Feed Africa
The Road to Agricultural Transformation in Africa
24 May 2016

DR. CHIJI OJUKWU
Director, Agriculture and Agro-Industries Department
African Development Bank
Presentation Outline

I. Why do we need Africa-wide Agricultural Transformation?

II. AFDB’s Strategic Response

III. Implementation Costs and Financing

IV. Flagship Initiatives

V. Going Forward
I. Why do we need Africa-wide Agricultural Transformation?
Agriculture remains a major source of income in Africa; however, untapped potential has resulted in persistent poverty and deteriorating food security.
Instability in commodity prices is creating an imperative for African countries to diversify sources of foreign exchange earnings.

There is a need to diversify sources of economic growth; food commodities are one of the least volatile groups.

Commodity price indices; 2005=100, 2005-2015

Source: IMF Primary Commodity Price System
Urbanization is driving increased demand for food products that are not currently being supplied by African producers.

### Increasing urbanization across Africa

**African urbanization rates; millions of people, 2000-2025**

<table>
<thead>
<tr>
<th>Year</th>
<th>Urbanization</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>263</td>
</tr>
<tr>
<td>2005</td>
<td>311</td>
</tr>
<tr>
<td>2010</td>
<td>372</td>
</tr>
<tr>
<td>2015</td>
<td>446</td>
</tr>
<tr>
<td>2020</td>
<td>532</td>
</tr>
<tr>
<td>2025</td>
<td>635</td>
</tr>
</tbody>
</table>

% of pop.: 34% 35% 37% 39% 41% 44%

**Source:** IFPRI, Policy options for accelerated growth and competitiveness of the domestic rice economy in Nigeria; World Bank; CGIAR, Technologies for African Agricultural Transformation; Africa Rice Center, The New Rice for Africa – a Compendium; World Bank Data; Dalberg analysis

### Shifting consumption preferences to ‘premium’ rice

**Per capita rice consumption by grade – Nigeria Example**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium</td>
<td>9.1 (30%)</td>
<td></td>
</tr>
<tr>
<td>Standard</td>
<td>21.4 (70%)</td>
<td>24.1 (69%)</td>
</tr>
<tr>
<td></td>
<td>30.5</td>
<td>35.0 (31%)</td>
</tr>
</tbody>
</table>

**Source:** IFPRI, Policy options for accelerated growth and competitiveness of the domestic rice economy in Nigeria; World Bank; CGIAR, Technologies for African Agricultural Transformation; Africa Rice Center, The New Rice for Africa – a Compendium; World Bank Data; Dalberg analysis
## Barriers Crippling Africa’s Agriculture Sector

<table>
<thead>
<tr>
<th><strong>Under-performing value chains</strong></th>
<th><strong>Limited coordination of research and development</strong></th>
<th><strong>Insufficient utilization of inputs and mechanization</strong></th>
<th><strong>Limited reach of extension to boost on-farm production</strong></th>
<th><strong>Poorly organized post-harvest aggregation and transport</strong></th>
<th><strong>Inconsistent capacity for effective value addition</strong></th>
<th><strong>Poorly developed market linkages and trade corridors</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Insufficient infrastructure</strong></td>
<td><strong>Insufficient transport, energy, water, waste and other hard infrastructure</strong>, leading to uncompetitive cost structures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Undeveloped soft infrastructure</strong> including aging smallholder farmers and a lack of skills for commercial agriculture and agro-allied industries</td>
</tr>
<tr>
<td><strong>Limited access to agricultural finance</strong></td>
<td><strong>Real and perceived risk limiting private sector investment</strong></td>
<td><strong>High service cost due to small deal sizes, lack of credit data, and low capacity in agricultural lending</strong></td>
<td></td>
<td></td>
<td><strong>Limited market attractiveness relative to perceived higher returns outside of the agricultural sector</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Adverse agri-business environment</strong></td>
<td><strong>Unfavorable market access and incentives</strong> limiting trade and capacity to produce high-quality products</td>
<td><strong>Ineffective sector regulation</strong> creating long lead times for new technologies and inconsistent trade policies</td>
<td></td>
<td></td>
<td><strong>Unsupportive business enabling environment</strong> restricting land tenure and general ease of doing business</td>
<td></td>
</tr>
<tr>
<td><strong>Limited inclusivity, sustainability and nutrition</strong></td>
<td><strong>Insufficient inclusivity</strong> of women and youth in agricultural development</td>
<td><strong>Limited incentives to ensure sustainability and climate-resilient practices</strong></td>
<td></td>
<td></td>
<td><strong>Limited access and affordability of commodities with high nutrition levels</strong></td>
<td></td>
</tr>
</tbody>
</table>
II. AfDB’s Strategic Response
AfDB’s “High 5” Priorities

