space

• Gas flaring in Nigeria is estimated at about 15.2 bcm annually
  • 35% of the estimated total flare in Africa (≈ 45 bcm total in Africa)
  • About 6 times the total amount used for electricity generation
Gas flare reduction project initiatives

• Success story of some gas processing plants commissioned in the country:
  • Reducing emissions upstream by ending flaring at the oil field;
  • Supporting sustainable development by providing gas for domestic electricity.
• More projects on gas flare reduction are underway.

  ➢ **Key issue**: There is need to map out and understand flare points, design the recovery and utilization plan as well as a policy to ensure zero flare.
• Power sector presents a major low carbon opportunity for Nigeria;
• Emissions from off-grid diesel plants is more than that from the grid emissions;
• 66% power plants in Nigeria are low efficiency OCGT and the % is growing as new OCGT plants are built;
• Few CCGT power plants are being implemented with lower per kWh GHG emissions – albeit without any direct policy support but with encouragement from National Petroleum Company.
• On-going efforts by government to improve capacity through reforms in the sector;

➤ **Key issue:** Existing OCGT plants can be upgraded to the use of higher efficiency natural gas power generation (CCGT) as a low carbon policy by the government especially as it is privatized within a short to medium term framework. Also, backing out individual diesel fired generators will ensure low carbon electrical sector.
Initiatives in Lagos State

• Lagos State is the smallest state in landmass but the most populous in Nigeria with about 16 million population;

• 60% of industrial activities in Nigeria situated in the State;

• The state leads in low carbon initiatives:
  – Solid waste management and biomass utilization;
  – Transportation;
  – Carbon foot print determination for industries and corporate organizations (still in early stages).
Lagos State initiative: BRT transport scheme

- Emissions due to transportation is higher in Lagos compared to other cities in Nigeria.
  - 222 vehicles per kilometre average for Lagos
  - 11 vehicles per kilometre average for the country

- Introduction of BRT system to reduce emissions and decongest the traffic on roads
  - Project implemented and running since 2008
  - The scheme is challenged by supporting infrastructure – good roads
Challenges

• Initiatives in the country lack coordination;
  – There is no database to track low carbon activities carried out in various sectors;

• There is no clear policy neither at the state level nor federal level on LCDS;
  – Policy makers have other issues considered more of priority to worry about.

• Bureaucratic issues and inert/slow action of government decision making;

• Knowledge base reside mostly among public service officers, academics and consultants whereas the policy implementers need to be at the driver’s seat.
Recommendations

• More support required in areas of awareness and promotion of LCDS;
  – Need for high level workshops that involves country policy makers and leaders of various key sectors with potentials for emission reduction;
  – LCDS better driven with Inter-ministerial committee which can be chaired by the Climate Change unit of the Environment department;

• Need to design LCDS with the goal of sustainable development, creating jobs and reducing poverty;

• Financial and technical support is required especially on data gathering processes and creation of database that can easily be updated time to time;

• LCDS focus for the country needs to be targeted at sectors with high emission reduction potentials.
Thank You

Senior Consultant/Project Developer
Carbon Limits Nigeria

james.ogunleye@carbonlimitsngr.com
james.ogunleye@carbonlimits.no
+2348077513710