Overview of the Nigerian Maiden Sovereign Green Bond

As Part of

UNDP Webinar on Green Bonds and Nationally Determined Contributions -
‘Green Bonds as Finance Instruments for Implementation of NDC Actions’

by

EUGENE O. ITUA, Ph.D

Tel +234-8178648063, +234-8023118449
Email: eitua@ecopital.com, greenbond@ecopital.com
www.ecopital.com
Introduction

Nigeria is on the march towards low Greenhouse Gas (GHG) Emissions and climate-resilient development.
**Nigeria’s Nationally Determined Contribution (‘‘NDC’’)**

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Commentary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td>Reduction from Business As Usual (‘‘BAU’’)</td>
</tr>
<tr>
<td><strong>Target year</strong></td>
<td>2030</td>
</tr>
<tr>
<td><strong>Implementation period</strong></td>
<td>2015 – 2030</td>
</tr>
<tr>
<td><strong>Base data period</strong></td>
<td>2010 -- 2014</td>
</tr>
</tbody>
</table>

**Summary of objective**
- Economic and social development:
  - grow the economy by 5% annually
  - improve the standard of living
  - electricity access for all

**Unconditional & conditional objectives**
- 20% unconditional; 45% conditional

**Key measures**
- Work towards ending gas flaring by 2030
- Work towards off-grid solar PV of 13,000 MW
- Efficient gas generators
- 2% per year energy efficiency (30% by 2030)
- Transport shift car to bus
- Improve electricity grid
- Climate smart agriculture and afforestation

**Estimated emissions per capita**
- Current: around 2 tonnes CO₂e
- 2030 BAU: around 3.4 tonnes CO₂e
- 2030 Conditional: around 2 tonnes CO₂e

**Global warming potentials used**
- IPCC Fourth Assessment Report

**Gasses covered**
- CO₂; N₂O; CH₄

**Emissions as a percentage of global total**
- <1% (2010)

**Historical emissions (1850 – 2010)**
- 2,554.02 million tonnes
Meeting the Need?

• Meeting the NDC by 2030, requires some USD142 billion = about USD10 billion/year

• So massive investment needed for climate change adaptation, renewables and other environment-friendly projects

• Federal Government saw Green Bond as one of the veritable tools for mobilising the needed resources from domestic and international capital markets

• Thus issued the first Sovereign Green Bond
## Summary of the Maiden Green Bond Issue

### Issuer
Federal Republic of Nigeria

<table>
<thead>
<tr>
<th>Format</th>
<th>Fixed Rate Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status of the Notes</td>
<td>Direct, unconditional, general and unsecured obligations of the FGN and shall rank pari passu with all other outstanding unsecured and unsubordinated obligations of the FGN</td>
</tr>
<tr>
<td>Currency</td>
<td>Nigerian Naira (&quot;NGN&quot;)</td>
</tr>
<tr>
<td>Issue Size</td>
<td>Up to NGN 10.68 billion Series 1 issuance under the NGN 150 billion green bond programme</td>
</tr>
<tr>
<td>Green Bond Assessment</td>
<td>Moody’s: GB1 (Excellent) Assessment</td>
</tr>
<tr>
<td>Tenor</td>
<td>5 year</td>
</tr>
<tr>
<td>Coupon</td>
<td>To be priced in reference to FGN Bonds of similar tenor</td>
</tr>
<tr>
<td>Use of Proceeds</td>
<td>(i) Renewable Energy Micro-Utilities, (ii) Energising Education Programme, and (iii) Afforestation Programme</td>
</tr>
<tr>
<td>Listing</td>
<td>The Nigerian Stock Exchange and FMDQ</td>
</tr>
<tr>
<td>Clearing and settlement</td>
<td>Central Securities Clearing System</td>
</tr>
<tr>
<td>Minimum Subscription / Increments</td>
<td>NGN 10,000,000 / NGN 1,000,000 increments</td>
</tr>
<tr>
<td>Governing Law</td>
<td>Laws of the Federal Republic of Nigeria</td>
</tr>
</tbody>
</table>