1. Power and Light Up Africa
2. Feed Africa
3. Industrialize Africa
4. Integrate Africa
5. Improve Quality of Life of Africans
FEED Africa: Co-Convening and Co-Developing for Transformation

The Dakar High level Conference on African Agricultural Transformation Agenda

- **HELD** in October 2015
- **ATTENDED** by over 600 Ministers of Agriculture and Finance, Central Bank Governors, Development Partners, RECS, Academia and Private Sector
- **RESULTED** in 4 Goals and 18 Dakar Action Points adopted to transform African Agriculture within the CAADP framework
The imperative for agricultural transformation: Where we are, Goals and Targets

**Goals**

1. **Contribute to the end of extreme poverty**
   - 49% of Africans or 420 million live under the poverty line of $1.25 per day (2014);
   - Those living in poverty will rise to **550 million by 2025** if we do nothing

2. **Eliminate hunger and malnutrition**
   - 33% of African children live in chronic hunger;
   - 40 million stunted children under the age of 5 years as at today

3. **Become a net exporter of agricultural commodities**
   - Staggering food net food import bill of USD 35.4 billion per annum (2015);
   - Net Imports projected to increase to USD 111.0 billion by 2025 if we do nothing

4. **Move to the top of key agricultural value chains**
   - Low value addition to agricultural commodities and predominantly primary production;
   - Africa’s share in global production of cocoa beans is 73% vs. 16% share in ground cocoa

**Status Today**

- **Contribute to alleviating poverty** though job creation and providing sustainable livelihoods;
- ~130m lifted out of extreme poverty

**Target by 2025**

- **Food security** for all Africans that are ‘undernourished’;
- Zero hunger and malnutrition
- Eliminate large scale imports of commodities that can be produced in Africa, and selectively begin to export
- Africa’s net trade balance – $0 billion

Africa share of market value for processed commodities ~40% (Example for cocoa grinding)
Feed Africa is anchored on the commitments made under the Comprehensive African Agricultural Development Program (CAADP)

### Feed Africa

- End extreme poverty by 2025
- Eliminate hunger and malnutrition by 2025
- Make Africa a net exporter of agricultural commodities by 2025
- Move to the top of key agricultural value chains by 2025

### CAADP- Malabo Commitments

- Recommitment to the principles and values of the CAADP process
- Recommitment to enhance investment finance in agriculture
- Commitment to ending hunger by 2025
- Commitment to halving poverty, by 2025, through inclusive agricultural growth and transformation
- Commitment to boosting intra-African trade in agricultural commodities and services
- Commitment to enhancing resilience in livelihoods and production systems to climate variability and
- Commitment to mutual accountability to actions and results

Source: Commitments and Goals by African Heads of States and Government in 2014 Malabo-Equatorial Guinea
Country-level Transformation is already underway across Africa

**Becoming a major exporting player within 10 years**

- **Kenya**
  - Exporting horticulture out of Africa
  - Total horticulture exports, billion KSH:
    - 2000: 21
    - 2005: 22
    - 2010: 88
    - 2014: 97
    - +11%
  - Total floriculture exports, million USD:
    - 2001: 0.66
    - 2010: 13
    - 2013: 346
    - 2016p: 550
  - Strong foreign investor and partner support developing and driving the industry
  - Contract farming model used to assure consistent supply
  - Political will to support smallholder farmer development

