DATA AND INDICATORS ON SOCIAL SCIENCE RESEARCH

ASSESSMENT OF THE CONTEXT

DOING RESEARCH
IN NIGERIA

Country Report

National Centre for Technology Management &
The Global Development Network

July 2020

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IN NIGERIA
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DISCLAIMER

THE DOING RESEARCH PROGRAM

Bridging the research gap and improving development policies

Today, governments and donors alike have little systematic information about the state of social science research, except for in a few developed countries. Yet, the implementation of the global agenda for sustainable development requires local research capacities to ensure that the scientific community is equipped to critically analyze development and policy challenges, and to accompany actions and reforms with contextualized knowledge of the local environment.

An in-depth analysis of research systems is key to understanding how to bridge this gap and raise the profile of research generated in developing countries. Research systems analysis can help policymakers, donors and academics answer the question: What can be done to further generate and mainstream local research as a key input to public debate and sustainable human development policies?

Assessing and benchmarking social science research systems

Doing Research (launched in 2014) is an initiative of the Global Development Network (GDN) that aims to systematically assess how the features of a national research system[1] impact the capacity to produce, diffuse and use quality social science research to the benefit of social and economic development. A pilot phase (2014-2017) in 13 countries was supported by the Agence Française de Développement, the Bill & Melinda Gates Foundation, the French Ministry of Foreign Affairs and International Development, and the Swiss Agency for Development and Cooperation. In 2017, GDN conducted a synthesis of the pilot studies[2] and developed a standard methodology for studying social science research systems in developing countries,[3] the '**Doing Research Assessment.**' Since 2018, GDN has been implementing Doing Research Assessments in partnership with competitively selected national research institutions, with the aim of generating evidence on research systems. The program also aims to support the emergence of a network of research institutions in the Global South dedicated to informing national research policies, using new research-based, comparative evidence.

Doing Research National Focal Points – A Southern network of local 'research on research' expertise

Through the collaboration between GDN and these local institutions, the program aims to inspire research policies, map research strengths, support research capacity-building efforts and enhance the quality of research that can be used for policy decisions and local democratic debate in developing countries. Social science research provides a critical analysis of societies and human behavior and contributes to a better understanding of development challenges – which is fundamental to realizing national and global development agendas. Country reports, comparative global reports and data will inform actors from research, development and policy communities about

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1   In this document, the terms 'research system' and 'social science research system' are used interchangeably.

2   www.gdn.int/sites/default/files/GDN-2017-DR-pilot-synthesis.pdf

3   www.gdn.int/sites/default/files/GDN%20-%20 Theoretical%20Framework.pdf

their policy-oriented research environment and how it can be improved.

Doing Research Assessment: to understand, map and assess research systems[4]

A unique feature of the Doing Research Assessment is the equal importance the methodology gives to production, diffusion and uptake factors and actors in the analysis of systemic barriers and opportunities for social science development.

It involves three steps for analyzing the factors that impact the social science research system in a given country or region,

Steps and activities for implementing a Doing Research Assessment

Context analysis

Mapping of research actors

Doing Research Framework

Collection of new data at country level

Publication of the Doing Research Assessment

National seminar and dissemination

which will lead to several knowledge outputs and awareness-raising efforts.

Doing Research Framework: the core of the assessment

The Doing Research Framework is a mixed-method research module that allows a contextualized comparative enquiry into a national research system, looking at key factors that determine the production, diffusion and uptake of social science. It would typically serve as a magnifying glass to identify aspects that need the attention of the regulator, or to provide a baseline for strategizing investments in capacity-building for research production, its diffusion or its use.

The Framework acts as the basis for comparing and benchmarking research systems in different countries and includes 54 indicators. These indicators are populated according to the national context framed by the National Focal Points (NFP); these follow the project guidelines while adapting them to their national environment. Therefore, each country follows the same framework and general guidelines, allowing for comparisons between different reports of the indicators that define the Doing Research Assessments (DRA). The same is true for the Country Reports, which follow a similar structure.

	1. Production	2. Diffusion	3. Policy uptake
Inputs	1.1 Research inputs	2.1 Actors & networks	3.1 Policy-friendly research
Activities	1.2 Research culture and support services	2.2 Research communication practices	3.2 Research-based policymaking
Outputs	1.3 Research output & training	2.3 Research communication products	3.3 Research-based policy tools
Outcomes	1.4 Opportunities & sustainability	2.4 Popularization of science	3.4 Research for better policies

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4 www.gdn.int/doing-research-assessment

ACKNOWLEDGMENTS

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List of Abbreviations and Acronyms

ACE   African Centre of Excellence

AERC   African Economic Research Consortium

ASUU   Academic Staff Union of Universities

AU-NEPAD   African Union's New Partnership for Africa Development

CAC   Corporate Affairs Commission

CODESRIA   Council for the Development of Economic and Social Research in Africa

CSO   Civil Society Organization

DRA   Doing Research Assessment

DRAF   Doing Research Assessment Framework

DFID   Department for International Development (UK)

ECOWAS   Economic Community of West African States

ERGP   Economic Recovery and Growth Plan

FMST   Federal Ministry of Science and Technology

GDN   Global Development Network

GERD   Gross Expenditure on Research and Development

GFA   Government and Funding Agency

HEI   Higher Education Institution

HSRC   Human Sciences Research Council

IBR   Institution-Based Research

IDRC   International Development Research Centre

INGSA   International Network for Government Science Advice

IPCR   Institute for Peace and Conflict Resolution

IRB   Institutional Research Board

NACETEM   National Centre for Technology Management

NBTE   National Board for Technical Education

NCAC   National Council of Arts and Culture

NCCE   National Commission for Colleges of Education

NEPAD   New Partnership for African Development

NESG	Nigerian Economic Summit Group
NGN	Nigerian Naira
NGO	Non-Governmental Organizations
NILDS	National Institute for Legislative and Democratic Studies
NIS	National Innovation System
NISER	Nigerian Institute for Social and Economic Research
NRF	National Research Fund
NUC	National Universities Commission
OA	Open Access
OECD	Organisation for Economic Cooperation and Development
PEAC	Presidential Economic Advisory Council
PS	Private Sector
R&D	Research and Experimental Development
SAP	Structural Adjustment Programme
SDGs	Sustainable Development Goals
SIDA	Swedish International Development Agency
SSR	Social Science Research
S&T	Science and Technology
STI	Science, Technology and Innovation
TETFUND	Tertiary Education Trust Fund
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UIS	UNESCO Institute for Statistics
WGI	World Governance Indicators
WHO	World Health Organisation

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 International Network for Government 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. 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.

INTRODUCTION

Highlights

- Social science research helps us to understand and deal with development challenges.

- Achieving national and global development requires significant domestic research capacity and evidence-based policies premised on reliable data.

- It is crucial to understand the state of the social science research system in terms of research production, diffusion and uptake toward economic development.

- The Doing Research Programme aims to systematically assess how the features of the national research system impact the capacity to produce, diffuse and use quality social science research to the benefit of social and economic development.

- The Doing Research Programme in Nigeria was implemented by the National Centre for Technology Management, using a mixed-methods design that combines the collection and analyses of qualitative and quantitative data with rigorous desk research.

The Case for Studying National Research Systems

The development of science began with a general rise in philosophical thinking expressed in terms of logic, observation, inquiry and demonstration (Lo Presti, 2014). As science developed, the natural sciences (medicine, physiology, physics, chemistry, biology, etc) that help to solve the more immediate problems related to health and well-being took primacy. But questions also arose around issues of demography, resource allocation, and economic and production systems (Capel, 1989). These questions

tend to be more amenable to methods of inquiry that have evolved into the broad disciplinary areas now classified as the social sciences. They include law, political science, economics and geography, among others (OECD, 2015).

Social science research (SSR) helps shed light on issues around societies and human behavior. It contributes to an understanding of complex developmental challenges on both national and global levels, including, but not limited to, issues such as why some countries are underdeveloped, the causes of abject poverty, what brings about technological change, and the reasons behind youth unemployment. More specifically, SSR provides important empirical evidence for governments, policymakers, local authorities, non-governmental organizations and other relevant stakeholders. This sort of evidence has been fundamental to the formulation and realization of national and global development agendas. Reflecting on this, the Chief Executive of the British Academy in London recently wrote, "…without the humanities and social sciences, hard science and technology can do little to resolve complex societal challenges. Wise governments will find ways to incorporate that insight".[5]

In general, research that produces relevant evidence is not autarkic; rather, it takes place within a dynamic, interconnected and continuously evolving system. In this regard, the notion of the National Innovation System (NIS) is relevant. The NIS is viewed as the set of institutions involved in the production and application of knowledge for development (Oyelaran-Oyeyinka, 2006). Although it was

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5 Shah, H. (2020). Global problems need social science. Nature 577: 295 (retrieved from https://www.nature.com/articles/d41586-020-00064-x on January 16, 2020).

developed with science and technology in mind, the NIS framework emphasizes the importance of connections and cooperation between various actors, including the producers and users of knowledge, among others. In this sense, one can think also about a system of actors involved in the production, diffusion and uptake of social science research, hereinafter referred to as the social science research (SSR) system. Just as the strength of the NIS influences the rate and directionality of technological change, the strength of each actor and of the connections among all actors within the SSR system influences the volume and quality of research, the rate of diffusion and the extent to which it is applied to solve development problems. An understanding of national SSR systems is therefore critical, as it provides the context within which relevant research takes place. This is particularly important in developing countries from where little research emanates and about which relatively little is known.[6]

Indeed, achieving the global sustainable development agenda at the national level requires significant domestic research capacity. This helps to ensure that scientific evidence is generated based on critical analyses of each country's social, development and policy challenges. Such evidence will help to inform contextually relevant actions and reforms. However, building a critical mass of competent social science researchers and strengthening the knowledge base in developing countries requires, first and foremost, a thorough understanding of contextual and systemic factors that define the strengths and weaknesses of the SSR environment. This is difficult where reliable system-wide data is sparse, as is the case in many developing countries such as Nigeria.

The Doing Research Program

In response to the above challenge, the Global Development Network (GDN) launched a pioneering program, Doing Research (DR),[7] which aims to systematically assess how the features of national research systems impact the capacity to produce, diffuse and use quality SSR to the benefit of social and economic development. The overall goal of the program is two-fold: one, to contribute to a better objective assessment of research systems for social sciences in developing countries; and two, to expose weaknesses and shortcomings that can be addressed through research policy and programs. As its major outcome, the program will point developing countries in directions that require investment in people, systems and research infrastructure. It is believed that with the right socioeconomic data, policymakers will be able to promote data-driven investments that engender sustainable development (GDN, 2017).

The core of the DR program is the Doing Research Assessment (DRA) methodology (see prelude to the report for more detail on this). It includes three distinct but inter-related steps (context analysis, stakeholder mapping and an indicator-based assessment framework) to analyse the factors that impact

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6 In 1973, developing countries contributed only 5 percent of global scientific publications (Garfield, 1983). In the early 1980s (1981-85), this increased slightly to 5.8 percent (Asia – 3.7%; Latin America – 1.1%; Middle East and North Africa – 0.6% and sub-Saharan Africa – 0.4%). In 2001, they contributed 13.7 percent of the global scientific literature, increasing to 20 percent in 2006 (Gaillard, 2010). Although the growth of developing countries' scientific production has been rapid, the current level is still disproportionately low considering that they hold over 80 percent of the global population.

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7 www.gdn.int/doingresearch

the SSR system in a given country, which will then lead to a range of knowledge outputs and awareness-raising efforts. In each country, the DR program is implemented in partnership with a national research institution, the National Focal Point (NFP) (GDN, 2017). After an initial pilot phase, the DRA approach was subsequently implemented in Bolivia, Indonesia, Myanmar and Nigeria.

Assessing the Social Science Research System in Nigeria

The DRA for Nigeria was carried out by the National Centre for Technology Management (NACETEM), an agency of the Federal Ministry of Science and Technology (FMST). NACETEM was established under a UNESCO initiative by the Federal Government of Nigeria to boost domestic capacity in science, technology and innovation (STI) policy research. The agency provides policy research and knowledge support for both federal and state governments as well as the private sector in Nigeria. NACETEM operates from offices located in the six geopolitical zones of the country. Consistent with the overall goal of the DR program, the Nigerian assessment was guided by the overarching question: What is the state of the social science research system in Nigeria in terms of research production, uptake and diffusion toward economic development? To address this question, the DRA's three-step methodology was contextualized and applied to:

i.   Critically assess the country's context for doing SSR

ii. Systematically map the relevant actors

iii. Gather relevant data on specific indicators related to research production, diffusion and uptake

The assessment adopted a mixed-methods design that combines the collection and analyses of qualitative and quantitative data with rigorous desk research. The concepts and definitions adopted in the assessment (detailed in Box 1) are drawn from the standard methodological guidelines provided by GDN (2017).

The rationale for the DRA in Nigeria is three-fold. As a starting point, a thorough understanding of the SSR landscape in Africa will benefit from an analysis of the Nigerian context given the country's geographical size and economic importance. Nigeria is the largest country in Africa, both by population and gross domestic product (GDP). It is also one of the largest producers of SSR (AU-NEPAD, 2010). Secondly, responding to prevailing and nascent development challenges in Nigeria requires strong evidence-based social policies. It is crucial to understand the strengths and weaknesses of the SSR system in order to determine its positioning for informing policy. A systematic analysis of the SSR system will also help to identify priority areas for targeted investments in research capacity. Finally, although Nigeria has a large and well-organized university system (where most of the SSR takes place), its research productivity does not match its size. For instance, while Nigeria has roughly five times as many universities as South Africa, its aggregate research output from all disciplines is just over a third of South Africa's (Mba and Ekechukwu, 2019) despite being the third largest producer of scientific research on the continent (AU-NEPAD, 2014).[8] This begs two questions that the DRA will help to answer: Why does such a large research system produce so little, and what can be done about it?

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8 According to AU-NEPAD (2014), South Africa and Egypt are the top two producers of scientific publications in Africa.

This study provides a rich evidence base for understanding the main characteristics of the SSR environment in Nigeria today, the challenges to the production of high-quality SSR, and the barriers that limit the diffusion and uptake of SSR in the policy environment.

Structure of the Report

This report documents the results of the DRA exercise in Nigeria. In Chapter 2, we discuss the context for SSR. This is followed in Chapter 3 by a mapping of the key stakeholders in the Nigerian SSR system, as well as a description of our methodological approach and assumptions, with a particular focus on the quantitative and qualitative data collection. In Chapter 4 we then present a detailed discussion of the findings along the dimensions of the DRA framework. The report concludes with a chapter that draws out some implications of the research for policy and practice.

Box 1: Definition of concepts

The concept of 'social science' did not occur in the literature until the nineteenth century, when the discipline of social science started to be acknowledged as a distinct subject area (Thompson, 1824). Broadly speaking, it is characterized as the study of society and the manner in which people behave and influence their environment, in particular in terms of social behavior.

Researcher Researchers are professionals engaged in the conception or creation of new knowledge through research, improving or developing concepts, theories, models, techniques, instrumentation, software or operational methods (OECD, 2015). This definition is based neither on formal qualifications nor on levels of education, but on the actual activity of doing research and producing knowledge.

Social sciences The branch of science concerned with society and human behaviors. It includes disciplines such as psychology, cognitive sciences, economics, business, education, sociology, law, political science, social and economic geography, media and communications, and interdisciplinary social sciences (OECD, 2015).

Social science research The professional activity of mobilizing, interpreting, owning and using creative and systematic work to generate and contend scholarly knowledge on societies and human behaviors. Doing research in social sciences is essentially a political and social process of critical assessment, with an important bearing on development challenges. This activity involves stakeholders that can be producers or users (or both) of research, and their interactions and feedback into the research cycle. We consider four groups of stakeholders involved in social science research: higher education institutions, government and funding agencies, industry and civil society.

Social science research system The set of institutions, practices, structures and rules that enable the production, diffusion and uptake of SSR. This document uses the terms 'research system' and 'social science research system' interchangeably.

Performance of the social science research system The capacity of the system to provide an enabling environment that supports the undertaking of quality research and its effective communication and subsequent

use by a broad range of stakeholders, including academia, policymakers, civil society and donor organizations.

(Research) production The process through which research is created by researchers and research organizations, including the necessary inputs and activities that directly enter the production function.

(Research) diffusion The communication of research findings and products; and the channels through which academia, policymakers, civil society and the private sector interact to discuss and share these findings. It involves generating interest, forming attitudes and changing behavior to support the adoption of research.

(Research) uptake The exploitation and adoption of research-based products for practical use or the application of research results and methods in specific and direct ways.

Quality research Research that pursues a socially-useful question, that is rigorous and reliable, that adds to the existing body of knowledge and is relevant to local contexts and/or local and global development challenges.

Critical mass The minimum number of people/groups required to develop a sustainable research culture. It allows the creation of discussion groups and encourages collective emulation, through learning societies, schools of thought or other forms of collective action/reflection – which form the basis of an effective peer culture.

Benchmarking This refers to the measurement of the observed performance of a SSR system and the comparison with similar measurements of other systems. The aim of benchmarking is to identify the strengths, challenges and bottlenecks of these systems, overall and in specific areas; learn from others; and improve performance.

Context Analysis An overall assessment of the economic, political, historical and international context for doing research.

Stakeholder Mapping The mapping of national research actors to identify research producers and users.

The Doing Research Assessment Framework A structured approach to analyzing the research system's functions and processes – specifically in terms of production, diffusion and uptake.

Inputs People and resources needed to produce robust SSR.

Activities Set of rules, ethical principles, activities and interactions producing and promoting research.

Outputs Tangible products of research including publications, communications and people trained in producing and using high-quality research.

Outcomes Policymakers, practitioners and the public actively support and use research-based evidence and knowledge in addressing societal problems.

CONTEXT ANALYSIS

Highlights

- The political, economic, international, historical and cultural contexts influencesocial science research production, diffusion and uptake.

- The mode of governance, the extent of the rule of law and the level of political freedom in a country affects the work of researchers.

- At the time of this study, there are no specific policies or an associated central coordinating body for social science research in Nigeria.

- International collaboration and foreign funding is prevalent in the Nigerian social science research system but this comes at a cost: the research agenda is heavily influenced by funding sources and sometimes disconnected from local realities.

- The implementation of the Structural Adjustment Programme (SAP) in the 1980s had a deleterious impact on the funding of research institutions.

With a projected[9] population of over 186 million in 2015 (NBS, 2017), Nigeria is the most populous country in Africa and the seventh in the world according to United Nations' estimates (UNDP, 2016). Nigeria is a federal territory comprising a population of diverse ethnic, religious and linguistic identities. The country is divided into 36 states across six geopolitical zones – three in the north and three in the south. Nigeria is also currently the largest economy in Africa. It is a former British colony that gained independence in October 1960. Following independence, the system of government followed the British model, until

1999 when an American-style representative democracy was established after three decades of military rule. Despite a number of reviews and reforms, the education system continues to follow the British model.

Typically, the mode of governance, the extent of the rule of law and the level of political freedom facilitate (or hinder) the work of researchers. This is because many of the social sciences research activities are conducted within the structures and institutions of the state. This applies to the key stakeholders in the promotion, advocacy and implementation of research and development (R&D) in Nigeria, which include government (the legislative and the executive arm), tertiary educational institutions, research institutes and centres of excellence, civil society organizations and the private sector (Bogoro, 2015; Kearney, 2009). The objectivity of these institutions and their research activities depend heavily on political stability, rule of law, governance structures and the regulatory frameworks of the state.

To assess these aspects, we use data from the World Governance Indicators (WGI),[10] which reports aggregate and individual governance indicators along six dimensions (see Box 2). The indicators combine the views of a large number of enterprises, citizens and expert survey respondents in over 200 countries. In addition to the estimates of the aggregate indicators described in Box 2, the WGI provides a percentile rank for each country. This simply indicates the share of countries that are below a given country in

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9 Projections based on 2006 census and population growth rate.

10 The six aggregate indicators are based on over 30 underlying data sources reporting the perceptions of governance of a large number of survey respondents and expert assessments worldwide. Details on the underlying data sources, the aggregation method, and the interpretation of the indicators, can be found in the WGI methodology paper, Kaufmann et al. (2010).

Box 2: The indicators of governance

1. **Voice and Accountability:** the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.

2. **Political Stability and Absence of Violence:** the likelihood of political instability and/or politically-motivated violence, including terrorism.

3. **Government Effectiveness:** the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

4. **Regulatory Quality:** the ability of the government to provide sound policies and regulations that enable and promote private sector development.

5. **Rule of Law:** the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.

6. **Control of Corruption:** the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as 'capture' of the state by elites and private interests.

Source: World Governance Indicators (http://info.worldbank.org/governance/wgi/#home), update of September 09, 2019; retrieved on January 07, 2020

the ranking. For instance, a percentile rank of 7 would mean that a country performs better than only 7 percent of the total number of countries ranked, and that its performance is worse than 93 percent.

Based on the latest available data on 214 countries, Figure 1 shows the trend in Nigeria's percentile rank for five of the indicators.[11] The first point to note from the data is that the country performs poorly against all the indicators. The huge gap between 'voice and accountability' and all other indicators is also noteworthy. Voice and accountability is the only indicator against which the country significantly improved between 1996 and 2018. The first sharp improvement happened just after 1999, the same year that the country returned to democracy after a long period of military rule. The associated freedom of expression and of the media is particularly favorable for the dissemination and uptake of SSR. In contrast, beginning from 2000, the indicator for 'political stability and absence of violence' deteriorated significantly. This disrupts the SSR landscape because researchers tend to move away from flashpoints of violence. It may also limit the access of researchers in these locations to research resources, including funding and opportunities for collaboration. For instance, the insecurity associated with the Boko Haram insurgency in the north-eastern part of the country deters researchers from doing research in this region.

Weaknesses in the rule of law, government effectiveness and corruption have also affected the independence and efficiency of institutions. To illustrate, in 2016, the Minister of Education erroneously dismissed the Vice

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11 Projections based on 2006 census and population growth rate.

Figure 1: Selected indicators of governance in Nigeria, 1996-2018
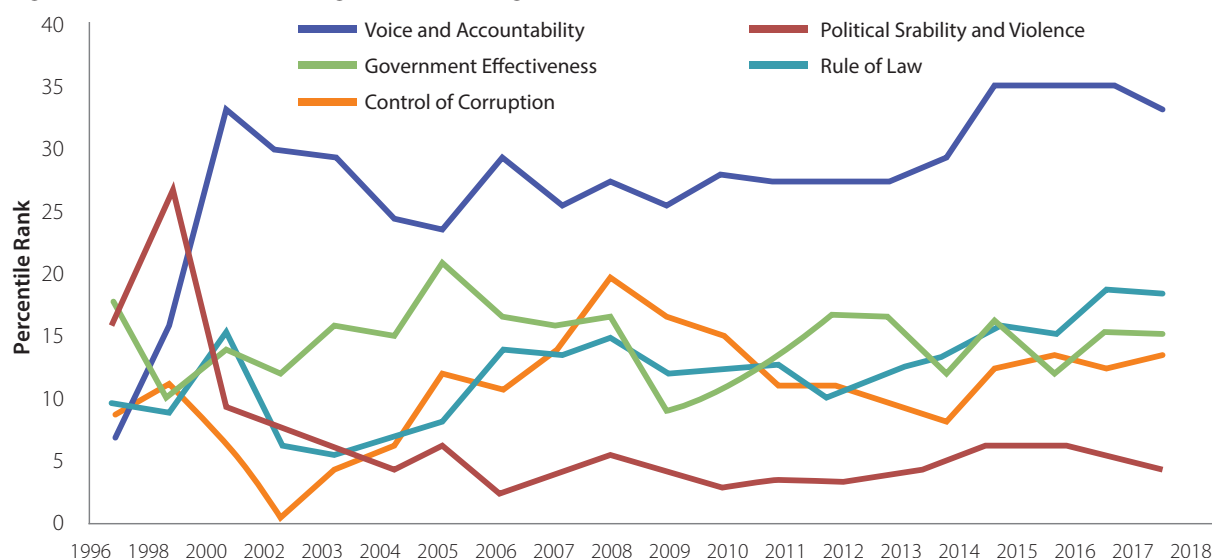
Source: World Governance Indicators (http://info.worldbank.org/governance/wgi/#home) update of September 09; 2019 retrieved on January 07, 2020

Chancellors of 13 public universities along with their respective governing councils, and unilaterally announced their successors. About a month later, following a considerable outcry and pressure from a range of stakeholders, the Presidency denounced this action and the dismissed persons were reinstated. Similarly, there have been cases where the appointment of Vice Chancellors was influenced by political authorities. These features of the political system hinder SSR in the country.

In addition, the research-to-policy linkages in Nigeria have been described as generally weak (INASP, 2012, Newman et al., 2013). Some of the cited reasons for the low uptake of research by Nigerian policymakers include the lack of policy-relevant research outputs, weak and unreliable research institutions and think tanks, and the apparent disconnect between researchers and policymakers (Sanni et al., 2016; Uzochukwu et al. 2016). While there have been numerous individual efforts at bridging the gap between research evidence and policy, the national research and policy landscape would benefit much more if these efforts were coordinated.

The rest of this chapter discusses in more detail the structure of the political, economic, international, historical and cultural contexts in Nigeria, and how they influence research production, diffusion and uptake.

Political Context

The main objects of interest for SSR activities are human culture and society – areas that are critical for national development. Many scholars in Nigeria have highligted the relevance of SSR to socioeconomic development and sustainability (Sawadago, 1995; Ngara, 1995). Such scholars have also questioned whether social scientists communicate effectively with policymakers (Nwaka, 2000). The quality and usefulness of research outputs emanating from the majority of social science knowledge producers (such as higher education institutions, research institutes, non-governmental organizations, policymakers, the media and independent research organizations) have also been the subject of ongoing debate. The factors that influence this include the limited increase in scholarly publications, the lack of policy-driven demand for research, the low quality of

publishing outlets for researchers, and ethical concerns, among others. Many of the challenges currently facing SSR in Nigeria can be attributed in some way to the political context.

The establishment of the West African Institute of Social and Economic Research in the mid-1940s was a bid to entrench capitalist ideologies, and marks an important political milestone in the development of SSR in Nigeria. Shortly after it was set up, the research centre established close ties with the University of Ibadan, which it still maintains today. In 1959, the research institute became the Nigerian Institute of Social and Economic Research (NISER). Its mandate at the time was to carry out applied research for practical application in government policies as well as in the private sector (Mairi, 1965). To date, NISER has remained one of the foremost social sciences research institutes in Nigeria.

A well-coordinated national policy is critical for a viable R&D system (Cloete, 2015). The establishment of the first-generation universities in Nigeria can be traced back to the policies of the British colonialists. All five of the first-generation universities emerged from post-secondary institutions such as the medical colleges in 1930, Yaba College, the University College of Ibadan, and the regional colleges of Science, Technology and Arts in Ile-Ife, Lagos, Zaria and Nsukka (Fafunwa, 1971). The high quality of research between the 1960s and 1980s can be attributed to the R&D infrastructural facilities inherited from the colonial institutions. During this period, many of the major institutions employed well-trained researchers, predominantly British and Americans, who conducted research activities in and outside Nigeria. The large number of highly skilled expatriates was supported with funding from agencies such as the Social Science Council, business firms and Royal Foundations (Herington, 1978).

The level of importance given to education also aided the development of R&D in higher education institutions in the post-colonial period. For instance, between the 1950s and 1960s, the regional governments of Nigeria earmarked between 25 and 30 percent of their annual budget to education (Yesufu, 1986). Academic and research institutions also enjoyed a relatively high level of autonomy and academic freedom during this period. This was particularly obvious during the democratic periods of the first and second Republic. Researchers were able to conduct research activities without any interference from the government (Bako, 2005).

Some policies that were developed for other purposes, also have some bearing on the current conduct of SSR in Nigeria. These include the education policy and the science, technology and innovation (STI) policy.[12] For instance, the education policy provides guidelines for the tertiary education sector, where most of the SSR takes place. It therefore indirectly influences the volume, rate and direction of SSR. The STI policy, which aims to harness technology for development, has a number of components that have a important bearing on SSR – the policy, for example, recognizes the importance of entrepreneurship and technology transfer, which are important elements of the social sciences. However, while these are positive side-effects, the lack of specific references to SSR means that these policies do not sufficiently influence the SSR system.

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12 The education policy was first formulated in 1977 and has since been revised several times; the lastest revision was in 2016. The STI policy was initially formulated as the National Policies and Priorities for Research in Science and Technology in 1975. The latest revision – the STI policy – was in 2012.

The establishment of the Tertiary Education Trust Fund (TETFUND) by the Tertiary Education Trust Act 2011 can be seen as a deliberate policy to address the lack of funding for R&D in public tertiary institutions. This body illustrates the positive attitude of the Federal Government of Nigeria toward the development of high-quality and functional higher education and research, with improved budgetary allocations to the sector (Okojie, 2009). However, while a great deal of funding has been disbursed to finance higher education, this has not been sufficient to meet the growing demand. This is compounded by high levels of corruption and mismanagement in the system (Makoju et al., 2005).

TETFUND was set up as the financial backbone of the Nigerian higher education system. It is the most important local institution for funding research in the higher education sector. This body was seen as a crucial intervention for strengthening the system following prolonged periods of neglect and limited resource allocation. Its mandate[13] involves creating a favorable environment for teaching and research by providing and maintaining essential research inputs (including research personnel, physical infrastructure and funding) as well as supporting the production of research output.

The TETFUND research fund is made available through calls for research proposals covering three broad thematic areas: humanities and social sciences, science and technology, and cross-cutting issues (Bamiro, 2012). However, grantsmanship among academic staff in universities is poor. In 2005, less than 10 percent of academic staff in Nigerian universities had received research grants in

the preceding one and half decades (Bako, 2005). In a recent release by the Executive Secretary of TETFUND, many Nigerian professors were said to be incapable of securing global grants for research because of poor research proposal writing skills. To overcome this challenge, TETFUND recently earmarked funds for capacity-building and training for research proposal writing in many higher education institutions.[14]

Since its establishment, TETFUND has provided funds to support critical infrastructure for teaching and learning, instructional materials and equipment, and research and publication of research outputs, as well as training and development inititiaves for academic staff. Detailed statistics on TETFUND allocations and the share that went to SSR are not readily available. However, we know that the Fund's competitive National Research Fund (NRF) and the institution-based research (IBR) grants respectively provide up to USD140,000 (50 million naira[15]) and USD5,600 (2 million naira) per research project in any disciplinary area. For instance, in 2019 the NRF awarded a total grant of around USD 10,920,000 (3.9 billion Naira) to 128 projects. An open call for research proposals is published once a year for both the NRF and the IBR, and recipients are selected following a review process. The two funding mechanisms differ in their set-up, however. While the call, review, disbursement and monitoring of NRF grants are administered directly by the TETFUND office in Abuja, the IBR funds are granted to individual universities (or polytechnics and colleges of education, as the case may

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13 TETFUND Act of 2011, section 7(i) a-e https://www. tetfund.gov.ng

14 www.premiumtimesng.com/news/top-news/326893-why-Nigerian-professors-arent-getting-research-grants-tetfund-boss.html

15 1 naira (NGN) = 0.0028 dollars (USD) (www.xe.com, January 04, 2020)

be), which are then responsible for the administration of the grants.

The fact that TETFUND does not focus exclusively on research funding has led to a call from some scholars for the establishment of a National R&D Foundation to coordinate a national framework for the provision and implementation of R&D in the country (Bogoro, 2015). The foundation, among other things, will oversee the promotion and implementation of R&D policy. It will also facilitate effective interaction between knowledge institutions, government and the private sector. It is hoped that SSR will benefit from such an initiative.

There are currently no specific policies or an associated central coordinating body for SSR in Nigeria. Typically, a national policy that outlines the priorities, resources and relevant institutions for the promotion of SSR is closely linked with the existence of a national SSR council. In South Africa, for instance, the Human Sciences Research Council (HSRC) is responsible for the creation and dissemination of "cutting-edge research that supports development nationally".[16] It was established in 1968 by an act of the South African Parliament and has since grown to become "the largest dedicated research institute in the social sciences and humanities on the African continent. The Council conducts large-scale, policy-relevant, social-scientific research. Research activities are closely aligned with South Africa's national development priorities."[17] Largely because of the existence and performance of the HSRC, South Africa is currently at the forefront of research in STI – as well as other areas of SSR – and has become the go-to country for other African nations seeking to develop capacity in this area. Such

a dedicated institutional arrangement does not exist in Nigeria today.

Toward the end of the 1980s, the state of research in general, and social sciences in particular, began to deteriorate drastically (Karani, 1997). The reasons for this include the lack of R&D infrastructure and facilities, inadequate funding, insufficient mentorship programs, and limited knowledge of modern research skills (Okebukola, 2002). The Structural Adjustment Programme (SAP) also imposed a reduction in resources for SSR. For instance, many of the policies during the SAP retracted the funding designated for carrying out developmental research in the country (Ukeje, 2002). Social sciences research activities were not exempted. Unfortunately, the reduction in funding for local social sciences research meant that creditor nations and the international financial institutions were able to hijack policymaking and the development process, and impose their own research agenda and preconceived policy directives (Nwaka, 2000). At the same time, reduced funding affected access to quality journal articles as libraries could no longer afford the subscription charges, and the high exchange rate further reduced engagement in quality research activities. This has had a significant impact on the research capacity of local social scientists, the usefulness and effectiveness of local social science knowledge production, and, ultimately, the ability to solve national development challenges.

During the Nigerian oil-boom years of the mid to late-1970s, research funding for all disciplines, including the social sciences, was predominantly from internal (government) sources, with very little from foreign donors. In addition, government policies, within an environment of increasing political instability and high levels of insecurity, discouraged foreign funding of research. In both these scenarios, the country in general, and research in particular, deteriorated rapidly.

16 http://www.hsrc.ac.za/en (January 04, 2020)

17 http://www.hsrc.ac.za/en/about (January 04, 2020)

In recent times government funding has had limited impact due to the dwindling state of the economy. This can be illustrated by the way available funds are disbursed. Attempts to spread funds evenly across staff and agencies has meant that the amount allocated to individual initiatives is often too small to achieve reasonable results. Therefore, an increasing number of research institutes and centres are funded either through foreign agencies or by donor organizations, with little, if any, government support. While foreign funding is usually based on the merit of the research proposal and tends to be more generous, it supports a research agenda driven by foreign donors. Specifically, as we found during our scoping interviews, foreign donors seldom receive input from local researchers while formulating their research agenda and defining their funding priorities. In fact, researchers are often compelled to align their research objectives with those of the international development and funding agencies, rather than toward domestic priorities. This raises the need for the government to define and fund its own locally relevant research priorities.

