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DOING RESEARCH IN NIGERIA

Executive Summary & Conclusions

National Centre for Technology Management & The Global Development Network

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IN NIGERIA

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Executive Summary

Achieving the global sustainable development agenda at the national level requires significant domestic research capacity. This will help to ensure the production of scientific evidence that is based on critical analyses of each country's social, development and policy challenges. Such evidence will help to inform contextually relevant actions and reforms for economic growth, development and welfare. However, detailed system-wide data on the social science research (SSR) system is scarce in sub-Saharan Africa, and this hinders effective policymaking. While international agencies like the UNESCO Institute of Statistics routinely gather data, such efforts still rely on locally generated information.

In Nigeria, unfortunately, there have been no systematic efforts to generate data on the domestic SSR system since independence. To date, only one national survey of research and development (R&D) has been carried out in Nigeria (in 2007); it used instruments and methods based on the well-known Frascati Manual of Europe. However, the survey aggregates the entire research landscape and pays no particular attention to social science. Hence, useful indicators such as human capital, research production, infrastructure, diffusion and uptake of SSR cannot be obtained from this survey. The Doing Research Assessment (DRA) in Nigeria is aimed at systematically understanding how critical factors of the national research system impact its capacity to produce, diffuse and use SSR for its social and economic development.

The research process employs a mixed method approach that involved three inter-related stages: a context analysis, a systematic mapping of stakeholders and a comprehensive data collection exercise. The context analysis provides a critical discussion of the environment for SSR in Nigeria, with a focus on the political, international, economic and historical dimensions. The stakeholder mapping was used to identify all stakeholders that engage in activities connected to the production, diffusion and use/uptake of SSR in Nigeria. For ease of analysis, the research actors are categorized into higher education institutions (HEIs), government and funding agencies (GFAs), private sector (PS) entities, and civil society organizations (CSOs). Our stakeholder mapping identified 1,825 organizations with some interest in SSR in Nigeria, including 170 HEIs, 75 GFAs, 65 PS organizations and 1,515 CSOs. The data collection combines a desk review, bibliometric analysis, key informant interviews and a set of three surveys – one each for researchers, administrators and policymakers. In all, we interviewed 17 key informants (5 from HEIs and another 3 from research institutes; 3 from GFAs; 3 from CSOs; and 3 from PS organizations) and surveyed 805 individuals from 130 organizations across the country, including 585 researchers, 145 administrators and 75 policymakers. The response rate was 90 percent at the institutional level and 85 percent at the individual level.

Main findings

Nigeria is the second largest producer of SSR in Africa. While this places the country in good standing on the continent, the volume of production is relatively thin when viewed on a global scale.

Most of the SSR produced in Nigeria comes from the university system. Other actors such as research institutes, the private sector and civil society produce far less.

Women are underrepresented in the SSR system in Nigeria; for every female social science researcher, there are at least four men.

There is a general bias toward the pure and physical sciences, which adversely affects the funding of social science research.

Most of the research grants expended locally come from foreign sources. This imposes a responsibility on local researchers to follow the agenda of the funding agencies in ways that sometimes disconnects research from local needs and realities.

Social science research results can be produced and openly discussed without undue influence from the political atmosphere. There seems to be a high degree of freedom for researchers to discuss and conduct research on issues of social relevance.

Open access publishing is commonplace in the Nigerian SSR landscape; nearly half of the surveyed researchers publishing at least 40 percent of their output without any restrictions.

While a large number of journals are published in the country across many university departments, **no database or accreditation system for local journals exists in Nigeria.** Overall quality tends to be low and, as a consequence, visibility is poor.

Social science researchers in Nigeria do not communicate their research results extensively to policymakers and the general public. There is little impetus for researchers to communicate their research results widely with varied stakeholders via channels outside of their institutions.

Research capacity-building is not necessarily tailored toward the needs of researchers. This is detrimental to SSR in at least two ways: first, non-targeted research training is ineffective as it is not likely to be fully relevant to the audience; and two, scarce resources are wasted on capacity-building exercises that yield sub-optimal results.