- **Ethiopia**
  - Exporting floriculture out of Africa
  - Total farmers registered, million users:
    - 2001: 0.66
    - 2010: 13
    - 2013: 4.2
    - 2014: 10.3
    - +41%
  - Ethiopian Horticulture Producers and Exporters (EHPEA) actively managing the sector
  - Strong Government support in (1) infrastructure and logistics, (2) access to land, (3) provision of long-term credit and (4) attracting domestic and foreign investors
  - GESS was introduced to farmers in April 2012

- **Nigeria**
  - Scale farmer registration and input distribution
  - Total farmers registered, million users:
    - 2012: 4.2
    - 2013: 178
    - 2014: 346
  - Strong political will and government support to transform the input supply system
  - Use of public funds to leverage private-sector investment (i.e. agro-dealers networks)
  - Leverage mobile technology to achieve scale and provide nationwide access

• Strong foreign investor and partner support developing and driving the industry
• Contract farming model used to assure consistent supply
• Political will to support smallholder farmer development
A Focused Approach on Integrated Commodity Value Chains

The Bank and its partners will pursue an agenda to transform a selection of key agricultural commodities and agro-ecological zones.

Agricultural commodity value chains and agro-ecological zones targeted by the Feed Africa

In particular, Feed Africa will take a commodity-focused integrated approach – simultaneously addressing multiple bottlenecks across entire prioritized agricultural commodity value chains and within related agro-ecological zones.

- **Wheat** in North Africa
- **Sorghum, millet, cowpea, and livestock** across the Sahel
- **Rice** in West Africa
- **Cassava** in humid and sub-humid zones
- **Maize, soybean, livestock, and poultry** across the Guinea Savannah
- **Tree crops** (inc. cocoa, coffee, cashew, and oil palm), horticulture and fish farming across all of Africa
The AFDB - in collaboration with partners - will contribute to Orchestrate, Architect, Scale and Replicate Transformation through 7 Enablers

<table>
<thead>
<tr>
<th>Feed Africa Enablers</th>
<th>AfDB Role</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Increased Productivity</strong></td>
<td><strong>Orchestrate/Design</strong>&lt;br&gt;TAAT: increase investment into agriculture research and technology dissemination&lt;br&gt;Inputs finance and agro-dealer network development: expand input finance and connect farmers to buyers&lt;br&gt;Mechanization Program: establish facility for on-farm mechanization leasing</td>
</tr>
<tr>
<td><strong>Scale/Replicate</strong></td>
<td>Develop agro-dealer supply systems&lt;br&gt;Support wide-scale deployment of innovative farmer extension models</td>
</tr>
<tr>
<td><strong>2. Realized Value of Increased Production</strong></td>
<td><strong>Orchestrate/Design</strong>&lt;br&gt;Post-Harvest Loss Prevention Facility: invest in infrastructure and training to reduce on-farm and post-harvest loss&lt;br&gt;Warehouse receipts systems (WRS): scale WRS as 1st step for commodity exchanges&lt;br&gt;Agro-processing zones and corridors: increase and link production and processing capacity along key corridors</td>
</tr>
<tr>
<td><strong>Scale/Replicate</strong></td>
<td>Scale-up and replicate innovative models to organize and aggregate farmers&lt;br&gt;Establish agricultural commodity exchanges</td>
</tr>
<tr>
<td><strong>3. Increased Investment in Hard &amp; Soft Infrastructure</strong></td>
<td><strong>Orchestrate/Design</strong>&lt;br&gt;Infrastructure Coordination: accelerate and coordinate development of enabling hard infrastructure (energy, water, logistics)&lt;br&gt;Market infrastructure: build market centers and associated service infrastructure&lt;br&gt;Farmer e-registration: launch large scale farmer e-registration systems</td>
</tr>
</tbody>
</table>
### Finance Expanded Agricultural

| Orchestrate/Design | Non-Bank SME Finance and Capacity-Building Fund: provide funding and capacity-building to SME funds as well as surrounding ecosystem (e.g. credit bureaus)  
Project Finance Facility: Increase long-term funding to ag SMEs  
Trade Finance Facility: scale up existing Soft Commodity Facility  
Sovereign Risk Support: Scale up Africa Risk Capacity (ARC) initiative (sovereign insurance solution to agro-ecological shocks)  
Diaspora Bonds: create lending products to attract diaspora and institutional capital |
| Scale/Replicate | Facilitate lower lending rates to agricultural players through Central Bank funds  
Deepen and broaden agricultural insurance markets |