Prolonged military rule (1966-1979 and 1983-1999) adversely affected research as military regimes eroded the autonomy of research institutions and negelected the funding of research (Adesina & Awonusi, 2004; Ekong, 2002; Obikoya, 2002). The challenging socioeconomic conditions that followed the SAP in the 1980s and 1990s resulted in policymakers shifting their attention away from the education sector. This gave rise to instability within the sector, incessant industrial action, a disregard for academic credentials, lower rewards (compared with the private sector), a reduction in the quality of academic research outputs (in terms of publications and the utility of findings) and a dilapidated physical infrastructure (Coombe, 1991; Ajayi et al., 1996; Atteh, 1996; Nwaka, 2000; Bako, 2005; Mole, 2013).

In response to the increasing demand for higher education, several state governments established their own higher education institutions, but without proper attention to the provision of adequate infrastructure. A good example of this can seen in the case of Ladoke Akintola University of Technology, a university jointly owned by Osun and Oyo States. Since the establishment of its own university, Osun State routinely defaults on its financial obligations. While the latter university is thriving, the former is suffering because of poor funding and erratic management. The limited infrastructure and equipment in the majority of universities has come under immense strain because of the enormous increase in the number of students. Some students, for example, have to listen to lectures from outside the lecture theater because of overcrowding. At the same time, the amount of time that lecturers can devote to research has decreased as they now find themselves spending more time teaching and supervising student theses (Siyanbola et al., 2014b).

Today, government research funding in Nigeria is biased toward the 'hard sciences'. To overcome this, SSR agencies have made efforts to obtain external funding and equipment for research both at the individual and institutional level. The most common practice is for individual researchers or fellows to approach foreign donor agencies for research grants; research institutes have also reached out for funding. The majority of social scientists in the country now depend on international donors to finance their research.[18] However, the Council for the Development of Economic and Social

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18 These include SIDA, NORAD, DANIDA, the Rockefeller Foundation, the Ford Foundation, the International Development Research Centre (IDRC), the United Nations Development Programme (UNDP), the Mellon, Kresge and Kellogg Foundations, and Atlantic Philanthropies, as well as the Dutch, French and British Government.

Research in Africa (CODESRIA), a continental research support organization based in Dakar, Senegal, is the only grants provider that directly and exclusively supports SSR.

Research and development (R&D) has been one of the major drivers of economic growth Bogoro (2015). As such, many policymakers across the globe have encouraged R&D in the social sciences as well as in science, technology and innovation (UNESCO 2010). Similar efforts have been made in Nigeria, notably with the adoption of the Science, Technology and Innovation (STI) Policy in 2012. This policy stipulates, among other things, that at least 1 percent of GDP be invested annually in R&D across all disciplines, and that a National Research and Innovation Council (NRIC) be established. Unfortunately, none of these targets has been met. Gross expenditure on R&D in Nigeria was 0.2 percent in 2009 (AU-NEPAD, 2010), and while the NRIC was inaugurated by the administration of President Goodluck Jonathan in February 2014, it has not been active since. These apparent failures are a major setback for the country's aspirations toward building a knowledge economy. They also weaken the country's ability to mitigate the challenges of food insecurity, poverty, inefficient infrastructure and unemployment. Some of the underlying problems that need to be addressed include political instability, policy inconsistencies, the lack of knowledge among policymakers of R&D issues, and the non-utilization of evidence-based research by the policymaking community (Siyanbola, et al., 2014a; Siyanbola, 2011).

Many of the recent challenges affecting the higher education sector (and the capacity to produce academic knowledge) relate to internal tensions such as ethnic clashes, terrorism and labor union industrial action. The majority of terrorist activities and insurgencies are confined to the north-eastern region. The Boko Haram uprising,

for example, has been the most devastating insurgency in the history of the country. Tensions in this region have given rise to many other conflicts, armed struggles and hostage taking. Conflicts such as these have destabilized research activities in the affected areas (Adamu and Ibrahim, 2014).

In many instances, government decisions on where to locate and build schools, local industries and other social amenities are based on tribal affiliations (Kalu, 1996). While political leaders in Nigeria understand the importance of establishing universities throughout the country, the division along tribal lines has greatly affected the management of these institutions. In addition, the final decision on the appointment of the heads of universities and research institutions is made solely by the Nigerian President; these selections are allegedly influenced by tribal and political affiliations.[19]

As a result of these issues, many competent researchers have left their institutions. While some lecturers have moved away from conflict zones, where terrorism is rife, to other parts of Nigeria that are more conducive, others have left the country altogether. Industrial strike actions by the Academic Staff Union of Universities (ASUU), the Academic Staff Union of Research Institutions and other unions in the industrial sector have also affected educational and research institutes. Frequent industrial strike actions disrupt the academic calendar, the quality of research and the capacity of researchers to conduct their work. For instance, an entire university academic year

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19 The Nation Online: https://thenationonlineng.net/appointment-of-vice-chancellors/ (14/02/20)

The Guardian Online: https://guardian.ng/features/law/appointment-removal-of-a-vice-chancellor-under-nigerian-law-2/ (14/02/20)

was wiped out when ASUU went on strike for eight months over issues relating to university autonomy and funding.

Institutional arrangements also create inherent tensions that affect the production and use of research. To start with, while higher education institutions (HEIs) have a clear regulatory structure – for instance, universities are regulated by the National Universities Commission (NUC) – research institutes do not. As a result, there are often conflicts of interest and duplication of efforts. Typically, research institutes are under the jurisdiction of a national ministry – for instance, NACETEM, an agency of the Federal Ministry of Science and Technology (FMST). Other ministries also have research institutes that they oversee.[20] Some of these engage in SSR but many do not. For instance, in the FMST alone, there are over 20 research institutes but only NACETEM engages in SSR. Part of NACETEM's mandate concerns policy research, as does part of NISER's mandate. However, NISER is an agency under the Federal Ministry of National Planning. This kind of complex

and unclear institutional arrangement has important implications for the production, diffusion and uptake of SSR, as well as for the DRA research process. For instance, roles and responsibilities often conflate such that it is sometimes unclear which organ of government is responsible for implementing certain activities. This makes it very difficult to map the SSR system. The needless duplications and conflicts of interests that arise, with multiple agencies or parastatals pursuing the same research projects, also waste scarce resources.

The institutional arrangements for the civil society sector are also of interest. Our scoping interviews with practitioner-leaders in the sector reveal that there is no one-stop shop for civil society organizations (CSOs) registration. Only the large CSOs (both in terms of scope and number of employees) register at the national level with the Corporate Affairs Commission (CAC)[21] – and these are few in number; most only register at local and/or state government levels and some do not even register at all. It was suggested by the interviewees that the latter categories are the most effective in terms of evidence use and real-life impact. This sort of complexity has implications for identifying the relevant stakeholders in the SSR system in Nigeria. The temptation is always to concentrate on the more visible and structured organizations but this is at the risk of ignoring the more relevant but obscure organizations. In order to circumvent this, there is a need for a national repository of all registered CSOs in the country. This requires harmonization of databases from both local and national sources.

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20 A Federal Ministry is headed by a Minister, who is a political appointee. The most senior career civil servant in a ministry is the Permanent Secretary who is in charge whenever there is, for whatever reason, no substantive minister. Typically, a federal ministry is organised into several departments. Depending on the portfolio of the ministry, these may include a research department. It may also have some agencies or parastatals that it supervises. Some of these agencies/parastatals may be research-based, in which case they are known as public research institutes. A public research institute is typically headed by an Executive Director or Director-General who is officially appointed by the President of the country but reports directly to the Minister or the Permanent Secretary, as the case may be. Government funding for research institutes is routed through the supervising ministry, which is also responsible for ensuring that the research institute performs according to its mandates. This oversight function of the ministry is often poorly performed because, in most cases, the Minister or the Permanent Secretary (or both) are ill-equipped for the task.

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21 The Corporate Affairs Commission is the agency of government responsible for the registration of business interests in Nigeria.

International Context

The role of international collaborations and partnerships in knowledge production, in improving the quality of teaching and learning, and in offering economic opportunities cannot be overemphasized (Sloan and Harrison, 2011; Okpu and Obiora, 2014). International partnerships in research efforts provide domestic researchers with strategic partners who can help improve research quality and reputation, thereby improving access to international labor markets (for researchers and research students) and the competitiveness of the domestic economy – which, in turn, will help attract foreign investment (Thomas and Wellings 2008). Many international agencies have also funded or are currently funding social research in Nigeria.[22]

Nigeria plays a key role on the African continent and on the global stage. It is an active participant in the United Nations and in global international affairs and has held leadership positions in important international organizations. Nigeria has adopted the strengths as well as the influences of international communities in strategic areas of national life including in the economic, political, social, educational, religious and technology sectors (Okpu and Obiora, 2014). Nigerian leaders have long shown their ambition to play a prominent role on the international stage. The country

helped found the two principal organizations of African States, the African Union and the Economic Community of West African States (ECOWAS). Nigeria's appointment to international organizations has increased its visibility at both regional and international levels. It is leading the discourse on new paths for social and economic development within the African Union, the New Partnership for Africa's Development (NEPAD), and the African Caribbean and Pacific group (Adetula, 2014). Other international communities and forums in which the country is active include the Group of 77 plus China (G77), the Africa-EU Forum, Africa-China Forum and the Africa-Japan Forum, among others.

The Nigerian Government has developed a number of partnership initiatives with different international agencies and national corporations. The country belongs to over 300 international organizations with varying visions and missions, hosted by different departments/arms of the government. Some of the international organizations with a direct bearing on the establishment, development and standing of the research systems in the country are hosted by the Nigerian Federal Ministry of Education. These include, among others, UNESCO, the International Institute for Educational Planning, International Bureau for Education, Institute of Lifelong Learning and the Institute for Information Technology Education. Other partnership engagements include the Statistical, Economic and Social Research and Training Centre for Islamic Countries, Ankara; UNESCO Institute for Lifelong Learning, Germany; Commonwealth of Learning, Canada; Global Learning Observations; and the Third World Academy of Science.

Nigerian HEIs have a long tradition of productive international partnerships dating back to colonial times. These collaborations have helped to improve doctoral training

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22 Popular among these are the Swedish International Development Agency (SIDA), World Bank, Department for International Development (DFID), African Development Bank, United States Agency for International Development (USAID), Oxfam, Global Environment Facility, McArthur Foundation, British Council in Nigeria, Canadian International Development Agency (CIDA), Economic Community of West African States (ECOWAS), International Development Research Centre (IDRC), Wellcome Trust, Ford Foundation, and the Bill and Melinda Gates Foundation.

and research productivity. Important benefits include the training of Nigerians abroad in specialized areas, scholarships for PhD students, staff development programs, joint research studies and publications, joint supervision of PhDs, the development of new PhD programs in Nigerian universities and the sharing of training resources such as laboratories and other science equipment (Akudolu and Adeyemo, 2018).

Nigeria belongs to many academic professional networks and programs in Africa that have a direct bearing on the production and use of knowledge in various fields. These strategic networks and programs often organize training sessions, technical workshops and exchange programs for researchers to strengthen the knowledge base of their member nations. Some also have international collaborators (e.g. the African Technology Policy Studies Network, affiliated to IDRC). These network programs include, among others, the African Economic Research Consortium (AERC), African Centres of Excellence, CODESRIA, Organization for Women in Science for the Developing World, African Forum for Children's Literacy in Science and Technology, Education Research Network for West and Central Africa, African-German Network of Excellence in Science and the African Labour Research Network. On the whole, these programs seek to enhance institutional and human capital (researchers) as well as provide an enabling environment for national research activities. Generally, the strategic focus of these programs centres around the following:

1. Developing and strengthening the capacities of research institutions and providing solutions to local education challenges facing member nations.

2. Capacity-building, training and networking for researchers. Some programs are aimed at joint PhD research

training at a foreign university and designated Nigerian universities. For some programs, beneficiaries are selected only from members of academic staff in Nigerian universities and research institutes to ensure they return home and, in turn, train other younger researchers. Others focus on the training and re-training of older researchers.

3. Networking through conferencing, to increase the dissemination and availability of information relevant to researchers and decision-makers for national education development.

4. Fostering collaborative research, publication and exchange among academics in Nigerian and foreign universities.

Some regional partnership programs also offer training in specific areas. For instance, AERC's training program is designed to augment the pool of economic researchers in sub-Saharan Africa by providing support to postgraduate studies in economics and agricultural economics departments. The program also offers organizational support to public institutions that offer these courses. Other programs offer scholarships, African and global training partnerships as well as exchange programs. As English is the official language, most of Nigeria's network reach is into Anglophone countries and regions. The country has an important connecting role with its West African neighbors and sits at a research crossroads between East, West and South Africa. The country has a very strong research bond with South Africa, which provides an array of links into other groups. In general, Nigeria, South Africa and Kenya provide strong cross-continent links and are key nodes in global research networks (Adams et al., 2013).

Nigeria is one of the four strongest countries in Africa (both economically and in terms of

education and research) and is helping to lead Africa's resurgence in higher education through various intra-African engagements in trade, investment and partnerships (Zeleza, 2016). Nigerian institutions have played an active role in the establishment and operation of many of these programs. One such example is the African Centres of Excellence, regional centres for specific research areas on the continent. Six of the fifteen centres in the West and Central Africa zones are hosted by Nigerian universities, including Redeemer's University in Osun State, the University of Jos in Plateau State and the University of Benin in Edo State (Association of African Universities, 2018). The University of Ibadan is also part of the African Research Universities Alliance, which focuses on research and the production of new-generation African scholars (Akudolu and Adeyomo, 2018).

Furthermore, Nigeria hosts a number of international universities, such as the American University at Yola, which has direct relationships with several American universities. It also operates the AERC collaborative Master's programs under the umbrella of the Foundation for Economics Education. Many other public and private institutions in Nigeria have endorsed collaborations with international universities – for example, between Nnamdi Azikiwe University and Alexandria University, Egypt; and the University of Port Harcourt and the University of Pretoria, South Africa. The international office at the University of Ibadan has developed several partnerships to support research and doctoral training.

Most of the research in Nigeria is published in English-language outlets. As a consequence, the country's research output is clearly visible in global and continental research assessments, which typically focus on publications in English. Nigeria is reported to be among the highest producers of research in Africa. For instance, between 2005 and 2009, Nigeria was the third largest producer of scientific research on the continent (after South Africa and Egypt), though most (over 90 percent) of this was in fields outside of the social sciences. SSR constituted only 6.6 percent of the country's scientific output (AU-NEPAD, 2010).

Absolute volume of published papers is one indicator of research activity and (indirectly) of research capacity (Adams et al., 2013). A very low proportion of Nigeria's domestic journals is available online and is open access (GOAP, 2017). For example, as of 2015, the country had only two globally visible repositories (at the University of Jos and Covenant University) in the Registry of Open Access Repositories and the Directory of Open Access Journals; and only 38 open access journals from Nigeria are indexed (out of a total of over 10,000). However, there are plenty of research collaborations between researchers in Nigeria and in other countries and continents, notably places where English is the official or major second language. A significant share of research produced in Nigeria is also published in international journals, again predominantly in English.[23] These two factors, in combination, enhance the visibility of Nigerian SSR. For instance, the total research output (indexed on Thomson Reuters Web of Science) between 2010 and 2012 in Nigeria was over 20,000 articles. Of these, the number co-authored with researchers from the US, France, the UK and Saudi Arabia were 1,945, 243, 1,426 and 54 respectively (Adams et al., 2013).

Nigeria is a key regional player in West Africa. It accounts for 47 percent of West Africa's

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23 This holds true even beyond social science. For example in the field of Science, Technology and Medicine, 465 articles have been published with BioMed Central and over 100 articles in Public Library of Science (PLoS) Open Access journals.

population, and has one of the largest youth populations in the world (World Bank, 2018). As of 2018, about 75 percent of the youth population (aged 15-24 years) were literate. This is higher than the national adult (aged 15 years and above) literacy rate, which stood at 62 percent.[24] The country has the largest number of students enrolled in the higher education sector as well as the largest number of HEIs in Africa. As of 2015, total tertiary enrolment in Nigerian universities was 1.9 million. This is increasing rapidly and is projected to reach 4.8 million by 2024 (ICEF Monitor, 2015).

However, despite the progress that these figures clearly indicate, it is apparent that the country is not producing as much research as would be expected given the size of its economy. The value of its resources is not yet reflected in its knowledge base (Adams et al., 2013). In one of our scoping interviews, the interviewee argued that the number of researchers exposed to international collaborations, training and conferences is too small to have an impact on the country's national development research system, including for SSR. He also reiterated the need to systematize research for national development in Nigeria, which, among other things, would help to enhance the production and use of social research for sustainable development.

Economic Context

Nigeria is one of sub-Saharan Africa's largest economies. It relies heavily on oil as its main source of foreign exchange earnings and government revenues (CIA World Fact book, 2018). In 2016, Nigeria was estimated to have a population of 190 million and a projected growth rate of 2.43 percent per annum, with a high dependency ratio of 88 percent (NBS, 2016). In general, Nigeria has made significant progress in socioeconomic terms over the last 15 years. The country's GDP grew at an average rate of 5.7 percent per year between 2006 and 2016 and at about 7 percent per annum in the preceding decade. Its Human Development Index also increased by 13.1 percent between 2005 and 2015.

However, poverty is unacceptably high: nearly 80 percent of Nigeria's 190 million people live on less than $2 a day (African Economic Outlook, 2018). The country belongs to the category of countries with low human development, ranking 157th (among 189 countries) and with a Human Development Index of 0.532 (UNDP 2018). The low level of human development has continued to hinder participation in research: data from the African Innovation Outlook show that, across all disciplines, Nigeria had 119 researchers per million inhabitants at the end of 2008, compared to 815 in South Africa, 661 in Senegal and 244 in Cameroon (AU-NEPAD, 2010).

As of 2014, the working age population of Nigerians stood at 101,769,739 and the labor force participation rate was 71.7 percent. Though the latter appears to be high, most of the 72,931,619 who had a job in 2014 were underemployed (that is, engaged in part-time work or in jobs that are below their skill level) (Kale & Doguwa, 2015). This is because in the absence of formal employment, people generally engage in any available form of income-generating activity.

Official statistics show that around 40 percent of the labor force was employed in the agricultural sector over the course of the past decade. The private sector, comprising mainly of micro-, small- and medium-enterprises (MSMEs), provides about 84

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24 Data retrieved from the World Bank (https://data.worldbank.org/indicator/SE.ADT.LITR.ZS?locations=NG) on May 30, 2020

percent of jobs but contributes less than 50 percent of GDP to the economy (NBS, 2016). Businesses in Nigeria face several challenges that hinder their ability to contribute optimally to inclusive growth, including poor infrastructure, a challenging regulatory environment and corruption, among others.

In terms of infrastructural development, the Nigerian economy suffers from an ongoing supply crisis in the power sector. This is despite a growing economy and various economic reforms. The National Economic Empowerment Development Strategy (NEEDS) 2003-2007, for example, was implemented to address basic deficiencies, such as the lack of freshwater for household use and irrigation, unreliable power supplies, decaying infrastructure, impediments to private enterprise, and corruption. However, more than ten years after, the state of physical infrastructure is still deplorable. Studies conducted by some Nigerian universities noted, among other things, the deficiency in teaching and learning infrastructure (Dumo and Kakulu, 2014; Yaya and Adeeko, 2016). The unstable electricity supply, in particular, limits research activity considerably because it hinders access to the Internet and other computing facilities while also limiting work hours.

There is also a dearth of modern facilities. The available facilities are often old, no longer serviceable or already phased out of production by manufacturers. Most institutes of learning in Nigeria lack modern technology (Dumo, & Kakulu, 2014; Yaya & Adeeko, 2016; Chukwu et al., 2018), which has hindered research. Although ICT is becoming increasingly affordable, the country lacks a well-developed ICT infrastructure, which is a pre-condition to ICT adoption. Internet usage in Nigeria grew from 200,000 users in 2000 to about 70 million users as of 2014, which represents about 39.7 percent of the country's population at that time

(GOAP, 2017). The Nigerian Communications Commission, the independent national regulatory authority for the telecommunications industry, reports that as of 2017, the number of Internet subscribers in the country was well over 90 million (The Communicator Magazine, 2018). However, according to UN statistics, only one in every four people has access to the Internet and 83 percent of the population has a mobile phone subscription (UNDP, 2018). In general, the state of Internet connectivity in Nigeria is very poor: the country is ranked among the 30 of the 31 countries included in the bottom half of the Networked Readiness Index rankings (World Economic Forum, 2015).

By the late 1960s, as a result of huge oil revenues, the Nigerian economy shifted from a focus on agriculture to one largely driven by crude oil and gas. For over four decades, the economy relied heavily on revenues from crude oil; however, this did not translate into prosperity and economic development, despite the various programs and policies of different governments over the years. In 2016, as a result of dwindling oil revenues, the country experienced an economic downturn that led to the worst recession in Nigerian history – as evidenced by high inflation, an unemployment crisis, capital importation and a reduction in GDP. The Nigerian GDP declined by -1.5 percent and -2.06 percent in 2015 and 2016 respectively (Gabriel et al., 2016; Trading Economics, 2016; Babatunde, 2018). In addition, the country had to deal with a falling exchange rate, and growing poverty and inequality. The government's fiscal policies and responses were inadequate, and mismanagement and corruption continued to ravage the system.

In the light of this, the current Federal Government generated an economic growth plan for 2017 to 2020, which focuses largely on diversifying the economy. The initiative is aimed at maintaining an external

balance of trade as well as economic recovery and stability by strengthening other prioritized sectors of the economy. These sectors include agriculture, real estate, services, manufacturing, mining and solid minerals, among others. Moving forward, the country must engage in knowledge production, especially SSR, as a means of generating economic development. Akano and Adams (2019) argued that the Nigerian Government must increase expenditure on education, health and agriculture to save the economy.

Historical and Cultural context

At the centre of research in every country is the higher education system, particularly the universities. Universities have the traditional roles of teaching/learning, research/ consultancies and community service, through which they aim to develop critical manpower for R&D, and disseminate the knowledge needed in industry and other sectors. Education in general, and higher education in particular, are fundamental to the construction of a knowledge economy (Iruonagbe et al, 2015). However, though it is generally believed that the universities in Nigeria have these three traditional functions, the Nigerian higher education system does not officially include research as one of its *main goals* – judging from the stated objectives of university education in the Education Policy (2004):

1. To contribute to national development through high-level relevant manpower training

2. To develop and inculcate proper values for the survival of the individual and the society

3. To develop the intellectual capability of individuals to understand and appreciate their local and external environments

4. To acquire both physical and intellectual skills which will enable individuals to be self-reliant and useful members of the society

5. To promote and encourage scholarship and community service

6. To forge and cement national unity

7. To promote national and international understanding and interactions

None of these makes a direct reference to research. This highlights the fact that social research conducted in Nigeria is predominantly for academic purposes and to meet promotional requirements, as opposed to the proper application of knowledge by capable individuals and bodies to improve the well-being of society.

Many have argued that an enabling environment for SRR does not yet exist in Nigeria (Chukwu et al., 2016). This is partly related to the historical context, which has affected the development of the higher education system. These, among others, include the colonial system, the oil boom, prolonged military rule and a historical preference for the natural sciences.

The education system in Nigeria and the policy that guides it are influenced heavily by the British system, which stems from its colonial history (Enwo-Irem, 2013; Fafunwa, 2003; Iruonagbe et al., 2015). Even though there have been a series of reviews of education policy since independence in 1960 (Imam, 2012), the impacts of colonialism on the education and research system still linger today. Firstly, the language of research still remains the language of the colonial masters. Secondly, the mentality of dependency on foreign support invariably reduces the local relevance of research. Thirdly, social science curricula and research are still dominated by a 'Western perspective'. Much of the inspiration,

theories, paradigms and methodologies for SSR are from western societies, and many local social scientists have been trained in the West (Sanda, 1979).

As noted by Chukwu et al. (2016), in addition to the colonial legacy, the discovery of oil in comercial quantities led to a rapid neglect of other sectors of the Nigerian economy, including the education and research system. This was exacerbated by several years of military rule during which education and research funding received little attention. There is also a general bias toward the pure and physical sciences, which has also adversely affected the funding of SSR. A great deal is spent on space science, meteorological studies, geological mining and other related topics, while studies and research in the social sciences such as gerontology, criminology, religious studies, conflict management, human resource management, public relations, juvenile care, child welfare and policy studies continue to suffer from a lack of funding.

Nigeria is a very diverse country, home to hundreds of tribes with diverse cultural, religious, ethnic and language identities (Akobo, 2016). This diversity can be seen both as a blessing and an impediment to the conduct of SSR. On the one hand, the country is unified by a single lingua franca, English, the language of the erstwhile colonial masters. As the official language, English is the medium of instruction in all schools from primary through to tertiary levels. As such, there is no language barrier to the conduct of research across cultural and ethnic divisions. However, communicating research results, which are written in an

academic style of English, to the people most likely to be impacted by the research is often very challenging. This is because in Nigeria, there are millions of people who are still illiterate (40.4 percent of the population aged 15 years and above in 2015) or unable to critically grasp messages coded in formal English, especially in the rural areas, which represent 52.2 percent of the population (UNDP, 2016).

In terms of religion, academic research in Nigeria is a secular activity and generally unaffected by religious persuasion. Interpersonal interactions in public life should, by law, be free of religious sentiment; this is equally applicable to the conduct of social research. While Nigeria has had series of crises emanating from ethnic and religious tensions, these were usually political in nature (Paden, 2015) and have had no effect on the conduct of research.

Politically, the nation has undergone a number of transitions, from military to democratic rule and vice versa. However, in the last 20 years (from May 1999), the country has enjoyed a period of uninterrupted democracy, which is very likely to continue through the next political administrations. In terms of demographics, Nigeria epitomizes the young demographic structure characteristic of the African continent – more than half of the population are under the age of 40, which means that Nigeria can reap a demographic dividend (UNDESA, 2017). However, this is undermined by the considerable brain drain. This is more pronounced in science, engineering and medicine but also affects the social sciences significantly.

STAKEHOLDER MAPPING

Highlights

- The main question addressed in the Nigerian DRA concerns how and by whom social science is currently produced, disseminated and applied.

- The key research actors in the Nigerian social science research system are higher education institutions (HEIs), government and funding agencies (GFAs), private sector organizations and civil society organizations (CSOs).

- There are at least 1,825 organizations that are active in the social science research system in Nigeria, including 1,515 CSOs, 170 HEIs, 75 GFAs and 65 private sector organizations.

- HEIs produce the most research, followed by research institutes included in the GFA category. Little research is produced by the private sector and civil society.

- Local and international funding organizations as well as CSOs and the private sector are active in research dissemination.

- The uptake of social science research for policy is undertaken mainly by policymakers in the federal and state legislatures.

- The methods adopted to study these actors and the system in which they operate included a desk review to obtain secondary data, bibliometric analyses to obtain data on research production, a set of three surveys to collect data on DRA indicators, and key informant interviews to guide and enrich the analyses.

- To ensure representativeness, the survey sample was selected first by clustering and randomizing institutions and then randomly selecting individuals by proportional probability.

- The survey sample included 805 individuals (585 researchers, 145 administrators and 75 policymakers) from a total of 130 organizations. The response rate was 90 percent at the institutional level, and 85 percent at the individual level.

Stakeholders in the Nigerian Social Science Research System

As part of the research process, we undertook a stakeholder mapping exercise to identify all stakeholders with an interest in SSR in Nigeria. By interest, we mean activities connected to the production, diffusion and use/uptake of SSR. In this chapter we discuss the institutions and individuals who have a major influence in the Nigerian SSR system. The key research actors are categorized as:

- Higher education institutions – comprising federal, state and private universities

- Government and funding agencies – comprising foreign donors, local donors, regulators, national agencies, national ministries and research institutes

- Private sector organizations – comprising for-profit think tanks and consultancies as well as businesses that hire researchers

- Civil society organizations – comprising non-governmental organizations (NGOs), opinion leaders, non-profit think tanks and the media

Nigeria is a large country and, as such, there is huge number and diverse range of actors in each of the four stakeholder categories. However, as is typical of many developing countries with poorly mapped systems, there are no reliable sampling frames for some of these categories, particularly for CSOs. Moreover, research is highly dispersed in

Nigeria; it is therefore extremely difficult to compile a comprehensive list of institutions with information about the number of researchers in each. Therefore, we have compiled a list of all the institutions in each category and used our first-hand knowledge of the research landscape to exclude those that are clearly not associated with SSR.[25] A summary of the main functions of these actors is shown in Figure 2, and a detailed discussion of their nature and SSR activities follows. Altogether, our stakeholder mapping identified 1,825 organizations with some interest in SSR in Nigeria (Table 1).

Higher Education Institutions

Structure and Governance

There are currently 83 colleges of education, 68 monotechnics,[26] 114 polytechnics and 170 universities in Nigeria. Many universities offer general courses while some specialize

Table 1: Number of organizations in the social science research system in Nigeria

Actor Category		Total
Higher Education Institutions		170
Private Sector		65
Civil Society		1,515
Government and Funding Agencies	Ministries, Departments and Agencies (MDAs), and Donors	33
	Research Institutes	5
	Houses of Assembly	37
Total		**1,825**

Source: Authors' compilation based on the Stakeholder Mapping

Figure 2: Actors in the Social Science Research system and their functions

1. HEIs
- Major producers of SSR
- Prominent in dissemination (research publications, conferences, inaugural lectures, etc)

2. CSOs/ 3. Private Sector
- Gatekeepers between production and uptake
- Research dissemination and uptake
- Translators of SSR

4. GFAs
- Resource allocation
- Agenda setting
- Setting the scope of SSR
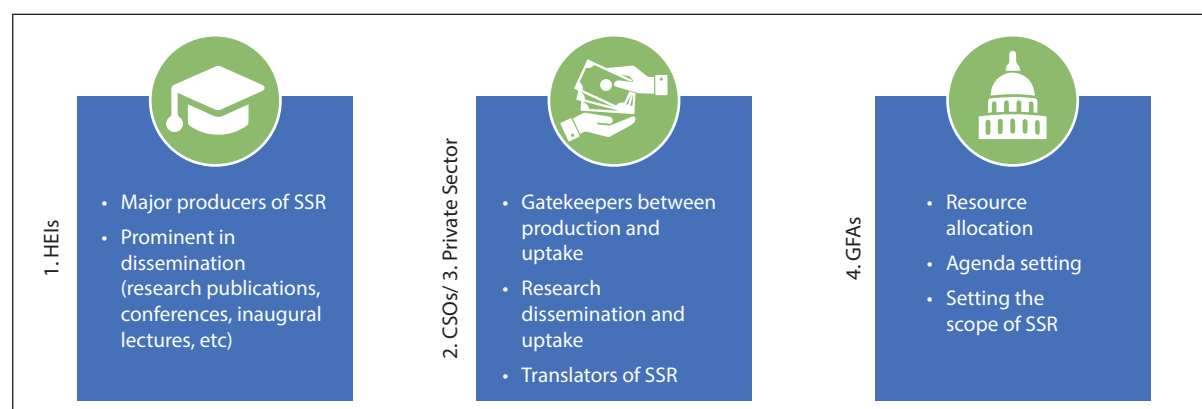
Source: Authors' illustration

25 As an example, the Federal Ministry of Science and Technology manages over a dozen research institutes but most of these do not engage in social science research or hire social science researchers (e.g. the National Agency for Science and Engineering Infrastructure).

26 Institutions that offer instruction in a single scientific or technical subject

Table 2: Categorization of higher education institutions in Nigeria by ownership

Institution	Federal	State	Private	Total
Colleges of education	22	46	14	82
Monotechnics	35	28	5	68
Polytechnic	28	45	41	114
University	43	48	79	170

Source: NUC, NBTE, NCCE official online repositories

in specific areas such as agriculture, maritime studies, aviation, technology and health-based courses. Tertiary institutions in Nigeria can be divided into two categories: government- and private-owned institutions; the former are owned either by the federal or state government. About 50 percent of private institutions are owned by faith-based organizations with the rest owned and controlled by business partnerships, corporate bodies or individuals (Ahunanya and Tony, 2012). The division of these institutions according to ownership is presented in Table 2.

The Nigerian tertiary education system is the largest and most complex higher education system in Africa (Moja, 2000; Amadi et al., 2010). The system is composed mainly of universities, polytechnics, monotechnics and colleges of education, each with its own supervising body/agency. The National Commission for Colleges of Education (NCCE) oversees the colleges of education, the National Board of Technical Education (NBTE) regulates the polytechnics and monotechnics, and the National Universities Commission (NUC) regulates the universities. The provision of these services has ensured the efficient, balanced and coordinated development of the university system. The commission has developed a robust scheme of international standards for the accreditation of programs and institutions in Nigeria (Bamiro, 2012).

These three supervising agencies play a vital role in ensuring the effective regulation of their respective institutions through planning, organization, coordination and control. In addition, they manage, supervise and monitor their respective academic development, ensuring academic standards and quality assurance. At the national level, the activities of these supervising bodies are coordinated by the Federal Ministry of Education. The HEIs owned by the states are under the care and supervision of the state ministries of education. These bodies wield considerable bureaucratic authority – for instance, the NUC has the power to grant or revoke university licenses and is directly responsible for accrediting courses in all universities across the country.

However, these coordinating bodies all exhibit a similar weakness: they all fail to maintain authoritative and reliable data on the status of the system. It is difficult, for instance, to obtain disaggregated data on human capital and funding in the tertiary education system. From a policy and management standpoint, the absence of such data implies poor planning. For example, without reliably knowing the current gender ratio of research personnel in the university system, it is exceptionally hard, if not completely impossible, to design and implement effective gender parity policies. This is despite the fact that these regulatory organizations all have research departments,[27] and that there

are other institutions within the system that have the requisite competence to gather such data.[28]

Research landscape

Research in the tertiary education sector in Nigeria is largely dominated by the universities, although a degree of research is carried out in the non-university tertiary institutions, notably the polytechnics. However, the major production function of the Nigerian polytechnics is to train middle-level manpower through effective teaching delivery (Adeyemi and Uko-Aviomoh, 2004). Consequently, peer-reviewed published research output in the polytechnics is comparatively low. Some studies report that research output from the polytechnics is of poor quality, partly due to the lack of funding, human resource capacity and infrastructural facilities (Chiemeke et al., 2009; Yusuf, 2012). In addition, the type of research that takes place in Nigerian polytechnics is not basic or social research but mainly technological.

