



OTT

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National Research Funding Mechanisms in West Africa

2024



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This slide deck was produced as part of OTT's [technical advisory partnership](#) with Jacobs Foundation and its EdLabs.

Guiding questions

- 1. How much money is spent by (West) African governments on (education) research?**
 - What factors drive government spending on research?
- 2. What structures are these resources channelled through?**
 - What are the key needs and priorities of these existing structures?

- 3. What is the role of donors within this?**
 - How do funders support these mechanisms (either through capacity strengthening for the mechanism itself or through contributing funds to it?)-- examples of key players/initiatives, especially philanthropic.
 - Are there other examples of multi-donor national research funds (in collaboration with govt) in (West) Africa?
- 4. What are some examples of different (West) African national research funding mechanisms?**



Context: Government Research Funding Landscape in Africa



African government spending on research

- In 2006-7 AU member countries committed to spending at least 1% of GDP on research and development but no country in Africa is fulfilling this commitment
- In 2023, Africa was the region with the lowest domestic spending on GERD worldwide
- The average African government R&D spend was 0.45% of GDP against global average of 1.7%
 - South Africa, Kenya, Egypt and Morocco have the highest spend at 0.85%, 0.82%, 0.72%, and 0.71% of GDP respectively
 - Statistics on R&D are often incomplete making it difficult to track expenditure
- Latest available figures show Nigeria spends only 0.14% of GDP, Ghana (0.38%), Côte D'Ivoire (0.07%)--though data is out of date (2007, 2010, 2016 respectively)
- Government research funding is usually distributed via higher education institutions and national research councils (& our review suggests it may be covering both salaries & operational costs as well as direct research costs)
- Social sciences are typically underfunded compared to 'hard sciences'

What the literature tells us: the African research funding landscape

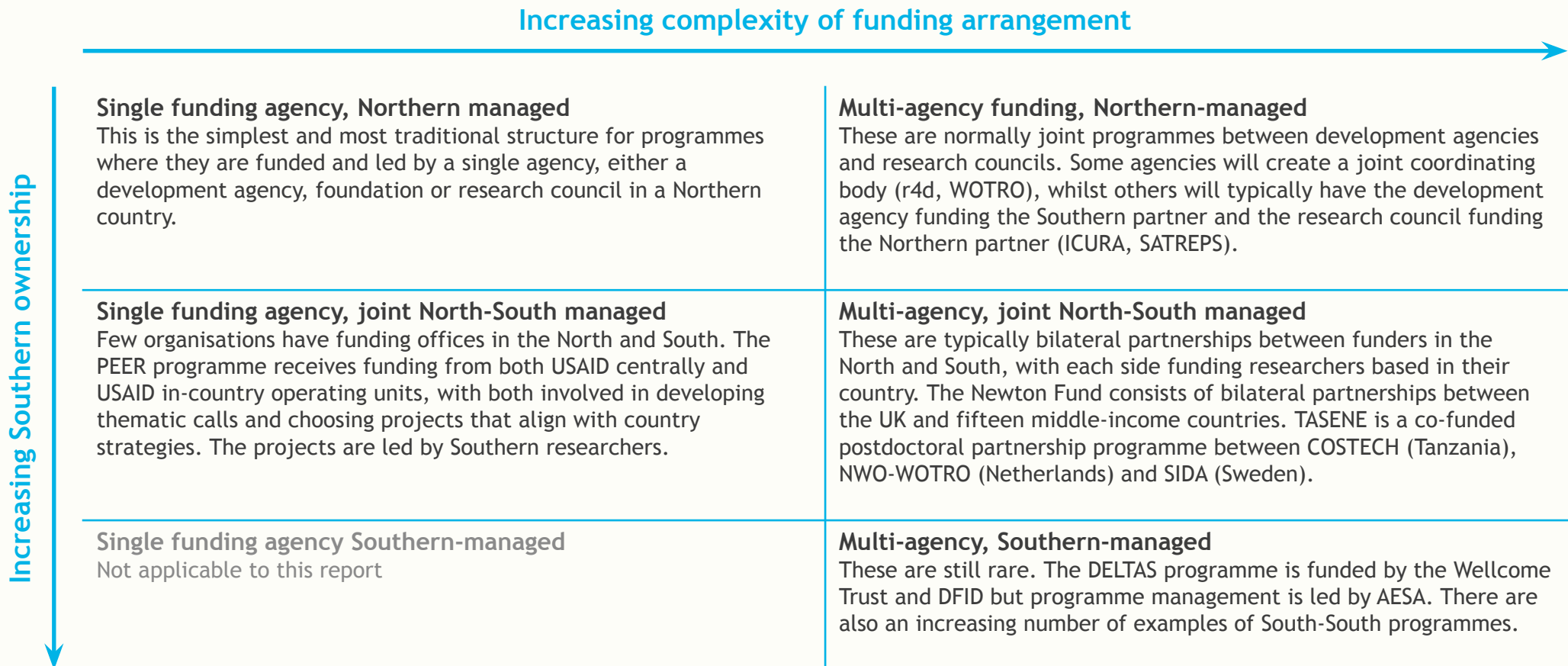
- Initial literature search reveals limited scholarship on research funding in Africa, with focus on South African R&D spending.
- Low investments by African governments on R&D and overreliance on foreign funding.
 - External funding concentrated in East Africa with the exception of Ghana
 - Research funded by external orgs such as Bill & Melinda Gates exhibit high citation impact
- Priorities:
 - Limited external funding for African education research. Most education research funding in form of scholarships, grants and training for doctoral students.
 - Agriculture and health are top priorities for research funding
- Sector-differentiated models -inter-departmental rivalries have created different research funding councils
- Need to involve national institutions in the funding landscape