### Transaction timeline

<table>
<thead>
<tr>
<th>Key workstreams</th>
<th>Expected completion date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abuja Investor Forum</td>
<td>Thursday, 14 December 2017</td>
</tr>
<tr>
<td>Lagos Investor Forum</td>
<td>Friday, 15 December 2017</td>
</tr>
<tr>
<td>Book Build Opens</td>
<td>Monday, 18 December 2017</td>
</tr>
<tr>
<td>Book Build Closes</td>
<td>Wednesday, 20 December 2017</td>
</tr>
<tr>
<td>Allotment Confirmation</td>
<td>Thursday, 21 December 2017</td>
</tr>
<tr>
<td>Funding of Allotment</td>
<td>Friday, 22 December 2017</td>
</tr>
<tr>
<td>Listing at The Nigerian Stock Exchange</td>
<td>Wednesday, 10 January 2018</td>
</tr>
</tbody>
</table>

Source: Federal Republic of Nigeria Debut Green Bond Investor Presentation December 2017
Qualifying Assets As Green from Broad Categories of Areas

- **Water**
  - Flood defences
  - Water distribution infrastructure
  - Water capture and storage infrastructure
  - Water treatment plants
  - Assets in energy and production industries

- **Nature based assets**
  - Agricultural land
  - Forests
  - Wetlands
  - Degraded lands
  - Fisheries and aquaculture
  - Coastal infrastructure
  - Communicate timetable

- **ICT**
  - Power management
  - Broadband
  - Resource efficiency
  - Teleconferencing

- **Energy**
  - Solar
  - Wind
  - Geothermal
  - Hydropower
  - Bioenergy
  - Wave & Tidal
  - Energy management
  - Dedicated Transmission

- **Low carbon buildings**
  - Residential
  - Commercial
  - Retrofit
  - Products for building carbon efficiency

- **Transport**
  - Rail
  - Vehicles
  - Mass transit
  - Buss Rapid Transport (BRT)
  - Water-borne transport
  - Alternative fuel infrastructure
Nigeria Green Bond - Key Requirements

Does it promote the transition to low-emission economy and climate resilient growth?

Does the project include mitigation and adaptation to climate change?

Are the costs part of the Medium Term Sector Strategies (MTSS) of selected MDAs?

What is the level of emissions contributions of the project and can these be calculated and documented?

Does it have linkage with key targets in the NDCs?

Is there a defined revenue model or economic impact that generates resources that will be used to service the green bond?

Is the project green in nature and provide clear environmental benefits?
Selection Process for the Eligible Green Expenditures

- Nigeria Government Budget
  - Screening based on budget documents and ministry of Environment Green Bond Guidelines

- Potential Green Bond Projects
  - Assessment by Green Bond Program Technical Advisory Team

- Potential Green Bond Expenditure
  - Final validation

Eligible Green Expenditure

Supervisory agencies
- Ministry of Finance
- Ministry of Environment
- Ministry of Power
- Ministry of Environment

Inter-Ministerial Committee on Climate Change
Nigeria Green Bond Guidelines – in Practice

Source: Federal Republic of Nigeria Debut Green Bond Investor Presentation Dec, 2017

- Use of Proceeds Allocation (%)
  - EEP: 79.5%
  - REMU: 1.4%
  - Afforestation: 18.5%

- Process for Project Evaluation and Selection 1.15
  - Inter-Ministerial Committee on Climate Change
  - Green Bond Program Technical Advice Team

- Management of Proceeds
  - Dedicated Register
    - Bond ISIN
    - Amount Disbursed
    - Unique tagging

- Reporting
  - Renewables
  - Afforestation
    - GHG Emissions Avoided
    - Economic Impact

- Nominate Projects
  - Refinancing (0%)
  - New Projects (100%)
  - Green Bond Advisory Group
    - Director DCC
    - DG Debt Management Office
    - Development Partners
    - Capital Market Operators

Source: Federal Republic of Nigeria Debut Green Bond Investor Presentation Dec, 2017

natural eco---driving for more sustainable resilient economy!
Use of Proceeds

<table>
<thead>
<tr>
<th>Mitigation</th>
<th>Adaptation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Efficiency</td>
<td>Sustainable Forest</td>
</tr>
<tr>
<td>Resource Efficiency</td>
<td>Management</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Renewable Energy</td>
<td></td>
</tr>
<tr>
<td>Clean Technology</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Federal Republic of Nigeria Debut Green Bond Investor Presentation December 2017
# Project Eligibility