Another category of institutions that produce published research is the research institutes. However, only a few of them (this study identified only five) focus on SSR. Civil society and private sector actors seldom produce peer-reviewed publications. Thus, the universities remain the mainstay of SSR production, particularly peer-reviewed

publications. It is important to note, however, that research institutes are not necessarily non-productive in terms of research. Their mandates tend to focus more on policy issues and, as such, may be more aligned with the demands of decision-makers.

A closer inquiry into the nature of the courses and research conducted in various universities in Nigeria revealed that public universities offer wide-ranging academic programs, while many private universities concentrate on humanities and social science-based courses. This is because research activities in these fields do not require huge investments in equipment and research facilities, unlike science and technology courses (Erinosho, 2007; Ahunanya and Tony, 2012). A desk review of the subjects offered in private universities in Nigeria reveals that virtually all of them offer social science courses.

There are a myriad of problems confronting research development in tertiary institutions, one of which is insufficient funding. Funding has always been a major deterrent to research development and implementation in Nigeria – although underfunding is not only peculiar to Nigeria and Africa, it is a global issue. A study of 25 OECD countries, for example, found that research funding was allocated to specific projects through competitive processes and assessments of research quality rather than block grants (OECD, 2012). Other factors affecting the conduct of research in Nigeria include persistent power shortages, the poor quality of staff, a lack of skills in modern research methods, limited equipment for carrying out state-of-the-art research, over-loaded teaching and administrative schedules with little time for research, difficulties in accessing research funds, a reduction in the mentoring of junior researchers by seasoned and senior researchers due to the brain drain, and corruption and mismanagement, among

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27 As far as we know, all regulatory organisations have full-fledged departments with research and monitoring responsibilities. The nomenclature of these departments vary, the most common being Planning, Research and Statistics.

28 For instance, the National Centre for Technology Management has implemented surveys of Research and Experimental Development as well as Innovation since 2005. However, poor and unstable funding hinders the continuity of such surveys. Herein lays an 'easy win' for development partners that seek entry points for contributing toward enhancing the SSR system in Nigeria.

others (Okebukola, 2002; Lamido 2013).

In terms of funding for capacity-building, there are various avenues available. Many universities set aside funds to support their academic staff to work toward attaining a higher degree, as well as to attend conferences and workshops both locally and internationally. There are also avenues for individuals or groups of researchers to access research funds from companies (industry), NGOs, and the state and federal governments. These funds are used to set up laboratories for carrying out research, to train postgraduate students, and attend conferences and workshops. Non-teaching staff are also entitled to funds for capacity-building, within and outside universities. Conducting research is imperative and it is mandatory for academic staff to publish their research or get involved in research to meet the criteria for career progression. A large proportion of research conducted by academic staff is self-funded. While TETFUND is the main domestic provider of research grants, international bodies like USAID, WHO, the UK Department for International Development (DFID) and the United Nations Environment Programme are also major funders of research in Nigeria.

Other issues such as developing an enabling environment and time for research need to be addressed. The high student–staff ratio in universities, means a heavy teaching workload for staff, reducing the time spent on research activities. An increase in human and material resources will therefore help to cope with the increasing student population and go a long way in enabling increased participation in research.

A study conducted in southern Nigeria found that the level of participation in capacity-building programs – workshops, seminars, conferences, ICT training and mentoring – is very low. However, there is no significant

difference between levels of participation for male and female lecturers in capacity-building programs. Universities should therefore foster an environment that enables and encourages lecturers to participate fully in capacity-building programs (Akuegwu, Nwi-ue and Etudor-Eyo, 2013).

Staffing

The shortage in academic staff poses a serious challenge to the quality of academic delivery. There is a gross mismatch between student enrolment and staff numbers. The exponential increase in student enrolment without a concomitant increase in teachers and facilities has had a negative impact on research and learning in both private and public universities in Nigeria. In 2006, computation using approved student–teacher ratios indicates that the university system required a total of about 35,000 academic staff for effective course delivery across all disciplines (Bamiro, 2012). There has not been any significant improvement in this regard over the years.

Many private universities, as profit oriented institutions, have abysmally low levels of permanent academic staff (Varghese, 2002; Erinosho, 2007). To circumvent this challenge, private universities in Nigeria engage teaching staff, particularly senior ones, from neighboring public universities on a part-time basis. In addition, academics are employed as 'visiting' scholars (on temporary contracts) as well as for in-service training positions. This process is perceived to severely dilute the quality of academic staff and, ultimately, undermine the standard of research and teaching (Yusuf, 2012).

Funding

State government-owned institutions in Nigeria are funded by the state governments that run them while private universities are

owned and funded by private individuals or organizations. The federal government is the main funder of the federal universities, with financial provisions for personnel, capital and research (Bamiro, 2012). The higher education sector takes the major share of the total allocation to the education sector by the federal government. Other sources of income generation and research funding for HEIs in Nigeria include endowments, funding by other government agencies such as the National Bureau of Statistics, the Central Bank of Nigeria, the National Council of Arts and Culture, the National Office for Technology Acquisition And Promotion, gifts and donations, consultancy services, investment income, university alumni, and grants from local and international funding agencies. The major local institution that funds research in universities is the Tertiary Education Trust Fund (TETFUND). Considerable funding also comes from many international agencies/bodies. However, due to poor record keeping and the absence of a reliable database of foreign research grants, it is difficult to accurately estimate the magnitude of foreign funding for SSR in Nigeria. For instance, data from Nigeria's 2009 R&D Survey (NACETEM, 2010) suggests that only around 1.6 percent of gross expenditure on research and development (GERD) in universities came from foreign sources between 2007 and 2008.[29] However, we know from first-hand knowledge of the university system that this share does not accurately reflect the true figure.

Interactions

Inter-university collaboration is particularly common in Nigeria. This is occasioned by the need for multidisciplinary teams in

addressing key research questions and for attracting external research funding. Several local and international donor organizations now require that research teams include members from more than one institution. This compels university researchers to interact with researchers from other universities as well as with actors from other categories. International collaborations are also common, due to the fact that many university staff study abroad and are able to tap into their foreign networks when they return. Some international donor agencies in developed countries also have funding programs that require researchers from their own countries to collobarate with those from developing countries. An example of this is the Global Engagement Networks Grant within the Global Challenges Research Fund, part of the UK Research and Innovation funding program.

Government and Funding Agencies

The GFAs category appears to be the most heterogeneous of all the four actor categories in the stakeholder mapping. This category includes federal ministries with mandates related to SSR, research councils, and public and private foreign donors who engage with SSR in some way. Altogether, 75 organizations are included in this category. The structure of this category in Nigeria had important implications for our sampling, which we discuss in the sampling section at the end of this chapter.

Structure and Governance

Nigeria operates a federal system of governance, which functions at three levels: federal, state and local. For this reason, legislators at the national and state levels are heavily involved in all forms of policymaking. All laws and policies, including those that establish publicly-owned SSR organizations

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29 For research institutes, the estimate is much lower at 0.04% of GERD.

require the assent of the legislative and executive arms of government. Government agencies are established by either the federal government or a state government; the term 'agency' is not normally used for an organization created by the powers of a local government body. Agencies can be established by legislation or by executive powers. The autonomy, independence and accountability of government agencies vary widely. There is a also a wide variety of agency types. Government agencies are normally distinct from government departments, ministries or other types of public body established by the government. The functions of an agency are normally executive in character, as opposed to organizations such as commissions that have more of an advisory role.

Government agencies have significant involvement in executing government functions. They support research that can be used to inform policy, mostly at the federal level, through various research institutes or agencies. These agencies play an important role in translating evidence into regulation. One important role in this regard has been to facilitate access to data. While GFAs contribute to research at all stages of the research cycle – helping to design/conceptualize research projects (so that they are relevant to the demands/ needs of government), setting priorities, and translating knowledge into action – they play a key role in promoting and advocating for relevant global research; mobilizing resources for research; promoting the production, use and management of knowledge; and capacity development. Typically, the involvement of government agencies in research is downstream of information production, usually in the form of a partnership with universities or dedicated research agencies.

It is important to note that in the Nigerian context, research councils do not exist as

they do in, for instance, South Africa. In our interviews, we uncovered the existence of a self-organized community of practice of senior social science scholars in Nigeria, which was founded in the 1980s. The organization is independent of government and does not have any coordinating influence in the Nigerian SSR system. At the time of this study, the organization was reported to be largely inactive, and all efforts to establish contact were unsuccessful.

Moreover, national ministries do not conduct SSR themselves; instead, they supervise a number of research institutes that carry out research on their behalf. For instance, NACETEM, a policy research institute, is supervised by the Federal Ministry of Science and Technology. Research institutes focus on specific issues and, as such, those related to SSR can be easily identified – for instance, the Nigerian Institute for Social and Economic Research (NISER), an agency of the Federal Ministry of National Planning. Each research institute is managed by a governing council, which is responsible for determing the overall policy of the institute. In particular, the council is responsible for the financial and operational policies and programs, and for ensuring their implementation. Each institute has a director or director-general, appointed by the minister on the advice of the council. The director has extensive experience of matters of relevance to the institute concerned, and is responsible for the administrative management of the institute.

Funding

Government agencies usually receive research funding from both the federal government and external donor agencies, and sometimes projects are individually funded. Although foreign donor agencies – such as the Rockefeller Foundation, the Ford Foundation, the International Development Research Centre (IDRC) and the United

Nations Development Programme (UNDP), to mention a few – are known to have heavily funded research in government agencies, the extent of their impact is difficult to determine as most of these grants are not captured in any aggregate databases or reports within the country.

Research landscape

In Nigeria, social sciences and the humanities are predominantly practiced within universities. There are few or no government-funded research institutes devoted to the social sciences and no research institutes with a mandate for SSR. However, there are research institutes with a strong interest in SSR (Table 3). Specific mention must be made of the NISER. The Institute has conducted a sizable number of studies through their physical, social and economic development departments. As it was set up by the federal government to carry out policy-oriented research, it has always had reasonable access

to funds for research. It has a well-stocked social science library and an adequate level of research equipment. However, the institute has lost many of its senior and experienced researchers due to increasing dissatisfaction with the working environment and reduced funding.

The federal government established NISER in 1960 with the aim of generating credible knowledge through quality (high-impact) research, conducting specialized training and providing consultancy services, while interacting with relevant segments of Nigerian society – all in the pursuit of national development. This followed the dissolution of the West African Institute of Social and Economic Research, which the colonial government established in 1950 to serve as a think tank in the field of social and economic development for the then British West Africa territory.

The GFAs usually engage in all aspects of

Table 3: Research institutes with a clear focus on social science research

Name	Location	Size	Established	SSR Activities	Supervising Federal Ministry Ministry
Institute for Peace and Conflict Resolution (IPCR)	North Central	L	2000	Production, Diffusion	Foreign Affairs
Nigerian Institute of Social and Economic Research (NISER)	South West	L	1960	Production, Diffusion	National Planning
National Centre for Technology Management (NACETEM)	South West	L	1992	Production, Diffusion	Science and Technology
National Educational Research and Development Council (NERDC)	North Central	M		Production, Diffusion	Education
National Institute for Legislative and Democratic Studies (NILDS)	North Central	M		Production, Uptake	National Assembly*

*This is the only non-ministrial body that supervises a research institute.

the research cycle: research production, diffusion and uptake. Research findings are communicated through channels that enable academics, policymakers, civil society and the private sector to interact and discuss and share these findings. These channels include conferences, workshops, technical reports, policy briefs, policy dialogues, monographs, books, scholarly articles, and white and grey papers. Policymakers in the Houses of Assembly are largely responsible for translating research findings into policy. Foreign donor agencies tend to invest more in capacity-building initiatives that focus on health and agriculture, natural and physical sciences, and economics, with less attention on the humanities and non-economic social sciences. Moreover, most donors focus predominantly on knowledge production rather than the other stages of the knowledge-to-policy cycle.

Interactions

Social science research is a cross-cutting discipline and therefore requires the engagement of numerous ministries, departments and agencies (MDAs) from different sectors, as well as support from donors, NGOs and civil society for the funding, design and implementation of emerging programs. There are various collaborations between the federal and state levels (vertical collaboration) and between MDAs and other agencies (horizontal collaboration). These are led by a single ministry to ensure the effectiveness of policy and programs.

Several foreign funding agencies have played a key role in the development of research in Nigeria, including DFID, UNFPA, UNICEF, WHO and the World Bank. DFID, for example, conducted initiatives to examine the potential for unconditional transfers in Nigeria. UNFPA has a strong interest in gender and health, with a particular focus on maternal mortality rates, the prevalence

of contraception, poverty reduction, and the targeting of existing interventions. As part of its social protection-related work, UNFPA mapped community-based health insurance initiatives with a maternal and child health focus. Along with UNICEF and WHO, they developed a work plan to support social protection mechanisms that facilitate access to health services (Social Protection Development Partners Group, 2010). UNICEF also convenes the Social Protection Development Partners Group and provides technical assistance. Much of the research mentioned above is primarily health-focused.

An important area of partnership that has been underutilized involves the links between research institutes and the private sector. Given that this is an area where few donors have concentrated resources and attention, it would seem to represent a potentially fruitful avenue for further exploration.

Private Sector

There has been a proliferation of for-profit think tanks and consultancies in recent years. At a global level, it increased from 4,000 institutions in 2005 to nearly 6,900 in 2015 (McGann, 2016; McGann and Johnson, 2005). According to the 2018 Global Go To Think Tank Index (GGTTI) – an initiative of the Think Tanks and Civil Societies Program (TTCSP) – Nigeria has 51 think tanks out of a total of 8,248 think tanks cataloged in the TTCSP's Global Think Tank Database (McGann, 2018). Combining the ones that focus on SSR with other relevant actors in the private sector, particularly for-profit consultancies, we identified a total of 65 private sector organizations that engage in SSR activities.

Structure and Governance

In Nigeria many think tanks and consultancies operate within a narrow field, with little or no impact on the policy space

at the national level. Many of them have also found it difficult to survive because of a lack of funding. Most, especially those think tanks affiliated with the government, have taken a serious hit as a result of the crash in crude oil price and the subsequent drastic reduction in research funding. In the case of non-government think tanks, their lack of relevance for and impact on policymaking has made it difficult to justify their continued funding. The engagement of think tanks in policymaking at the national or state level is still in the early stages: most decision-making processes are usually framed around political and ideological considerations with little or no reference to hard evidence.

The Corporate Affairs Commission (CAC) is the official agency responsible for the registration of legal business entities such as for-profit think tanks. However, for tax reasons, many of the small for-profit think tanks do not register with the CAC. The majority of the smaller firms are also highly constrained by funding and as such they are visible only when funds are available. The larger for-profit think tanks that are registered with the CAC are governed by the same rules that apply to regular companies in Nigeria. The majority of their members of staff are recruited for their strong academic credentials and other capabilities. They could be managed by a Chief Executive Officer, like that of the Economic Associates, or a Managing Director and Board of Directors such as that of the Financial Derivatives Company Limited and the Initiative for Public Analysis.

Within the for-profit think tank community, there are various types of full-time employees and associates. In general, research staff are referred to as research fellows, senior fellows, policy analysts or senior researchers. Members of staff can also be categorized as resident fellows/scholars or associates, and non-resident or visiting fellows/adjunct scholars. Resident fellows or scholars are those

employed on a full-time basis, while non-resident fellows are employed on a part-time or fixed-fee basis, and work remotely, usually at their place of primary employment (e.g. a university). Even though the latter work closely and regularly with think tanks, they are usually not permanent members of the think tank workforce. Payment for this category of staff is made on an individual basis. Guest scholars are generally given an office and logistical support for the research activities they carry out for the think tank. Lastly, visiting fellows are usually offered a fixed-term fellowship with a stipend, an office space and logistical support to carry out a research project within the same research theme as that of the think tank's research agenda.

These types of think tanks endevour to meet the demands of their clients and are less preoccupied by political issues. Good examples include Deloitte Nigeria, McKinsey, PricewaterhouseCoopers, Financial Derivatives Company and Economic Associates. These think tanks apply the principles of management, marketing and sales to public policy research. They also keep a tight production schedule for outputs/products while rewarding those who can operate on a tight timeline and can produce action-oriented policy briefs. It should be noted, however, that most of the smaller think tanks do not fit neatly into any one group, and the differences among them are becoming increasingly blurred. For instance, university research centers sometimes function as academic think tanks and sometimes as for-profit consultancies similar to government research organizations.

Research landscape

Many of the top for-profit social science think tanks are the leading producers of SSR. They produce high-quality, innovative research and strategic analyses on topics pertaining to a wide array of social issues

and challenges in Nigeria. These issues include food security, health care, criminal justice, inequality, education, immigration, environmental change, poverty, transparency and good governance, and social security. They also engage the public on a wide range of policy issues with the aim of advancing debate, facilitating cooperation between relevant actors, maintaining public support and funding, and improving the overall quality of life in the country. For instance, the Initiative for Public Policy Analysis, the Centre for Public Policy Alternatives and the Centre for Population and Environmental Development carry out SSR activities for areas such as development economics, inequality, energy, trade, entrepreneurship, health and security. A survey carried out by the Think Tank Initiative of the IDRC found that the types of SSR required by the policymaking community in Nigeria include information on economic and fiscal issues, food security, poverty alleviation and the environment (Think Tank Initiative, 2018). When it comes to SSR to support policy development in Nigeria, the evidence shows that information on policy areas such as economic and fiscal issues, gender and the Sustainable Development Goals (SDGs) is more readily available. It was also reported that the most useful formats for receiving information for national policy development in Nigeria are email, social media, websites and television (Think Tank Initiative, 2018).

Interactions with other categories of actors

Many interactions between the for-profit think tanks and policymakers are complementary and can lead to positive outcomes such as enhancing the effectiveness of the overall policymaking landscape in Nigeria. An effective interaction among the key stakeholders has a significant impact on the quality of outputs and capacity

development, as well as the credibility of the think tanks and the scope of research activities that are carried out. Since the primary function of for-profit think tank is to produce policy-relevant knowledge and information for political elites, business executives and the wider public, interaction with the policy community is critical. There are several strategies employed by the for-profit think tanks to strengthen collaboration among the key stakeholders. These include disseminating their research outputs, advocacy campaigns in the media and conducting public outreach programs. Some of the big for-profit think tanks even employ professionals with experience in marketing and public relations to increase visibility and facilitate dissemination of information. Other strategies employed by think tanks include targeted seminars, conferences and briefings, the production of both traditional and multimedia publications such as newsletters, information brochures, high-quality journals and magazines, book abstracts, and audio and video clips. Many of the publications can be downloaded freely on the think tank's websites.

Some of the for-profit think tanks also foster and maintain lines of communication with members of the Houses of Assembly, administrative officials, federal judges and representatives from state and local governments. For instance, the Federal Government of Nigeria recently appointed Bismarck Rewane, the Managing Director of Financial Derivatives Company Limited as the head of the Technical Advisory Committee for the implementation of a National Minimum Wage. The committee also included Ayo Teriba, the CEO of a prominent for-profit think tank in Nigeria, Economic Associates. Part of the terms of reference for the committee was to develop and advise government on how to successfully bring about the smooth implementation of

impending wage increases and identify new revenue sources. The committee will also assess existing government expenditures and suggest where savings could be made without adversely impacting the nation's development goals, as set out in the Economic Recovery and Growth Plan (ERGP). Initiatives such as this reinforce the impact of for-profit think tanks in the national policy landscape. Some think tanks also invite government officials and members of assemblies to speak at their events, which provides them with an opportunity to test out political ideas or initiatives on 'neutral ground' in front of an audience of experts.

Funding

The financial support for think tanks is often targeted at issues donors consider important. Funding agencies are the most important influence on the character and role of these think tanks in carrying out research activities. Irrespective of their size and category, think tanks in Nigeria finance their activities by raising funds from private foundations, corporations, individuals, government grants and contracts, and endowments, as well as from international funding agencies. However, most of the big for-profit think tanks usually fund their activities through self-generated revenue. A case in point is the Financial Derivatives Company Limited, which generates revenue from the provision of financial advisory services, asset management services and structured services such as loans and leases. The more academic oriented for-profit think tanks, on the other hand, have experienced problems in raising revenue as a result of substantial reductions in government funding. These think tanks endeavor to diversify their funding portfolio so as to avoid being excessively reliant on a single donor. For instance, in addition to donor funding, the Centre for Population and Environmental Development also generates revenue from the sale of the publications of

their members and donations from members of the Board of Trustees. In recent times, the provision of funds for for-profit think tanks, especially those that are more academically oriented, has become increasingly short-term and project-specific. This trend has hampered their ability to be more innovative and explore new research areas. There are also instances where some donors have insisted on collaborations among think tanks as a pre-condition for funding. Many of these conditions are usually stated on the expressions of interest or call for proposals from the funding agencies.

There are quite a number of funding agencies that focus on SSR in Nigeria. Notable among them are AERC, the Global Network for the Economics of Learning, Innovation and Competence Building Systems (Globelics), CODESRIA, the Third World Organization for Women in Science, Education Research Network for West and Central Africa, GDN, the Swedish International Development Agency (SIDA), IDRC, the African Network for the Economics of Learning, Innovation, and Competence Building Systems (AfricaLics), the African Labour Research Network and many others.

Research impact

There are many approaches that could be used to determine what kind or level of influence think tanks have on the national social science landscape. Some scholars are of the opinion that think tanks are most effective in the early stages of the policymaking process, particularly in articulating issues and formulating policies (McGann, 2005). In terms of articulating issues, the impact of for-profit think tank is felt through public addresses to the media, their influence on elites and government officials, the channeling of policy currents, and the formation of coalitions. In regards to policy formulation, they have an impact through

studies, evaluations, briefings, testimonies, consultations, networking, iconic projects and demonstration effects. For instance, the Ibadan School of Government and Public Policy (ISGPP) engages the public through the ISGPP Readers Club. The club organizes events that act as platforms for interrogating the information and knowledge gaps in Nigeria's public policies and governance system. The influence of think tanks also manifests itself in policy implementation through contracting, advisory services, media outreach, the supply of personel, training and database maintenance. For example, the Financial Derivatives Company Limited and Economic Associates publish economic bulletins and reports on the health of the national economy.

In Nigeria, the status of for-profit think tanks can be seen in the level, quality and stability of financial support they receive; their proximity and access to decision-makers, people in the corridors of power and policy elites; and the quality of their networks and key contacts in the policy and academic communities and the media. Other indicators include the number of their recommendations that are considered or adopted by policymakers, their role as advisers to political parties and transition teams,[30] the awards they receive, and the number of publications or citations in academic journals. For instance, The Chief Executive Officer of the Economic Associates is a Member of the Board of Economic Advisers of the Federal Government of Nigeria, which advises policymakers on economic policy for the country. He is also a Member of the Nigeria Industrial Policy and Competitiveness Advisory Council that advises on Nigeria's industrial development.

As the Vice-Chairman of the Technical Committee of the National Council on Privatization, he provides recommendations on issues such as the relationship between privatization programs and the macro-economy. It should be noted, however, that it is hard for any think tank to assert or claim sole responsibility for any public policy because of the complexity of the policymaking process. In other words, many think tanks contribute as part of a network that helps to fashion policy issues and form coalitions that feed into policymaking processes.

Civil Society

The CSOs that are most relevant to SSR comprise larger NGOs and non-profits organizations that are registered with the CAC, including some that are registered abroad but with operational offices in Nigeria. Most of these are set up and operate as social enterprises that concentrate on broad themes that connect to the overarching national or international development agenda such as the Nigerian Government's ERGP or the global SDGs. Among this group, we find some organizations that actively produce or diffuse SSR, in addition to being users of research findings. Registration with the CAC requires a Board of Trustees, so organizations in this group typically have some sort of governance mechanism (e.g. an advisory board) in place, even if the board or the CSO itself is inactive. Some registered CSOs stand out in terms of organization: some have multiple offices across the country and hire highly qualified individuals as permanent staff.

Research landscape and Interactions

As already mentioned above, the majority of CSOs in Nigeria are SSR consumers. However, there are a number of active producers

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30 A 'transition team' refers to a team that incoming political officers put together to help with the assumption of office..

and diffusers of research. These range from those that publish regular flagship reports (e.g. social enterprises like the Paradigm Initiative of Nigeria) to those that produce ad hoc specialized or commissioned reports (e.g. think tanks like the Ibadan School of Government and Public Policy). Some notable individuals also produce research that is published in academic journals or presented at conferences and workshops. Nonetheless, research dissemination and use far outweigh research production activities among CSOs (compared to other SSR system actors like universities and research institutes).

Due to the fragmented structure of the civil society sector, inter-organizational networking is not common. This is especially true in the media and the informal NGO sector. Among the formal CSOs, interactions are more common, especially among organizations that work on similar themes and who may cross paths at shared events. We also found a loosely organized network that aims to bring NGOs together under one umbrella: the Nigerian Network of NGOs (NNNG). Membership of the network is voluntary and is open to all interested NGOs. The membership comes from across Nigeria but largely comprises of NGOs that operate in state capitals and those that are registered with the CAC. NNNG maintains a directory of its members (available online at http://www.nnngo.org/list-of-ngos-on-our-database/). Among other things, the NNNG confers awards for excellence, provides a free organizational performance assessment tool, and organizes an annual conference[31] to foster interaction among its members.

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31 We found information on the conference only for the period 2013 to 2017.

Funding and research impact

Most grassroots CSOs are directly funded by owners, philanthropists and patrons, but the more formal ones are often successful in securing donor funding. Organizations like the Bill and Melinda Gates Foundation, Google, Facebook and the Ford Foundation provide support to particular areas of CSO operations.

Given the limited volume and highly specific nature of SSR produced in the CSO sector, the research is often not widely diffused. However, some CSOs and think tanks are very effective in terms of research engagement and impact. Three noteworthy examples are AfricaCheck, which fact-checks claims made by public officials using sound research evidence; The Conversation, which publicizes high-quality research through blog posts; and BudgIT, which analyses and disseminates government public financial records. According to WebsiteIQ (https://www.websiteiq.com), the AfricaCheck website received an estimated 163,383 unique visits in April 2019, and an average of 135,167 visitors per month in 2019. Most of these are not casual visitors as the average number of pages per visit was 1.3. For The Africa section of The Conversation, these indicators stood at around 3.5 million, 3.2 million and 1.4, respectively. The BudgIT website received 56,704 unique visits and an average of 44,264 monthly visits, with 2.2 pages per visit as of April 2019.

Major players that impact the system

A few CSOs have played a significant role in SSR production, diffusion and uptake in recent years. Research production in this sense does not refer to a set of results and discussions published in an academic journal, but broadly refers to any systematic work undertaken to apply or extend existing

evidence. The rest of this section briefly describes some of the CSOs that have had a noticeable impact – in terms of published research, community engagement, political visibility and web presence – on the SSR landscape in Nigeria within the last five years.

1. BudgIT (http://yourbudgit.com/)

BudgIT is a civic organization that analyses the Nigerian budget and public data. It uses innovative infographics to make the data accessible to the general public as a way of supporting citizen engagement in governance. The organization, which has registered offices in Lagos, was founded in 2011 following a hackathon organized by the Lagos-based private technology business incubator, Co-Creation Hub. Since its inception in 2011, the organization has received funding from international donors and venture capital organizations including the Omidyar Network, the Bill and Melinda Gates Foundation and the Ashoka Fellowship for Global Entrepreneurs. The organization created a product called the 'Buharimeter' for the Center for Democracy and Development to hold Nigeria's current President accountable for his campaign promises. Shortly afterwards, BudgIT was contracted by the Kaduna State government to build an Open Budget mobile portal to enable citizens to monitor the state government's budget. BudgIT's work is driven by high-quality research and analytics. The organization publishes an annual Budget Analysis as well as a quarterly Budget Implementation Report. The co-founder, Oluseun Onigbinde, is a multi-award winning social entrepreneur. Further details about the organization are available at http://yourbudgit.com/about-us/

2. Paradigm Initiative of Nigeria (https://paradigmhq.org/)

Paradigm Initiative of Nigeria (PIN) is a social enterprise that works in the ICT for Development (ICT4D) space. It advocates digital rights and deploys ICT tools to alleviate poverty among under-served youth. PIN has registered offices in several cities in Nigeria and abroad (e.g. Yaoundé and Nairobi). Beyond advocacy, PIN conducts social research and publishes an annual Digital Rights in Africa Report as well as ad hoc research reports including the Status of Internet Freedom In Nigeria and the Nigeria Country Report on Women's Rights Online. PIN receives funding and ICT resources from Intel, Google and the Ashoka Foundation, among others.

3. AfricaCheck[32] (https://africacheck.org/)

Africa Check, founded in 2012, is registered in South Africa, where its headquarters are located. It is also registered in Kenya (as a Foundation) and operates in Senegal and Nigeria through representative offices. The Nigeria office employs an editor, a deputy editor/health researcher, a researcher and community manager, an editorial and marketing assistant, and an externally funded visiting fellow. Their work centres on performing rigorous research to shape the public consciousness. Typically, the organization picks up empirical claims by public office holders across African countries and subjects them to a rigorous check against the evidence. Details of the step-by-step research process are available at https://africacheck.org/about-us/how-we-work/. AfricaCheck publishes factsheets, guides and Africa Check Reports. Most of its funding comes from the Shuttleworth Foundation, the Bill and Melinda Gates Foundation and the Luminate Group, as well as other organizations such as the social media giant, Facebook.

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32 AfricaCheck identifies itself as a think tank but its activities qualify it as a CSO in the DRA context.

4. The Conversation (http://theconversation.com/)

The Conversation Africa was launched in May 2015 with the opening of an office in Johannesburg, followed by one in Kenya and then Nigeria. The Conversation Africa is the regional arm of the global CSO, The Conversation, an independent source of news and views from the academic and research community, delivered directly to the public. The organization does not directly employ researchers, but provides a platform for researchers in universities and research institutes to disseminate their results in an accessible format for the general public via its open access website. Posts on The Conversation Africa are syndicated on sister sites in Australia, the UK, the US, France, Indonesia, Canada and Spain. The organization is supported by a number of donors (e.g. the Bill and Melinda Gates Foundation) as well as academic institutions (e.g. the University of Cape Town and the University of Kwa-Zulu Natal, both in South Africa).

Methodology for Assessing the Social Science Research System In Nigeria

As stated in the introductory chapter, the overarching question that this research aims to address is: **What is the state of the social science research system in Nigeria in terms of research production, uptake and diffusion toward economic development?** Addressing this question requires an understanding of the research context and actors. Following on from the *context analysis* and the *systematic mapping of stakeholders,* we now discuss the methods used for the *comprehensive data collection exercise.* Following the DRA Methodology (GDN, 2017), we adopted a mixed-methods design including a desk review, a bibliometric

analysis, key informant interviews and surveys; each is described below.

Desk Review

The desk-based component of the research involved a review of relevant academic literature including journals, books, reports, working papers and grey literature. In addition, we consulted a number of secondary sources of data including the World Governance Indicators and the African Innovation Outlook. Information gathered from the desk review is integrated throughout the research report. Several important indicators and secondary data on the SSR system in Nigeria are unavailable. These include, for instance, GERD in social sciences, and human capital for SSR. We took two specific and pragmatic steps in attempting to fill these gaps: one, wherever possible, we made estimates based on the available data, and two, we asked key informants who have extensive knowledge of the system – for instance, an estimate of the total number of academics in Nigerian universities was obtained from a member of the management staff at the NUC.

Bibliometric Analysis

The assessment of the SSR landscape requires data on research output. The data used for this study were retrieved from Scimago, an online bibliographic database that contains aggregate data on different publication types, including journals, conference proceedings, books and reports. Unlike other well-known databases like Scopus and Web of Science, Scimago is freely available and is more appropriate for our context given its wider coverage of research in developing countries. The scope of our bibliometric analysis is limited to basic data such as publication counts in the social sciences, international collaboration, and open access publications. We collected data on four

disciplinary areas that correspond to the social sciences in Scimago:

i. Business, management and accounting

ii. Economics, econometrics and finance

iii. Psychology

iv. Social Sciences

A few points need to be highlighted regarding the bibliometric data. First, research from Africa is under-reported in existing bibliographies. Even Scopus, which is recognized as being one of the most comprehensive bibliographic databases (approximately 16,000 journals in Scopus compared with 9,500 in the Web of Science), particularly in terms of its coverage of developing countries, excludes a large chunk of research from Africa. This under-coverage is particularly acute for disciplines in the humanities and social sciences (AU-NEPAD, 2010). Second, a large number of journals local to Africa, especially from countries such as Nigeria and South Africa, as well as from North African and francophone countries, are excluded from all of the major international indexes (AU-NEPAD, 2010). Third, a large number of journals published in Africa –or in which research from Africa appears – are fairly obscure. This is due to a number of reasons, most notably the fact that tenure and promotion decisions typically rely on publication counts rather than impact, which has led to the recent scourge of predatory publication practices and the limited demand for quality. Taken together, these points imply that the bibliographic data underestimates actual output, especially for a large country like Nigeria.

It is also worth emphasizing that, while the quality of many publications is poor, there are in fact some very good journals that are not listed in any of the well-known indexes. As AU-NEPAD (2014, p161) notes:

"Scientific papers published in national journals may have low impact factors and limited distribution but this does not necessarily imply that the quality of research is poor. Frequently, papers produced nationally address national issues and aim to propose solutions, which affect national policy…To take account of the fact that national publications reflect national research performance in Africa, a bibliometric system that includes international and local journals is required."

Key Informant Interviews

To complement the data analyses and gain a deeper insight into the research environment, we conducted a set of key informant interviews. The interviews were guided by a structured guide (Appendix I) that seeks to elicit the experiences and views of the participants. We purposively selected key informants based on their individual profiles and their positions within the SSR landscape in Nigeria. Thus, we are confident that the interviewees are sufficiently knowledgeable about the SSR system in Nigeria.

Most of the interviews were conducted over the telephone, in two phases. During the first phase, we conducted a total of six interviews, used to inform the SSR context analysis and stakeholder mapping. This took place before the survey. To further explore some of the findings from the survey data, we conducted an additional 11 interviews after the quantitative data analysis. After speaking with this number of interviewees, we felt we had enough information; increasing the number would only have added to the costs without necessarily adding much to the quality of information.