Data gaps

- Data on R&D spending by African governments (of both government and donor funds) is limited
 - And data on education or social science spending is even more limited
- Several actors have called for better statistics on public research spending (and for donors to support this)
 - Some countries such as Uganda and South Africa have published more detailed reports
 - But in other countries such as Nigeria and Ghana there is very little data available

Global North-South Research Funding Structures

Varieties of funding agency structures for North-South research programmes



Models of national research funding in Africa

1. Paradigmatic Principal-Agent Model

Government delegates to a National research Foundation/council. (Mouton, Gaillard, & van Lill, 2014; 2015). E.g in South Africa, Senegal, Cote D'Ivoire and Namibia

2. Sector-differentiated model

Sector specific funding agencies especially in agriculture and health e.g Burkina Faso (FONRID reports to the Ministry of Scientific Research and Innovation; FONER is responsible to the Ministry of Secondary and Higher Education; while FARES reports to the Ministry of Health.)

3. Embedded principal-agent model

The agent is simply an extension of government with no obvious autonomy or independence from the department in which it is located. Examples are mostly commissions e.g the Commission for Science and Technology (COSTECH) in Tanzania.

4. Multiple principal-agents model

A mix of government funding and donors.

Public funding for education research in Africa: situational analyses from ESSA and EERA programmes

Strengths

- Pivotal role played by donors & other external actors in funding education research
- South-South collaboration models are valuable
- Growing African-led education research output

Weaknesses

- Severe funding limitations impact research quality and utility for decision makers. A particular gap in public (govt) funding opportunities
- Heavy reliance on project-specific and self-funded research
- Limited support for building research infrastructure

Opportunities

- Government support for research through national research funds
- Some small government grants starting for education research
- Researchers can collaborate to influence research funding policy/priorities
- Funder collaboration and coordination efforts

Threats

- Low prioritisation of education research by policymakers and some researchers (vs other research topics)
- Limited government funding for all research, including education
- Dependency on international donors with conflicting priorities

In the news

*“Professor John Owusu Gyapong, the newly appointed secretary-general of the African Research Universities Alliance, or ARUA, told University World News that, given the importance of research for Africa’s development, **African governments have to make good on their commitment that 1% of GDP should go towards research.**”*

University World News 2023

*“**It is time for African governments to strengthen national research programmes and partnerships.** They need to do this by working with the local scientists to prioritise domestic programmes for targeted research funding.*

It is also critical that we focus on building a new future and lobbying for more South-South partnerships and initiatives focusing on the African bloc.

African research and development capacity cannot continue to rely on funding structures that can be withdrawn on a whim, leaving African researchers helpless.”

The Conversation, 2021

“Although African countries appreciate research grants from donor countries, they often chafe at the condition that they bring in their own money in order to be eligible.

Some research projects fall by the wayside because African granting agencies simply have no way to provide their share of the money, sometimes called counterfunding, the heads of 15 national science councils in Africa said.”

