COUNTRY LEVEL PROGRESS OF RICE SECTOR AND CARD IN NIGERIA.

Presentation at the TICAT VI Side Event on CARD Kenya 2016.

Mr. George O. Opara
Deputy Director (Rice Value Chain), FMARD

Mr. Reji George
Vice President, OLAM Nigeria Ltd.

Outline of presentation

- Abbreviations.
- Overview of rice sector in Nigeria.
- Development and progress in the rice sector since 2008.
- Government efforts to promote rice sector.
  - Policy implementation and strengthened Institutions
  - Financing
  - Price stabilization and marketing
  - Production support
  - Processing support
- CARD support to Nigeria.
- Remaining Challenges and Conclusions.
<table>
<thead>
<tr>
<th>Acronyms</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADP</td>
<td>Agricultural Development Projects</td>
</tr>
<tr>
<td>AEHE</td>
<td>Agricultural Equipment Hiring Enterprises</td>
</tr>
<tr>
<td>ATA</td>
<td>Agricultural Transformation Agenda</td>
</tr>
<tr>
<td>BMGF</td>
<td>Bill &amp; Melinda Gate Foundation</td>
</tr>
<tr>
<td>BOA</td>
<td>Bank of Agriculture</td>
</tr>
<tr>
<td>BOI</td>
<td>Bank of Industry</td>
</tr>
<tr>
<td>CAP</td>
<td>Cottage Agro Processing</td>
</tr>
<tr>
<td>CARI</td>
<td>Competitive African Rice Initiative</td>
</tr>
<tr>
<td>CBN</td>
<td>Central Bank of Nigeria</td>
</tr>
<tr>
<td>FGN</td>
<td>Federal Government of Nigeria</td>
</tr>
<tr>
<td>FMARD</td>
<td>Federal Ministry of Agriculture and Rural Development</td>
</tr>
<tr>
<td>GAC</td>
<td>Grain Aggregation Center</td>
</tr>
<tr>
<td>GES</td>
<td>Growth Enhancement Support</td>
</tr>
<tr>
<td>GIZ</td>
<td>Deutsche Gesellschaft Fur Internationale Zusammenarbeit</td>
</tr>
<tr>
<td>GMP</td>
<td>Guaranteed Minimum Price</td>
</tr>
<tr>
<td>HMA</td>
<td>Honorable Minister of Agriculture</td>
</tr>
<tr>
<td>IFAD</td>
<td>International Fund for Agricultural Development</td>
</tr>
<tr>
<td>IRM</td>
<td>Integrated Rice Mill</td>
</tr>
<tr>
<td>JICA</td>
<td>Japan International Cooperation Agency</td>
</tr>
<tr>
<td>MSMDF</td>
<td>Micro, Small Medium Enterprise Development Fund</td>
</tr>
<tr>
<td>NIRSAL</td>
<td>Nigerian Incentive-based Risk-Sharing system for Agricultural Lending</td>
</tr>
<tr>
<td>NRDS</td>
<td>National Rice Development Strategy</td>
</tr>
<tr>
<td>RTA</td>
<td>Rice Transformation Agenda</td>
</tr>
<tr>
<td>RVC</td>
<td>Rice Value Chain</td>
</tr>
<tr>
<td>SCPZ</td>
<td>Staple Crops Processing Zone</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>WB</td>
<td>The World Bank</td>
</tr>
</tbody>
</table>
Overview of Rice Sector in Nigeria

- Nigeria has high Agricultural potentials:
  1. Abundant and reliable rainfall distribution.
  2. Over 84 million hectares (ha) of arable land (40% cultivated) of which 5 million hectares is put to rice cultivation.
  3. 214 billion cubic meters of surface water.

- Vast market force:
  1. About 170 million people/active consumer population.
  2. Africa’s largest market for rice.
  3. Informal sub regional market.
  4. Rice consumption in Nigeria is forecasted to 36 million tonnes by year 2050.