The following stakeholders took part in the interviews (the number of people interviewed in each stakeholder category is indicated in parentheses):

i. Universities (five, of whom one had been a policymaker, two were also administrators, three were also active independent consultants, three have worked extensively with international development organizations like UNESCO, and three were senior professors. Two of them were interviewed pre-survey)

ii. Research Institutes/Centres (three, of whom one was also an administrator and had worked for an international development organization and two who had obtained their PhD in Europe. One of them was interviewed before and after the survey)

iii. Media (three, all interviewed post-survey)

iv. Regulators (one, a senior manager interviewed post-survey)

v. Government and Funding Agencies (one, interviewed pre- and post-survey)

vi. Non-govermental/civil society organizations (three, two of whom were interviewed pre- and post-survey)

vii. Legislators (one)

Quantitative Surveys

A set of structured questionnaires was used to collect information from the various stakeholder categories in the Nigerian SSR system. The questionnaires included both close-ended and Likert-scale questions with some open-ended questions that sought to elicit detailed explanations, as necessary. The key research actors, described in detail in the next chapter, are categorized into:

• Higher education institutions

• Government and funding agencies

• Private sector organizations

• Civil society organizations

Three separate surveys were implemented simultaneously, one each for a sample of researchers, administrators and policymakers, as defined in Box 3. The samples cut across the different actor categories; for instance, a researcher could be employed in a university, research institute or civil society organization. The surveys were self-administered. Survey instruments were hand-delivered to each respondent and later retrieved by a trained enumerator who was also on hand to provide any necessary clarifications.

Box 3: Key definitions for the sampling

A **researcher** is an individual matching the definition of a 'researcher' in Box 1, in organizations listed as HEIs, private sector organizations or CSOs that employ researchers.

A **research administrator** is an individual in a leadership position in organizations listed as HEIs, private sector organizations or CSOs that employ researchers.

A **policymaker** is an individual working in organizations listed as a 'government or funding agency'.

Source: GDN (2017). Doing Research Assessments: Understanding Research Systems in developing Countries. Global Development Network Program Document. New Delhi: GDN

Sampling of institutions

Because of the dispersed nature of SSR and the absence of reliable sampling frames for some of the actor categories – notably the civil society and private sector – our sampling proceeded in four sequential steps. As a first step, using all available sources, we compiled a list of all institutions in the four actor categories: HEIs, GFAs, private sector organizations and CSOs. From this list, we used our first-hand knowledge of the research landscape to exclude those that are clearly not

associated with SSR.[33] The second step was to send this list to a set of experts for validation. Our subsequent sampling was based on these validated lists of 1,825 organizations – which we deemed to be sufficiently comprehensive to represent the SSR system in Nigeria. In the third step, which involved two stages, we employed a stratified sampling method to ensure representativeness. Our sampling of GFAs was limited to research institutes. Since there were only a few research institutes that focus on SSR, we undertook a census of them. The other components of the GFA category, donors and legislators, were purposively sampled. We considered this to be appropriate given the narrow focus of legislators on policymaking, and of foreign donors on funding of research production and dissemination. A random sample is theoretically preferable but, in practice, this would have increased the cost of primary data collection without necessarily improving the quality and representativeness of the data.

First, we created a matrix that categorized the organizations in the sampling frames into homogenous subgroups based on three criteria: the category of institution (HEI, private sector, research institute, CSO), geographic location (north-east, north-west, north-central, south-east, south-west, south-central), and size (small, medium, large). We were unable to obtain the actual number of researchers employed by each organization so we determined their size – small (S), medium (M) or large (L) – based on informed estimates.[34] At this point, we had a total of 60 theoretical

subgroups.[35] This number of subgroups is admittedly difficult to manage for the purpose of data collection, so we implemented a second step to narrow it down. Given the detailed categorizations, some cells in the matrix of subgroups were empty, so we removed them. A few additional subgroups, particularly in the private sector, had too few organizations, so these were also removed. In the end, we had a total of 33 subgroups. Each subgroup could be considered as a relatively homogenous group of actors. Based on this, we randomly selected a proportionally representative set of institutions so that the contribution of each subgroup to the final sample was proportional to its share in the sampling frame (See Appendix II).

Sampling of researchers and administrators

Researchers were selected mainly from universities and research institutes, where we randomly sampled ten researchers each. In the Nigerian context, the primary mandate of research institutes, much like that of HEIs, is the conduct of research to provide evidence for policy. They do not engage in policymaking activities (uptake of research). We considered them, therefore, unsuitable for the policymakers' survey. Instead, they were included in the sampling for researchers' and administrators' surveys. From each private sector and civil society organization, we selected one researcher because these organizations typically hire few or no social science researchers.

The sampling of social science researchers in each university and research institute was done purposively across departments

33 As an example, the Federal Ministry of Science and Technology manages over a dozen research institutes but most of these do not engage in or hire researchers in the social sciences (e.g. the National Agency for Science and Engineering Infrastructure).

34 Our informed estimates were based on our first-hand knowledge of the system and information from the scoping interviews.

35 The CSO category is quite large and difficult to fully map. We could not reliably estimate the number of social science researchers employed by the CSOs and, as such, could not categorize them according to size.

or disciplines, gender (male/female) and qualification (PhDs and non-PhDs). Where it was impossible to fulfill all these criteria, especially for the private sector and CSOs, all researchers available were sampled for the survey. Research administrators were selected from the same institutions/organizations that researchers were selected from. The selected administrators were all individuals in a leadership position – that is, heads of social science-related departments or research supervisors.

Sampling of policymakers

We randomly selected a respondent in an executive or decision-making position from each of the 33 GFA institutions (Table 4). In addition, we included a sample of legislators in the policymakers' survey because of their important role in formulating policies. We sampled from ten committees in the National Assembly whose activities are clearly related to social sciences, and from committees in the Houses of Assembly in six states – one from each geopolitical zone of the country. The main clerk of the each House of Assembly was also sampled. The selected states were Lagos (south west), Bayelsa (south central), Enugu (south-east), Nassarawa (north central), Kano (north west), and Adamawa (north east). This

selection is sufficiently representative for the purpose of this study as every State House of Assembly is similar both in structure and operation. The committees selected in each State House of Assembly include:

1. Cooperation & Integration in Africa & NEPAD
2. Tertiary Institutions & TETFUND
3. Poverty Alleviation & Social Welfare
4. National Planning & Economic Affairs
5. Employment, Labour & Productivity
6. Sustainable Development Goals
7. Culture and Tourism
8. Communications
9. Environment
10. Women Affairs

In each committee, a questionnaire was administered to either the chairman or secretary (whoever was more readily available or accessible). In some cases, we were only able to reach the main administrative officer of the House (i.e. the Clerk).

Final samples

Tables 5 and 6 provide specific numbers on the sample. In all, 585 researchers, 145

Table 4: Selection of sample for policymakers' survey

Institution type (number)	Respondent designation	Number of respondents
GFA (33)	1 executive officer from each organization	33
National Assembly (1)	1 member from each of the 5 committees	5
State Houses of Assembly (6)	1 member from the 5 committees in each of the 6 State Houses of Assembly	30
All Houses of Assembly (7)	The main administrative officer	7
Total		**75**

administrators and 75 policymakers were randomly surveyed, making a total of 805 individuals from 130 organizations. We were able to use completed questionnaires from 684 respondents across 117 institutions, including 450 researchers, 113 administrators, 60 policymakers and a further 61 who did not indicate their institution. This yields a response rate of 90 percent at the institutional level, and 85 percent at the individual level. Appendix III contains a list of the 117 organizations from which we received responses. Three things can be noted from the geographical distribution of these institutions (Figure 3). First, most of them are in the southern

Table 5: Breakdown of institution-level sample and retrieved responses across actor categories

Actor Category		Total	Sample	Retrieved
Higher Education Institutions		170	50	53*
Private Sector		65	15	9
Civil Society		1,515	20	26*
Government and Funding Agencies	Ministries, Departments and Agencies, and Donors	33	33	17
	Research Institutes	5	5	5
	Houses of Assembly	37	7	7
Total		**1,825**	**139**	**117**

* A number of HEIs were on holiday during the period of the survey (Nigerian universities do not operate a uniform calendar and local disturbances sometimes distort the calendar of individual institutions), so substitutions were made. In the process, more institutions were covered than sampled. Many of the sampled CSOs were also either untraceable (which could be due to a change of location) or no longer in operation. We then used a snowball approach to identify new respondents, which meant that, in the end, we were able to cover more CSOs than were included in the sample.

Table 6: Breakdown of individual-level sample and retrieved responses

Category	Sampled (n=805)			Retrieved (n=684)		
	Researchers	Administrators	Policymakers	Researchers	Administrators	Policymakers
HEI	500	100	–	384	80	–
Research Institutes	50	10	–	31	6	–
Private sector	15	15		8	5	2*
CSO	20	20		24	20	–
GFA			20	–	–	7
International Donors			13	3	2	8
Houses of Assembly			42	–	–	43
Uncategorized				56	4	1
Total	**585**	**145**	**75**	**506**	**117**	**61**

* Even though we did not include private sector firms in the sample for policymakers survey, we found two private consultancies – Abuja Enterprise Agency and Data Lead Africa – suitable because theyalso perform some research and research uptake roles.

Figure 3: Geographical spread of the sampled institutions
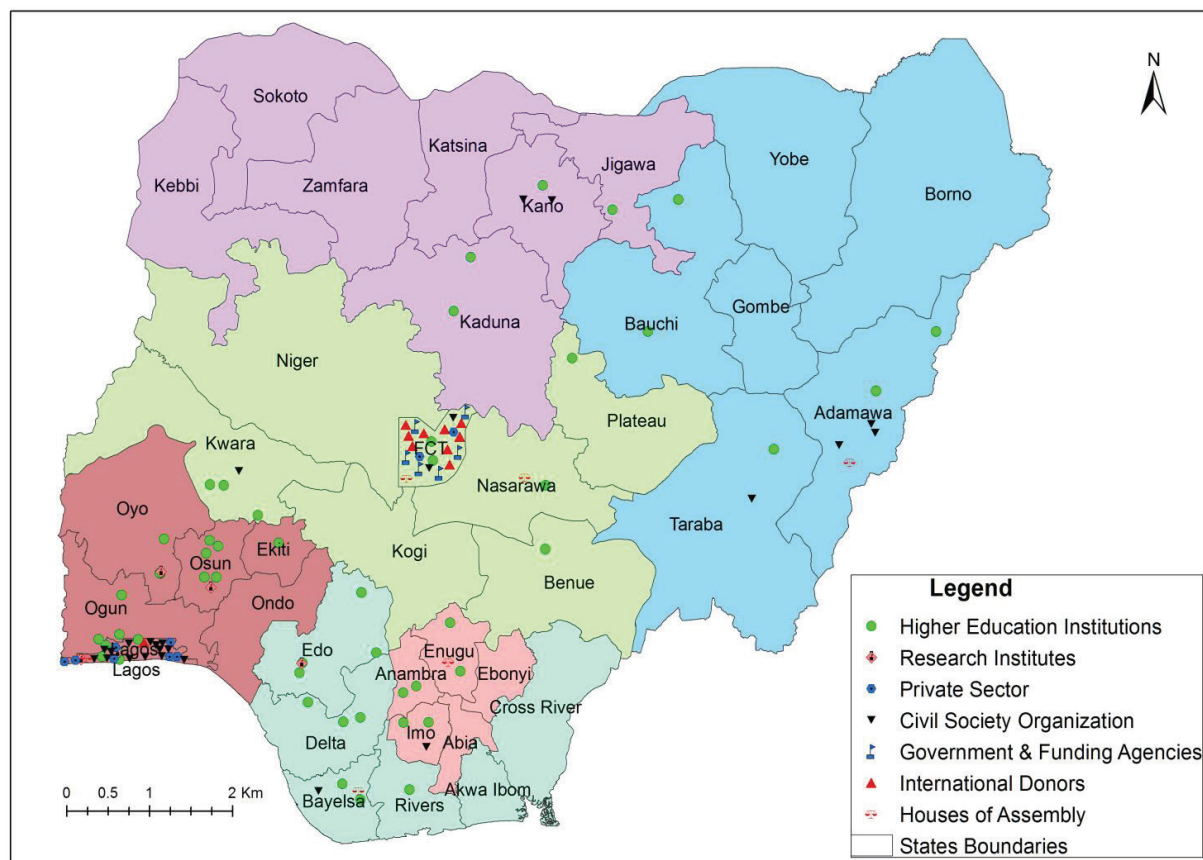
regions, reflecting the concentration of social research in that part of the country. The far north-east and north-west appear undercovered but this does not pose a threat to the representativeness of our sample of institutions, mainly because there are very few SSR institutions in these locations. Second, the majority of GFAs are located in the Federal Capital Territory, which is not only geographically central but is also in close proximity to other federal and international organizations like embassies and federal ministries. Finally, the private sector is concentrated in and around Lagos, the most industrialized city in the country.

Ethical Considerations

To the best of our knowledge, ethical considerations are an important component of research in Nigeria but this is more pronounced in the research disciplines that involve invasive procedures on plants, humans, animals and the environment. Institutionalized ethical reviews are not a common practice in the social sciences except in a few sub-disciplinary areas (see Box 4). In implementing the DRA, informed consent was a key ethical issue that was considered for both the quantitative and qualitative study. Every participant gave their consent before questionnaires were administered or interviews were conducted. Essentially, they were informed about what participation in the study would entail. Every questionnaire was accompanied with a letter that explained the purpose of the study and the role of the implementing agency.

The notion of research ethics refers to the norms for conduct that distinguish between acceptable and unacceptable behavior in the process of conducting research.[36] While this notion is relevant to all research areas (especially those involving data privacy, plants, animals and humans), research areas involving invasive procedures and that pose obvious risks to human and animal life receive a disproportionate level of attention in Nigeria. For instance, as far as we know, the National Health Research Ethics Committee of Nigeria is the only body responsible for enforcing ethical standards in research at the national level – and it explicitly focuses on health research. Several institutions have their own research ethics committees (RECs) or institutional research boards (IRBs) but these are, almost without exception, confined to health- and gender-related research.

A recent study by Yakubu et al. (2017) cataloged 72 institutions that were likely to have RECs, all of which were conducting health research. They found that six of these did not have any RECs and another four had RECs which were no longer functional. Typically, these RECs review research protocols and benchmark them against internationally accepted safety standards. A written ethical approval is issued for each research project that passes the review process, without which the research cannot proceed.

In the social sciences, research ethics in most institutions is generally limited to obtaining informed consent from participants before surveys, focus group discussions, interviews, observations and other forms of data collection. It is normal practice for such research to proceed without obtaining any official ethical approval. More rigorous ethical review procedures are often applied to SSR related to health and gender or other areas where sensitive information may be involved.

Across all disciplines, other ethical issues, including plagiarism, publication slicing, data fabrication and falsification of records, are dealt with directly by the management of institutions or a committee (typically ad hoc) that the management sets up for such purposes. These other issues are generally viewed as misconduct and can only be dealt with ex-post, based on whistleblowing, reports and evidence. Preventive measures recently implemented across different institutions, especially universities, include awareness-raising, capacity-building and the creation of deterrents.

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36 This definition, first presented by David Resnik of the US National Institute of Health (http://www.niehs.nih.gov/research/resources/bioethics/whatis/) has been adopted by the National Health Research Ethics Committee of Nigeria (https://nhrec.net/research-ethics/) based in the Federal Ministry of Health.

DRA FRAMEWORK

Highlights

- Nigeria is currently the second largest producer of social science research in Africa. While this places the country in good standing on the continent, the volume of production is still relatively small when viewed on a global scale.

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

- Most of the social science research produced in Nigeria comes from the university system. Other actors such as research institutes and the private sector produce far less than universities.

- Research dissemination is driven by universities, research institutes, foreign donors and civil society organizations.

- Research uptake relies heavily on policymakers who, unfortunately, are disconnected from other actors within the social science research system.

- The main barriers to the production of quality social science research relate to poor infrastructure and limited funding. Much of the funding currently comes from foreign sources, which influence the research agenda in ways that often disconnects research from local needs and realities.

The analyses undertaken were thematically based on the indicators and dimensions of the DRA framework. Results from the survey and key informant interviews are integrated to provide a holistic view of the SSR system in Nigeria. We begin this chapter with a description of the respondents' profile.

Profile of Respondents

The distribution of respondents by their affiliation is presented in Table 7; Appendix IV contains a detailed distribution by rank. Following the emphasis placed on the role of the legislators in policymaking, 70 percent of policymakers were selected from the national and state Houses of Assembly. Reflecting the disproportionately large contribution of universities to SSR in Nigeria, most of the researchers (76 percent) and administrators (70 percent) were from the university system. In fact, 68 percent of all respondents were from the university system. Unsurprisingly, with the exception of the policymakers category, where we had four foreign respondents (affiliated with international donor organizations), all respondents were Nigerian. About a third of the respondents across all actor categories were female. In a sense, given that our sampling was randomized, this reflects an important feature of the SSR system in Nigeria: women are underrepresented. Bridging this gender gap will require deliberate policy action.

The distribution of the sample by highest qualification reveals another interesting feature of the Nigerian SSR system. The policymakers are generally highly qualified. Nearly 70 percent of the 61 respondents to the policymakers' survey have a postgraduate qualification.[37] Ideally, this should translate into a high level of SSR uptake; however, this assumption does not necessarily hold for at least two reasons: first, we have no information on the disciplinary expertise of these policymakers (although we assume that many of them have a social science background); and second, there is considerable evidence to suggest that Nigerian lawmakers have a limited knowledge of evidence-based policymaking (Newman et al., 2013; Siyanbola, 2011; Siyanbola et al., 2014a,b). Overcoming this knowledge deficit requires diligent and consistent efforts both from the policy and practitioner side.

Table 7: Profile of respondents

Actor Category		Researchers	Administrators	Policymakers	Total
Universities		384	80	-	464
Private Sector		8	5	2	15
Civil Society Organizations		24	20	-	44
Government and Funding Agencies	Ministries, Departments and Agencies, and Donors	3	2	15	20
	Research Institutes	31	6	-	37
	Houses of Assembly	-	-	43	43
Uncategorized		56	4	1	61
Total		**506**	**117**	**61**	**684**
Nationality					
Nigerian		475	115	56	646
Foreigner		-	-	4	4
Not known (no response)		31	2	1	34
Total		**506**	**117**	**61**	**684**
Gender					
Male		346	83	42	471
Female		136	32	19	187
Not known (no response)		24	2	-	26
Total		**506**	**117**	**61**	**684**
Highest Qualification					
Bachelor		26	26	23	75
Master		181	20	25	226
PhD		257	60	7	324
Postdoctoral		12	7	1	20
Not known (no response)		30	4	5	39
Total		**506**	**117**	**61**	**684**

Social Science Research Production

As a starting point, we discuss social science research inputs – that is, the people and resources needed to produce robust SSR. A few points need to be made before we proceed with the discussion.

First, as already discussed above, universities are the major hub of SSR in Nigeria.[38] This is due to a combination of two major factors. First, in addition to their own research activities, university academics also supervise postgraduate students, whose research often leads to co-authored peer-reviewed publications. Second, there is a considerable 'publish or perish' pull on university academics, as it is impossible to rise through the ranks without being published (Wadesango, 2014). Comparatively, the volume of published research, particularly in the social sciences, is much lower in research institutes, which are, first and foremost, fewer in number than universities, and typically have very few staff who engage in student supervision – though they also face the 'publish or perish' pull. At the other extreme, SSR production is almost negligible in civil society and the private sector. For this reason, the discussion hereafter is heavily tilted toward university and research institutes.

Second, accurate secondary data on the SSR system, such as the number of social science researchers, requires a census of all institutions with any level of interest in SSR and which hire at least one social science

researcher. Given the sheer size and spread of the research system in Nigeria, such an endeavor is beyond the reach of our survey. The UNESCO Institute for Statistics, among other regional and national bodies, provides some relevant data but these are not necessarily disaggregated by discipline. Hence, in several places we rely on data from the 2009 Survey of Research and Experimental Development carried out in Nigeria. The survey covered the period 2006-2007. Although the data is rather old, it is the first and, so far, the only comprehensive research census in the country.[39] Wherever necessary, we extrapolate this data, provide a range or an estimate, and complement with other sources.

Third, as already highlighted in the context analysis, the great difficulty in getting accurate data on the current status of the SSR system indicates a weakness in the management/supervision of SSR in the country.

Research Inputs

Research personnel

A social science researcher is defined, for the purposes of this analysis, as a professional engaged in the production and management of knowledge related to the social sciences. We do not have reliable secondary data on the number of social science researchers in Nigeria, and a census to accurately determine the number is outside the scope of this study given the sheer size of the Nigerian SSR system. We therefore apply the best and latest existing data to generate estimates.

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38 This is also true for all disciplines. The emphasis here is on peer-reveiwed and published research, which tends to be more visible and easier to count. Research institutes, civil society and the private sector produce other types of publications – such as policy briefs and advocacy notes – but these are not aggregated in bibliographic databases and are therefore difficult to count.

39 The survey was carried out as part of NEPAD's African Science, Technology and Innovation Indicators (ASTII) initiative. See AU- NEPAD(2010) and NACETEM (2010) for details on the methodology and a full report.

The latest version of the UNSECO Science Report (UNESCO, 2016, pp.320) puts the total number of researchers in Nigeria at 17,624. Of these, 15,739 are in universities and the remainder are in research institutes. This is consistent with the latest available census data (the 2009 R&D Survey) from Nigeria (NACETEM, 2010). However, this significantly underestimates the total number of academic staff in universities – put at around 62,000 at the end of 2017 in the NUC's Nigerian University System Statistical Digest;[40] and at around 67,000 (of which around 16 percent are full professors) at the end of 2018 by one of the NUC senior managers that we interviewed.[41] Although the UNESCO and NACETEM estimate is dated, it also includes researchers from research institutes. Without any further data, it is difficult to reliably determine the share of researchers in the social sciences. Unfortunately, even regulators do not keep such disaggregated data. However, given that most SSR in Nigeria is conducted in universities, a reliable estimate for universities is sufficiently representative of the entire research system. Thus, we adopt the documented NUC estimate of about 62,000 researchers in the Nigerian university system and add the estimated number from research institutes from NACETEM (2010) – that is, 1,885 researchers. This yields a total of 63,885 researchers in Nigeria.

There are two ways by which the number of social science researchers may be estimated from the available personnel data: funding and faculty share. Data from the 2009 R&D Survey suggests that SSR takes over 9 percent of R&D funding in Nigerian universities and research institutes. If we round this up to 10 percent and assume a ratio of 1:1 for funding and R&D personnel, the share of social science researchers would then be about 10 percent of 63,885 – that is, 6,389. If we look at faculty share, in some of the largest universities the ratio of social science to other disciplines is nearly 1:1. If we assume equal staffing across disciplines, the share of social science researchers would then be about 50 percent of 63,885 – that is, 31,943. In sum, these estimates suggest that, as of 2009, the number of social science researchers in Nigeria would have ranged anywhere between 6,389 and 31,943. Admittedly, this range is based on a set of broad assumptions and is unlikely to be precise. Nonetheless, because it is based on reliable data it is, at least, plausible. Unfortunately, more recent data is not available so we are compelled to base subsequent analyses on this range.

The 2009 R&D Survey[42] reports 5,802 researchers with a Doctorate (including a PhD, DPhil, D.Lit, D.Sc, LL.D or other kinds of Doctorate degrees which we henceforth simply refer to as a PhD), 4,366 studying toward a PhD and 155 in postdoctoral positions in universities. Those already holding a PhD at the time of the survey (5,957 researchers) constituted around 38 percent of all university researchers. However, if we assume a 100 percent throughput of doctoral students, the total number of PhD researchers would be 10,323 – around 66 percent of all university researchers. Of the 1,885 researchers in research institutes, only 354 (around 19 percent) had a PhD. In total, 6,311 (around 36 percent) of all researchers in universities and research institutes possessed

40 Retrieved from http://nuc.edu.ng/wp-content/uploads/2018/12/REVISED-April-25-Statistical-Digest-min.pdf on January 07, 2020.

41 The interviewee also told us that disaggregated manpower data by discipline was not available even at the NUC. By his estimate, in 2018, the number of non-academic professional stood at 136,000, an increase on the 127,259 reported in the NUC's Statistical Digest.

42 We return to these older estimates because detailed data was not available from the NUC.

a PhD as of the end of 2007. Keeping with the estimated range of 10-50 percent from before, the number of social science researchers with a PhD would be between 631 and 3,155. At the lower and upper bounds, this would be around 30 percent of all social science researchers at that time.[43] It is interesting to note that the share of PhD-qualified researchers in universities is at least twice as large as in research institutes. This is directly linked to the differences in the appointment and promotion structures between these two types of institutions.

Returning to the NUC's recent estimates, we note that of the 62,000 researchers in universities in 2017, only 14,801 were female. According to the 2009 R&D Survey, in research institutes, 450 of the 1,885 researchers were female at the end of 2009. In total, only 15,251 (or 24 percent) of all researchers in Nigeria were female. If we make the same assumptions as before, the number of female social science researchers would be between 1,525 and 7,626. At both the upper and lower bounds of the range, this would be about 24 percent of all social science researchers. In other words, for every female social science researcher, there are at least four males. This indicates that women are underrepresented in the SSR system in Nigeria.

Funding

Data from the 2009 R&D Survey (NACETEM, 2010) showed that GERD was NGN 45.9 billion – USD 583.2 million (2009 PPP).[44] As a share of GDP, this was only 0.2 percent, far below the UNESCO-recommended 1 percent. Around 96 percent of the research funding was provided by government. The private non-profit sector provided nearly 2 percent of the funding while 1 percent came from foreign sources. The for-profit private sector provided only 0.2 percent of research funding at the end of 2007. Indeed, our interviews confirmed the role of government in research funding. A research director at the NUC revealed that:

> "…all of this research are going on with public funds. A large chunk of research endeavors are powered by public funds…"

And one of the most senior directors at TETFUND told us that:

> "TETFUND…provide[s] funding for institution-based research in Nigerian tertiary institutions…[W]e provide adequate financial resources for all forms of research in Nigerian tertiary institutions because we give allocation of funds to all Nigerian universities for institution-based research, the value of which should not be more than two million naira[45] for a research topic."

Most of the research funding (about 65 percent) went to universities, where 11.3 percent of total R&D expenditure went to social sciences and humanities. In research institutes, however, only 6.2 percent of R&D expenditure went to the social sciences. Applying these percentages to the GERD value, we find that total R&D expenditure in Nigerian universities and research institutes was around NGN 29.72 billion and NGN 16.14 billion respectively. Of these, about NGN 3.3

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43 This is because, by the older estimates, the number of social science researcher in 2007 would range from between 10% and 50% of 17,624 – i.e. between 1,762 and 8,812.

44 1 USD = 78.62 NGN in 2009 PPP

45 1 naira (NGN) = 0.0028 dollars (USD) (www.xe.com, January 04, 2020). In addition to funding for institution-based research, TETFUND also provides competitive National Research Fund (NRF) grants of up to 50 million naira per project.

billion in universities and NGN 1 billion in research institutes went to SSR. As a share of GERD, this represents only about 9.3 percent. As estimated above, the number of social science researchers in Nigeria in 2009 would be in the range of 1,762 to 8,812; thus, GERD on social science per researcher would be NGN 2.42 million at the upper limit and NGN 0.48 million in the lower range. In 2009 PPP, this would be between approximately USD 31,000 and USD 6,000.

Considering that the GERD values include salaries and wages, among other things, it is clear that SSR in Nigeria is poorly funded. This much was admitted by one of the management staff at TETFUND:

> "…it's not adequate to the level that we can push the economy forward but, we as an institution, we think that we are doing our best to encourage it."

However, from our first-hand knowledge of the system and some key informant interviews, we know that the contribution of foreign funding to domestic research in Nigeria is heavily under-reported. This is because a lot of the funding comes in the form of grants and consultancies, and in the university system, where most of the research takes place, there is no national monitoring or reporting framework for this type of funding. Even at the university level, only large grants are passed through the institution; smaller grants are offered directly to individual researchers and are therefore invisible to observations like ours.

The interviews revealed that a huge amount of funding flows into the country across all disciplines, including social science. While this is positive in and of itself, it places a burden of responsibility on local researchers to follow the agenda of the funding agencies. For instance, almost without exception, calls for grants proposals are tied to research

questions and objectives that are pre-determined by donors. Generally, these questions and objectives are developed with little or no input from local researchers and are therefore often only marginally relevant to local needs. In the face of scarce local funding, researchers are compelled to tune their research toward these 'imported' research agendas, and ultimately produce outputs that satisfy donors but have limited relevance to the local context.

Infrastructure and data

The general state of a research system is heavily influenced by the effectiveness of the overall research infrastructure, including resources, institutions, equipment and individuals. The starting point of our assessment of the infrastructure for SSR in Nigeria is access to data.

SSR thrives on data, which is obtained from existing sources (secondary data) or collected by the researcher (primary data). It is well known that access to high-quality data is one of the factors that determine the productivity of a research system. This is particularly true for the social sciences where research questions are usually dependent on observational data that cannot be generated in the laboratory.[46] In the survey of researchers, the overall quality of access to data was assessed in terms of respondents' perception of the ease of access to primary sources of information and data, rated on a 6-point scale from 1 (very dissatisfied) to 6 (very satisfied). The result is not strongly skewed in either direction; the mean rating

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46 While laboratories are used to generate experimental data in several social science disciplines (e.g. behavioural economics, behavioural psychology, linguistics, etc), this does not come anywhere close to the intensity of experimental data in some other fields like microbiology, biochemistry, physics, etc.

is 3.67 (SE=0.06) and the median is 4. Over half of the nearly 500 surveyed researchers expressed satisfaction with their access to primary data for research but about a quarter were dissatisfied and almost 10 percent were very dissatisfied (Figure 4).

Considering the fact that data on the research system is hard to come by, and that many secondary data sources such as the UNESCO Institute of Statistics databases – which, in any case, rely on raw primary data or estimates – miss data from Nigeria, it is surprising that a large share of researchers are satisfied with access to primary data. One explanation for this is associated with the innate structure of research and postgraduate training in Nigeria. We know from first-hand knowledge that it is common for researchers themselves or the postgraduate students they supervise to collect primary data, albeit from relatively small samples. To the extent to which a considerable number of researchers can answer specific research questions and publish research articles based on these sorts of data, they are less likely to express dissatisfaction with access to primary data.

There is now a rapid shift toward open access (OA) publishing. Open access refers to online research outputs that are free of all restrictions to access (e.g. access charges) and free of many restrictions on use (e.g.

copyright and license restrictions). This can be applied to all forms of published research output, including peer-reviewed and non-peer-reviewed academic journal articles, conference papers, theses, book chapters, etc. There are a number of arguments in favor of OA research, ranging from the view that knowledge is a global public good to the implied double social costs when publishing houses charge subscriptions on the output of publicly-funded research. In any case, subscriptions are expensive and most developing country institutions cannot afford them. This creates a strong rationale for a shift toward OA publishing in developing countries. Thus, the extent of OA publishing in a developing country's SSR system provides an indication of the strength of the system, particularly in terms of the infrastructure for research production.

Figure 5 and Table 8 provide data on the state of OA research in Nigeria. In the survey, we asked researchers to provide a range for the share of their research output that is open access. The distribution in Figure 5 suggests, first and foremost, that OA publishing is commonplace in the Nigerian SSR landscape, with nearly half of the surveyed researchers having at least 40 percent of their output available without any restrictions, and one out of every five having an OA publishing

Figure 4: Level of researchers' satisfaction with access to information and data (n=497)
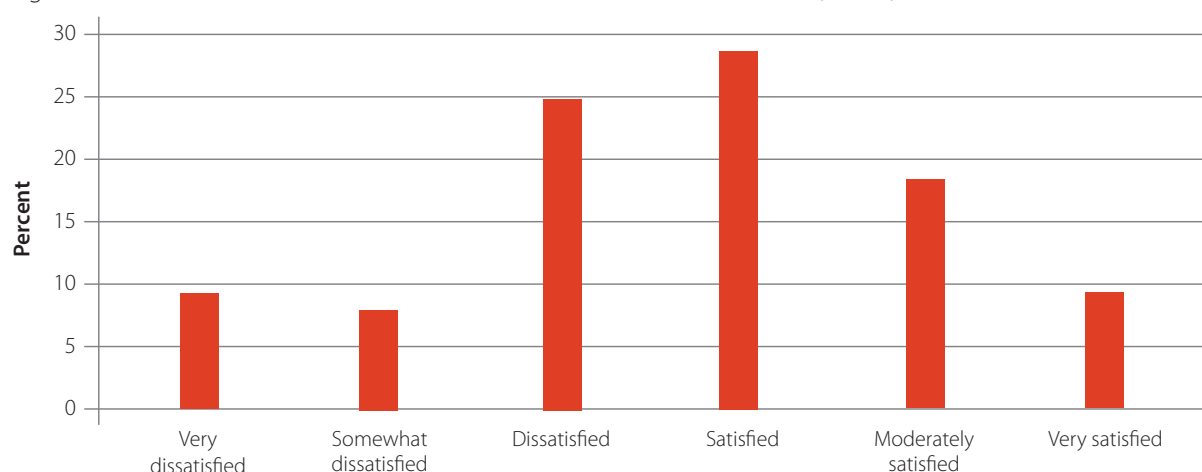
Figure 5: Share of open access publications by Nigerian researchers (range of percentages, n=419)
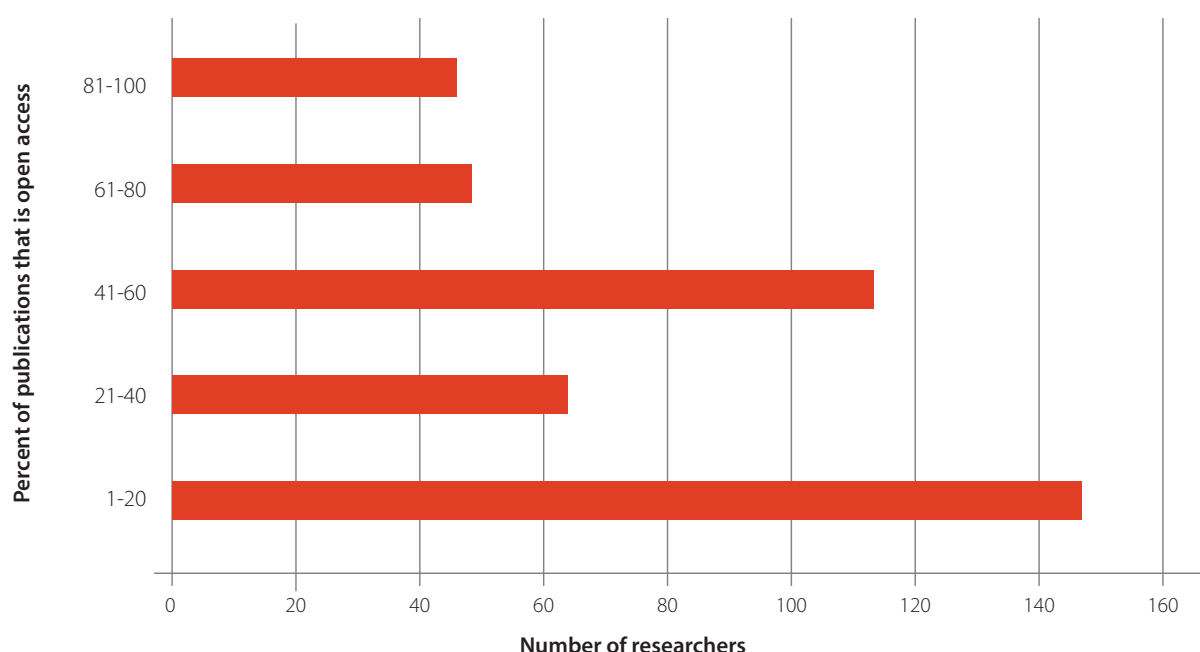
rate of over 60 percent. Taking the midpoint of each range as the point value, we estimate the average share of OA research output as 39.47 percent (SE=1.33) and the median as 30 percent. The data in Table 8 allows us to assess the distribution of OA research output across four disciplinary areas categorized as social science in the Scimago bibliographic database. These include 'business, management and accounting'; 'economics, econometrics and finance'; 'psychology'; and 'social sciences'. Of the 4,085 research publications[47] between 2015 and 2017 with at least one Nigeria-based author, around 34 percent are open access. This is consistent with the survey data and provides a further indication that OA publishing is not uncommon in the Nigerian SSR landscape.

