THE IMPERATIVES OF GREEN ECONOMY AND THE TRANSFORMATION OF AFRICA’S AGRICULTURAL SECTOR

BY

SAMUEL A. IGBATAYO, PhD

&

RUFUS OLUWAFEMI, PhD

1Dean College of Business & Management Sciences
Igbinedon University, Okada, Nigeria.

2Lecturer, Department of Agricultural Economics, College of Natural & Applied Sciences, Igbinedon University

A paper presented at an International Conference on Sustainable Development of Natural Resources in Africa.
OBJECTIVES OF PRESENTATION

The main objectives of this presentation, amongst other things, are to:

• Conceptualize the Green Economy and articulate pertinent issues associated with the phenomenon;

• Establish the nexus of sustainable development and the green economy;

• Discuss the imperatives of ‘greening’ Africa’s agricultural sector and implications for economic transformation; and

• Proffer pertinent recommendations.
<table>
<thead>
<tr>
<th>Industrial Sector</th>
<th>Green Goals Associated with Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>Cradle-to-cradle; closed loop production; industrial ecology</td>
</tr>
<tr>
<td>Energy Utilities</td>
<td>Renewable; distributed (local) generation; green design</td>
</tr>
<tr>
<td>Water Utilities</td>
<td>Integrated (storm water, waste water systems; water sensitive urban design</td>
</tr>
<tr>
<td>Waste</td>
<td>Recycling, reuse; eco-industrial development</td>
</tr>
<tr>
<td>Construction</td>
<td>Smart, green building; virtual design and construction; life cycle</td>
</tr>
<tr>
<td>Trade (Retail/Wholesale)</td>
<td>Zero waste (packaging, food, etc); carbon management</td>
</tr>
<tr>
<td>Transport</td>
<td>Hybrid, electric, hydrogen vehicles; land use integration</td>
</tr>
<tr>
<td>Finance and Property</td>
<td>Green accounting; urban retrofitting; building accreditation</td>
</tr>
<tr>
<td>Services</td>
<td>Zero waste; reduced consumption, carbon management; e-services</td>
</tr>
<tr>
<td>Government</td>
<td>Green procurement; de-coupling policies; sectoral decarbonizing schemes;</td>
</tr>
<tr>
<td></td>
<td>regulation</td>
</tr>
</tbody>
</table>

Source: Newton and Newman, 2010
Figure 1: A Model of Sustainable Development
CONTRIBUTIONS OF THE GREEN GROWTH STRATEGY (OECD, 2011):

• Creating a common understanding of green growth;
• Developing a conceptual model of green growth;
• Assessing countries’ green growth measures taken since the crisis and future plans;
• Quantifying the potential effects of green growth;
• Describing the new issues raised by green growth;
• Identifying the potential effects of green growth;
• Describing the new issues raised by green growth;
• Identifying key principles and providing a toolkit for green growth policies;
• Developing a set of indicators covering economic, environmental and well-being aspects;
• Strengthening performance through peer reviews of green growth policies;
• Addressing the political economy considerations of green growth; and Identifying lessons learned and best practices.
Figure 2: Global Population and Cereal Crop Production Trends

Source: UNDESA, FAOSTAT
THE AIMS OF GREENING AGRICULTURE

• Restoring and enhancing soil fertility through the increased use of naturally and sustainable produced nutrient inputs; diversified crop rotations; as well as livestock and crop integration;

• Reducing soil erosion and improving the efficiency of water use by applying minimum tillage and cover crop cultivation techniques;

• Reducing chemical pesticide and herbicide use by implementing integrated biological pest and weed management practices; and

• Reducing food spoilage and loss by expanding the use of post-harvest storage and processing facilities.
THE PROFILE OF AFRICA’S AGRICULTURE

• African agriculture has unique features that set it apart from Asia, where the Green revolution has had a positive impact on food security and development. These include (IAC, 2008):
  • Lack of a dominant farming system on which food security largely depends;
  • Predominance of rain-fed agriculture as opposed to irrigation agriculture;
  • Heterogeneity and diversity of farming systems and the importance of livestock;
  • Key roles of women in agriculture and in ensuring household food security;
  • Lack of functioning competitive markets;
  • Under-investment in agricultural research and development (R&D) and infrastructure;
  • Dominance of weathered soils of poor inherent fertility;
  • Lack of conducive economic and political enabling environments;
  • Large and growing impact of human health on agriculture;
  • Low and stagnant labour productivity and minimal mechanization;
  • Predominance of customary land tenure.
CONTEMPORARY ENVIRONMENTAL CHALLENGES IN AFRICA

• Incessant droughts.
• Increasing desertification
• Deforestation
• Unsustainable urbanization
• Soil erosion
• Loss of biodiversity
ADVANTAGES OF GREENING AFRICA’S AGRICULTURE

• Catalyzes novel technologies that spawn productivity
• Promotes environmental sustainability
• Prevents biodiversity loss
• Supports rural livelihoods
• Holds the key to the transformation of the agricultural sector.
RECOMMENDATIONS

• Embrace the concept of a green economy for the transformation of agriculture
• Integrate poverty reduction policies into development strategies
• Adapt novel agricultural technologies to mitigate impacts of climate change
• Promote new approaches to agricultural extension services; and
• Foster development partnerships
THANK YOU