### Improved Agribusiness Environment

| Orchestrate/Design | Policy reform matrix: coordinate establishment of an Africa-wide policy matrix detailing the five groups of key policy changes required to enable transformation; key policy areas would be: (i) Land tenure, (ii) Input subsidies, (iii) incentives for local production and processing, (iv) financial sector deepening, (v) Regional integration and trade  
Global Program for Improving Agricultural Statistics and Rural Development: improve statistical systems across African countries by building capacity in ministries and offering technical assistance |
| Scale/Replicate | Facilitate land tenure reform through the Africa Land Policy Center  
Provide technical advisory to governments to support agriculture development bank set-up / reform  
Strengthen capacity of private-sector actors’ (e.g. Chambers of Commerce) to advocate for favorable policies  
Support development of Agribusiness Environment indices |
### Increased Inclusivity, Sustainability, Nutrition

<table>
<thead>
<tr>
<th>Orchestrate/Design</th>
<th>AFAWA Facility: establish a facility to promote women-owned MSMEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale/Replicate</td>
<td>Increase representation of women in agricultural research, and enhance gender-responsive research, monitoring, and evaluation</td>
</tr>
<tr>
<td>Orchestrate/Design</td>
<td>Youth Jobs for Africa Agricultural Flagship Programs: establish facilities to increase youth employment and enhance skills in agribusiness (e.g. ENABLE Youth)</td>
</tr>
<tr>
<td>Scale/Replicate</td>
<td>Climate Resilience Funding: provide funds to support climate adaptation and climate smart agriculture practices</td>
</tr>
<tr>
<td>Scale/Replicate</td>
<td>Encourage scale-up and replication of nutrition programs (through the Nutrition Trust Fund and other mechanisms)</td>
</tr>
</tbody>
</table>

### Coordination

<table>
<thead>
<tr>
<th>Orchestrate/Design</th>
<th>Partnership among key actors from the public sector, private sector and development institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale/Replicate</td>
<td>Support pan-African agriculture leadership initiatives (e.g. Leadership 4 Agriculture)</td>
</tr>
</tbody>
</table>
FEED Africa: Agricultural Transformation in Africa

III. Implementation Costs and Financing
Achieving Feed Africa Goals requires Substantial Investment and results in Substantial Revenues

**Investment required to transform Africa agriculture; USD billion, 2016-2025**

<table>
<thead>
<tr>
<th>Commodity / Agro-Ecological Zones</th>
<th>Value Chain Development</th>
<th>Hard &amp; Soft Infrastructure</th>
<th>Ag. Finance</th>
<th>Enabling Environment</th>
<th>Inclusivity, Sustainability, Nutrition</th>
<th>ATA Partnership for Africa</th>
<th>Total</th>
<th>Annual revenue opportunity by 2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>~18-22</td>
<td>~3-4</td>
<td>~21-26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>~5</td>
</tr>
<tr>
<td>Cassava</td>
<td>~2-2</td>
<td>~2-3</td>
<td>~4-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>~1</td>
</tr>
<tr>
<td>Wheat</td>
<td>~22-27</td>
<td>~16-20</td>
<td>~38-47</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>~13</td>
</tr>
<tr>
<td>Cotton</td>
<td>~0.4-0.5</td>
<td>~1-1.2</td>
<td>~1-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>~0.3</td>
</tr>
<tr>
<td>Horticulture</td>
<td>~5-6</td>
<td>~4-5</td>
<td>~9-11</td>
<td>~65-80</td>
<td>~265-330</td>
<td>~20-30</td>
<td>~30-40</td>
<td>&lt;5</td>
</tr>
<tr>
<td>Aquaculture</td>
<td>~1-1</td>
<td>~19-23</td>
<td>~20-24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>~16</td>
</tr>
<tr>
<td>Tree crops</td>
<td>~14-17</td>
<td>~9-11</td>
<td>~23-28</td>
<td>~26-32</td>
<td>~68-84</td>
<td>~20-30</td>
<td>~30-40</td>
<td>&lt;5</td>
</tr>
<tr>
<td>Sahel Region</td>
<td>~6-7</td>
<td>~9-11</td>
<td>~15-18</td>
<td>~65-80</td>
<td>~265-330</td>
<td>~20-30</td>
<td>~30-40</td>
<td>&lt;5</td>
</tr>
<tr>
<td>G. Savannah</td>
<td>~42-52</td>
<td>~26-32</td>
<td>~68-84</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>~11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>~110-135</td>
<td>~90-110</td>
<td>~200-250</td>
<td>~65-80</td>
<td>~265-330</td>
<td>~20-30</td>
<td>~30-40</td>
<td>&lt;5</td>
</tr>
</tbody>
</table>