It is interesting to note the exceptionally high rate of OA publishing in 'economics,

econometrics and finance'. In this field, the rate of OA publishing is 44 percent, despite the fact that it contributes just 15 percent of total publications. This contrasts sharply with the broad field of 'social sciences', which accounts for 60 percent of all publications but has an OA publication rate of 37 percent. The existence of several OA outlets such as the Munich Personal RePEc Archive (MRPA)[48] and African Journals Online (AJOL)[49] contribute to the proliferation of OA output in economics. For instance, 14 percent of the 341 SSR-related journals listed in AJOL at the end of December 2019 are in the field of 'economics and development', the third largest share among all the disciplines.

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47 This count includes 'citable' and 'non-citable' documents in Scimago. A citable document is one that has passed through peer review (including journal articles, reviews and conference papers) while a non-citable one has not.

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48 The Munich Personal RePEc Archive (MRPA) is a repository that is "intended to disseminate research papers of economists who want to make their work freely available through the RePEc network but are not affiliated with any institution that provides that furtherance." (https://mpra.ub.uni-muenchen.de, accessed January 03, 2020).

49 African Journals Online (AJOL) is the world's largest online collection of scholarly journals published on the African continent. A considerable share of the publications in AJOL is open access.

Table 8: Rate of open access research production in Nigeria, 2015-2017

Subject Area	Number of documents	Number of documents that are open access	% of open access
Business, management and accounting	776	139	17.9
Economics, econometrics and finance	609	268	44.0
Psychology	234	58	24.8
Social Sciences	2,466	908	36.8
Total	**4,085**	**1373**	**33.6**

Source: Compiled based on data from Scimago

To assess the general quality of equipment and other resources for SSR in Nigeria, we asked researchers to rate the extent to which they are satisfied with certain infrastructural provisions, using the same 6-point scale described above. The results are summarized in Table 10, from which we see that most researchers find their workspace and basic computing facilities to be satisfactory. A researcher affiliated with a research centre in Nigeria's first university told us specifically that:

> "[W]orkspace is not a problem in my institution…Equipment-wise, we have things like Internet access, which is supposed to be sort of available but it's not always available; and then electricity is almost always available [because] the center runs on an inverter…even when there is no electricity…[M]aybe [more] problematic is the access to publications for researchers and also for students…"

Researchers are least satisfied with access to software both for plagiarism and for quantitative or qualitative data analysis (Figure 6). This is to be expected because research software is expensive and research funding in the country is limited. However, an increasing number of private universities now prioritize the provision of research software,

especially anti-plagiarism software. As the Dean of Postgraduate studies in one of the leading private universities noted, this trend – coupled with the requirement for publication in a Scopus-listed[50] journal, (one article for Masters students and two for Doctorate students) before graduation – helps to ensure the emergence of high-quality researchers and research output. He highlighted the fact that the NUC had initially played a major role in the deployment of anti-plagiarism software in universities but had since let it lapse:

> "[Our university] started with Turnitin [but] everybody got rid of it when the first subscription lapsed. The first subscription was managed by NUC and each university had to contribute about one point something million [naira]; and after it lapsed no effort was made by NUC to renew it, so … now we subscribe to Grammarly."

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50 Scopus is a well-known proprietary bibliographic aggregator offered by Elsevier, one of the world's largest academic publishers. Information on the product's website indicates that it now contains over 65 million published documents and over 1.4 billion cited references. As of November 2019, Scopus claims to be the "largest abstract and citation database of peer-reviewed literature: scientific journals, books and conference proceedings." (https://service.elsevier.com/app/amswers/detail/a_id/15534/supporthub/scopus/#tips).

Table 9: Summary statistics on the level of researchers' satisfaction with different aspects of research infrastructure

Infrastructure	Number of responses	Mean	Standard Error	Median
Allotted workspace	496	4.12	0.06	4
ICT support	494	3.66	0.07	4
Computers	494	3.57	0.07	4
Anti-plagiarism software	462	3.22	0.06	3
Quantitative or qualitative research software	474	3.18	0.07	3

Figure 6: Level of researchers' satisfaction with different aspects of research infrastructure

■ Very dissatisfied ■ Dissatisfied ■ Slightly dissatisfied ■ Slightly satisfied ■ Satisfied ■ Very satisfied
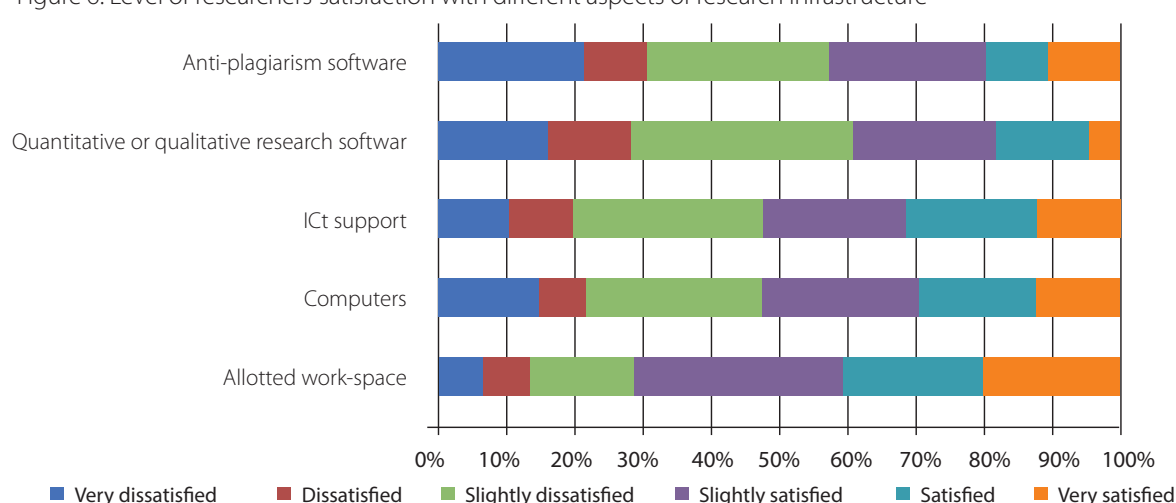
Time allocated for research

Time allocated to research, as a share of the researcher's working hours, is an important indicator of the state of a research system. In a healthy system, the amount of time dedicated to research (conducting research or other research production activities such as writing, presenting and reviewing) needs to be properly balanced with time devoted to other professional responsibilities such as teaching, administration, preparing lectures, supervising, etc. Figure 7 shows that most social science researchers in Nigeria spend less than 50 percent of their time on research. On average, the researchers reported spending 39.3 percent (SE=1.08) of their time on research. Most (68 percent) of researchers that we sampled indicated that

they had not had sufficient time for research over the last three years (Figure 8). The typical (median) social science researcher spends only about 30 percent of his/her time on research activities. This implies that, at best, if we assume 250 working days in a year, the typical social science researcher only dedicates the equivalent of 75 full days a year to research.

Several factors are responsible for the limited time allocated to research. Besides weak infrastructure, perhaps the most visible of these problems is the amount of distractions that arise from a poor organizational research environment. Studies (e.g., Begum, 2006) suggest a strong positive correlation between the organizational research environment and research productivity. Notable among the

Figure 7. Share of researchers' time allocated to research (n=491)
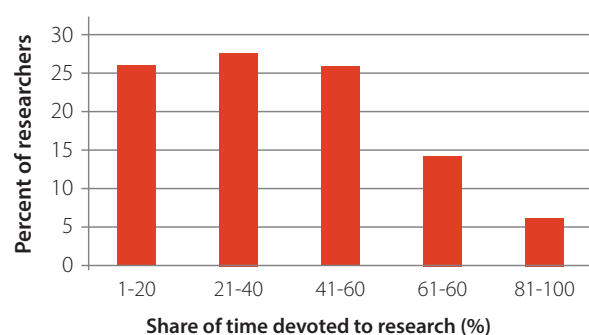
Figure 8: Is your time allocated to research sufficient? (n=486)
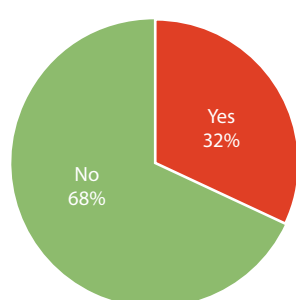
components of organizational environment, especially in universities where most of the SSR in Nigeria is conducted, are weekly teaching hours, the number of subjects taught per week, student–teacher ratios, the number of non-research responsibilities such as committee memberships, and bureaucratic efficiency. Unfortunately, the research system in Nigeria performs poorly on nearly all of these components. Most research organizations are understaffed and the few research staff that there are have to work long hours to keep the system running. The inefficiencies in grant management and other research support services also create more work for researchers. As noted by one of our key informants, who is a researcher and lecturer in Nigeria's first university:

"…not a lot of time is allocated [to research]. People do more teaching than research… and you don't get enough grants to do your research. Even when you do have research grants, I've found that all the

supporting activities [are weak]. For instance personally speaking, the time you spend chasing your money [after] the grant you've already [secured] has already landed in the university's account and they've taken their overhead, is way too much. So there are distractors every now and then that researchers just have to struggle with, and those things eat into the time they have to do research. And when that happens and the time is dragging, it has a direct effect on morale, which becomes low."

Research Culture and Support Services

Research requires a supportive system that includes adequate mentoring and peer review arrangements, regular capacity-building and effective bureaucratic support services. This holds true across all disciplines, and perhaps more so in the social sciences where research questions and methods often require close interactions within and beyond the research system. An assessment of the different aspects of the support system, which we report in the following sub-sections, helps to shed light on the state of the SSR system.

Institutions and policy

The existence of an active central state-led institution dedicated to public research management for the social sciences helps SSR in several ways. First, it ensures a minimum level of commitment to SSR in national goals and priorities. Second, it helps to guarantee a consistent flow of funds for SSR. Third, it takes charge of the SSR agenda in the country, setting norms and standards, thereby ensuring that SSR is closely connected to national development priorities. Such an institution exists in many countries in the form of a research council, such as the Human Sciences Research Council in South Africa.

Our desk review and stakeholder interviews did not indicate the presence of any national research council for SSR in Nigeria. For instance, a senior researcher at the National Institute for Legislative and Democratic Studies (NILDS) told us:

"To the best of my knowledge, apart from all these societies like Nigerian Economic Society or Nigeria Association of Political Science…, I don't think there is any agency or body…I know the one in the UK but in Nigeria, I've never heard [of] one."

The only organization that comes close (in name at least) is the Social Sciences Council of Nigeria (SSCN). We gathered from our desk review and key informant interviews that this organization – which was founded in the early eighties and held its first General Assembly in 1983 with support from UNESCO – is a self-organized community of practice comprising eminent social science scholars in Nigeria. It functions in a similar but much less visible manner as the Nigerian Academy of Science. By definition, the organization is independent of government and does not play any coordinating role in the SSR system in Nigeria. A manager at NILDS, who has had experience with the United Nations and other large organizations, informed us that he was not aware of a national SSR regulator, but referenced the SSCN:

"…I used to know of Social Science Research Council but I don't know to what extent they regulate; I don't think there is any regulatory organ in Nigeria. We have the Nigerian Economic Society [but] they do not regulate; they only probably coordinate or disseminate research findings through their journals and through their annual conferences."

Nonetheless, an organization of this nature could be instrumental in the emergence of a national SSR council.

In the absence of a central coordinating council, several organizations perform different roles in SSR management. Some of these organizations have roles and functions that are relevant but not necessarily wholly dedicated to social science. For instance, the universities (where the largest share of SSR takes place) are regulated by the National Universities Commission, an agency under the Tertiary Education Department of the Federal Ministry of Education. The universities, however, receive funding directly from the Federal Ministry of Education. TETFUND provides further funding for research in all disciplines including social science. Many other public institutions, each with a different management and funding structure, perform research in a wide range of social science fields relevant to national development. For instance, NISER and NACETEM both conduct a degree of socioeconomic research that they use to advise the executive arm of government, but one is managed by the Federal Ministry of National Planning and the other by the Federal Ministry of Science and Technology. NILDS is directly attached to the National Assembly and provides research support to the legislative arm of government. The IPCR focuses on peace research and is under the auspices of the Federal Ministry of Foreign Affairs. The National Educational Research and Development Council is a major research institute under the Federal Ministry of Education. The Nigerian Economic Summit Group (NESG), a self-organized think tank holds an annual meeting to discuss national economic development priorities.

Due to the fragmented nature of SSR management, the system is poorly understood. Many social science researchers either do not understand the essence of a research council or simply conflate it with other types of organizations that play some official role in the SSR system. This may explain why about a third of the surveyed

researchers (503) reported the existence of a national research body mandated to oversee SSR in Nigeria – albeit one that was largely ineffective, particularly in terms of providing research funding and direction.

Moreover, the SSR system is poorly coordinated, and the level of interaction among actors is weak. Consequently, the entire system is inefficient as research efforts are often duplicated and the limited research resources are spread too thin. These problems are nicely summarized by one of the key informants that we interviewed, who happens to be a member of the management staff in the university regulatory body. He noted that:

"[T]he greatest challenge on research in Nigeria is that on the average university researchers work in silos even within the same institution. These are very serious issues constraining the ability of our research to contribute to a national system of innovation. [For instance], in the Ministry of Science and Technology there are well over ten research institutes and none of them has a handshake with a corresponding research institution in the university…and I've argued that it is a colossal waste of natural and national resources because all of these research are going on with public funds. A large chunk of research endeavors are powered by public funds, so why can't they collaborate to strengthen our national capacity to have a robust national system of innovation…[Instead], we work in silos at cross-purposes, building tiny useless empires without any serious emperor. If you ask me, at the heart of our inability as a nation to establish a nexus between all these rigorous or not so rigorous research activities and the GDP, for example, is because people are working as if they are orphans in their silos and bunkers…[T]here is no rationale for this silo working arrangement…my take is: lack of collaboration is the bane of research and

researchers in Nigeria, which now [means we] find ourselves in a situation where we suffer in the midst of plenty because we don't pool resources together. If we are collaborating and we are able to agree that our resources are national resources, then we would not be complaining about infrastructural deficit…There can be infrastructural gaps but those gaps can be exaggerated because of lack of collaboration to share because there are rich people amidst extremely poor people and some of his wealth is not personal or family wealth but national wealth."

A member of the management staff at NILDS corroborated this, based on his personal experience:

"I will say that collaborative research in Nigeria has not been encouraging; every organization or institution or individual wants to do a solo research. To me, [this] has limited the expansiveness in the scope of our research activities. In a situation where you have a lot of organizations involved in a particular research, you have a wider perspective but in Nigeria we tend to be too independent and to a very large extent that has affected the depth of our research output or result, in the sense that you are limited to what you know. Whereas, if you collaborate with other organizations the tendency is to have a wider perspective… and then you also have a variety of approaches and knowledge as well…"

These observations highlight a strong need for SSR coordination in Nigeria. Efforts were made recently, based on the National Science, Technology and Innovation Policy, to establish a National Research and Innovation Council. Although this body was not dedicated to SSR, it would at least have been a good foundation on which future interventions could build. Unfortunately, this council never really took off after it was

inaugurated. There is therefore the need for further intervention, as noted by one of the members of the management staff at TETFUND:

> "[W]e are pushing for the creation of a national research foundation by discussing and collaborating with all the agencies and institution that revolve around research… [I]t will be a centralized role… Somebody may be undergoing a research under our own institution while another may be doing it in the health sector, but if there are no [coordinating] efforts, we will be working at cross-purposes; but collaborating will strengthen the output [of] the research and will make it more impactful… [T]here should be a national research foundation that will look at the objectives of Nigeria, how to make use of research to set national priorities, implement them and get results…"

The existence of a national policy that outlines the priorities, resources and relevant institutions for the promotion of SSR is closely connected to the existence of a national SSR council. Often, the policy precedes the organization, as in the case of South Africa, but the reverse may also be true.[51] We found no such policy in Nigeria from our desk review. The abscence of a policy is confirmed by our key informants. One of them, in particular, commented that:

> "[W]e don't have national research policies; even organizations don't have…I don't think we have any government organization or a regulatory agency of government on research…"

Yet, at least a third of the surveyed researchers (503) again indicated that they were aware of such a policy, but this could be connected to the conflation already discussed above.

Peer review culture

When asked about access to research mentors, 61 percent of the surveyed researchers responded in the affirmative. On a scale of 1 (very dissatisfied) to 6 (very satisfied), the researchers typically expressed satisfaction with several aspects of mentoring including consultation, feedback, guidance and training (Table 10). Around 20 percent of the researchers are dissatisfied with the quality of these different aspects of the mentoring system (Figure 9).

Interestingly, some of the responses in the interviews contradicted the survey data. When asked to rate the quality of mentoring available to social science researchers, a senior researcher affiliated with the country's oldest

Table 10: Summary statistics on the level of researchers' satisfaction with different aspects of research mentoring

Aspects of mentoring	Number of responses	Mean	Standard Error	Median
Regular consultation	308	4.22	0.07	4
Constructive research feedback	310	4.35	0.06	4
Career guidance	305	4.30	0.06	4
Project-based learning	277	4.19	0.07	4

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51 In Nigeria, despite the existence of a national policy on science, technology and innovation, there is no national research foundation or council for these areas.

Figure 9: Level of satisfaction with the current mentoring system
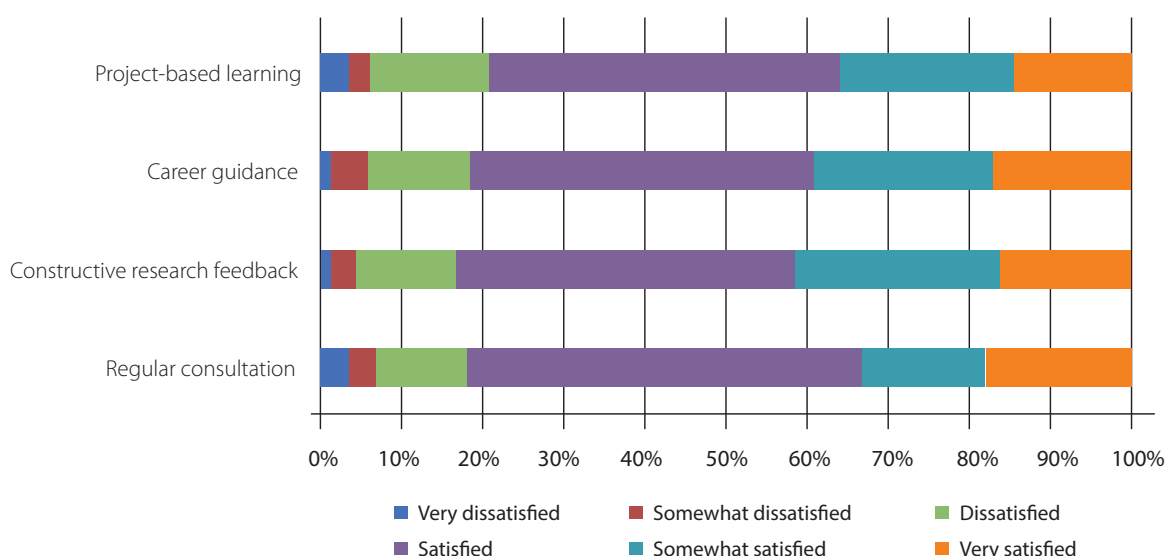
and one of the largest universities told us:

"I think it's very sad, it's very sad because the people that I have coming after me are people that I directly supervise or mentor to some degree who mostly happen to be females. I am a female but they all complain bitterly because they said they can never enter academia after what the university or [thesis] defence has shown them. When you say mentoring, you have to think of the supervision of the actual research that they are doing. Already they are demoralized and disillusioned..."

This suggests that the mentoring expectations of junior researchers, particularly those undergoing postgraduate programs, are not being met. This is driven by demand and supply side factors: while there is a dearth of capable mentors, many postgraduates do not submit to mentorship either as a result of laziness or a general disinterest in research. Several other interviewees expressed similar sentiments. For instance, an academic in a research institute noted that:

"...mentoring is non-existent... [G]enerally a PhD program or whatever research program

we are doing doesn't really provide good mentorship. Research now doesn't [just] have to do with you publishing; you should also be talking about how to do research to influence policymakers but that is [hardly] being achieved now. I will say generally from my experience mentoring of social science researchers in Nigeria is non-existent."

A research director in one of the research institutes reported a general loss of interest in research among the younger generation as one the problems of the research mentorship system. This loss of interest, according to him, is driven by low research uptake and poor incentives:

"[L]et me quickly tell you that we're losing the heat. These days the young researchers are no longer interested in research because they hear what their senior ones say about their research not being made use of. Then, with the current economic situation, everyone is more concerned about how much money [they] can make...there is scarcity of young ones who are serious with research, particularly social science research."

Another interviewee reported a dearth of mentoring capacity and laziness on the part of mentees:

"I think…that facult[ies] have failed in their duty…facult[ies] are at various levels in terms of capacity that they can pass on [to] others; many don't have capacity that they can pass on to others…and on the flip side it's also that the students may not be willing… they don't see academ[ia] as a place to aspire to in terms of work. Also some of them are lazy; they want to remain in the system but they don't push themselves enough. Sometimes [the problem] is not about mentorship that people don't get. It's not your mentor that will come running after you; you're supposed to be chasing the mentor."

In contrast to postgraduates, other categories of junior researchers within the SSR system (e.g. graduate assistants, junior lecturers, etc) tend to have access to better mentorship, albeit at an unofficial personal level. A member of the management staff in one of the country's top private universities explained:

"I think [mentorship] is quite robust. Most of us relatively senior colleagues, we are at ease with our junior ones, hold them together to share course teaching, postgraduate supervision together and in the process they are picking skills and they are learning new approaches to their assignments."

A Director in a research institute described a similar situation:

"[I]n my office here we meet on daily basis [to] talk about the need for us to focus more and that your work will sell you. When you are a researcher and you make your research findings public, people get to know more about you and with that they invite you…you will get the money through your research. We mentor and give the required, but it's one thing for you to say what you know [and] it's another thing for the other guy you're talking to, to listen and accept

what you're telling them…The mentoring is ongoing…"

These discussions highlight the general understanding of mentorship and how this affects its quality. As a norm, mentorship is understood in the Nigerian research system as a flow of knowledge from a more experienced academic to a less experienced one. This normative definition is problematic for two main reasons. First, 'experience' is typically based on rank (e.g. Professor) or the number of years in service. This may be true in student–teacher relationships but not beyond. In a research team, for instance, a non-professor with fewer years in service may know much more about a particular research area than a 'more experienced' researcher. Second, given that mentorship cuts across aspects beyond the conduct of research, an appropriate mentor needs to be more knowledgeable and experienced in a specific relevant area before being able to mentor someone else. For instance, a professor who has never secured external research funding or led a research team cannot possibly mentor younger researchers on these areas. For these reasons, a more appropriate view of mentorship would be one that is contextual and responsive to the different requirements of the mentee.

One of the best ways in which the research system self-regulates itself is through peer review. Rigorous peer review helps to improve research quality and reduce unethical practices. Thus, the amount of published research that benefits from peer review is a proxy for the overall quality of outputs in a research system. To assess this, we count the number of citable documents in the four relevant Scimago fields: 'business, management and accounting'; 'economics, econometrics and finance'; 'psychology'; and 'social sciences'. In total, around 98 percent of all published output is peer-reviewed. Based on our estimated range of the number of

Table 11: Rate of peer-reviewed social science research production in Nigeria, 2015-2017

Subject Area	Number of documents	Number of peer-reviewed documents	% peer-reviewed
Business, management and accounting	776	761	98.1
Economics, econometrics and finance	609	601	98.7
Psychology	234	225	96.2
Social Sciences	2,466	2,404	97.5
Total	**4,085**	**3,991**	**97.7**
Ratio per SS researcher	0.46 - 2.32	0.45 - 2.27	

Source: Compiled based on data from Scimago

Table 12: Summary statistics of self-reported peer-reviewed publications in the social sciences

Question	Number of responses	Minimum	Maximum	Mean	Median	Standard Error
Peer-reviewed scientific article published in international journal	322	1	45	4.31	4	0.21
Peer-reviewed scientific article published in regional journal	204	1	50	3.19	3	0.20
Peer-reviewed scientific article published in national journal	291	1	20	4.70	4	0.28
Peer-reviewed scientific article published in conference proceedings	261	1	25	3.13	3	0.17
Total number of peer-reviewed scientific articles published in journal and conference proceedings	**242**	**1**	**45**	**8.04**	**6**	**0.57**

social science researchers in Nigeria, the per capita rate of peer-reviewed publications falls between 0.45 and 2.27 (Table 11).[52] However, the self-reported volume of research production by the researchers who took part in our survey is considerably higher. They reported having produced between 1 and 45 peer-reviewed documents in the last three years, with an average of 8 documents per researcher (Table 12).

The disparity between the bibliographic and the self-reported numbers can be attributed to two factors. First, as already pointed out in the methodology chapter, a large share of domestic publications is not indexed in the most well-known bibliographic databases. Thus, the Scimago numbers may under-represent the true volume of peer-reviewed publications in Nigeria. Second, as a result of 'social desirability bias',[53] it is possible that researchers over-estimate their number of publications. Nonetheless, the fact remains that the volume of SSR production in Nigeria is quite high.

This is backed up by rigorous research from other authoritative sources. For instance, using Scopus data, AU-NEPAD (2014) showed that between 2005 and 2010, the volume of research output across all disciplines (including the social sciences) in the African Union was far below the output of the rest of the world but grew at a significantly higher rate. Most of this growth is driven by a few countries including Nigeria, (AU-NEPAD, 2010; 2014). From 2005 to 2009, the country is reported to have produced a total of 13,333 peer-reviewed publications in

Scopus, making it the third largest producer of peer-reviewed research in Africa during this period. While this is a large volume, it is still far behind the top two countries: South Africa had 32,372 publications and Egypt had 22,955 (AU-NEPAD, 2010).

The gap between Nigeria and the top two producers of research across all disciplines in Africa may be a reflection of the quality of the researchers in the country. The direct relationship between the quality and quantity of academic staff and the standard of education and research is a well-established fact. Although, public universities in Nigeria have a long, rich history of R&D – as well as a high level of proficiency in the English language, in which most of the global SSR is produced – many problems have bedeviled university research and learning since the late 1980s. Many of these problems have already been discussed, including underfunding, the lack of infrastructure, persistent power failures, the poor quality of staff, corruption and mismanagement. They have all had a negative impact on the quantity and quality of research in public universities (Yusuf, 2012; Lamido 2013; Nwakpa 2015). Nonetheless, the total number of research publications across all disciplines has been on the rise in recent years (Afolabi et al., 2019). Moreover, Nigeria was the second largest producer of SSR in Africa (880 publications) between 2005 and 2009; it was behind South Africa (2,687) but ahead of Egypt (207) (Table 13).

Capacity-building

The volume and quality of research produced in a research system depends on the competence of researchers. Research competence, in turn, stems from researchers' educational background and on-the-job capacity-building. Support for research capacity-building can include research training, exchange programs, mentorship, and other efforts to enhance researchers' ability to

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52 Based on Scopus data, AU-NEPAD (2010) reported 0.15 papers per researcher per year across all disciplines in the 2005-2009 period.

53 The tendency of survey respondents to answer questions in a manner that will be viewed favorably by others.

Table 13: Top three producers of social science research in Africa, 2005-2009

Country	Field	Business, Management and Accounting	Economics, Econometrics and Finance	Psychology	Social Sciences	Total
Nigeria	Number of publications (Total, all fields = 13,333)	120	67	67	880	1133
	Share of total (%)	0.9	0.5	0.5	6.6	8.5
South Africa	Number of publications (Total, all fields = 32,372)	291	421	712	2687	4111
	Share of total (%)	0.9	1.3	2.2	8.3	12.7
Egypt	Number of publications (Total, all fields = 22,955)	115	46	23	207	390
	Share of total (%)	0.5	0.2	0.1	0.9	1.7

Source: Compiled based on data from AU-NEPAD (2010). These figures include only articles and review articles, and exclude editorials, letters, conference proceedings and other types of document.

Figure 10. Cumulative duration of training attended by researchers in the last 3 years (n=438)

10-15 weeks 2%
6-9 weeks 5%
Above 15 weeks 3%
3-5 weeks 18%
0-2 weeks 72%
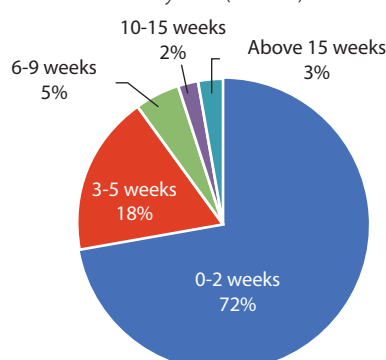
promote their work and increase the quality of their outputs. Indeed, a large share of researchers reported attending some training in the last three years; the average cumulative duration of training per person was between 1 and 2 weeks (Figure 10). However, determing reliable estimates on the aggregate cost of these trainings proved too difficult.

With the exception of training on research design and methodologies, where a clear majority expressed some level of satisfaction (Figure 11), researchers were generally dissatisfied with all aspects of capacity-building in their institutions (Table 15). It is interesting to note that over half of the respondents expressed dissatisfaction with the conduct of preliminary needs assessments for targeted training in their institutions. In other words, in most institutions, research capacity-building is not necessarily tailored toward the needs of the 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.

Research support and administration

Administrative support, such as clerical work, office management and facilitation of grant procedures are critical to the functioning

Figure 11. Level of researchers' satisfaction with capacity-building provisions in their institutions

Table 14: Summary statistics on the level of researchers' satisfaction with different aspects of research capacity-building

Capacity-building provisions	Number of responses	Mean	Standard Error	Median
Needs assessment for targeted training	471	3.43	0.06	3
Research design	480	3.66	0.05	4
Research management	481	3.55	0.06	4
Research methodologies	483	3.78	0.05	4
Research tools	477	3.47	0.06	3
Writing	481	3.26	0.06	3

of a research institution. The capacity of a research institution to provide effective logistical support for research professionals will directly affect its overall output and quality. System-wide, the quality of research support services influences the strength of the research system. In Nigeria, such support services are available but at varying levels across different categories of institutions. In the private sector and civil society, for instance, the research component is typically small; budgets are therefore too small to maintain a dedicated research support

system. In universities and research institutes, however, support services are generally available but with varying levels of quality. Statutorily, all public research institutes have a human resources and a finance or accounts department that manage recruitment and accounting processes. In addition, most universities, especially the public ones, also have a grants management office that centrally administers research grants.

With these in mind, we asked researchers to rate their level of satisfaction with the research support services provided in their

institutions. Figure 12 and Table 15 show that most researchers are dissatisfied, especially with time/stress management and recruitment services. This is reflective of the situation in most Nigerian institutions, where personnel in support offices are either poorly trained or possess insufficient competence in the provision of research support services. As one regulator noted:

"It is one thing to have one or two good researchers in the university but it's a different thing to have a system where there are officers employed by the universities to help academics write good proposals…[I]n Nigeria…some research projects get derailed because of mismanagement of funds not because people are thieves but sometimes the professors are too engrossed in the real research work and some are financial illiterates…"

Many institutions also have multiple offices in the bureaucratic chain of command, thereby creating considerable inertia and inefficiency in the system.