The level of interaction among actors within the SSR system in Nigeria is weak as a result of poor coordination. No single institution currently has the clear mandate to centrally coordinate SSR in Nigeria. Consequently, research efforts are often duplicated and the limited research resources are spread too thin.

Research uptake relies heavily on policymakers who, unfortunately, are disconnected from other actors within the social science research system. There is a lack of or weak communication between researchers and policymakers in the initial stages of determining, conceptualizing and designing research. Consequently, policymakers consider findings from studies they were not initially involved in unsuitable for policy-related issues.

The social science research-to-policy linkages can be best described as weak.

Nigeria has not fully adopted evidence-based policymaking; most of the decision-making processes tend to be framed around political and ideological considerations, with little or no reference to hard evidence.

Levers of Change

Currently, promotion and tenure assessment procedures in Nigeria's universities and research institutes (where most of the research is produced) is biased toward the number of publications. **Modifying the assessment system to reward quality in addition to publication counts will shift attention toward better quality research.**

For instance, a system that awards research funding to researchers with the most publications in highly-ranked journals within a given period, or that provides monetary rewards to researchers whose publications meet certain quality criteria is likely to be more effective than a non-targeted financial reward scheme. Actions along these lines are best taken by the government and funding agencies, who have an influence on the national research agenda, as well as universities and research institutes, who produce most of the research.

Connecting research evidence to policy is challenging – both on the demand side (the policy community's limited competence in evidence-informed policymaking) and the supply side (a lack of sufficient capacity and skills for science communication and policy advice). Dealing with these problems requires an understanding of two factors: firstly, the barriers to effective pathways to policy; and secondly, new approaches for engaging policymakers. Gaining this understanding requires extensive research on how to forge and sustain a strong research-policy nexus. This is a call to action for the Government of Nigeria and other providers of research funding to integrate this research topic in their funding calls; this applies to funding calls from the Tertiary Education Trust Fund (TETFUND) and from international donors involved in SSR.

While academics in Nigeria are eager to communicate their research to inform policymaking, facilitating uptake on the policy side is not as straightforward. An important aspect of the challenge is the lack of sufficient capacity and skills for science communication and policy advice at both the individual and institutional level. Admittedly, some training and fellowship opportunities currently exist, such as those offered by the Intergovernmental Network for Science Advice, but there is much room for improvement. **Demanding clear uptake** plans and capacity-building in researchto-policy communication as part of research grant applications by TETFUND

and other national and international donors may also help in overcoming these problems.

Data availability and access remain major problems. The current study encountered considerable difficulties in finding secondary data on the Nigerian SSR system. This highlights the need for intensive local efforts in data collection, curation and dissemination. Initiatives such as the DRA are apt, and should be domesticated while remaining connected to the wider community of practice. In this context, an opportunity exists for development partners to support capacity-building, data collection or the strengthening of institutions. For instance, international donors could support the establishment of a centre of excellence to assess, benchmark, monitor and evaluate the SSR system, similar to the system of African **Higher Education Centres of Excellence** steered by the Association of African Universities and supported by the World Bank across several disciplinary areas.

In Nigeria, the most obvious infrastructural deficit that affects research is that of the power sector. In the country's recent history, electricity has been consistently unstable, which has hindered the efficient use of computing facilities, the Internet and researchers' work hours. Similarly, competent administrative research support services are in short supply. Most research organizations either do not have a research support office or, in many cases where they do exist, such offices are short-staffed or inefficient. As a result, researchers spend too much time on bureaucratic responsibilities that the administrative support office should otherwise absorb. Deliberate action needs to be taken in this regard. For example, alternative energy sources could be explored by research organizations and the creation or strengthening of offices

that provide research support services would significantly improve the efficiency of the SSR system.