USD 315-400 billion over the next decade, or an average of $32-40bn annually could unlock USD 85 billion of revenue annually from 2025
Mobilizing Funding to Address the Financing Gap

Current Funding for Agriculture Development in Africa vs. Requirements for Transformation, $bn/year

Total govt spending is ~$12bn, although 70-80% is on current expenditure commitments leaving only $2-3bn for investments.

<table>
<thead>
<tr>
<th></th>
<th>AfDB</th>
<th>Other ODA and Donors</th>
<th>Govt Spending</th>
<th>Commercial Lending</th>
<th>Total Investment</th>
<th>Gap</th>
<th>Total Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>&lt;$1bn</td>
<td>$3bn</td>
<td>$2-3bn</td>
<td>&lt;$1bn</td>
<td>$7bn</td>
<td>~$25-33bn</td>
<td>~$32-40bn</td>
</tr>
</tbody>
</table>

AfDB and public sector partners will crowd in private and institutional funding by:
- Establishing enabling environments for private investment
- Employing innovative de-risking tools and blended financing
- Proving the potential for risk-adjusted returns in agriculture projects and agribusinesses

Sources for filling the gap include:
- AfDB: Increase annual lending to USD 2.4bn/year
- Governments: co-investment in increased AfDB lending (@10%) and raising budget allocation from average 3% to 5%
- Commercial banks: currently lending $660m annually (4.8% of ~$14bn); room to catalyze more
- Sovereign wealth funds: AUM of ~$160bn
- Pension funds: AUM of $380bn
- Africa-weighted PE funds: AUM of $25-35bn

Currently, total investment finance is ~$7bn annually
Leaving a funding gap of ~$25-33bn
FEED Africa: Agricultural Transformation in Africa

IV. Flagship Initiatives
Components

1. Support zones in developing business case analysis and marketing plans to attract investors

2. Provide public sector financing and crowd in private sector investment for infrastructure development within zones

3. Provide funding to support local agripreneurs and agribusiness companies engaged in expanding and strengthening supply networks

Concept

Integrated Agropoles and Agro-Processing Zones (AAPZ)

Cases

Burkina Faso

Democratic Republic of Congo

Tunisia

Ethiopia
ENABLE YOUTH: Agribusiness as a Solution to Empower and Employ Africa’s Youth

**Target**

- USD12.5 billion to support enterprise and job creation for youths and women
- Investing in 25 African countries*
- 1.25 million agribusiness jobs in the next 5 years
- 250,000 agribusiness enterprises to be created in Africa
- 10,000 unemployed graduates (50% women) trained and financially empowered in each country

* Benin, Burkina Faso, Burundi, Cameroon, Cote d’Ivoire, DRC, Ghana, Guinea Bissau, Kenya, Liberia, Madagascar, Malawi, Mali, Mauritania, Morocco, Mozambique, Nigeria, Rwanda, Senegal, Sierra Leone, Sudan, Tanzania, Tunisia, Uganda and Zambia