- Development Partners (JICA, CARD, IFAD, WB, GIZ/CARI, USAID Markets, FAO, BMGF)
  1. DPs are very helpful in capacity building of farmers, processors and marketers.
  2. Provide grants to value chain operators for equipment and machinery.
Overview of Rice Sector in Nigeria

CARD in Nigeria

- NRDS was formulated and launched in 2010. However, the Federal Government of Nigeria also launched the Agricultural Transformation Agenda (ATA) in 2011 under which the Rice Transformation Agenda (RTA) for rice self-sufficiency and its action plan was formulated (currently implemented by the Rice Value Chain (RVC) Team).
- RTA Action Plan was formulated based on NRDS and most of those involved in the formulation process were NRDS Taskforce members, thus RTA Action Plan is regarded as the upgraded version of NRDS. Therefore CARD supports FMARD in implementation of RTA Action Plan.
- The main focus of NRDS/RTA along the Rice Value chain is Rice seed development, production, Irrigation and processing and marketing.
- The Rice sector mandate is to develop a vibrant rice value chain that will attract investments in production, processing and marketing along the value chain accentuating quality competitiveness of locally produced rice.
Development and Progress in rice sector

- Paddy production increased from 3.4 million MT in 2008 to 8.5 million MT in 2015 through RTA intervention, and expected to rise to 13.265 million MT by 2018 (NRDS projection), thus RTA Goal “rice self sufficiency” will be achieved.
- Productivity has increased from 1.5 MT/Ha in 2011 to over 3 MT/Ha in the wet season and 4.5 MT/Ha in the dry season in 2014. 2015 harvest realized at an average of 5.5 MT/ha in the irrigated /low land dry season farming.
- By 2010 the small millers were producing about 60% of parboiled milled rice with poor quality that limited consumer acceptance of locally processed rice. Today, Integrated Rice Mills (IRM) rose from 2 in 2011 to 20 in 2015 with total installed capacity of 1.03mMT/annum of paddy. Aggregate milling capacity of import grade rice increased dramatically by 1380% by 2015, generating high domestic consumer acceptance.
- 8 new IRMs is planned by new investors that will add 439,000 MT/annum to national IRM milling capacity, totaling 1,470,200 MT of paddy, approximately 1 million MT of import quality milled rice.
- Rice import is low. Forex policy and high import tariff on Rice has also significantly discouraged massive importation of Rice.
Development and progress in the rice sector.

<table>
<thead>
<tr>
<th>Year</th>
<th>Paddy Production (MT)</th>
<th>Area Cultivated (Ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>3,522,000</td>
<td>2,579,540</td>
</tr>
<tr>
<td>2015</td>
<td>8,836,301</td>
<td>4,034,595</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Season</th>
<th>Average Yield MT (MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet Season</td>
<td>2011: 3.5, 2015: 75%</td>
</tr>
<tr>
<td>Dry Season</td>
<td>2011: 2, 2015: 175%</td>
</tr>
</tbody>
</table>
Development and progress in the rice sector.

**Total Processing Capacity (MT)**
- 2011: 70,000
- 2015: 1,013,200
- Increase: 1380%

**National Supply Gap (MT)**
- 2011: 2,670,000
- 2015: 1,500,000
Government Efforts to Promote Rice Sector

- **Policy implementation and strengthened Institutions:**
  - Consultations involving all stakeholders such as State Governors, RIFAN, RIPAN, RIMIDAN, Rice Mill Owners Association (Operators of the Small Scale Mills) and Rice Distributors Association.
  - Import duty waiver for Agricultural equipment and machinery
  - Tax holidays for processors.
  - Rehabilitation of irrigation structures and additional land development for use in both rain fed and Irrigation agriculture, driving dry season Rice cropping under irrigation with very high yield and Return On Investment (ROI).
Government Efforts to Promote Rice Sector

**Financing:**

- Restructuring the Bank of Agriculture (BOA) to strengthen its capacity to carry out its mandates
- Increased bank financing (CBN special funds) for small holder rice farmers and processors at a single digit rate of 9% through MSMEDF.
- Single digit interest funds for farmers and processors and agricultural investors by BOA.
- The Bank of Industry (BOI) CAP facility windows, essentially for investors/processors at single digit interest rate.
- Single digit interest rate from NIRSAL for medium scale processors and farmers clusters.
- CBN/FMARD Anchor Borrowers Programme for Rice – Successful pilot launched by His Excellency PMB in 2015 November in Kebbi, to be scaled in 9 other states.
Government Efforts to Promote Rice Sector