Four cross-cutting issues also require attention. Firstly, the perennial problem of poor funding hinders SSR in Nigeria. Secondly, the SSR agenda in the country is largely uncoordinated; local institutions and foreign donors each set their own agendas, which are often misaligned and disconnected from local development needs. Thirdly, there is no central coordinating body that prescribes the direction of SSR research priorities and the rate of funding required. Fourthly, it is normal for research in the social sciences to proceed without obtaining any official ethical approval; research ethics in most

institutions is generally limited to obtaining informed consent from participants before data collection – surveys, focus group discussions, interviews and observations, etc. As such, the creation of a social science research council is a veritable first line of action to overcome these challenges, as it could contribute to both accreditation of publishing platforms and journals, and lead the definition of a national research agenda, potentially articulating it across the country's federal structure in coordination with state bodies and academia. The existence of such a body could also facilitate the development of ethical guidelines for conducting SSR in the country, and contribute toward curbing the rise of plagiarism and predatory publishing.

CONCLUSIONS

Highlights

- Nigeria is a powerhouse of research production in Africa but on a global scale the country is a minor contributor to research.
- The social science research-to-policy linkages can be best described as weak.
- Foreign research donors tend to influence the domestic research agenda in ways that often disconnects research from local needs and realities.
- Establishing a social science research council is a veritable first line of action to overcome the challenges in the Nigerian social science research system.
- Policies and actions directed at the social science research system in Nigeria need to be adaptive, responsive and sensitive to local contexts.

In this final chapter, we bring together the main results, their implications and the challenges encountered during the DRA process in Nigeria. This study was carried out to assess the state of the SSR system in terms of research production, uptake and diffusion toward economic development. So, what did we learn from undertaking a comprehensive assessment of the SSR landscape in Nigeria?

Summary of Findings

The primary insight is the sheer scale of the Nigerian SSR system. This study identified almost 2,000 organizations that engage in SSR production, diffusion, uptake or any combination of components. Data from several sources suggest that in Africa, Nigeria is a powerhouse of research production but on a global scale the country is a minor contributor to research. According to official publications of the African Union, Nigeria is the continent's third

largest producer of research in Scopus across all disciplines, with 13,333 peer-reviewed articles between 2005 and 2009 - after South Africa (32,372) and Egypt (22,955). In terms of social science research, Nigeria ranks as the second largest producer in Africa producing more than three times the volume of that from Egypt but under a quarter of that from South Africa. This is attributed to the large number of social science researchers (between 6,000 and 32,000). Between 2015 and 2017, Scimago data attributes over 4,000 published documents in the social sciences to Nigeria. Most SSR produced in Nigeria originates from universities given the greater critical mass of researchers within these institutions. However, a culture of 'publish or perish' may well enhance the volume of publications but does nothing to incentivize quality of publication.

Research institutes tend to produce far fewer publications than universities while the private sector and civil society produce very little. Given the nature of institutional bias to research production, it follows that research dissemination is also driven by universities and research institutes. Foreign donors who fund SSR and CSOs that use research results in their advocacy activities also play a key role in research dissemination.

Although the importance of evidence-based policymaking has been established in the literature, translating research findings into policy appears to be a daunting task in most countries. This is largely a consequence of weak interaction/engagement between researchers (involved in production) and policymakers (involved in uptake). Based on the results of this study, the social science research-to-policy linkages can be best described as weak. For many of the indices measured, they are either negative or midpoint at best, which implies Nigeria has much room for improvement. Research uptake – that is, the use of research evidence

in policy – relies heavily on policymakers. While other actors, especially research producers, take action to facilitate research uptake (e.g. by producing policy briefs, organizing events etc.) their direct influence in policymaking is limited in the Nigerian context. Policymakers need to be primary stakeholders from the outset to ensure research evidence makes its way into public policy. Unfortunately, policymakers do not interact sufficiently with other actors within the SSR system and they also have limited capacity in evidence-informed policymaking.