Research Output and Training

Academic output

As noted earlier, the rate of production of SSR is high. Between 2015 and 2017, data from Scimago shows that a total of 4,085 publications were produced in Nigeria. Non-citable documents – that is, those that have not been peer-reviewed – constitute a small share of the total research output. The rate of research production per researcher ranges between 0.13 and 0.64 (Table 16). As before, the self-reported publication volume is much higher (Table 17). In general, the

Figure 12. Level of researchers' satisfaction with administrative support in their institutions
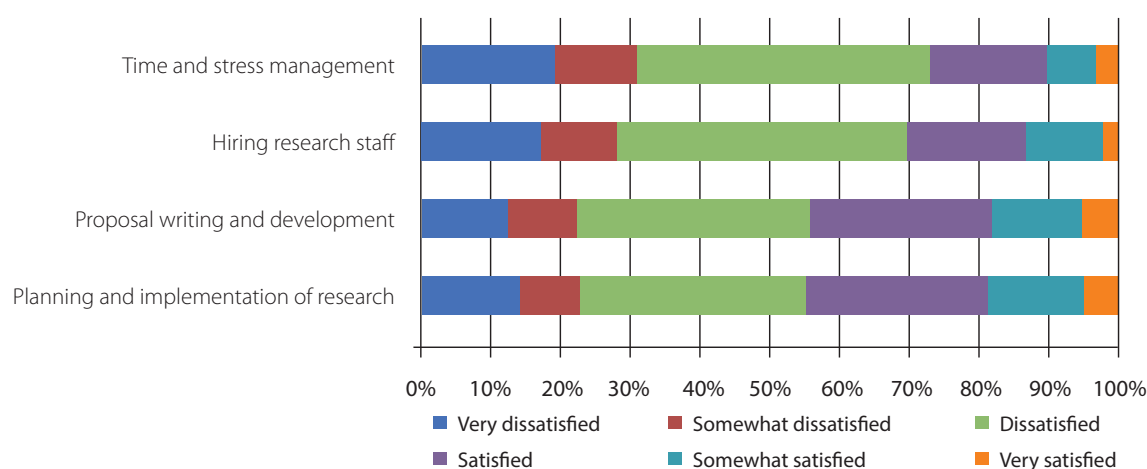
Table 15: Summary statistics on researchers' satisfaction with administrative support in their institutions

Access to support for…	Number of responses	Mean	Standard Error	Median
Administrative planning and implementation of research	481	3.31	0.06	3
Proposal writing and development	485	3.32	0.06	3
Hiring research staff	463	2.99	0.06	3
Time and stress management	468	2.89	0.06	3

Table 16: Scientific production in Nigeria in the social sciences, 2015-2017

	Number of citable documents	Number of non-citable documents	Total	Share of non-citable documents
Business, management and accounting	761	15	776	1.9
Economics, econometrics and finance	601	8	609	1.3
Psychology	225	9	234	3.8
Social Sciences	2,404	62	2,466	2.5
Total	**3,991**	**94**	**4,085**	**2.3**
Number of SS researchers in Nigeria	**6,389 – 31,943**			
Total ratio per SS researchers (divided by the number of researchers at country level)	**0.12 - 0.62**	**0.003 – 0.01**	**0.13 - 0.64**	

Source: Compiled based on data from Scimago

Table 17: Summary statistics of self-reported publications in the social sciences

Publication type	Number of responses	Minimum	Maximum	Mean	Median	Standard Error
Total number of peer-reviewed scientific article published in journal and conference proceedings	242	1	45	8.04	6	0.57
Non peer-reviewed scientific article published	88	1	50	4.49	2	0.66
Publicly available working paper	128	1	30	3.89	2	0.42
Book as the sole author						
Book as (one of) the editor(s)	128	1	8	1.75	1	0.10
Chapter in book	230	1	30	3.72	2	0.26
Report (technical, from a project, a consultancy)	117	1	60	2.87	2	0.27
Policy brief (a short paper on policy implications of research)	85	1	15	2.00	1	0.21

Table 18: Citations of social science research in Nigeria, 1996-2017

Research Fields	Number of documents	Total citations	Citations per document
Business, management and accounting	2,492	9,773	3.92
Economics, econometrics and finance	2,407	7,409	3.08
Psychology	845	8,995	10.64
Social Sciences	9,942	37,881	3.81
Total	**15,686**	**64,058**	**4.08**

Source: Compiled based on data from Scimago

dissemination of research is heavily tilted toward journal articles and conference proceedings. This is a direct consequence of the fact that academic career advancement in Nigeria is tied to these two types of publications. In universities and research institutes, the number of journal articles and conference papers produced by researchers, usually within a three-year window, carry most of the weight in promotion and tenure decisions.

It is worth noting that policy briefs (short documents that aim to communicate research to a non-scientific audience) were produced by only 85 researchers, who produced an average of only two documents (Table 17). This seems to suggest that social science researchers in Nigeria do not communicate their research results extensively to policymakers and the general public. This is corroborated by Mba and Ekechukwu (2019), who observed that Nigeria's universities rarely collaborate with "corporate/commercial organizations. Nigeria produces just 24 per cent of Egypt's total, and 10 per cent of South Africa's, even though the economy is larger than these two countries – 60 per cent larger than Egypt's and seven per cent larger than South Africa's. These two countries also have fewer universities than Nigeria: Egypt has 43; and South Africa 26."

Citations speak to the visibility and, to some extent, relevance of research. The data in

Table 18 shows that between 1996 and 2017, each piece of published research in Nigeria received four citations on average.[54] The largest number of citations per document occurred in the field of psychology, and the least in economics, econometrics and finance. This is despite the fact that the latter had the largest share of open access publications, as seen earlier in Table 8.

Research training

In general, it can be assumed that the higher the percentage of university researchers with a PhD, the higher the quality of research training at the university. This is because a PhD is the highest academic qualification in the research system and offers the most rigorous preparation for a research career. Using data from the 2009 R&D Survey in Nigeria, we estimate that 5,957 university researchers held a PhD at the end of 2007. This represents around 38 percent of all university researchers. Keeping with the range of a 10-50 percent share of social science researchers that we estimated earlier, the number of social science researchers with a PhD in the university system will be between 595 and 2,979. At the upper and lower bound, these figures represent about

54 Most of the surveyed researchers did not provide an answer to the question on self-reported citation.

Figure 13. Administrators' self-reported share of social science researchers with PhD in universities, research institutes, the private sector and civil society (n=109)
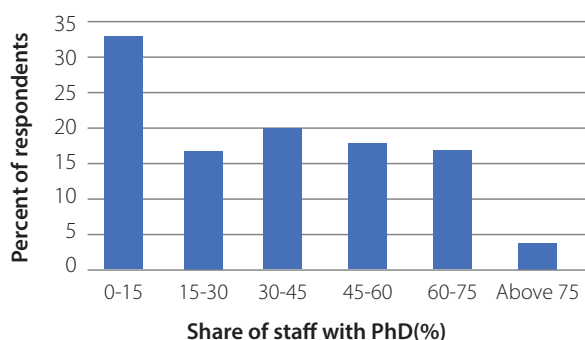
34 perent of between 1,762 and 8,812 social science researchers that we estimated earlier.

To assess the current proportion of PhD holders among researchers in social sciences, we asked the administrators to indicate (the range of) the share of PhD holders among their staff. The results summarized in Figure 13 show that in less than 5 percent of institutions over 75 percent of academics are PhD-qualified, and that nearly 35 percent have at most a 15 percent share. In total, in around 65 percent of institutions, 45 percent of the academic staff are PhD holders. If we take the midpoint of each range as the point value and calculate the average, we find that the average institution has a 34.6 percent (SE=2.21) share of PhD holders and that the typical (median) university has a 37.5 percent share in the social sciences. These estimates are consistent with, but slightly higher than, those we obtained from the 2009 R&D Survey. In addition to their qualifications, researchers require consistent on-the-job technical training on how to conduct social science research – the quality and duration of which has an impact on the productivity of the SSR system. Earlier in Figure 10 we saw that training programs – which are, on average, 1 to 2 weeks long – are commonplace in Nigeria but that researchers are not necessarily satisfied with the quality (Figure 11).

Compared to other African countries (see AU-NEPAD, 2010, p46), the share of PhD holders among university researchers in Nigeria is quite high. This partly explains why the country is one of the top producers of SSR on the continent. Yet, in comparison with other large research producers in Africa (South Africa and Egypt), Nigeria's performance may be seen as poor. For instance, in the 2018 Times Higher Education World University Ranking:

"Only one Nigerian university is listed in the top thousand...This compares to eight universities for South Africa…Egypt has nine listed…Although the Nigerian economy is the largest in Africa, it produces only 44 per cent of the scholarly output of South Africa and 32 per cent of Egypt (Mba and Ekechukwu, 2019)."

Data on postgraduate enrolment in all Nigerian universities is not readily available. This is in sharp contrast to other countries like South Africa, where the Higher Education Management Information System provides detailed data on this.[55] The NUC's Nigerian University System Statistic Digest reports a total of 234,315 postgraduate students enrolled in 82 universities across the country in 2017 – 36 percent of whom are female.[56] Table 19 presents data on PhD enrolment in a sample of ten universities. As of the end of 2016, these federal- and state-owned universities accounted for up to 10 percent of total university enrolment in Nigeria. In terms of location and age, they also cut across all the main categories. PhD enrolment in these universities totaled 5,726, accounting for only about 3 percent of all university

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55 See Herman and Sehoole (2018) for an example application of HEMIS data.

56 See http://nuc.edu.ng/wp-content/uploads/2018/12/REVISED-April-25-Statistical-Digest-min.pdf, retrieved January 07, 2020

Table 19: PhD enrolment in a sample of universities

Institution	Type	Year of Establishment	Location	Number of campuses	General student population	No. of PhD students enrolled
University of Ibadan	Federal	1948	South West	1	29,359	2,964
Nnamdi Azikiwe University	Federal	1992	South East	1	53,682	884
Enugu State University of Science and Technology	State	1982	South East	1	25,000	800
Ebonyi State University	State	2000	South East	3	13,956	535
University of Jos	Federal	1975	North Central	2	20,753	324
Usman Danfodiyo University	Federal	1975	North West	5	6,500	115
Lagos State University	State	1962	South West	3	10,000	45
Benue State University	State	1992	North Central	7	6,500	38
Abubakar Tafawa Balewa University	Federal	1988	North East	8	8,000	21
Obafemi Awolowo University	Federal	1962	South West	1	32,000	n/a

Source: Akudolu and Adeyemo, 2018, p7

enrolment.[57] Over half of these were enrolled in the University of Ibadan, which contributed around 10 percent of all PhD enrolment. We were unable to obtain further data to determine distribution across disciplines or graduation rates. However, from our first-hand knowledge of the system in Nigeria, we know that a significant share is in the social sciences and that throughput is close to 100 percent, though most postgraduate students do not complete their degrees within the normal time period (four years for a PhD and one and half years for a Master's degree).

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57 In a similar sample in South Africa, PhD enrolment was nearly 8,000, around 1.5% of all university enrolment.

Opportunities and Sustainability

Educating students to a high level is not sufficient for building a strong research system; it is also necessary to create the conditions that will encourage them to pursue a research career. In other words, while adequate human capital is necessary for a strong SSR, the meaningful contribution of human capital to local development depends on the perceived opportunities and relevant incentives (including financial rewards, prestige, job security, etc) that make research an attractive career. Under the right conditions, there will be a critical mass of skilled analysts working in all the main sectors, providing opportunities for and an interest in the production of new

locally-produced research. Without the right conditions, a country will end up educating its citizens for export. This requires a system that rewards researchers for the production of knowledge, whether it be in the form of career advancement, financial rewards, professional competitiveness, prestige or social benefit, among others. This plays a significant role in the likelihood of researchers staying in a research career.

Researcher job market

It is interesting to note that 84 percent of the 473 researchers in our survey felt that there are attractive career opportunities for researchers in Nigeria. However, while they generally feel that a research job is secure and that promotional procedures are fair, most researchers are dissatisfied

Figure 14. Researchers' perception of the overall incentives related to a research career in Nigeria
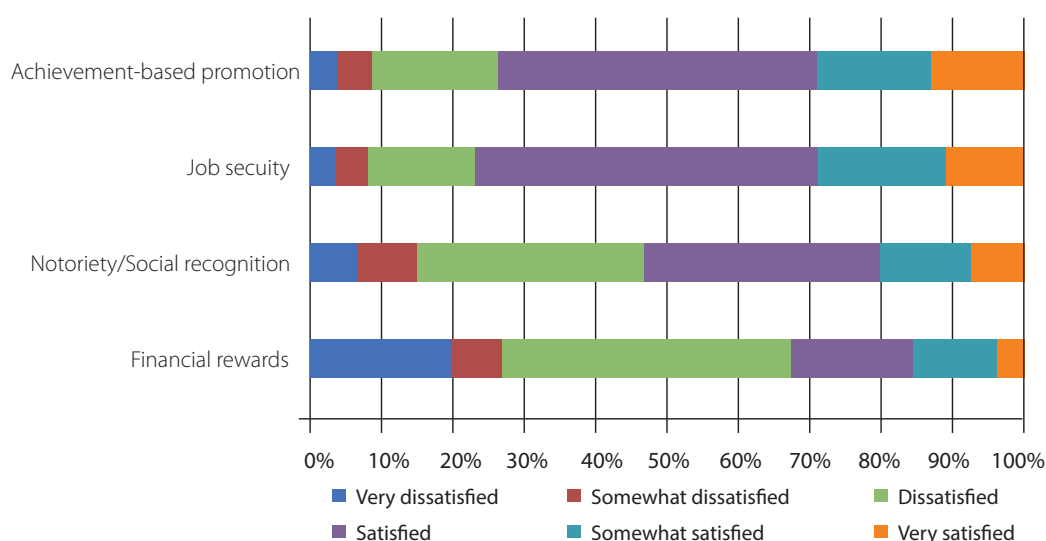
Table 20: Summary statistics on researchers' perception of the overall incentives related to a research career in Nigeria

Incentives for a research career	Number of responses	Mean	Standard Error	Median
Financial rewards	462	3.05	0.06	3
Prestige/Social recognition	452	3.58	0.06	4
Job security	465	4.05	0.05	4
Merit-based promotion	467	4.03	0.05	4

Figure 15. Researchers' perception of the incentives for social science research production in Nigeria
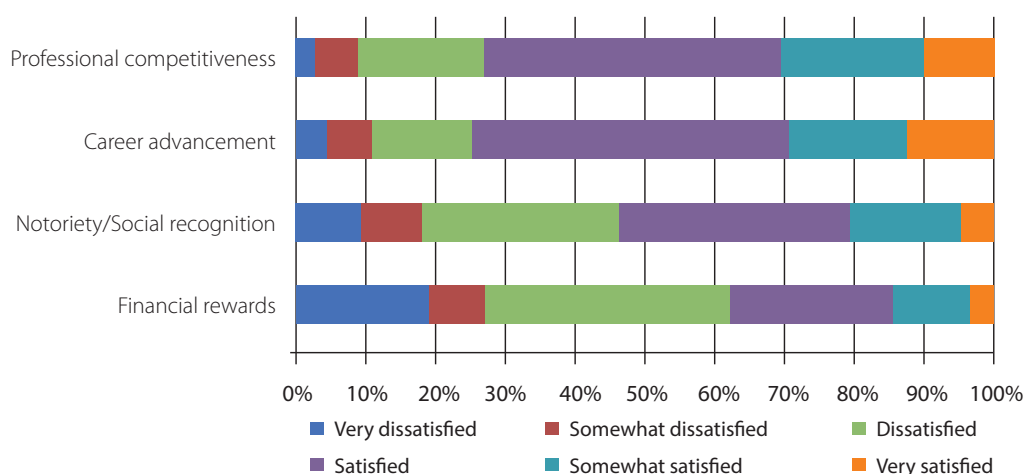
Table 21: Summary statistics on researchers' perception of the incentives related to social science research production in Nigeria

Incentives for research production	Number of responses	Mean	Standard Error	Median
Financial rewards	451	3.09	0.06	3
Notoriety/social recognition	448	3.51	0.06	4
Career advancement	457	4.02	0.06	4
Professional competitiveness	449	4.02	0.05	4

with the level of social recognition and financial rewards associated with a research career (Figure 14). Researchers are also highly dissatisfied with financial incentives and social recognition associated with SSR production (Figure 15). Researchers are dissatisfied with the financial rewards in both absolute terms (i.e. researchers' salaries and wages are small in comparison to those of other professionals) and in relation to their work load.

This is consistent with our earlier finding that SSR in Nigeria is poorly funded. We asked one of our interviewees to describe the quality of the incentive system for producing research in Nigeria. His response emphasized the financial dimension:

"[T]here is low incentive. You spend your money; you search for information, you don't get…you design questionnaire and

it's frustrating because people ask for motivation. If you don't have money to pay, how do you get your questionnaire filled up? Generating data in Nigeria is expensive and as a researcher you don't have the money. So, the incentive in Nigeria is low in terms of environment, finance, [and] cooperation from the public."

The general state of dissatisfaction could be a reason why the researcher job market is so limited. With the exception of universities (and the tertiary education sector more broadly), there are very few opportunities for researchers. As one interviewee noted:

"…because the return on research is low people tend not to have interest; so the market is narrow."

However, the general state of dissatisfaction with the financial rewards may also reflect a lack of capacity to attract external funding,

which is typically an alternative source of research funding when domestic funds are sparse. Indeed, as we noted earlier, researchers are dissatisfied with the capacity-building provided by their institutions for grant proposal writing (Figure 11).

Diffusion of Social Science Research

This section discusses how (and how effectively) SSR results are diffused and debated among relevant stakeholders. The diffusion phase is critical in the SSR system because it is the link between the production of SSR and its uptake. The discussion is organized along four themes:

i.   Actors and networks – the diversity of actors; collaboration and networking to foster debate based on scientific evidence

ii. Research communication practices – activities and structures that support the wider communication of research

iii. Research communication products – research products aimed at a wider audience (outside of academia)

iv. Popularization of science – an appreciation among the general public of the value of research-based evidence; and the widespread use of a variety of popular science products.

Actors and Networks

National geography of research

The research landscape in Nigeria is dispersed and vast, with over 170 universities and a host of research institutes. Through the stakeholder mapping exercise, we identified 150 universities that are relevant to SSR, of which 50 were selected for the survey; and five research institutes. It was impossible to

estimate the precise number of social science researchers in the selected institutions; respondents were purposively selected from the sampled institutions.

An interview with an administrator at the NUC revealed that there were about 67,000 academic staff across the universities in 2018. This represents a slight increase over the estimated 62,000 reported in 2017 in the NUC's Nigerian University System Statistical Digest. Disaggregation of this total figure by discipline proved too difficult. However, using data on academic staff per university from the NUC's Statistical Digest (see Appendix V), we estimate a Herfindahl index (H-index) of 0.016. This indicates a high level of deconcentration in the Nigerian research system: each university contributes, on average, 1.6 percent of the total number of researchers in the system.

Although this estimate is based on the total number of researchers, we have no reason to expect a significant deviation in the social sciences. Such a high deconcentration is good for development since it ensures that SSR takes place everywhere in the country and enables research that is closer to local realities. However, an effective research system requires, first and foremost, a critical mass of high-quality researchers, as well as a fairly even distribution of infrastructure, so that every researcher, wherever they are, has equitable access to research resources. Unfortunately, as we have noted above, these two conditions are not sufficiently present in Nigeria. Nepotism influences the distribution of infrastructure and there is a serious shortage of academic staff across the nation's universities, particularly the privately-owned ones.

Diversity of actors and collaboration

Research production in Nigeria involves

Figure 16. Did you collaborate with any of these actors in the last three years?

Figure 17. Researchers' perception of the extent to which research discussions are accessible to groups of stakeholders in Nigeria
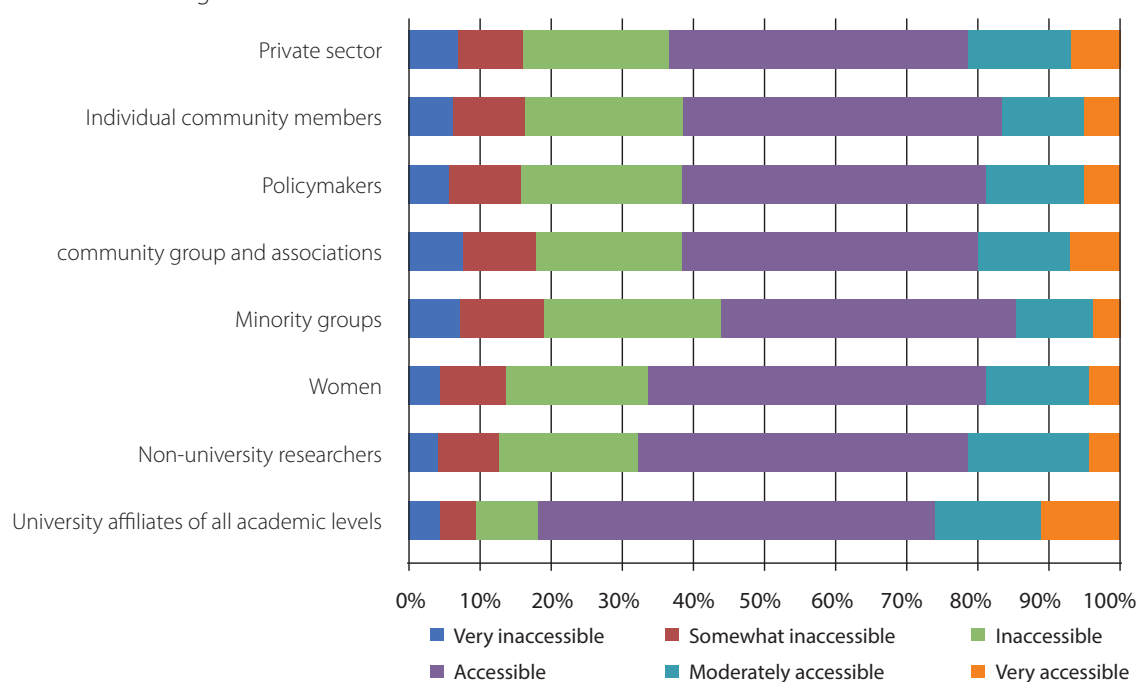
a diverse group of researchers and actors from different sectors, both local and international. As shown in the stakeholder mapping, research production, diffusion and uptake takes place across a wide range of actors including universities, research institutes, NGOs, international donors and legislators, among others. While each of these actors does not necessarily perform all

of the functions in the research cycle, they, nonetheless, play an important role in the SSR system. For instance, while universities primarily conduct research, GFAs provide resources for SSR. Consequently, interactions are critical, both within and across the actor categories. Data from the survey of researchers shows that collaboration is commonplace: most of the respondents (on

Table 22: Summary statistics on researchers' perception of the extent to which research discussions are accessible to groups of stakeholders in Nigeria

Groups of stakeholders	Number of non-NA responses	Mean	Standard Error	Median
University affiliates of all academic levels	432	4.05	0.05	4
Non-university researchers	407	3.76	0.05	4
Women	401	3.71	0.06	4
Minority groups	388	3.48	0.06	4
Policymakers	410	3.63	0.06	4
Community groups and associations	406	3.64	0.06	4
Individual community members	400	3.61	0.06	4
Private sector	398	3.69	0.06	4

average, 85 percent) claimed to collaborate with actors from other sectors, including international universities (Figure 16). It is worth noting, however, that most of the collaboration, in absolute terms, is among actors within the national university system.

Researchers have a generally favorable perception of the accessibility of research discussions for different categories of actor groups – such as academics and non-academics, policymakers, community groups and associations, as well as minority and women's groups. As Figure 17 and Table 22 show, the statistical distribution is largely around or tending toward the 'accessible' category. The only exceptions to this general pattern are university academics for whom research discussions are more accessible than for other actor groups; and for minority groups for whom discussions are less accessible.

The frequency of collaboration in research activities with individuals from other institutions is generally between one to four times within a given year; about 65 percent of respondents fall within this range and only 28 percent collaborate less than once or more than four times in a given year. However, the findings from the interviews

with administrators are quite different from the survey data. An administrator from the NUC argued that the level of collaboration among university academics is not at the level expected by the commission. According to him, university academics "operate as orphans in their silos and bunkers". He also went on to say that this lack of collaboration exaggerates the small gaps that may exist in the available infrastructure that is meant to support national research activities.

In the survey of policymakers, respondents generally claimed that research-related policy conversations are, on the whole, relatively accessible to a wide range of stakeholders including researchers, women, community groups and the private sector. As shown by the statistical distributions in Figure 18 and Table 23, policymakers generally rated policy conversations as moderately or somewhat accessible to groups of stakeholders. The only exception to this is individual community members, demonstrating, as expected, that policy conversations are more accessible to groups than to individuals. An interview with a frontline member of staff from a State House of Assembly revealed that public hearings are a common practice and are open to external participants:
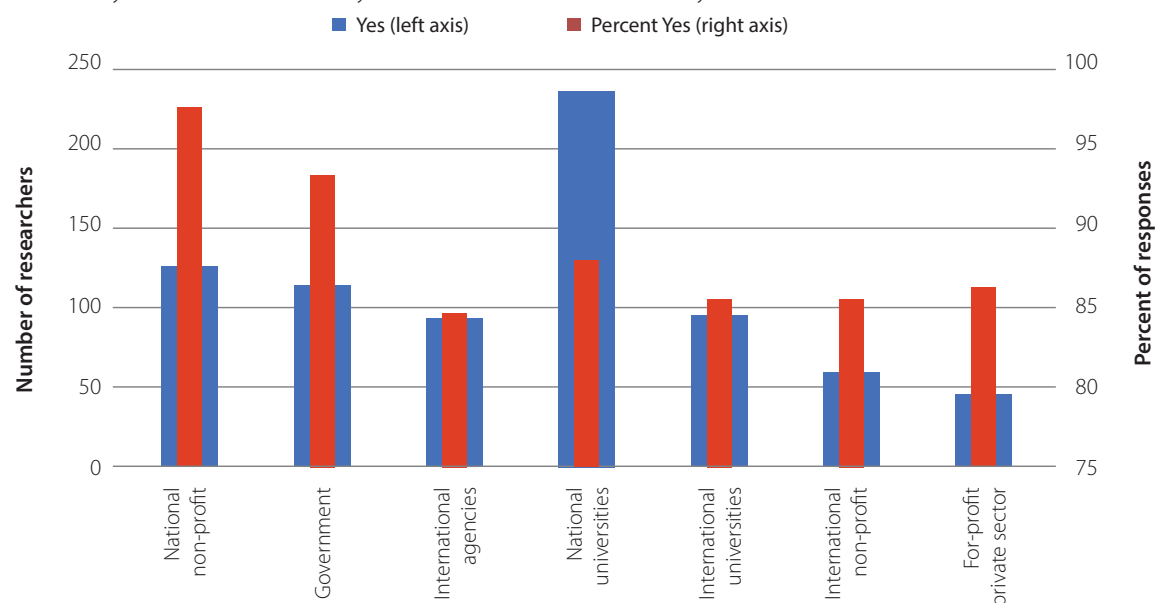
Figure 18. Researchers' perception of the extent to which research discussions are accessible to groups of stakeholders in Nigeria
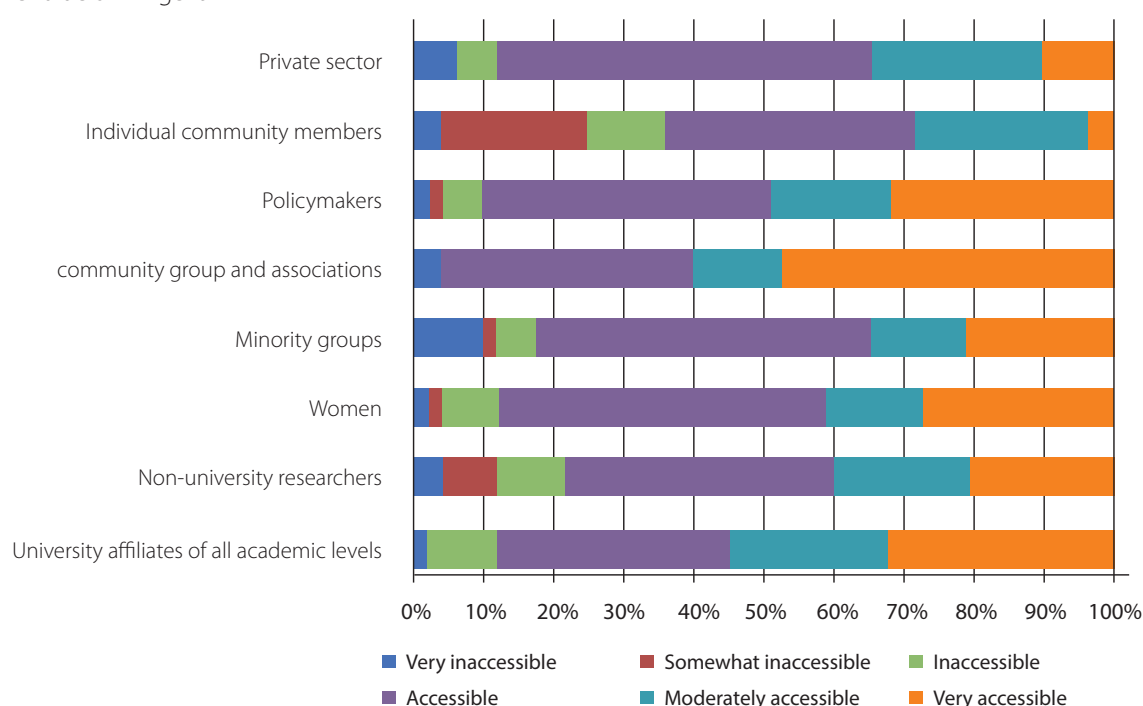
"The house is also open to NGOs and the media in public and investigative hearings aimed at garnering public opinions and inputs before fine-tuning or concluding on policy issues. And sometimes they make powerful points, which are sometimes carried."

The survey results show that social science researchers collaborate with other professionals and researchers in the production of SSR, seen in the number of distinct co-authors. The findings (Table 24) show that collaboration is more pronounced within academia, either with postgraduate students or within faculties in the same institution. Collaboration with other professionals outside of academia, such as from government, NGOs or donors, is less common. It is interesting to note that inter- or cross-disciplinary collaboration appears strong.

Table 23: Summary statistics on policymakers' perception of the extent to which research-related policy discussions are accessible to groups of stakeholders in Nigeria

Groups of stakeholders	Number of responses	Mean	Standard Error	Median
University affiliates of all academic levels	53	4.72	0.16	5
Non-university researchers	51	4.22	0.18	4
Women	51	4.51	0.16	4
Minority groups	52	4.17	0.19	4
Policymakers	55	4.96	0.16	5
Community groups and associations	53	4.66	0.16	4
Individual community members	53	3.77	0.19	4
Private sector	52	4.38	0.18	4

Table 24: Summary statistics on the number of distinct co-authors

Co-authors	Number of responses	Mean	Standard Error	Median	Total number of co-authors
Co-authors from your institution	329	3.11	0.16	2	1023
Co-authors that are Masters students	164	2.21	0.15	2	363
Co-authors that are PhD students	110	2.30	0.14	2	253
Co-authors from another national research institution	143	2.17	0.16	2	310
Co-authors from another government, central or local administration	60	1.59	0.14	1	96
Co-authors from a civil society organization	48	2.54	0.35	2	122
Co-authors from a foreign donor agency or a private foundation	42	2.01	0.24	1	84
Co-authors form a foreign research institution in the region	43	2.38	0.28	2	99
Co-authors from a foreign research institution beyond the region	68	2.29	0.33	2	156
Co-authors from another discipline	168	2.66	0.30	2	447
Total number of distinct co-authors	**386**	**7.65**			**2953**

Research communication skills

Training targeted at enhancing researchers' capacity to promote and communicate their research results to internal and external audiences is a critical factor in the diffusion of research. The survey data shows that the average researcher has participated in about 1 to 2 communication training sessions in the past three years – although the majority did not participate in any such training within the same period (Figure 19). This is probably because in the Nigerian system many training events for enhancing researchers' capacity include elements of research communication without necessarily being labelled as such.

Figure 19. Frequency of communication training in the last three years (n=425)
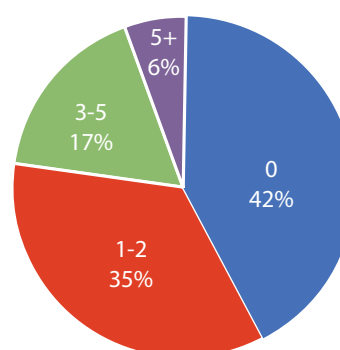
Figure 20. Researchers' perception of the quality of research communication skills training in Nigeria
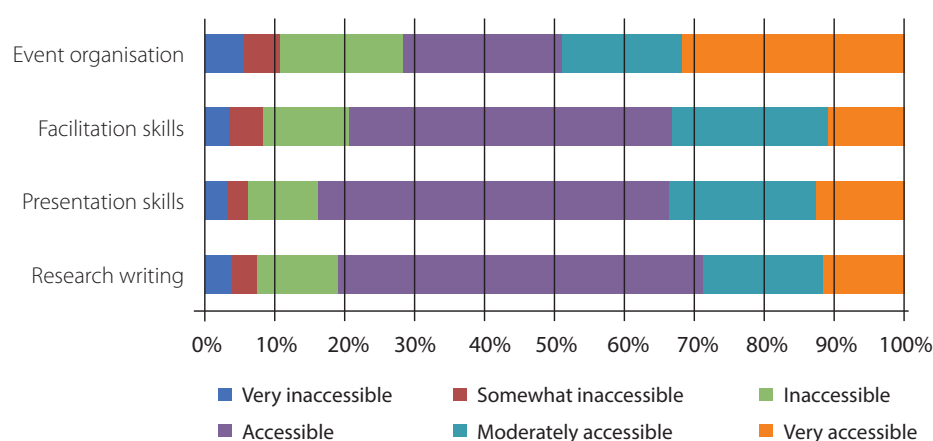
Table 25: Summary statistics on researchers' perception of the quality of research communication skills training in Nigeria

Research communication skills	Number of non-NA responses	Mean	Standard Error	Median
Research writing	358	4.12	0.06	4
Presentation skills	361	4.22	0.06	4
Facilitation skills	354	4.13	0.06	4
Event organization	336	4.05	0.07	4

The quality of research communication training is determed by the extent to which it provides the skills that researchers need to dissemintate their research: research writing, presentation, facilitation and organization of communication events. The respondents were generally satisfied with the communications training they had attended in terms of the provision of each of these skills (Figure 20) – with a mean score above 4.00 (indicating being satisfied) across all the indicators (Table 25).

Research communication practices

Local journals

The availability of outlets within a country, where researchers can publish their research results, is an important indicator of how effectively research is communicated locally. In Table 26, we report the number of social

science journals listed in Scimago that are published in Africa. There are only 37 such journals – which translates into between 1 and 6 journals for every thousand social science researchers in Nigeria. However, Scimago is limited in that it does not list many journals published in African countries. In this sense, African Journal Online (AJOL) is more comprehensive. As of 10 December, 2019, AJOL hosts 524 journals (including 262 open access journals) across several disciplines, of which 222 are published in Nigeria. Sixty-five per cent (341) of the 524 AJOL journals are in the social sciences and humanities (Table 27).[58] From this, we estimate a range of between 1 and 5 journals per hundred social

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58 It was not possible to identify which of these are published in Nigeria from the online database because AJOL's listing of journals by country and by category cannot be cross-referenced.