- **Price stabilization and Marketing:**
  - Development of the Policy on Guaranteed Minimum Price for price stability to promote production growth
  - Agricultural commodity exchange to improve market access and price stability for farmers.
  - Rapid review of National Grain Reserve Policy and development of Aggregation centers,
  - Facilitating Demand driven contract farming arrangement to ensure guaranteed market for farmers and sustained paddy supply to processor/investor
Government Efforts to Promote Rice Sector

- **Production Support:**
  - Promotion of all year round production of crops including rice as the flagship in the dry season programme

- **Smart Agriculture.**
  - Sustained policies to ensure the supply of quality, high yielding seed and other input under GES, for increased productivity
  - Generating demand driven production of paddy and engendering escalated investment in nucleus farms and out grower scheme by the private sector processors/investors.
  - Promotion of Mechanization through Agricultural Equipment Hiring Enterprises
Government Efforts to Promote Rice Sector

- **Processing Support:**
  - Supporting the operation of 38 existing integrated rice mills (IRM), through linking them to state governments to drive their nucleus farm operations as well as encouraging out grower farmer schemes to feed their mills.
  - Government is also promoting and facilitating the establishments of additional 50 IRM, each with a milling capacity of 36,000 MT/annum.
  - Setting up and enforcement of Grading Standards for parboiled milled rice of small scale rice millers so that it can be used for processing by the IRMs

- **Establishment of Staple Crop Processing Zone:**
  - Encouraging private investment in rice production, processing, out growers production, and value addition
<table>
<thead>
<tr>
<th>S/No.</th>
<th>NAME &amp; LOCATION</th>
<th>CAPACITY (MT/ANNUM)</th>
<th>OWN NUCLEUS FARM (HA)</th>
<th>OUTGROWER SCHEME (NO. OF FARMERS &amp; HECTAREAGE)</th>
<th>LEVEL OF INVESTMENT ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Onyx Rice Mill Bida, Niger States</td>
<td>12,000</td>
<td>Nil</td>
<td>Nil</td>
<td>Not Available</td>
</tr>
<tr>
<td>2</td>
<td>Olam Nigeria Ltd, Doma LGA, Nasarawa State</td>
<td>105,000</td>
<td>16,000</td>
<td>4,000 Farmers</td>
<td>120,000,000.00</td>
</tr>
<tr>
<td>3</td>
<td>JICA/FMARD/Nasarawa State ADP Incubation Rice Mill, Lafia</td>
<td>4,000</td>
<td>NA</td>
<td>Not Applicable</td>
<td>800,000.00</td>
</tr>
<tr>
<td>4</td>
<td>Conti Agro (Eko Rice Mill), Imota, Ikorodu, Lagos</td>
<td>13,200</td>
<td>530</td>
<td>25 farmers – 100ha</td>
<td>5,000,000.00</td>
</tr>
<tr>
<td>5</td>
<td>Popular Foods Limited, Lagos</td>
<td>210,000</td>
<td>17,000</td>
<td>17,000</td>
<td>22,510,053.00</td>
</tr>
<tr>
<td>6</td>
<td>Popular Farms &amp; Mills ltd, Kano</td>
<td>150,000</td>
<td>2,000</td>
<td>30,000 (2015)</td>
<td>23,380,868.00</td>
</tr>
<tr>
<td>7</td>
<td>Mikap Nig Limited, Makurdi</td>
<td>60,000</td>
<td>Nil</td>
<td>Nil</td>
<td>5,000,000.00</td>
</tr>
<tr>
<td>8</td>
<td>Al Umalau Nigeria Enterprise Limited Jalingo, Taraba State</td>
<td>9,000</td>
<td>250</td>
<td>-</td>
<td>3,500,000.00</td>
</tr>
<tr>
<td>9</td>
<td>Quarra Rice Mill, Tsaragi, Kwara State</td>
<td>24,000</td>
<td>Nil</td>
<td>NIL Not Available</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Gouria Rice Mill Ltd, Buechi</td>
<td>5,000</td>
<td>583ha</td>
<td>750 Farmers 750ha</td>
<td>750,000.00</td>
</tr>
<tr>
<td>11</td>
<td>Danmodi Food Processing Ltd, Jigawa State</td>
<td>12,000</td>
<td>100ha</td>
<td>600 Farmers 600ha</td>
<td>1,000,000.00</td>
</tr>
<tr>
<td>12</td>
<td>Umza Rice Mill, Kano</td>
<td>75,000</td>
<td>Nil</td>
<td>Nil</td>
<td>10,000,000.00</td>
</tr>
<tr>
<td>13</td>
<td>Tara Agro Industry Ltd, Adani, Enugu</td>
<td>42,000</td>
<td>5,000 Ha</td>
<td>3,000 Farmers</td>
<td>12,000,000.00</td>
</tr>
<tr>
<td>14</td>
<td>Integrated Grains Processor Nig. Ltd, Enugu</td>
<td>12,000</td>
<td>Nil</td>
<td>Nil</td>
<td>500,000.00</td>
</tr>
<tr>
<td>15</td>
<td>Stine Industries Ltd, Amichi, Anambra State</td>
<td>132,000</td>
<td>2,000 Ha</td>
<td>1,000 Farmers</td>
<td>40,000,000.00</td>
</tr>
<tr>
<td>16</td>
<td>Ebony Agro Industry Ltd, Ebonyi State</td>
<td>30,000</td>
<td>5,000 Ha</td>
<td>4,000 Farmers</td>
<td>7,000,000.00</td>
</tr>
<tr>
<td>17</td>
<td>Mordern Rice Mill, Ikwo, Ebonyi State</td>
<td>12,000</td>
<td>-</td>
<td>-</td>
<td>Not Available</td>
</tr>
<tr>
<td>18</td>
<td>Mordern Rice Mill, Iboko, Ebonyi State</td>
<td>12,000</td>
<td>-</td>
<td>-</td>
<td>Not Available</td>
</tr>
<tr>
<td>19</td>
<td>Mordern Rice Mill, Oso - Edde, Ebonyi State</td>
<td>12,000</td>
<td>-</td>
<td>-</td>
<td>Not Available</td>
</tr>
<tr>
<td>20</td>
<td>Labana Rice Mill, Kebbi State</td>
<td>100,000</td>
<td>-</td>
<td>-</td>
<td>36,100,000.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>1,031,200</td>
<td></td>
<td></td>
<td>287,540,921.00</td>
</tr>
</tbody>
</table>
### Success Stories