## Mitigation

<table>
<thead>
<tr>
<th>Focus</th>
<th>Project Type</th>
<th>NDC Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Efficiency</td>
<td>Investment in equipment, systems and services which result in more efficient use of energy</td>
<td>2% per year energy efficiency (30% by 2030) Efficient gas generators</td>
</tr>
<tr>
<td>Resource Efficiency</td>
<td>Investments to improve industry processes that enhance energy conversion</td>
<td>Work towards ending gas flaring by 2030 Improve electricity grid</td>
</tr>
<tr>
<td>Renewable Energy</td>
<td>Investments in equipment, systems and services which enable renewable energy</td>
<td>Work towards Off-grid solar PV of 13GW (13,000MW)</td>
</tr>
<tr>
<td>Clean Technology</td>
<td>Investments in manufacturing of components that support renewables</td>
<td>Transport shift - car to bus</td>
</tr>
</tbody>
</table>

## Adaptation

<table>
<thead>
<tr>
<th>Focus</th>
<th>Project Type</th>
<th>NDC Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Forest Management</td>
<td>Investments in initiatives that benefit sustainable agriculture, fishery, aquaculture, forestry and climate smart farm inputs such as biological crop protection or drip-irrigation</td>
<td>Climate smart agriculture and reforestation</td>
</tr>
<tr>
<td>Management of Proceeds of Green Bonds</td>
<td>Reporting</td>
<td>Confidentiality &amp; Transparency</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-----------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>• Credit to a sub-account, move to a sub-portfolio or otherwise tracked by the issuer in an appropriate manner and attested to by a formal internal process linked to the issuer’s lending and investment operations for Green Projects</td>
<td>• Up to date information on the use of proceeds to be renewed annually until full allocation, • Include a list of the projects to which Green Bond proceeds have been allocated, as well as a brief description of the projects and the amounts allocated, and their expected impact. • Annual energy savings, Annual GHG Reduction, Amount of Renewable Energy Produced, Capacity of the Project</td>
<td>• Information be presented in generic terms or on an aggregated portfolio basis (e.g. percentage allocated to certain project categories). • Use of qualitative performance indicators and, where feasible quantitative performance measures (e.g. energy capacity, electricity generation, greenhouse gas emissions reduced / avoided, number of people provided with access to clean power, reduction in the number of cars required, etc.) with the key underlying methodology and / or assumptions used in the quantitative determination.</td>
</tr>
</tbody>
</table>
## Significance of the Bond Issuance

- **Raising awareness of economic and social benefits of the themes in the NDC**

- Provides guidance for subsequent issuances

- Increase financial and industry sector confidence in either issuing green bonds or financing green projects.

- Provides an opportunity for existing budgets being spent inefficiently channelled into this new asset creation

- Adds to the cocktail of capital products being explored to ensure resources availability to fund the FG annual budget

- Provides a platform for the DMO to achieve the objective of extending tenor of the FG debt portfolio and also reduce interest cost.

- Reduction if FG share of fixed income market with larger representation from private sector issuers

- Provides more understanding to leverage partner programmes and funds to direct resources towards providing technical support or participation in green bond issuance

- **Formal-Launch-of-the-Nigerian-Green-Bond-Market-Development-Programme recently**

Enriching the Green Bond Market

- Make green bond part of the annual borrowing plan as long as there are programs and projects within individual MDAs sector strategies that meet the criteria specified in the Green Bond guidelines.
- Tight linkage with the nation’s development objectives, Economic Recovery & Growth Plan (ERGP), Sustainable Development Goals (SDGs), etc.
- Strengthen relevant internal capacities to monitor performance and aggregate information to report back to investors and the UNFCCC.
- Encourage sub-nationals and private sector to tap into the green bond market through relevant policies and market mechanism.
- Strengthen dialogue across relevant MDAs to regularly identify projects and redirect resources to initiate or scale.
- Strengthen capacity within Federal Ministry of Environment for oversight and adequate monitoring.
- Build institutional base within the capital market for regular green bond issuance.

**Give more premium to Green Bond than the regular bond**

natural eco---driving for more sustainable resilient economy!
Conclusion

There is much work to be done to ensure ownership and deeper involvement of all relevant stakeholders.