The major barriers to the production of quality SSR relate to poor infrastructure and limited funding. With the exception of the Tertiary Education Trust Fund (TETFUND), an agency of government that is responsible for providing research and infrastructural funding across all disciplines to public universities, this study did not find any other major domestic research funding sources. Other actors in the system rely on government allocations or privately sourced funding, but this is generally low. Gross expenditure on SSR and development was estimated at a maximum of USD 31,000 per researcher in 2009; interviews with key informants in the system indicate the situation has not improved over time. Most of the research grant funds that are spent locally come from foreign sources but there is no systematic record of these grants. Hence, it is difficult – if not impossible – to reliably state the annual amount of donor funding for SSR in Nigeria. Moreover, this study observed that funds from foreign research donors tend to influence the domestic research agenda in ways that often disconnect research from local needs and realities.

Moreover, the Nigerian SSR system is poorly coordinated. No single institution currently has the clear mandate of centrally coordinating SSR in Nigeria. This has implications for the definition of a national

SSR agenda and, in turn, the productionuptake nexus. It was revealed in the course of an interview with a high-level stakeholder that a Social Science Research Council (SSRC) exists but operates as an independent body/ association that does not enjoy any support from the Government, and is therefore not visible. With political backing and funding support from the Government, the SSRC would be able to facilitate the definition of national SSR priorities in consultation with the different stakeholders at the national and state levels. In the absence of a central corrdinating body, different actors, especially those who produce and disseminate SSR, are coordinated by different agencies, which in many cases operate on conflicting mandates.

In summary, the Nigerian SSR system has both strong and weak characteristics. In terms of research personnel and volume of SSR production, it is in the top three on the African continent. However, on a global scale SSR production in Nigeria is small despite the numerous organizations involved. The ease of doing research is rather weak, with institutional, infrastructural, funding and capacity deficiencies limiting the performance of quality research. The policy implication is that the diverse actors in the Nigerian SSR system need an incentive to move away from the current focus on the volume of research output to one that encourages research quality. A one-size-fitsall approach will not work.

Conclusions and Implications for Policy and Practice

A significant opportunity for upgrading and strengthening the Nigerian SSR system resides in an observed strength of the system, its size – with a large number of institutions, researchers and PhD holders. If all of these institutions are strenghtened and all the researchers – or, at least, most of them –

are able and incentivized to produce and disseminate high-quality research, the system could rapidly become a significant contributor to the global SSR landscape. **The potential is there within Nigeria but the appropriate structures and incentives are missing.**

To address this requires creating a demand and incentive structure for good-quality research. Currently, promotion and tenure assessment procedures in universities and research institutes (where most of the research is produced) is biased toward the number of publications. Modifying the assessment system to reward quality in addition to publication counts will shift attention toward better quality research. This requires a fundamental paradigm shift – it is hoped that this study triggers this process.

How to objectively assess quality is, however, open to debate. Conventional indicators such as citation counts, journal impact factors and journal rankings are useful in this regard, but there is room for rigorous discussions on what may work best in the Nigerian context and across different institutions. The use of rewards, as is presently employed in South Africa, may also help to create a demand for high-quality research. While the propriety of pecuniary reward is debatable, it will have a positive effect on the research landscape if tied to quality. For instance, a reward system that awards research funding to researchers with the most publications in highly-ranked journals within a given period, or that provides monetary rewards to researchers whose publications meet certain quality criteria is likely to be more effective than a non-targeted financial reward scheme. Actions along these lines are best taken by the government and funding agencies, who have an influence on the national research agenda, as well as universities and research institutes, who produce most of the research. This study points to the need for a coordinated approach.

The need for evidence-based policymaking in the current knowledge economy cannot be overemphasized. However, **connecting research evidence to policy is challenging – both on the demand and supply side.**

A lack of aggregate demand for scientific evidence by the policy and political community is one of Nigeria's biggest obstacles to evidence-based policymaking. Research organizations produce articles, reports and policy briefs which are often never read or absorbed by the policy community. There is also a generally low level of competence in evidence-informed policymaking in the Nigerian policy community. Nonetheless, an opportunity rests in the fact that some sections of the policy community, particularly in the federal legislature, show some interest in research evidence. On the supply side, the lack of sufficient capacity and skills for science communication and policy advice is a huge challenge. Researchers are generally more focused on 'talking to themselves' through technical publications rather than on interacting with policymakers.