Table 26: Number of journals in social sciences in Africa

Fields	Number of journals
Business, management and accounting	3
Economics, econometrics and finance	5
Psychology	1
Social Sciences	28
Total	**37**
Number of SS researchers in Nigeria	**6,389 – 31,943**
Ratio per SS researchers (divided by the number of researchers at country level)	**0.001 - 0.006**

Source: Data from Scimago, December 2019

science researchers in Nigeria.

The availability of a large number of local journals suggests a strong opportunity base for the dissemination of locally relevant research. Creating this sort of opportunity base relies heavily on coordinated efforts from institutions responsible for managing, supervising or regulating the research system. In South Africa, for instance, the Department of Higher Education and Training maintains an accreditation system for local journals. Researchers are incentivized to publish in these journals by way of financial rewards (per publication in an accredited journal) given to their home institution based on an annual research evaluation. Universities, in turn, pass down a share of these rewards to individual researchers. It has been argued that this type of reward system could have undesirable outcomes such as publication slicing (where researchers unnecessarily split their research into multiple publications),

an increased demand for predatory and low-quality outlets with high acceptance rates, and a disconnect between published research and local realities. However, the South African journal accreditation system adheres to strict guidelines and the government supports the university system against unethical research practices – for

Table 27: Social science journals in the African Journals Online (AJOL) database

AJOL Categories	Number of journals
African Studies	56
Art and architecture	18
Economics and development	48
Education	35
Finance and management	16
History	3
Humanities	56
Language and literature	20
Philosophy	7
Political science and law	18
Psychology and psychiatry	16
Religion	6
Sociology and anthropology	42
Total	**341**

Source: Data from African Journals Online website (www.ajol.info)

59 This incentive system and its negative side-effects are discussed in detail in previous research (e.g., Neff, 2018) and research-related popular media (e.g., http://theconversation.com/academics-can-change-the-world-if-they-stop-talking-only-to-their-peers-55713 and https://www.universityworldnews.com/post.php?story=20130712145949477, both accessed February 29, 2020)

example, university academics are given free access (usually through their university library) to anti-plagiarism software. Many universities also engage in regular research ethics training.

The kind of elaborate structure available in South Africa is almost completely absent in Nigeria. There are no databases or accreditation systems for local journals, for instance. Thus, while a large number of journals are published across many university departments, overall quality tends to be low and, as a consequence, visibility is poor. We gathered from the interviews that the NUC has just started (but is yet to complete) the process of compiling information on all academic journals in the country and evaluating their quality against criteria that meet international standards. Recently, the NUC also made an attempt to coordinate the use of anti-plagiarism software. As one of the interviewees told us, the agency asked each university in the country to contribute a share of the subscription costs, but after the first subscription expired no effort was made to renew it. Consequently, universities are now left to fend for themselves, leaving many of them exposed. These challenges weaken the opportunity base for communicating research that is locally relevant but has limited international appeal (and is therefore unlikely to make it into an international journal). The disparity between South Africa and Nigeria, as described above, is reflected in the fact that all the journals in Table 26 are published in South Africa, with the exception of three in the 'social sciences', which are published in other countries.

As far as we know from experience as practicing researchers in Nigeria, there are no academic journals in local languages. This is probably because of the number of distinct local languages in the country, most of which exist in written form. Estimates

differ, but generally range between 450 and 500 distinct local languages. In this context, English, which is the official language, is invariably the language of education and science. All academic outputs are produced and disseminated in English. Local media channels sometimes disseminate academic information on the radio, TV or in newspapers in both English and the predominant local language(s) in their area of operation.

International exposure

International exposure is beneficial for many reasons. Apart from granting researchers access to more diverse resources and skills, it also provides an opportunity for research communication. We assessed the international exposure of Nigerian SSR by looking at international collaboration data from Scimago. The data reported in Table 28 refers to the documents (citable and non-citable) with authors based in more than one country, at least one of whom is from Nigeria. International collaboration is common across all disciplinary areas. This is consistent with the results presented earlier in Figure 15, which shows that at least 85 percent of the researchers in our survey reported collaborating with researchers from foreign universities. The data in Table 28 shows that on aggregate, one out of every three social science publications by a Nigerian author between 2015 and 2017 was co-produced with a foreign author. Table 29, based on our survey data, shows a similar pattern: a fifth of all surveyed researchers have engaged in international co-authorships, ranging from between 1 and 22 outputs, with an average of between 2 and 3 publications. 'Psychology' and 'economics, econometrics and finance' have the highest rates of international collaboration (Table 28). We have no data to disaggregate the collaborating countries but these would

Table 28: International collaboration in SSR in Nigeria, 2015-2017

Field	Number of documents	Number with international collaboration	Percentage with international collaboration
Business, management and accounting	776	300	38.7
Economics, econometrics and finance	609	251	41.2
Psychology	234	104	44.4
Social Sciences	2466	718	29.1
Total	**4085**	**1373**	**33.6**

Source: Data from Scimago

Table 29: Summary statistics on international co-authorships in Nigerian social science research

Co-authors	Number of responses	Mean	Standard Error	Median	TOTAL number of co-authors
Co-authors from a foreign donor agency or a private foundation	42	2.01	0.24	1	84
Co-authors from a foreign research institution in the region	43	2.30	0.28	1	99
Co-authors from a foreign research institution beyond the region	68	2.29	0.33	1	156
Total number of distinct co-authors from a foreign institution	**97**	**3.49**		**1**	**339**

most likely be English-speaking countries since research in Nigeria is conducted predominantly in English.

This is interesting because international research projects are not only a source of funding, they also offer significant capacity-building opportunities. Therefore, as a further assessment of international exposure, we asked administrators to indicate the number of international research projects in which their institutions have been involved in over the last three years. Only 72 of the 117 surveyed administrators answered this question. Of these, only 20 gave the precise numbers of international projects, ranging between

1 and 51, totaling 155, with an average of 7.75 and a standard deviation of 11.86. Most of the other 52 respondents gave an approximation such as 'above 51', 'they are multiple', 'many', 'I cannot tell', 'I don't know' or 'I am not aware'.[60] We then asked the researchers to indicate a range for the number of international research projects that they have been involved in. Consistent

60 The low response rate from administrators here may be a reflection of the fact that most international projects and collaborations are at the individual level and administrators are often unaware of them; there is no systematic database of these types of collobarations across most institutions.

with Figure 16 discussed earlier, of the 295 researchers that responded to this question, 85 percent reported between 1 and 2 international collaborations in the past three years (Figure 21). In addition, nearly half of all surveyed researchers reported being members of a professional research network. Both in absolute and percentage terms, membership of a local network is considerably more common; in total, only about half of the researchers are involved in a regional or international network compared to over 70 percent for national networks (Figure 22).

Research communication products

Conferences and debates

In addition to publications, research is often communicated through conferences and debates. Typically, even where individual researchers serve as members of organizing committees, research conferences are organized at the behest of institutions or organizations. To assess the prevalence of institution-based conferences in Nigeria as a form of research communication, we asked the administrators to indicate the number of conferences organized by their institutions in the past three years. The responses are summarized in Table 30. In total, 276 scientific conferences were organized in the past three years for any category of audience (national, regional, or beyond the region). Public

Figure 21. Number of international research project collaborations for Nigerian social science researchers in the last three years

Figure 22. Membership in thematic research networks and professional affiliations at regional and international levels
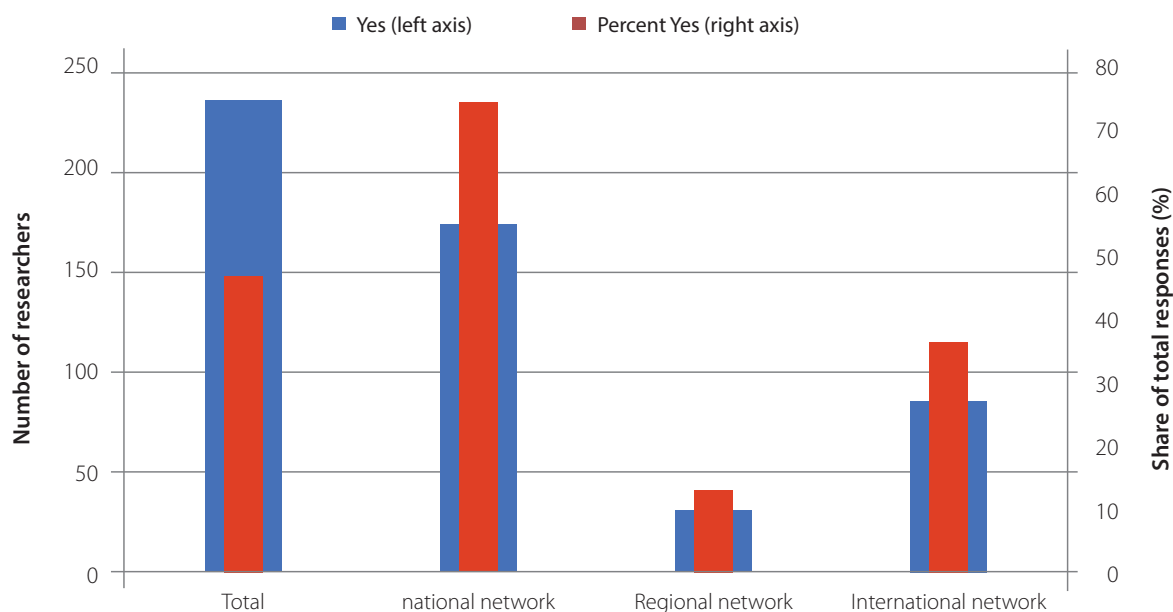
Table 30: Summary statistics of number of scientific conferences and public debates organized by Nigerian institutions in Nigeria in the last 3 years

Scientific conferences organized	Number of responses	Mean	Standard Error	Median	Total number of events
For national audience	94	2.90	0.18	4	273
For regional audience	82	2.71	0.17	4	222
For international audience outside the region	84	2.87	0.18	4	241
Public debate involving researchers, politicians and civil society	88	3.27	0.35	4	
Total					**276**
Number of administrators surveyed	114				
Number of institutions	70				
Number of events per institution	3.94				

debate involving researchers, politicians and civil society also occurred at a similar rate, though the range was from 1 to 30. This translates into an average of less than three events per institution; however, the typical (median) institution hosted four events. In other words, each institution has hosted an average of around one conference or debate a year over the last three years. These figures are consistent with our first-hand experience of the Nigerian SSR system.

Online visibility of research

Our assessment of online visibility relies on the survey data.[61] In Africa, Nigeria comes second to South Africa (by a large margin) for the quantity of research outputs on Scopus.

However, as already highlighted, there are numerous obscure publications in Nigeria. Poor quality is the primary but not the only reason for this obscurity. Online visibility of research is poor in the Nigerian SSR system. Most local scientific journals do not operate online and most of the SSR outputs in their repositories are not visible. This is corroborated by the data from the researchers' survey (Figure 23). Only a third of all the surveyed researchers are affiliated with institutions that provide webpages with access to the work of individual researchers, and less than half are registered as authors in internationally visible databases or repositories. Though about two thirds of all the surveyed administrators claimed that their institutions provide websites where research products are made available, we know from experience that such websites, where they exist, are typically not properly managed and updated.

While institutions should ensure that their websites are kept up-to-date and provide a webpage for each researcher, it is the responsibility of individual researchers

61 We contacted Altmetrics (an online research data aggregator) as part of our attempt to gather relevant data on SSR research visibility in Nigeria. We were told in an email exchange with a customer support manager that Altmetrics does not track the number of views nor the number of downloads. Country-level searches are also not possible on Altmetrics.

Figure 23. Online research visibility of Nigerian researchers and institutions
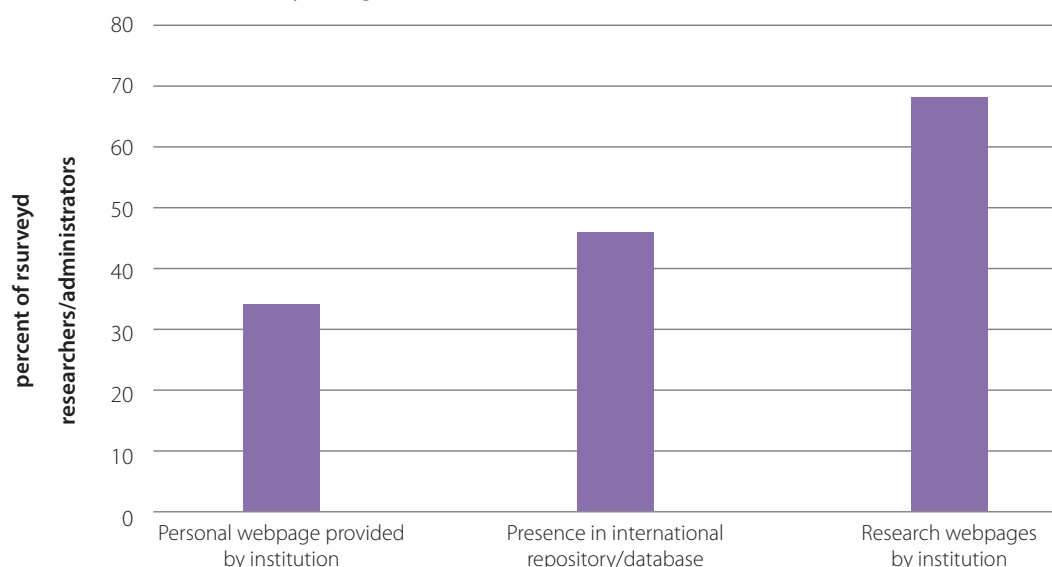
to enlist themselves in international repositories and databases. There are plenty of repositories and databases across all disciplines, which makes it surprising that fewer than half of the researchers that we surveyed claim to be listed in one. These days, any researcher in any discipline can create a free Google Scholar profile, although they need a verifiable institutional email address which many researchers may not possess. Nonetheless, there are a number of alternatives like ResearchGate, Academia.edu and ORCID, to name a few, that can be used to enhance the visibility of researchers and their work. In this sense, it could be argued that the problem with research visibility is not entirely because of limited infrastructure or research quality; a combination of awareness and capacity also play a major role. Clearly, a gap exists in the Nigerian SSR system as far as effective communication of research beyond academic publications is concerned.

Media and advocacy

In terms of media and advocacy, a number of the surveyed researchers have written articles in public newspapers or had research-based interventions online, on radio or TV. As encouraging as this is, the proportion of

the researchers who have had any form of media intervention is small, ranging from 13 percent for print media to 22 percent for radio channels; the average number of interventions ranges from less than four within a three-year period (about one intervention per year) for print media to less than ten within the same period (about three interventions per year) for radio. In general, radio interventions are more common – more than four times the number of print media interventions, and almost three times the number of TV and Internet interventions (Table 31). This is perhaps due to the cost of media interventions, which are lower for radio than for newspapers or television; or because radio is more accessible to a wider proportion of the target population than the Internet or newspapers.

Popularization of science

Social appreciation and media coverage of research

The surveyed researchers rated their satisfaction with the quality of the popular media coverage of organized academic events and published research across different channels: newspapers, television, the Internet,

Table 31: Summary statistics on number of research-based media interventions by researchers in the past 3 years

Types of intervention	Number of responses	Mean	Standard Error	Median	Total number of interventions
Articles in general public press newspapers	70	3.77	0.72	4	264
Intervention on the Internet/blog posts	77	5.09	1.13	4	392
Intervention on the radio	115	9.70	4.35	4	1116
Intervention on the TV	84	4.86	0.77	4	408

Figure 24. Researchers' perception of the quality of popular media coverage of organized events and published research in Nigeria
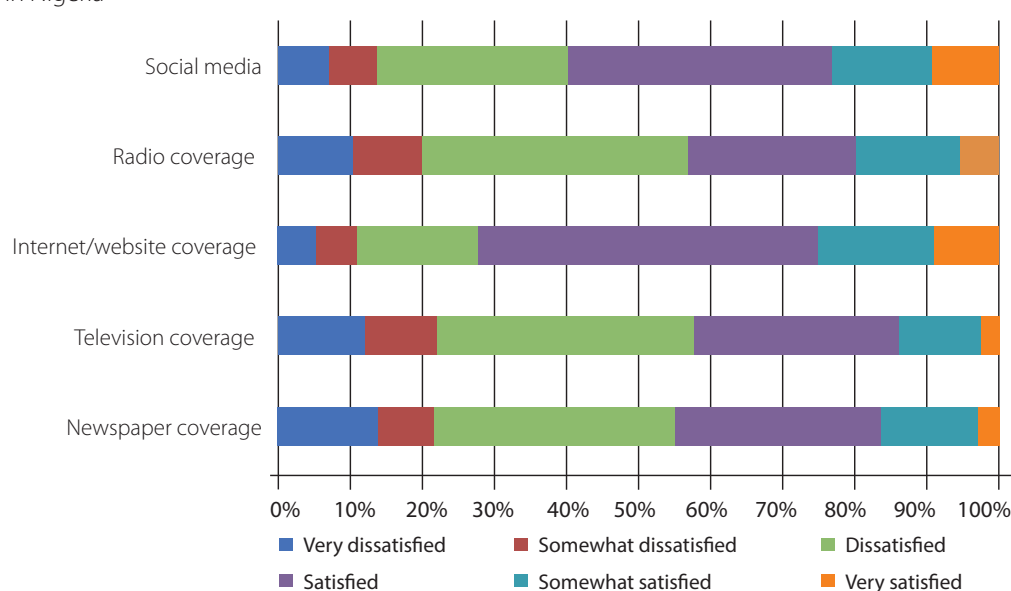
Table 32: Summary statistics on researchers' perception of the quality of popular media coverage of organized events and published research in Nigeria

Media channels	Number of responses	Mean	Standard Error	Median
Newspaper coverage	434	3.29	0.06	3
Television coverage	434	3.24	0.06	3
Internet/website coverage	440	3.91	0.06	4
Radio coverage	436	3.39	0.06	3
Social media	435	3.71	0.06	4

radio and social media. On average, they were dissatisfied (Table 32). The results from the survey of research administrators (Figure 25 and Table 33) showed a similar pattern, with the exception of Internet/website coverage where the mean rating was a little above 4 (representing moderate satisfaction). On the whole, coverage of academic events and published results tends to remain within the Nigerian SSR system. Many SSR products are

Figure 25: Administrators' perception of the quality of popular media coverage of organized events and published research in Nigeria
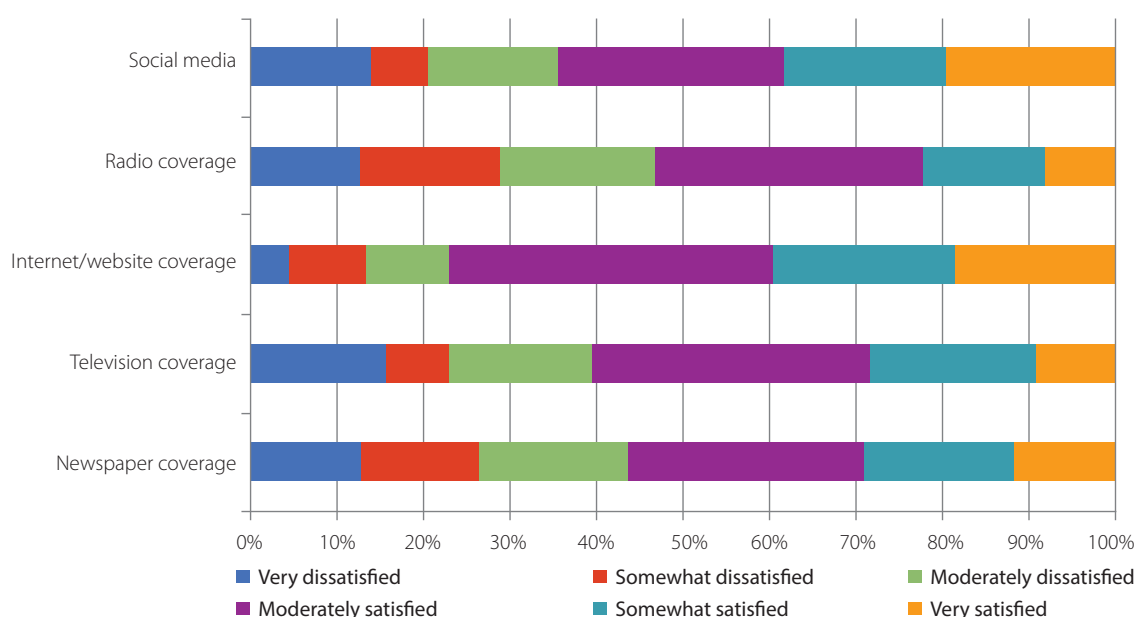
Table 33: Summary statistics on administrators' perception of the quality of popular media coverage of organized events and published research in Nigeria

Media channels	Number of responses	Mean	Standard Error	Median
Newspaper coverage	110	3.58	0.16	4
Television coverage	109	3.60	0.14	4
Internet/website coverage	113	4.18	0.13	4
Radio coverage	111	3.42	0.14	4
Social media	107	3.88	0.16	4

geared toward career advancement (to meet publication requirements for promotion) and, as such, there is little impetus for researchers to disseminate their research results to a wider audience via channels outside of their institutions.

The Uptake of Social Science Research in Nigeria

Political value of research

Despite the country's poor performance against the World Governance Indicators, especially the rule of law and government effectiveness (Figure 1), there still appears to be a high degree of freedom for researchers

to discuss and conduct research into issues of social relevance. SSR results can be produced and openly discussed without undue influence from political circles. The surveyed researchers reveal that there is little interference from the policy community in the production and discussion of SSR in Nigeria (Figure 26). The typical (median) researcher thinks that politics does not interfere with research at all. This is in line with the research administrators' perception that social science results that may affect policy are discussed openly and that policymakers give the necessary space for social science researchers to gather data. In addition, the current political climate also supports the production of independent

Figure 26: Researchers' perception of level of interference from political circles in social science research in
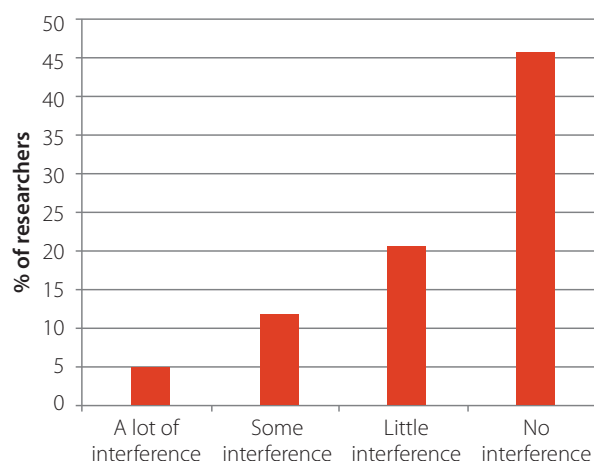
research findings (Figure 27). A researcher that we interviewed gave specific insight into the independence enjoyed in his organization's research. He noted that policymakers often demand evidence but

"[T]o the best of my knowledge from what I've done so far, they just tell you what they want [and] they don't participate in doing it. They just tell you 'okay we want a research on this, or we want evidence on that.' You have to figure out how to do it; they are only interested in your research finding so they don't participate in the research design or anything like that."

Table 34: Summary statistics on administrators' perception of the factors relating to the production of independent research in Nigeria

	Number of non-NA responses	Mean	Standard Error	Median
Social science research results that may affect policy can be discussed openly	99	3.63	0.13	4
Researchers are able to produce independent research without undue influence	101	3.73	0.12	4
Policymakers give necessary space for social science researchers to gather necessary data	98	3.22	0.13	3
The current political climate supports the production of independent research findings	100	2.92	0.13	3

Figure 27: Administrators' perception of the factors relating to the production of independent research in Nigeria
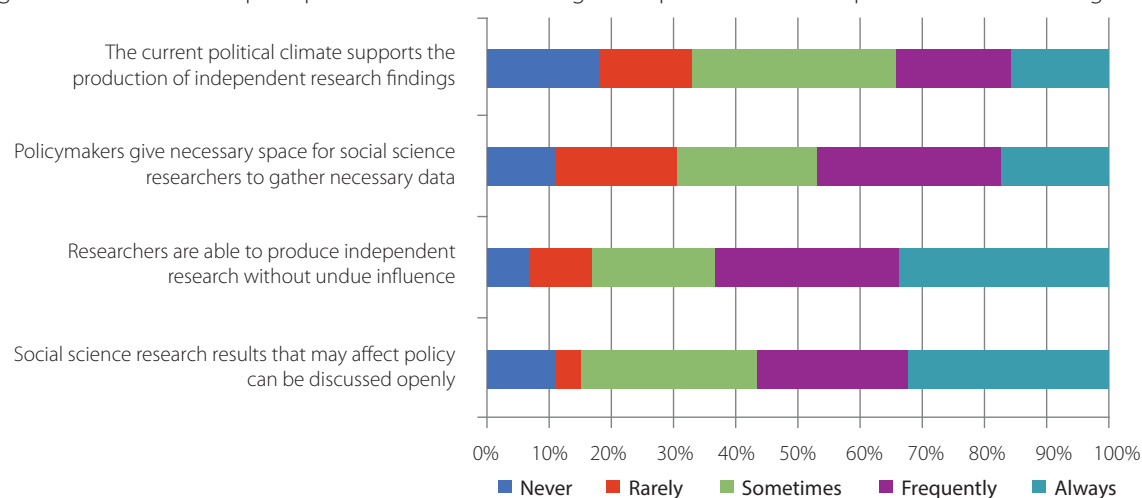
Most of our interviewees noted that unlike other countries such as Botswana or Uganda, which have a very centralized system of co-regulating research output, the Nigerian political climate supports the production and discussion of independent research findings. Their responses include expressions such as "there is a lot of independence" and "we are, in fact, extremely free." While this is generally an accurate description of the Nigerian SSR system as a whole, there are some nuances at the institutional level. As noted by an interviewee, the level of independence enjoyed by a researcher depends upon the type of organization they work in and where their funding comes from. The interviewee explained that researchers in universities, CSOs and private organizations are autonomous. However, those in government-owned research institutes might not be completely free to research and discuss sensitive social issues because they are government employees. The Public Service Rules (2009, p.41) that govern these institutions specifically stipulate that, unless in the line of work, no government employee can:

"contribute to, whether anonymously or otherwise, or publish in any newspaper, magazine or periodical, or otherwise publish, cause to be published in any manner anything which may reasonably be regarded as of a political or administrative nature;

"speak in public or broadcast on any matter which may reasonably be regarded as of a political or administrative nature;

"allow himself/herself to be interviewed or express any opinion for publication on any question of a political or administrative nature or on matters affecting the administration, public policy, defence or military resources of the Federation or any other country."

There is plenty of evidence from interviewees and the literature to suggest that many Nigerian policymakers receive expert input on issues of social relevance during the development of policy. Sanni et al. (2016) reported that the most important sources of information consulted by Nigerian policymakers in both the national and state assemblies are expert opinions, the Internet and workshops/seminars/conferences; policymakers rarely consult policy briefs, published articles, public opinion polls and assembly motions/resolutions. In addition, some policymakers at the central level sometimes seek and receive scientific advice on social issues from the National Institute for Legislative and Democratic Studies (NILDS). NILDS is a social science-based public research institute, established to provide training, research and capacity-building for legislators in Nigeria. Some of the interviewed researchers in the institute stated that the centre occasionally receives research requests from federal legislators and conducts feasibility and sustainability analyses of some bills before policies are enacted. In the opinion of one of the interviewees, only a few policymakers in Nigeria seek advice from academics. He also noted that, they prefer to engage with independent researchers, CSOs, and private national and international bodies to conduct such studies rather than engaging with researchers in public institutions.

Since policymakers rarely consult academic research outputs such as published journals and policy briefs, their level of involvement in and commissioning of research is limited. Only a few policymakers (about 23 percent of the 61 respondents) have commissioned research on any particular topic in the last three years. However, they commission both national and foreign researchers. Table 35 shows that only a small share of researchers (17 percent of the 504 respondents) have received a formal request from policymakers to conduct research on social issues within the last three years. In contrast, 41 percent of 117 research

Figure 28: Frequency of requests for research on social and policy issues from policymakers over the last three years
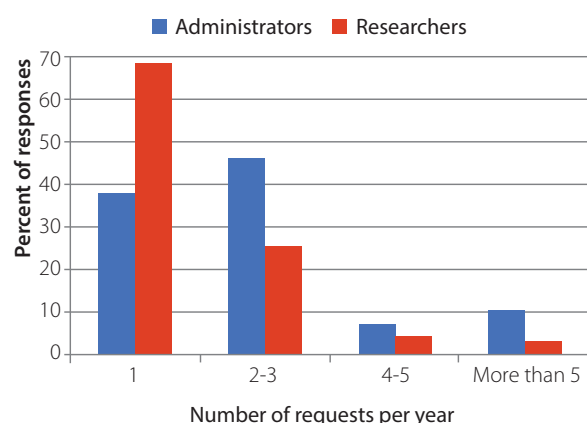
administrators indicated that their institutions have such requests. Of the researchers who claimed to have received research requests from policymakers, most (around 67 percent) had received only one request annually. Only a third of researchers had received more than one request, in contrast to 62 percent of institutions (Figure 28).

Table 35: Requests for research on social and policy issues from policymakers over the last three years

Respondents	Percent
Researchers (n = 504)	17.46
Institutions (n=117)	41.03

Following on from this, responses obtained from researchers revealed that the rate at which Nigerian policymakers commission and fund research is low: only 13 percent of respondents had received any funding for research commissioned by policymakers over the last three years. Further analysis revealed that the value of grants given to researchers ranges between NGN 50,000 ($143) to as high as NGN 17,000,000 ($48,571). Of the 117 administrators that we surveyed, 32 (27.35 percent) claimed that their institutions had received research grants for commissioned research by policymakers over the last three years, the average value of which ran into the millions of naira (tens of thousands of dollars). Taken together, these results highlight two

points about the demand for evidence among Nigerian policymakers. First, our finding is consistent with previous research, which suggests that rather than commission researchers to conduct research projects for informing decisions, Nigerian policymakers, particularly the lawmakers, typically rely on opinions from political experts, individual consultants, partisan legislative staff, personal assistants and political advisers (Sanni et al., 2016). Second, when the policymakers demand research evidence locally, they tend to engage more with institutions rather than individual researchers in commissioning research studies.

Policy-relevant research

Globally, there is a high degree of disconnect between researchers and policymakers in relation to the production and use of research (Choi et al., 2004). In Nigeria, one of the reasons adduced to the low uptake of research by policymakers is a lack of or weak communication between researchers and policymakers in the initial stages of determining, conceptualizing and designing the research. Consequently, policymakers consider findings from studies they were not initially involved in to be unsuited to policy-related issues (Olomola, 2007; COHRED, 2014; Uzochukwu et al., 2016). Broadly speaking, there is no formal collaboration between policymakers and researchers in Nigeria. One of the informants lamented this situation, noting that in other countries efforts had been made to establish a forum to involve policymakers in the research design stage. According to him, their efforts to implement something similar in Nigeria encountered a lot of difficulties, especially in convincing policymakers to attend, and the plan eventually failed.

All the researchers interviewed were very dissatisfied with the quality of participation of policymakers in research design.

According to one of them 'our policymakers don't believe in research, you hardly find them participating because they feel they know what they want to do not knowing that evidence-based policy is the best'. Furthermore, policymakers with a particular interest in research merely contract or engage consultants or researchers to conduct the research without their involvement at any stage. Researchers from various institutions that we interviewed who have received research funding from policymakers, reported that policymakers merely tell them what evidence they require but do not participate in designing and implementing the research. A legislative officer we interviewed argued that policymakers listen to research findings during public and investigative hearings. However, while they take into account research efforts and make use of convincing findings, they rarely engage in research design.

Information obtained in this study revealed that a variety of organizations, including universities and research institutes, regularly produce communication materials (reports and policy briefs) aimed at policymakers (NILDS, NISER). A university researcher interviewed attested to the regular production of policy briefs; he has also obtained feedback from the Nigerian Government on some of his materials in the public domain. The research and training department of NILDS regularly produces policy briefs on social or national issues of interest on a weekly basis. These materials are made directly available to policymakers. An interviewee at NILDS told us specifically that:

> "[t]o the national assembly on weekly basis from my department we send a minimum of four different policy issues or policy briefs any national issue that we feel we should say something about we do that."

Out of the nearly 500 researchers that we

surveyed, 117 reported producing technical reports as an outcome of consultancies or commissioned projects, and 289 researchers claimed to have produced policy briefs. On average, each researcher produced three reports and six policy briefs. This finding is corroborated by Sanni et al. (2016), who reported that policy briefs were one of the many sources of information available to Nigerian policymakers. However, the policymakers are rarely involved in the production of social science communication products. Of the 60 policymakers who responded to the question about whether they had access to research communication materials, 41 (68 percent) responded in the affirmative. However, only 22 (37 percent) claimed to have authored or co-authored policy materials based on SSR results.

Research-to-Policy nexus

Many public and private institutions in Nigeria, particularly those involved in the production of policy-oriented research, regularly organize conferences, public policy lectures and other policy-learning programs to disseminate the policy components of their research findings. At the central or federal level, NILDS was established to enhance the capacity of Nigerian policymakers and their aides through detailed and comprehensive training, research, support services and documentation. Information gathered during this study confirms that NILDS regularly organizes training and workshop programs for policymakers on socioeconomic issues. More specifically, the research and training department of NILDS conducts research and supplies informed analysis on topical issues relating to the management of the Nigerian economy. In addition, the institute organizes a series of public policy lectures to discuss policy-based issues. One of the interviewees, however, lamented the poor attendance of

policymakers: few of them attend, while the rest often send representatives or personal assistants on their behalf due to their busy schedules.

As well as NILDS, NISER also regularly organizes seminars and lectures to disseminate SSR findings to the public. The NISER Policy Dialogue, for example, is held annually, with the primary aim of disseminating the policy components of their research studies. During the event, results of major NISER studies carried out by the institute's Research Working Groups are presented to relevant stakeholders from both the private and public sectors, including policymakers, decision-makers, development partners, researchers, captains of industries, technocrats, key government officials from the three tiers of government, and the general public. The policy engagement division of NISER also organizes seminars, conferences and workshops for SSR dissemination, to which policymakers are invited.