**List of Newly Completed Mills, Existing Mills Undergoing Expansion and Proposed Mills**

<table>
<thead>
<tr>
<th>S/No</th>
<th>Name &amp; Location</th>
<th>Installed Capacity (MT/Ann)</th>
<th>Level of Investment ($)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kiysat Foods &amp; Beverages Ltd, Hadejia</td>
<td>52,000</td>
<td>3,400,000.00</td>
<td>These 3 Mills are expected to go into production before the end of 2015. No. 2 has started test running.</td>
</tr>
<tr>
<td>2</td>
<td>3-Brothers Rice Mill, Hadeja, Jigawa State</td>
<td>30,000</td>
<td>10,000,000.00</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>i) Masco Agro Allied Ind. Ltd, Makurdi, Benue</td>
<td>70,000</td>
<td>2,179,816.00</td>
<td>Existing Mills' Expansion planned by the Stallion Group</td>
</tr>
<tr>
<td></td>
<td>ii) Masco Agro Allied Ind. Ltd, Makurdi, Benue (Expansion Planned)</td>
<td>190,000</td>
<td>57,000,000.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>iii) Popular Farms &amp; Mills Ltd, Kano Expansion Planned</td>
<td>360,000</td>
<td>108,000,000.00</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2nd Line Conti Agro (Eko Rice Mill), Lagos Expansion Planned</td>
<td>52,800</td>
<td>30,000,000.00</td>
<td>Expansion planned for 2016/2017</td>
</tr>
<tr>
<td>5</td>
<td>Dangote Rice Mills</td>
<td>Not Available</td>
<td>1,000,000,000.00</td>
<td>Has acquired thousands of hectares across the rice belt</td>
</tr>
<tr>
<td>6</td>
<td>Pearl Universal Impex Ltd, Bida, Niger State</td>
<td>144,000</td>
<td>53,000,000.00</td>
<td>New Investor (hitherto pure rice merchants) has already started paddy production</td>
</tr>
<tr>
<td>7</td>
<td>i) Elephant Group Ltd/Veetee Rice Mill, Ofada Ogun State</td>
<td>75,000</td>
<td>35,000,000.00</td>
<td>Three mills planned by the Elephant Group Ltd (New Investor) who hitherto has been pure rice merchants</td>
</tr>
<tr>
<td></td>
<td>ii) FMARD Approved Rice Mill Allocated To Elephant Grp Ltd, Niger State</td>
<td>36,000</td>
<td>10,000,000.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>iii) Elephant Grp ltd Rice Mill (Product of Satake of Netherland), In Kebbi State.</td>
<td>34,000</td>
<td>35,000,000.00</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Wacot Rice Mill, Lailaba Arugungu, Kebbi State</td>
<td>100,000</td>
<td>20,000,000.00</td>
<td>New Investor</td>
</tr>
<tr>
<td>9</td>
<td>Pemo Farm Ltd, Avieie, Auchi LGA, Edo State</td>
<td>30,000</td>
<td>9,324,000.00</td>
<td>New Investor</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>1,193,800.00</strong></td>
<td><strong>1,382,802,316.00</strong></td>
<td></td>
</tr>
</tbody>
</table>