Dealing with these problems requires an understanding of two factors. Firstly, the barriers to effective pathways to policy, and secondly, new approaches for engaging policymakers. Gaining this understanding requires extensive research on how to forge and sustain a strong research-policy nexus. This is a call to action for government and other providers of research funding. For example, research in this area is notably absent from the TETFUND's annual funding calls; the same applies for funding calls from most international donors in the social sciences. A related action point is on capacitybuilding in research communication. While academics are eager to communicate their research in order to inform policymaking, facilitating uptake on the policy side is not

as straightforward. An important aspect of the challenge is the lack of sufficient capacity and skills for science communication and policy advice, not just at the individual level, but also at the institutional level. Admittedly, some training and fellowship opportunities currently exist, such as those offered by the Intergovernmental Network for Science Advice, but there is much room for improvement. Demanding clear uptake plans and capacity-building in research-to-policy communication as part of research grant applications by TETFUND and other national and international donors may also help in overcoming these problems.

Data availability and access remain major problems. This study encountered considerable difficulties finding secondary data on the Nigerian SSR system. There were three types of missing data that stand out:

- an authoritative register or sampling frame of relevant organizations
- an accurate record of research inputs, especially research personnel and locally and foreign-sourced research funding
- a coordinated research assessment framework that would allow a reliable estimation of the strengths and weaknesses of each institution

This highlights the need for intensive local efforts in data collection, curation and dissemination. Initiatives such as the DRA are apt, and should be domesticated while remaining connected to the community of practice. A case can readily be made for the institutionalization of a regular DRA-type exercise within the country. The considered opinion of this study is that with the right institutional backing and consistent efforts, the SSR system will become adequately mapped after only a few iterations of a DRA-type exercise. Achieving this, however, requires considerable funding (preferably

provided by the Federal Government), globally-connected local expertise (which this pilot study has helped to stimulate), and strong political will (best expressed by situating the mapping exercise within an existing research organization and providing a supporting legal framework). In this context, an opportunity exists for development partners to support capacitybuilding, data collection or the strengthening of institutions. For instance, international donors could support the establishment of a centre of excellence to assess, benchmark, monitor and evaluate the SSR system, similar to the system of African Higher Education Centres of Excellence steered by the Association of African Universities and supported by the World Bank across several disciplinary areas.1

Reliable infrastructure, both physical and intangible, is necessary for good research. In Nigeria, the most obvious infrastructural deficit that affects research is that of the power sector. In the country's recent history, electricity is consistently unstable and this hinders efficient use of computing facilities, the Internet and researchers' work hours. Competent administrative research support services are also in short supply. Most research organizations either do not have a research support office or, in many cases where they exist, such offices are short-staffed or inefficient.

¹ See https://ace.aau.org, https://www.ace.edu.ng/ace and https://www.nuc.edu.ng/project/ace. In Nigeria today, the network of African Centres of Excellence (ACEs) has significantly impacted the research landscape in several disciplines. For instance, the ACE in the Genomics of Infectious Diseases (ACEGID), based at the Redeemer's University in Osun State, is at the forefront of Nigeria's public health programme. The ACEGID laboratory provided much-needed genome sequencing, testing and diagnosis in the fight against the Ebola and COVID-19 viruses. Similar results could be achieved with Centres of Excellence in SSR.

As a result, researchers spend too much time on bureaucratic responsibilities that the administrative support office should otherwise absorb. Deliberate action needs to be taken in this regard. For example, alternative energy sources may be explored by research organizations and the creation or strengthening of offices that provide research support services will also significantly improve the efficiency of the SSR system.