There are also other privately-owned organizations that conduct policy-learning events for policymakers in Nigeria. The Nigerian Economic Summit Group (NESG), for example, is a non-profit, non-partisan private sector think tank that gathers, collates and analyses social and economic data on the Nigerian economy – with a view to generating objective and credible reports to support evidence-based policy advocacy. Outputs of the NESG research are used to champion policymaking and policy review, by influencing the direction of economic and social policies toward sustainable growth and the development of a modern globally competitive economy.[62] The NESG has established working relationships

with, among others, the Government of Nigeria. NESG disseminates its findings through various summits, dialogues, public lectures and conferences. The crux of the Group's advocacy efforts is the annual Nigerian Economic Summit, which provides stakeholders, including policymakers, with empirical evidence to manage and implement effective policies.

In Nigeria, there are some individuals with a research/academic background in elected and appointed positions, but they are few and far between. For example, in the first tenure of the current federal administration, only 9 (24 percent) of the 37 appointed ministers have a background in research. Currently, there are very few public office holders (including state governors, federal ministers, senate and house of representative cabinet members) with research experience. According to one of the interviewees, it is hard to get researchers to enter into politics because political activities quickly overwhelm any research tendencies. As a result, genuine researchers do not stay for long in government before bowing out.

This is confirmed by the very low percentages of researchers who have held policymaker positions at both central and decentralized levels: only 6.22 percent and 9.85 percent, respectively. This suggests that in the last three years, only a handful of researchers have occupied policymaking positions in Nigeria, reinforcing the gap between research and uptake in policymaking. Where a good number of policymakers do not have a research background or are not research inclined, an appreciation of the value of research findings in policymaking is likely to be low.

Research-based policymaking

There are various bodies/institutions constituted at both central and decentralized

62 www.nesgroup.org/research

levels with the sole aim of advising policymakers on a variety of issues. One such body at the federal level is the Presidential Economic Advisory Council (PEAC), inaugurated in October 2019. The eight-member council is headed by a professor and an ardent researcher with many years of experience both in academia and industry. PEAC membership is largely composed of renowned technocrats and analysts with deep-rooted backgrounds in research; membership is almost entirely comprised of researchers. The council is expected to gather reliable data on the existing economic situation in the country and advise the Presidency, proffering solutions on how to move the country and economy forward. This is also replicated in many states of the federation, which have their own economic advisory councils comprised of researchers from academia and industry. Generally, the mandate of these committees determines the composition of its membership. Research institutes such as NILDS and NISER also conduct research with the aim of advising the government on appropriate actions based on empirical evidence.

Our survey results show that Nigerian researchers are appointed as members of policy advisory bodies at both the central and decentralized levels, albeit at a low rate – 10 percent at federal level and 14 percent at state level. The rate of researchers' appointment into policymaking positions is slightly higher at the state level because in such a large country as Nigeria, it may be easier to identify notable researchers at the state level than at the federal level. We also find that there is a sizable level of informal interaction or consultation between researchers (both junior and senior) and policymakers in Nigeria (Figure 29). On average, senior researchers (whether national or foreign) tend to have a slightly higher rate of interaction (1.47) compared to the overall

Figure 29: Frequency of researchers' interactions with policymakers
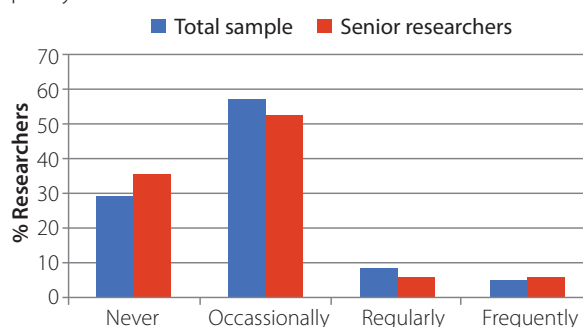
sample (1.27). This is understandable given that senior researchers typically have more expertise in their chosen fields. One of the interviewees, for example, who is a professor in a public university, currently serves as a consultant and adviser to policymakers in different ministries, departments and government agencies as a result of his strong technical expertise. In addition, senior lecturers with connections to CSOs or private/independent consulting firms are more commonly engaged or consulted by policymakers for research activities. This, in the opinion of one of the interviewees, is because some policymakers do not trust the credibility of data from many of the public institutions.

Perceived research influence on policy development

Most institutions in Nigeria feel able to provide policy-relevant research. Of the 117 administrators that we surveyed, 61 percent claimed that their institution has the capacity or potential to influence policy. Information from the interviews support this position. One of the researchers reported that 'researchers see a lot of utility in their research output…'. However, the apathy toward research from policymakers results in a lack of recognition of its potential. He recommends a policymaker–researcher forum to help enhance the uptake of research output for policy development.

As mentioned earlier, Nigerian policymakers

often receive technical support from institutions established for this purpose. An example of these is NILDS. There are also different categories of legislative personel in the state Houses of Assembly who provide support. Policymakers can also privately consult senior researchers, in which case only a few researchers would occasionally be involved. Policymakers in many of the Assemblies have set up in-house committees that provide technical support. An interviewee informed us that some state Houses of Assembly have research units or departments that provide research support to legislators.

We could not find adequate information to assess the frequency with which policymakers use SSR evidence to support decision-making. However, we know from previous research that this does not happen frequently (Newman et al, 2013; Siyanbola, 2011; Siyanbola et al, 2014a,b). Nonetheless,

one of the researchers that we interviewed told us that there is demand for evidence, albeit not as much as one would like to see:

> *"[I]f you are asking me if there is demand for research into policymaking, I can say there is, to some extent [but] not at the level it should be…There are some legislators that, before they sponsor a bill or before they talk on a particular issue, they will ask for some independent research to inform their discussion, while some don't really care about the role of independent research in whatever discussion or deliberation they are having…*
>
> *Before the National Assembly passes the budget we do research to look at the feasibility and sustainability of what the president is proposing. So most of the time we make recommendations on whether the oil price is feasible or not; we make recommendations on whether the revenue projection the government is making makes sense or not."*

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 production–uptake 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-fits-all 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 capacity-building 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 International Network for Government 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 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.[63]

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.

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63 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 cross-cutting 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 36 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 36: 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	✓	✓	✓	✓
4	Strengthen support infrastructure	✓	✓		✓
5	Connect research agenda to local development challenges and priorities	✓			
6	Increase local funding	✓			✓
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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APPENDIX I

Full Guide for Post-Survey Key Informant Interviews

Comprehensive Interview Guide – Researchers

*   How long have you been…

    _____ in your present position?

    _____ at this institution?

*   Background information on interviewee:

    What is your highest degree? _____
    _____

    What is your field of study? _____
    _____

1. Briefly describe your role (research director, teacher, consultant e.g.) as it relates to conducting social science research. *How are you involved in research production, through data collection to research direction?*

2. How would you describe the quality of the infrastructure and support at your institution? *Probes: How is the provision of work resources, such as workspace or equipment, at your institution? Administrative support? Capacity building?*

3. How would you describe the level of diversity of the research environment? *Does it include actors from various types of institutions, NGO, government agencies, etc. – why or why not? Can you comment on the extent of collaboration among the different actors?*

4. What does your institution provide in terms of research communication training?
    Probes: What have you learned from communication trainings? What, if anything, was lacking?

5. Do you regularly work with media to publicize research results? *Do you often see your work on various media channels, e.g. internet, television or radio?*

6. Have you ever held a position as a policymaker?

7. How, if at all, do you think researchers are influenced by policy makers in terms of independence of research results? *What, if anything, is being censored? Do you think there is a level of protection for researchers to produce independent findings?*

8. Have you received requests from policymakers to conduct research on specific issues of social importance? *Tell us about any experience you have working with policymakers.*

9. How do you involve policymakers in the research design process, if at all? *Do you have any strategies to encourage buy-in to policy-relevant social science research?*

10. Are you involved in any kind of policy advisory role, in particular to support implementation of research-informed policy? *What activities have you undertaken beyond providing research results to assist policymakers in implementing programmes?*

11. How often do you interact with policymakers?

12. What involvement have you had in the development of a policy? *Please list the ways in which you were influential in the development of a policy or policies.*

13. What kinds of products do you use to communicate research results to policy makers? *What kinds of products most effectively engage a policymaker's attention?*

14. What is the general perception of policymakers on the utility of social science research?

15. How do researchers themselves perceive the utility of their research for policymakers?

16. Can you comment on the level of demand for research inputs into policymaking

17. How effective, in your opinion, are policies that use social science research? *How can benefits be maximized?*

18. What is the quality of incentive system to produce research? What is the nature of researcher job market in Nigeria?

19. Can you comment on the level of independence of researchers in producing quality research and the research produced

20. What is the percentage of researchers' time allocated to research?

21. How would you rate the quality of mentoring received by junior researchers (PhD students) in the production of SSR?

22. What is the Quality of outreach to media in communicating researcher results?

23. What is the percentage of researchers' time allocated to research?

24. Are there bodies officially set up to advise policymakers at the central and decentralized levels?

- What is the composition of their membership? What is the share of researcher membership in these bodies?

- What do these researchers do after their tenure in these bodies?

25. Is there anything you would like to add?

Comprehensive Interview Guide – Administrators/ Policymakers

- How long have you been…

  _____ in your present position?

  _____ at this institution?

- Background information on interviewee:

  What is your highest degree? _____
  _____

  What is your field of study? _____
  _____

1. Briefly describe your role (research director, teacher, consultant e.g.) as it relates to conducting social science research. *How are you involved in research production, through data collection to research direction?*

2. How would you describe the quality of the infrastructure and support available for social science researchers in Nigeria? *How is the provision of work resources, such as workspace or equipment, at your institution? Administrative support? Capacity building? Funding for research?*

3. How would you describe the level of diversity of the research environment? *Does it include actors from various types of institutions, NGO, government agencies, etc. – why or why not? Can you comment on the extent of collaboration among the different actors?*

4. Do you think that SS researchers work with the media to publicize research results?

5. What does your institution provide in terms of research communication training? Probes: What have you learned

from communication trainings? What, if anything, was lacking?

6. Do you regularly work with media to publicize research results? Do you often see your work on various media channels, e.g. internet, television or radio?

7. Are there local journals in local languages in Nigeria?

8. What does the national geography of SS researchers look like in the country? *How concentrated or dispersed are researchers in Nigeria, in terms of geography?*

9. What is the proportion of researchers' time allocated to research?

10. What proportion of advanced degree students usually graduate after enrolment?

11. How would you rate the level of funding for SSR in Nigeria? Can you give a specific annual GERD for SSR?

12. How many social science researchers do we have in Nigeria? Can you give an estimate? How do they vary by qualification and gender?

13. How would you rate the quality of mentoring received by junior researchers (PhD students) in the production of SSR?

14. Are there social science research (SSR) regulatory bodies and national research policies? What about their quality? *We would like to confirm the existence of SSRC and SS Academy of Nigeria*

15. How would you rate the quality of participation of policymakers in research design?

16. What can you say about the number of communication materials produced for policymakers by researchers?

17. How much/well are lectures and policy learning packages done/organized for technical officers and policymakers?

18. How well are social issues included in policy dialogue?

19. Are there bodies officially set up to advice policymakers at the central and decentralized levels?

   What is the composition of their membership? What is the share of researcher membership in these bodies?

   What do these researchers do after their tenure in these bodies?

20. What is the general perception of policymakers on the utility of social science research?

21. How do researchers themselves perceive the utility of their research for policymakers?

22. What is the quality of incentive system to produce research? What does the researcher job market look like in Nigeria?

23. How would you rate the level of independence of researchers in producing quality SSR and the research produced?

24. How would you rate the level of demand for research inputs into policymaking?

25. Do you regularly work with media to publicize research results? Do you often see your work on various media channels, e.g. internet, television or radio?

26. Do you think that your institution may influence policy?

27. Have you ever held a position as a policymaker?

28. Is there anything you would like to add?

APPENDIX II

Sampling Frame of Organizations in Nigeria's Social Science Research System

Table 37: Categorization of organizations identified in the stakeholder mapping and included in the sampling frame

HIGHER EDUCATION INSTITUTIONS (HEI)						
Subgroups	**Location**	**Size**	**Number of organizations**		**Number of respondents**	
			Frame	**Sample**	**Researchers**	**Administrators**
1	SW	S	27	9	90	18
2	SW	M	11	4	40	8
3	SW	L	8	3	30	6
4	SS	S	16	5	50	10
5	SS	M	6	2	20	4
6	SS	L	7	2	20	4
7	SE	S	11	3	30	6
8	SE	M	5	2	20	4
9	SE	L	4	1	10	2
10	NW	S	13	4	40	8
11	NW	M	2	1	10	2
12	NW	L	3	1	10	2
13	NE	S	8	2	20	6
14	NE	M	6	2	20	4
15	NE	L	1	1	10	-
16	NC	S	8	3	30	6
17	NC	M	8	3	30	6
18	NC	L	6	2	20	4
Total			**150**	**50**	**500**	**100**

RESEARCH INSTITUTES (RI)						
Subgroups	**Location**	**Size**	**Number of organizations**		**Number of respondents**	
			Frame	**Sample**	**Researchers**	**Administrators**
19	SW		2	2	20	4
20	NC		1	1	10	2
21	NC		2	2	20	4
Total			**5**	**5**	**50**	**10**

PRIVATE SECTOR (PS)						
Subgroups	Location	Size	Number of organizations		Number of respondents	
			Frame	Sample	Researchers	Administrators
22	SW		48	11	11	11
23	SS					
24	SE					
25	NE		17	4	4	4
26	NC					
27	NW					
Total			65	15	15	15

CIVIL SOCIETY ORGANIZATIONS (CSOs)						
Subgroups	Location	Size	Number of organizations		Number of respondents	
			Frame	Sample	Researchers	Administrators
28	SW		529	4	4	4
29	SS		274	3	3	3
30	SE		91	3	3	3
31	NW		251	3	3	3
32	NE		45	3	3	3
33	NC		325	4	4	4
Total			1,515	20	20	20

APPENDIX III

Institutions of Respondents

Table 38: Distribution of survey respondents by institution

Sr.	Name of organization	Type	Researchers	Administrators	Policymakers	Total
1	Abubakar Tafawa Balewa University, Bauchi	HEI	9	2	0	11
2	Academic Faith Based University	HEI	1	0	0	1
3	Adamawa State University, Mubi	HEI	6	3	0	9
4	Adeleke University, Ede	HEI	6	0	0	6
5	Ahmadu Bello University, Zaria	HEI	8	0	0	8
6	Ajayi Crowther University, Oyo	HEI	5	1	0	6
7	Al-Hikman University, Ilorin	HEI	9	2	0	11
8	Anchor University, Lagos	HEI	8	3	0	11
9	ASUU	HEI	1	0	0	1
10	Bauchi State University, Gadau	HEI	4	0	0	4
11	Baze University, Abuja	HEI	0	1	0	1
12	Benue State University	HEI	0	1	0	1
13	CALEB University	HEI	1	0	0	1
14	Caritas University	HEI	1	0	0	1
15	Chukwuemeka Odumegwu Ojukwu University, Uli	HEI	7	3	0	10
16	Covenant Universiity, Ota	HEI	6	2	0	8
17	Delta State University, Abraka	HEI	8	2	0	10
18	Federal University Dutse	HEI	4	0	0	4
19	Federal University of Agriculture, Abeokuta	HEI	14	1	0	15
20	Federal university of Lafia	HEI	5	1	0	6
21	Federal University of Otuoke	HEI	5	2	0	7
22	Federal University Oye	HEI	3	0	0	3
23	Imo State University, Owerri	HEI	10	2	0	12
24	Kaduna State University, Kaduna	HEI	4	1	0	5
25	Lagos State University, Ojo	HEI	5	2	0	7

26	Landmark University, Omu-aran	HEI	8	2	0	10
27	Lead City University	HEI	1	0	0	1
28	Leed City University	HEI	3	0	0	3
29	Modibbo Adama University of Technology, Yola	HEI	11	3	0	14
30	Mountain Top University, Ibafo	HEI	6	3	0	9
31	National association of sociology & anthropology students	HEI	1	0	0	1
32	National Open University of Nigeria	HEI	8	2	0	10
33	Niger Delta University, Amassoma	HEI	17	2	0	19
34	Nnamdi Azikiwe University, Awka	HEI	12	2	0	14
35	Novena University, Ogume	HEI	6	2	0	8
36	Obafemi Awolowo University, Ile-Ife	HEI	26	1	0	27
37	Oduduwa University, Ipetumodu	HEI	0	2	0	2
38	Osun State University, Osogbo	HEI	5	1	0	6
39	Paul University, Awka	HEI	9	3	0	12
40	Redeemer's University, Ede	HEI	8	1	0	9
41	Samuel Adegboyega Universit, Ogwa	HEI	9	2	0	11
42	Taraba State Univeresity, Jalingo	HEI	7	2	0	9
43	University	HEI	2	2	0	4
44	University of Benin	HEI	13	1	0	14
45	University of Ibadan	HEI	20	5	0	25
46	University of Ilorin	HEI	12	2	0	14
47	University of Jos	HEI	1	0	0	1
48	University of Lagos	HEI	8	3	0	11
49	University of Nigeria, Nsukka	HEI	16	1	0	17
50	University of Port-Harcourt	HEI	10	3	0	13
51	Wellspring University, Benin	HEI	9	2	0	11
52	Western Delta University, Oghara	HEI	9	2	0	11

53	Yusuf Maitama Sule University, Kano	HEI	17	2	0	19
54	Center for Housing and Sustainable Development, UNILAG	RI	1	0	0	1
55	Centre for Population and Environmental Development, Benin	RI	1	1	0	2
56	National Centre for Technology Management, Ile-Ife	RI	10	3	0	13
57	Nigerian Institute of International Affairs, Lagos	RI	2	0	0	2
58	Nigerian Institute of Social and Economic Research (NISER), Ibadan	RI	17	2	0	19
59	3T Impex Trade Consulting, Lagos	PS	1	1	0	2
60	Abuja Enterprise Agency	PS	1	0	1*	2
61	Cambridge University Press, Lagos	PS	1	0	0	1
62	CANDINO Resarech and Consultancy Service, Lagos	PS	1	1	0	2
63	Data Lead Africa	PS	1	0	1*	2
64	Samak Consultancy	PS	1	0	0	1
65	Samtak Nigeria Limited	PS	0	1	0	1
66	Strategic Research and Management Insight, Lagos	PS	1	1	0	2
67	Verraki Partners, Lagos	PS	1	1	0	2
68	Africa Youth for Development Commission	CSO	0	1	0	1
69	African Foundation for Peace & Love Initiative, Lagos	CSO	0	1	0	1
70	African Youth Development (AYD)	CSO	0	1	0	1
71	African Youth for Development Commission	CSO	2	0	0	2
72	Agatha Obiageli Aghedo Memorial Foundation, Lagos	CSO	1	1	0	2
73	Aminu Kano Center for Democratic Studies, Kano	CSO	1	1	0	2
74	Centre for Health and Development in Africa, Yola	CSO	2	0	0	2

75	Child Protection and Peer Learning Initiative, Yola	CSO	1	1	0	2
76	Citizens for Development and Education – CDE	CSO	0	1	0	1
77	Community Empowerment and Peace-building Foundation for Women and Youth	CSO	1	0	0	1
78	Community Need Care Development Initiative (CONCED)	CSO	1	1	0	2
79	Drugs Abuse	CSO	1	0	0	1
80	E-Waste Relief Roundation, Lagos	CSO	1	0	0	1
81	Foundation For Global Reforms	CSO	1	1	0	2
82	Fulfilling Dreams Foundation	CSO	1	1	0	2
83	Imo Self Help Organization	CSO	1	1	0	2
84	Initiative for Peace Building & Social Change	CSO	0	1	0	1
85	Meadows Community and Development Outreach	CSO	1	1	0	2
86	Network for Empowement and Development Initiative, Kano	CSO	1	0	0	1
87	Niger Delta Advocacy Movement	CSO	1	1	0	2
88	Nigerian Conservation Foundation, Lagos	CSO	1	1	0	2
89	Sarah Adebisi Sosan Foundation, Lagos	CSO	1	1	0	2
90	Spring Of Hope	CSO	1	1	0	2
91	T-bill Project	CSO	1	1	0	2
92	The Vision For Greater Society	CSO	1	1	0	2
93	Women and Youth Empowerment For Advancement of Health Initiative (WYEAHI)	CSO	2	1	0	3
94	Federal Ministry of Education	GFA	0	0	1	1
95	Federal MInistry of Foreign Affairs	GFA	0	0	2	2
96	Federal Ministry of National Planning	GFA	0	0	1	1

97	National Population Commission (NPC)	GFA	0	0	1	1
98	NCAC	GFA	0	0	1	1
99	Niger Delta Development Commission	GFA	0	0	1	1
100	British council	IntDn	0	0	1	1
101	DFID	IntDn	0	0	1	1
102	ECOWAS	IntDn	0	0	1	1
103	Global Environmental Facility	IntDn	0	0	1	1
104	International Organisation for Migration, Abuja	IntDn	2	1	0	3
105	International Project Steering Committee, Lagos	IntDn	1	0	0	1
106	NEPAD	IntDn	0	0	1	1
107	Oxfam	IntDn	0	0	1	1
108	UNESCO	IntDn	0	0	1	1
109	United Nations Office for The Coordination of Humanitarian Affairs	IntDn	0	1	0	1
110	World Bank	IntDn	0	0	1	1
111	Adamawa State House of Assembly	HAss	0	0	9	9
112	Bayelsa State House of Assembly	HAss	0	0	8	8
113	Enugu State House of Assembly	HAss	0	0	6	6
114	Lagos State House of Assembly	HAss	0	0	7	7
115	Nasarawa State House of Assembly	HAss	0	0	6	6
116	National Assembly	HAss	0	0	6	6
117	Federal House of Representatives, Abuja	HAss	0	0	1	1
Total			**450**	**113**	**60**	**623**
Uncategorized			**56**	**4**	**1**	**61**

HEI – Higher Education Institution; PS – Private Sector; CSO – Civil Society Organization; IntDn – International Donor; Hass – House of Assembly

* Even though we did not include private sector firms in the sample for policymakers survey, we found these private consultancies suitable because theyalso perform some research and research uptake roles.

APPENDIX IV

Rank of Respondents

Table 39: Distribution of respondents by rank

Researchers	Frequency	Administrators	Frequency	Policymakers	Frequency
Full professor	27	CEO/Founder/Top Mgt.	5	Honourable member of the House	2
Associate professor	35	Executive/Managing Director	7	Personal assistant to Honourable member	1
Senior Lecturer	87	Deputy director	3	CEO/Chairman	1
Lecturer 1	86	President/Chairman	4	Clerk of the House	1
Lecturer 2	95	Dean of faculty/school	11	Deputy Clerk of the House	1
Assistant lecturer	73	Ag./Head of department/unit	50	Director of division	7
Graduate assistant	16	Administrative officer/staff	14	Deputy/Assistant director	8
Director of research	8	Legal officer/staff	2	Head of department/unit	3
Deputy-director of research	3	Finance officer/staff	1	Secretary to Committee of the House	9
Assistant director of research	5	Human resources officer/staff	2	Legislative officer	15
Assistant chief research officer	8	Humanitarian affairs	1	Research officer	1
Senior research officer	18	Library/information personnel	2	Grant manager	2
Research officer 1	12	Project mgt/M&E officer/staff	2	Program/monitoring officer	1
Research officer 2	11	Lecturers	9	Administration and support officers	9
Missing	22	Missing	4	Missing	-
Total	**506**		**117**		**61**

APPENDIX V

List of Nigerian Univerisities and Their Total Academic Staff

Table 40: Academic staff in Nigerian universities (2017)

S/N	Name	Male	Female	Total	% female	Share of total
1	Abia State University, Uturu	531	176	707	24.89	1.14
2	Abubakar Tafawa Balewa University, Bauchi	832	90	922	9.76	1.49
3	Achievers University, Owo	85	9	94	9.57	0.15
4	Adamawa State University Mubi	265	28	293	9.56	0.47
5	Adekunle Ajasin University, Akungba	331	116	447	25.95	0.72
6	Adeleke University, Ede	79	42	121	34.71	0.20
7	Afe Babalola University, Ado-Ekiti - Ekiti State	275	102	377	26.84	0.61
8	African University of Science & Technology, Abuja	52	2	54	3.7	0.09
9	Ahmadu Bello University, Zaria	2387	532	2919	18.23	4.71
10	Ajayi Crowther University, Ibadan	93	33	126	26.19	0.20
11	Akwa Ibom State University, Ikot Akpaden	327	98	425	23.06	0.69
12	Alex Ekwueme Federal University, Ndufu Alike, Ikwo	416	123	539	22.82	0.87
13	Al-Hikmah University, Ilorin	126	31	157	19.75	0.25
14	Al-Qalam University, Katsina	228	9	237	3.8	0.38
15	Ambrose Alli University, Ekpoma	523	131	654	20.03	1.05
16	American University of Nigeria, Yola	75	20	95	21.05	0.15
17	Anchor University Ayobo Lagos State	34	9	43	20.93	0.07
18	Arthur Javis University Akpabuyo Cross River State	23	9	32	28.13	0.05
19	Augustine University	32	11	43	25.58	0.07
20	Babcock University, Ilishan-Remo	324	163	487	33.47	0.79
21	Bayero University, Kano	1352	278	1630	17.06	2.63
22	Baze University	162	64	226	28.32	0.36
23	Bells University of Technology, Ota	116	55	171	32.16	0.28
24	Benson Idahosa University, Benin City	140	51	191	26.7	0.31
25	Benue State University, Makurdi	351	129	480	26.88	0.77
26	Bingham University	0	0	489	0	0.79
27	Bowen University, Iwo	231	100	331	30.21	0.53
28	Caleb University, Lagos	62	17	79	21.52	0.13
29	Caritas University, Enugu	165	45	210	21.43	0.34
30	Chrisland University	21	14	35	40	0.06
31	Christopher University Mowe	39	18	57	31.58	0.09
32	Clifford University Owerrinta Abia State	30	18	48	37.5	0.08

33	Coal City University Enugu State	14	9	23	39.13	0.04
34	Covenant University Ota	353	179	532	33.65	0.86
35	Crawford University Igbesa	58	16	74	21.62	0.12
36	Crescent University	102	30	132	22.73	0.21
37	Cross River State University of Science &Technology, Calabar	326	69	395	17.47	0.64
38	Crown Hill University Eiyenkorin, Kwara State	22	4	26	15.38	0.04
39	Delta State University Abraka	618	129	747	17.27	1.20
40	Dominican University Ibadan Oyo State	19	3	22	13.64	0.04
41	Eastern Palm University Ogboko, Imo State	11	5	16	31.25	0.03
42	Ebonyi State University, Abakaliki	699	192	891	21.55	1.44
43	Edo University Iyamho	77	15	92	16.3	0.15
44	Edwin Clark University, Kaigbodo	80	9	89	10.11	0.14
45	Ekiti State University	632	100	732	13.66	1.18
46	Eko University of Medicine and Health Sciences	0	0	0	0	0.00
47	Elizade University, Ilara-Mokin	82	23	105	21.9	0.17
48	Enugu State University of Science and Technology, Enugu	572	146	718	20.33	1.16
49	Evangel University, Akaeze	101	31	132	23.48	0.21
50	Federal University Gashua, Yobe	138	12	150	8	0.24
51	Federal University Gusau	0	0	0	0	0.00
52	Federal University of Agriculture, Abeokuta	428	164	592	27.7	0.95
53	Federal University of Petroleum Resources, Effurun	149	34	183	18.58	0.30
54	Federal University of Technology, Akure	759	174	933	18.65	1.50
55	Federal University of Technology, Minna	710	123	833	14.77	1.34
56	Federal University of Technology, Owerri	612	200	812	24.63	1.31
57	Federal University, Birnin Kebbi	308	15	323	4.64	0.52
58	Federal University, Dutse, Jigawa State	449	52	501	10.38	0.81
59	Federal University, Dutsin-Ma, Katsina	110	16	126	12.7	0.20
60	Federal University, Kashere, Gombe State	445	44	489	9	0.79
61	Federal University, Lafia, Nasarawa State	214	55	269	20.45	0.43
62	Federal University, Lokoja, Kogi State	152	34	186	18.28	0.30
63	Federal University, Otuoke, Bayelsa	203	46	249	17.76	0.40
64	Federal University, Oye-Ekiti, Ekiti State	344	110	454	24.23	0.73
65	Federal University, Wukari, Taraba State	354	69	423	16.31	0.68
66	Fountain University, Oshogbo	63	42	105	40	0.17
67	Godfrey Okoye University, Ugwuomu-Nike - Enugu State	183	85	268	31.72	0.43
68	Gombe State University, Gombe	603	326	929	35.09	1.50
69	Gregory University, Uturu	100	51	151	33.77	0.24
70	Hallmark University	28	12	40	30	0.06

71	Hezekiah University, Umudi	47	12	59	20.34	0.10
72	Ibrahim Badamosi Babangida University, Lapai	206	41	247	16.6	0.40
73	Igbinedion University Okada	149	39	188	20.74	0.30
74	Ignatius Ajuru University of Education, Rumuolumeni	318	126	444	28.19	0.72
75	Imo State University, Owerri	405	333	738	45.12	1.19
76	Joseph Ayo Babalola University, Ikeji-Arakeji		37	189	19.58	0.30
77	Kaduna State University, Kaduna	408	127	535	23.74	0.86
78	Kebbi State University of Science and Technology	240	13	253	5.14	0.41
79	Kings University	31	11	42	26.19	0.07
80	Kogi State University Anyigba	312	52	364	14.29	0.59
81	Kola-Daisi University, Ibadan	11	5	16	31.25	0.03
82	Kwara State University, Ilorin	310	115	425	27.06	0.69
83	Kwararafa University, Wukari	63	8	71	11.27	0.11
84	Ladoke Akintola University of Technology, Ogbomoso	470	115	585	19.66	0.94
85	Lagos State University, Ojo	553	159	712	22.33	1.15
86	Landmark University, Omu-Aran.	180	39	219	17.97	0.35
87	Lead City University, Ibadan	122	86	208	41.35	0.34
88	Legacy University, Okija Anambra State	19	6	25	24	0.04
89	Madonna University, Okija	349	157	506	31.03	0.82
90	Mcpherson University, Seriki Sotayo, Ajebo	79	22	101	21.78	0.16
91	Michael Okpara University of Agricultural Umudike	552	445	997	44.63	1.61
92	Micheal & Cecilia University	29	13	42	30.95	0.07
93	Modibbo Adama University of Technology, Yola	553	64	617	10.37	1.00
94	Mountain Top University	56	9	65	13.85	0.10
95	Nasarawa State University Keffi	429	119	548	21.72	0.88
96	National Open University of Nigeria, Lagos	224	152	376	40.43	0.61
97	Niger Delta University Yenagoa	668	165	833	19.81	1.34
98	Nigeria Police Academy, Wudil	145	9	154	5.84	0.25
99	Nigerian Defence Academy Kaduna	165	52	217	23.96	0.35
100	Nile University of Nigeria, Abuja	135	38	173	21.97	0.28
101	Nnamdi Azikiwe University, Awka	729	491	1220	40.25	1.97
102	Novena University	113	18	131	13.74	0.21
103	Obafemi Awolowo University, Ile-Ife	1038	361	1399	25.8	2.26
104	Oduduwa University, Ipetumodu - Osun State	180	25	205	12.2	0.33
105	Olabisi Onabanjo University, Ago Iwoye	496	133	629	21.01	1.01
106	Ondo State University of Medical Sciences	106	34	140	24.29	0.23
107	Ondo State University of Science and Technology Okitipupa	47	9	56	16.07	0.09
108	Osun State University Osogbo	288	82	370	22.16	0.60

109	PAMO University of Medical Sciences Port Harcourt	0	0	0	0	0.00
110	Pan-Atlantic University, Lagos	50	20	70	28.57	0.11
111	Paul University, Awka - Anambra State	94	38	132	28.79	0.21
112	Plateau State University Bokkos	122	34	156	21.79	0.25
113	Redeemer's University, Ede	103	38	141	26.95	0.23
114	Renaissance University, Enugu	85	41	126	32.54	0.20
115	Rhema University, Obeama-Asa - Rivers State	44	8	52	15.38	0.08
116	Ritman University	33	6	39	15.38	0.06
117	Salem University, Lokoja	45	15	60	25	0.10
118	Samuel Adegboyega University, Ogwa.	46	9	55	16.36	0.09
119	Sokoto State University, Sokoto	159	52	211	24.64	0.34
120	Sule Lamido University, Kafin Hausa, Jigawa	184	11	195	5.64	0.31
121	Summit University	29	2	31	6.25	0.05
122	Tai Solarin University of Education Ijebu Ode	210	82	292	28.08	0.47
123	Tansian University, Umunya	38	17	55	30.91	0.09
124	Taraba State University, Jalingo	312	232	544	42.65	0.88
125	The Technical University, Ibadan	20	3	23	13.04	0.04
126	Umar Musa Yar' Adua University Katsina	499	58	557	10.41	0.90
127	University of Abuja, Gwagwalada	488	166	654	25.38	1.05
128	University of Agriculture, Makurdi	587	169	756	22.35	1.22
129	University of Benin	1318	566	1884	30.04	3.04
130	University of Calabar	1204	541	1745	31	2.81
131	University of Ibadan	1075	449	1524	29.46	2.46
132	University of Ilorin	1122	367	1489	24.65	2.40
133	University of Jos	955	382	1337	28.57	2.16
134	University of Lagos	1079	548	1627	33.68	2.62
135	University of Maiduguri	1017	316	1333	23.71	2.15
136	University of Mkar, Mkar	162	39	201	19.4	0.32
137	University of Nigeria, Nsukka	1436	638	2074	30.76	3.35
138	University of Port-Harcourt	973	519	1492	34.79	2.41
139	University of Uyo	983	300	1283	23.38	2.07
140	Usmanu Danfodiyo University	1171	81	1252	6.47	2.02
141	Veritas University	122	60	182	27.27	0.29
142	Wellspring University, Evbuobanosa - Edo State	47	8	55	14.55	0.09
143	Wesley University, Ondo	80	14	94	14.89	0.15
144	Western Delta University, Oghara Delta State	64	12	76	15.79	0.12
145	Yobe State University, Damaturu	288	27	315	8.57	0.51
146	Yusuf Maitama Sule University Kano	263	64	327	19.57	0.53
		46557	14801	61999		100

Source: National Universities Commission (NUC). Nigerian University System Statistical Digest (Retrieved from http://nuc.edu.ng/wp-content/uploads/2018/12/REVISED-April-25-Statistical Digest-min.pdf on January 07, 2020)

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