FMARD has concluded all contractual arrangements for the establishment of 10 IRMs each with capacity of 36,000MT/annum. Release of the funds domiciled with BOI for the purpose is now being awaited. One of the mills is allocated to the Elephant Group = 6(ii) of Table.
CARD support to Nigeria.

- CARD facilitated the formulation of NRDS that became the base of RTA action plan which later subsumed NRDS.
- Support in the development of the National Rice seed development strategy (NRSDS) document.
- In December 2014, a consultative workshop was organized for USAID and Africa rice, 2 of the 16 concept note of the NRSDS supported by CARD were adopted by USAID/ Africa Rice for funding to the total of 1 million USD.

Upcoming

- Mechanization support
Current Challenges.

- Poorly organized Market structure – low quality, non-uniform standard and measuring
- Still insufficient financing opportunities for rice stakeholders with reasonably low interest rate
- Land scarcity and the complication of land ownership management
- Private investments still insufficient:
- Insufficient Irrigation facilities:
- FMARD has remained the main source of funding for RVC/RTA activities.
- It has not been easy getting development partners to fund some of the concept notes of NRDS/RTA and coordinate private sector participation.
RTA action plan was developed under ATA to grow the rice sector. However, subsequently subsumed the activities of NRDS in Nigeria.

Appropriate policy instrument by government propelled dramatic growth in rice production. Paddy production grew by 150% by 2015 from 2011 and aggregate milling capacity of import quality rice increased to 1380% during these period.

Nigeria achieved 63% of NRDS 2018 target of 13.27 MT of paddy within 4 years of RVC. This implies the 2018 target of NRDS will be exceeded before 2018, and thus the goal of RTA Action Plan “Rice self-sufficiency” will be achieved.

Blessed with abundant low land, fertile deltas and savanna areas in rice production, Nigeria can very readily impact with Excellent quality rice especially if the current initiatives and appropriate policies are maintained.
Introduction to Olam
A leading global agri-business, operating from seed to shelf

TICAD VI Side Event on CARD – Nairobi, Kenya
August 25, 2016
“Progress of CARD and the Future of Rice Sector Development in Africa”
An overview

- In **26 years**, we have grown from a single product exporter, to a global agri-business leader, operating from seed to shelf
- Working in **70 countries**
- Organised into **16 platforms**, comprising **47 agri-commodities**
- Headquartered in Singapore and listed on the **Singapore Exchange (SGX)**
- Employing **62,500** full-time, seasonal, contract and temporary workers
- Supplying **16,200 customers** worldwide
- Sourcing from **4 million farmers**
- Operating **199 processing facilities** globally
- Managing **2.6 million hectares** of land
Our 26 year history