**Intervention**

- **CAPACITY AND SKILL BUILDING**
  - 18-month training incubation of young graduates as business men and women in agribusiness
- **ENTERPRISE AND BUSINESS DEVELOPMENT**
  - Transformation into creditworthy agripreneurs
- **FINANCING**
  - Crowd in private investment and commercial lending
  - Deploy risk sharing mechanisms

**Need to leverage USD 0.5 billion per country**
Technologies for African Agricultural Transformation (TAAT)

FeedAfrica Vision of Success and Priority Initiatives

- Rice Self-Sufficiency
- Cassava Intensification
- Sahel Food Security
- Savanna Bread-Basket
- Revitalize Tree Plantations
- Promote Modern Horticulture
- Wheat for Africa
- Fish Self-Sufficiency

FeedAfrica interventions and services
- Regional Member Countries and their institutions and programs
- Allied agro-industry, processing zones and economic corridors
- Production input manufacture and distribution systems
- Risk sharing facilities and management
- Empowered and engaged farmer associations, women and youth
- Support to R&D, capacity development and policy reforms

Developmental outcomes: Eliminate hunger, malnutrition and extreme poverty, Africa becomes net food exporter, full engagement with global value chains
Risk Sharing Mechanism for Increased Agriculture Finance

Public Goods support:
- Roads, Irrigation, R&D, Storage, Price Stabilization etc.

Commodity and Agricultural Financing Value Chains

- Farmer
- Agro Dealers
- Seed companies
- Fertilizer companies
- Agro processors
- Industrial manufacturers
- Trade and exports

Improve the Agricultural Value Chain

- Seasonal Financing: • De-risk the financial value chain • Unlock commercial financing for agriculture
- Term Financing

Appropriate Risk Sharing Instruments along the Agricultural Value Chain

- Guarantees
- Interest rebates
- Insurance
- Technical Assistance

AFDB to mobilize ~USD 1 billion for risk sharing
RSF to leverage up to 10x
Systemic change in bank financing for agriculture
Finance for growth of Agribusiness
Financing agriculture as a business/ENABLE Youth
Achieving agricultural transformation in Africa will require strong partnership and collaboration.

### Key Potential Actors and Partners to Deliver on Feed Africa

<table>
<thead>
<tr>
<th>Increased Productivity</th>
<th>Realized Productivity</th>
<th>Hard and Soft Infrastructure</th>
<th>Agri Finance</th>
<th>Enabling Agribusiness Environment</th>
<th>Inclusivity, Sustainability, Nutrition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WFP</strong></td>
<td><strong>IFAD</strong></td>
<td><strong>ITA</strong></td>
<td><strong>KFW</strong></td>
<td><strong>NEPAD</strong></td>
<td><strong>UNIDO</strong></td>
</tr>
<tr>
<td><strong>AGRA</strong></td>
<td><strong>UNIDO</strong></td>
<td></td>
<td><strong>AGRA</strong></td>
<td></td>
<td><strong>UNIDO</strong></td>
</tr>
<tr>
<td><strong>AGRA</strong></td>
<td><strong>UNIDO</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>UNIDO</strong></td>
</tr>
</tbody>
</table>

**Co-development**

**Co-financing**

**Regional Member Countries**

- Multilateral, Bilateral Donors, Foundations, Government Organizations
  - **Bill & Melinda Gates Foundation**
  - **DFID**
  - **USDAID**

- Small and Large Scale Agribusiness; Farmers Organizations; Food Companies
  - **Danone**
  - **Cargill**
  - **Unilever**
  - **Mars**
  - **ADM**

**Non-Exhaustive**
V. Going Forward
Next Steps

- Approval of the Strategy
- Pipeline development
- Knowledge and Advocacy
- Partnerships and Collaboration
- Events: Risk-sharing Financing Mechanism
- Programme Implementation
AFRICAN DEVELOPMENT BANK GROUP

CONTACT:
Dr. Chiji Ojukwu
Email: c.ojukwu@afdb.org

THANK YOU / MERCI