Research and Development in Nigeria: Building Research Networks across and beyond Nigeria

Professor V.O. Okoruwa
Department of Agricultural Economics,
University of Ibadan,
Ibadan, Nigeria
Outline of the presentation

Research and Development in Nigeria
- The Importance
- The Trend

Building of Research Networks across and beyond Nigeria
- Reasons to build research networks
- How to build research networks
Research and Development in Nigeria

The Importance

- R&D is the most sustainable means of boosting sustainable economic development.
- It encourages competitiveness in the face of rapid growth in the industries, countries and population.
- It helps in raising the living standards of the people in a country.
Trend in research and development in Nigeria

1940's & 60s
- R&D - Govt. Owned Departments
- Headed by scientists and engineers
- Universities

1970's
- Nigerian Council for Science and Technology (NCST)
- 23 Research Institutes created
- More universities

1980s and 90s
- Creation of Ministry of Science and Technology
- Creation of more research institutes and universities
Table 1: Type of Research and Development Institutions in Nigeria and Periods Establishment

<table>
<thead>
<tr>
<th>Period</th>
<th>Year</th>
<th>Type of Research and Development Institution</th>
</tr>
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<tbody>
<tr>
<td>‘40s</td>
<td>1940</td>
<td>Government owned department</td>
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<tr>
<td>‘60s</td>
<td>1960</td>
<td>At least one research department in each ministry of the federal government of Nigeria</td>
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<tr>
<td>‘70s</td>
<td>1970</td>
<td>Nigerian Council for Science and Technology (NCST)</td>
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<tr>
<td></td>
<td>1971</td>
<td>The Agricultural Research Council</td>
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<tr>
<td></td>
<td>1972</td>
<td>The Industrial Research Council</td>
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<tr>
<td></td>
<td>1973</td>
<td>Medical Research Council and the Natural Science Research Council of Nigeria</td>
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<tr>
<td></td>
<td>1977</td>
<td>National Science and Technology Development Agency [NSTDA]</td>
</tr>
<tr>
<td>‘80s</td>
<td>1980</td>
<td>Ministry of Science &amp; Technology</td>
</tr>
<tr>
<td></td>
<td>1984</td>
<td>Ministry of Education, Science &amp; Technology</td>
</tr>
<tr>
<td></td>
<td>1985</td>
<td>Ministry of Science and Technology</td>
</tr>
<tr>
<td>‘90s</td>
<td>1992</td>
<td>National Agency for Science and Engineering Infrastructure [NASENI]</td>
</tr>
<tr>
<td></td>
<td>1993</td>
<td>Ministry of Science and Technology</td>
</tr>
</tbody>
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R&D Challenges in the Country

- Slow adoption of research materials and methods from already developed researches
- Little value added to industry and relevant fields
- Inadequate funding
- Poor collaboration within and between the different and relevant research agencies in the country and beyond
- Absence of coordination with private and international research agencies.
Development of Research Networks across and beyond Nigeria

Reasons to build research networks

✓ Local knowledge recycling
✓ Limited capacity to conduct research that leads to development
✓ Limited relevance and impact of research
✓ Failure of the countries to finance her own research
✓ Isolation of scientists and researchers from counterparts from other continents
✓ The needs for global competitiveness
Research Networks/Connections in Africa


- First group lies in North Africa - Algeria, Egypt, Libya, Morocco and Tunisia.

- Second group - Francophone, largely West African, Cameroon as hub centre - Benin, Burkina Faso, Congo, Côte d'Ivoire, Mali, Niger, Senegal and Togo.
Third group – where English language plays a unifying role links Nigeria, the Gambia and Ghana in West Africa with Botswana, Ethiopia; Kenya, Malawi, Tanzania, Uganda, Zambia and Zimbabwe in the east.

Fourth group- South Africa provides the gateway - Gabon, Lesotho, Madagascar, Mozambique, Namibia, Sudan and Swaziland.
RN in Africa with Developed Countries

[Map showing RN in Africa with percentages from various countries such as USA, UK, France, Italy, Spain, Germany, Netherlands, Belgium, Australia, and France, with specific percentages for each.]

Source: Web of Science™; Analysis: Wolfram Mathematica® 7
Barriers to creating Networks

*These are identified to be rooted in:*

- heavily dependent on - and limited by the colonial past,
- Language,
- Culture and history,
- Infrastructure e.g. ICT, equipment etc;
- And also in geography
Building research networks

*Achieved by building:*

- Capacity: in form of training and scholarships
- Infrastructure: needs-based, practical and problem solving
- Funding: Institutional compatible, multi-donors, research agenda
Building research networks cont’d

- Mentoring between senior and junior researchers
- Attendance in conferences and workshops: locally, sub-regionally or internationally
- Getting research papers published in high impact journals
- Using social research network platforms like Linkedin, Researchgate, Academia etc.
Thank you for listening