### Products
- **1989**: 1
- **2001**: 10
- **Today**: 47

### Countries
- **1989**: 1 (Nigeria)
- **2001**: 20
- **Today**: 70

### Revenue
- **1989**: S$2M
- **2001**: S$1.6B
- **Today**: S$19.1B

### Employees
- **1989**: 2
- **2001**: 1,500
- **Today**: 62,500
Rice Commercial farm in Nigeria

State - Nassarawa
- Total Land Area – 12,606 ha
- Precision levelled and cultivated now – 5000Ha * 2 Cycles per year
- Irrigation scheme with 9 M3 of water every second
- Aerial ag operations
Rice Mill

Current capacity – 105,000 MT with a provision to double it to 210,000 MT
Fully operational as from 2014
The largest rice mill in Nigeria with the highest capacity in paddy milling
Well accepted brand and leadership position among locally produced rice
Satake milling machineries with Italian parboiling technology
Out growers Initiatives in Rice

Initiatives:
1. OLAM - CBN Rice Anchor Borrowers Program in Nasarawa / Kaduna States
2. OLAM - IFAD Rice Value Chain Development Program in Benue State

- Farmers – 3873
- Area in Ha – 5476

Support areas:
- Certified Seeds, Fertilizers, Agro chemicals
- Capacity building
- Direct buy back at prevailing prices

Stakeholders:
- CBN (Central Bank of Nigeria)
- IFAD (International Fund for Agricultural Development)
- USAID MARKETS
- NADP / BNARDA / KADP
- FCMB
- OLAM
- FARMERS IN COOPERATIVES

20,000 farmers delivering high quality long grain paddy by the year 2018
Outgrowers.....
Outgrowers...
Impact of Government policy / program implementation on rice production

Major policies:
- Rice transformation Agenda (RTA) as part of Agricultural Transformation Agenda (ATA)
- National Rice Development Strategy (NRDS) as a base for RTA
- Initiatives on rice value chain by CBN ABP
- Import restrictions on Rice
- Quota allocations to investors
Impact of Government policy / program implementation on rice production contd...

- Improved accessibility to funds and inputs for farmers
- Better quality seeds
- Enhanced capacity to better productivity
- Higher prices for finished rice and the paddy prices
- Improved profitability for farmers
- More number of mills established
- Better focus on quality
Impact on the business environment for Olam

Commercial farming activities:
- Better land availability
- Higher prices of finished rice and improved market size for locally produced rice
- Very limited impact except for the above

Outgrower initiatives:
- Availability of better quality paddy and higher volumes for the mill
- Significant involvement of other stakeholders and risk sharing:
  - CBN
  - IFAD
  - USAID
  - NAIC
- Better management and monitoring of the initiatives through involvement of various stakeholders
Challenges and critical points for successful private investment in Nigeria – remaining issues in rice production and private sector investment

Issues in rice production
• Lack of higher yielding, and newer varieties
• Very low rate of mechanization
• Insignificant dry season farming – lacks Irrigation infrastructure and storage dams
• Poor pay back on loans by farmers and lack of interest from commercial banks in getting into funding the farmers
• Inaccurate data on production / demand – supply volumes, making projections difficult

Issues in private sector investments
• Assessment of investment numbers and data still far from accurate and thereby incentives not matching to the size of investment
• Inadequate / no support on infrastructure – roads, electricity, irrigation
• Cross border trade
• Absence of medium to long term and consistent policies. (The current administration has no policy summersault in Agriculture – Policies Rather Consistent Please)
Way forward and suggestions to enhance PPP – Effective stimulation of private investment

Way forward:

- A combination of Nucleus estate with large outgrowers initiatives can be the way forward to significantly reduce the demand – supply levels of rice in Nigeria.

- The commercial farms can ensure 2 crop cycles in a year through a precision levelled irrigation scheme at much better yields than the farmers average.

- The outgrowers initiatives can ensure larger volumes of paddy through increased production volumes by bringing larger areas under cultivation and by enhanced productivity levels.
Suggestions: The massive investment requirements of the commercial farming makes it risky for the investors to set up a project without adequate support on the following:

- Infra structure development:
  - Roads
  - Irrigation infra structure development and building of storage dams
  - Electricity / gas pipelines leading to lower cost

- Incentives for the first 5 to 7 years until the establishment of the project and yields are stabilized
  - Tax holidays
  - Concessions / quotas - to be thoroughly based on the level of investment made in the local production
  - Long term policies, and cessation of illegal CBT