In addition to the above, three crosscutting issues require attention. Firstly, the perennial problem of poor funding hinders SSR in Nigeria. Secondly, the SSR agenda in the country is largely uncoordinated, with local institutions and foreign donors each setting their own agendas, which are often misaligned and disconnected from local development needs. Thirdly, there is no central coordinating body that prescribes the direction of SSR research priorities and the rate of funding required. As such, there is clearly a considerable amount that can be done to improve on the current

situation. This study would suggest that the creation of a social science research council is a veritable first line of action to overcome these challenges. It could contribute to both accreditation of publishing platforms and journals, and could lead the definition of a national research agenda, potentially articulating it across the country's federal structure in coordination with state bodies and academia. The existence of such a body could also facilitate the development of ethical guidelines for conducting SSR in the country, and contribute toward curbing the rise of plagiarism and predatory publishing.

This study summarizes the above conclusions in Table 1 below and maps each one to the stakeholder that this study suggests is best positioned to take the required action. It is believed that implementing these policy prescriptions would greatly assist in strengthening the SSR system in Nigeria. There is, however, an important caveat. All stakeholders need to be conscious that there

Table 1: Summary of suggested actions for each actor category in the Nigeria social science research system

| | Recommended action | Most concerned stakeholders | | | |
|---|--|---------------------------------------|-------------------------------------|--------------------------------|-------------------|
| | | Government and Funding Agencies | Higher Education Institutions | Civil Society Organizations | Private Sector |
| 1 | Create demand for high-quality research | ✓ | ✓ | | |
| 2 | Support gathering, curating and disseminating secondary data | ✓ | ✓ | ✓ | ✓ |
| 3 | Link research to policy | ✓ | ✓ | ✓ | \checkmark |
| 4 | Strengthen support infrastructure | ✓ | ✓ | | ✓ |
| 5 | Connect research agenda to local development challenges and priorities | ✓ | | | |
| 6 | Increase local funding | \checkmark | | | \checkmark |
| 7 | Create strong and coordinated regulatory frameworks | ✓ | ✓ | | |

is no 'one-size-fits-all' in terms of an approach to informing and defining policy. Every context is unique and what works in one may not work in an other. Therefore, **policies and actions directed at the SSR system in Nigeria need to be adaptive, responsive and sensitive to local contexts.**

Research Limitations

In the course of this research, several limitations have been encountered. The first and most prominent is the lack of secondary data. In many areas, the Nigerian research system, including the SSR system, is poorly mapped. Of course, this is the gap that the DRA is meant to fill but the absence of complementary secondary data makes a systematic mapping of the system quite difficult. Closely related to this challenge is the absence of reliable sampling frames, registers or databases for the majority of the actors. Only the higher education institutions and, to a limited extent, the government and funding agencies could be said to have reliable databases because they are well regulated. For some of the actor categories, particularly the CSOs, there are no reliable registers (the private sector is fairly well organized, especially those firms that are registered with the Corporate Affairs Commission). This challenge makes random sampling very difficult.

This study had difficulties collecting data from policymakers, particularly legislators.

They are normally busy with important functions and other legislative assignments so it is difficult to schedule a meeting with them (particularly for this type of analysis). In addition, the majority of them are not accustomed to the culture of evidence-based policy so they are not well disposed to researchers collecting data from them.

The absence of a SSR council which should be responsible for the determination of the overall policy of the SSR hindered part of the analysis carried out in the project. For instance, it was difficult to identify and have access to all organizations working within the domain of social sciences in Nigeria. More importantly, it was difficult to understand policy direction for SSR in the country. Issues such as these would ordinarily be handled by the social science research council in other country contexts. Unfortunately, such an institutional arrangement does not (yet) exist in Nigeria.

Finally, this study observed that many of the social science researchers in Nigeria publish their research outputs in local journals, which, more often than not, are not listed in the international indexing databases such as Scopus and Web of Knowledge. Although there are some open access journal databases that focus on social science research, such as African Journal Online (AJOL), only a few local journals are listed in these. As such, it is clear that social science research outputs are under-reported.







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