Science, 2019

Relevant regional **government** structures and stakeholders

- [African Observatory of Science, Technology & Innovation \(AU\)](#) is mandated by AU to lead measurements of STI in Africa, to facilitate review of related policies and to spearhead adherence to common data quality principles & standards which are pertinent to inform socio-economic development of the African continent. It produces sound evidence to support policy-making within the national and regional structures of the union as far as science, technology and innovation (STI) are concerned.
- [NEPAD- ASTII initiative](#) NEPAD's African Science, Technology and Innovation Indicators (ASTII) started in 2005 to contribute towards a better quality of STI policies at the national, regional and continental levels. The objective of ASTII is to support and strengthen the capacity of Africans to develop and use STI Indicators in development planning and policy. There is no mention of education per se but talks about science, technology and innovation.

Relevant regional **non-governmental** structures and stakeholders

- [WARIMA](#) is a non-profit professional membership organization for research managers and administrators for the promotion of best research and innovation management practice in West Africa. Organises workshops for members, but no mention of education research
- [West and Central African Research and Education Network](#) (WACREN) is a not-for-profit set up to promote and establish interconnections between national research and education networks in West and Central Africa to form a regional research and education network, interconnecting with other regional and continental networks, and providing services aimed at fostering collaboration between research and education institutions in the region as well as between them and peer institutions at continental and international levels.
- [West African Research Association](#) (WARA) in Dakar supports research and scholarly exchange in West Africa through various programs, including funding opportunities for education research. They offer grants and fellowships to researchers studying education-related topics in the region.



Role of Donors and Examples of Relevant Programmes

SGCI | SRIA | Doing Research



Donor support to African education research

- Most African countries rely on external donors for research funding.
 - Private donors' contributions have increased over the past 20 years
 - Approximately 10% of African education research studies secure funding, with up to 90% of these funds coming from external sources.
- Donor priorities may not align with governments
 - Even where there is alignment between donors and governments, lack of resourcing remains a challenge
 - Funding is unpredictable/can be withdrawn

“The goals of large, philanthropic bodies are impacting prioritisation. These bodies often align with multi-stakeholder organisations.

Does this mean that African priorities are being set elsewhere?”

SGCI, October 2023

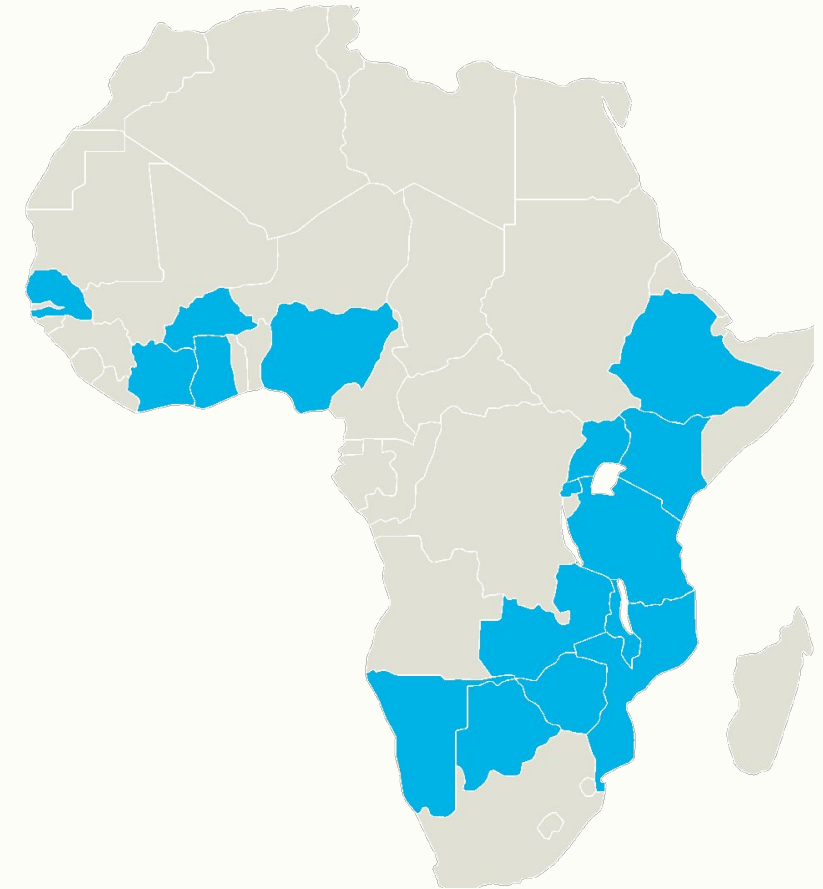
“African research agendas and funding continue to be subjected to the fluctuations of funding and vagaries of partners from the global north.

Although Africa represents 18% of the world population, it only produces 1% to 2% of the global research and innovation outputs.”

Nature, Dec 2023

Science Granting Councils Initiative (SGCI)

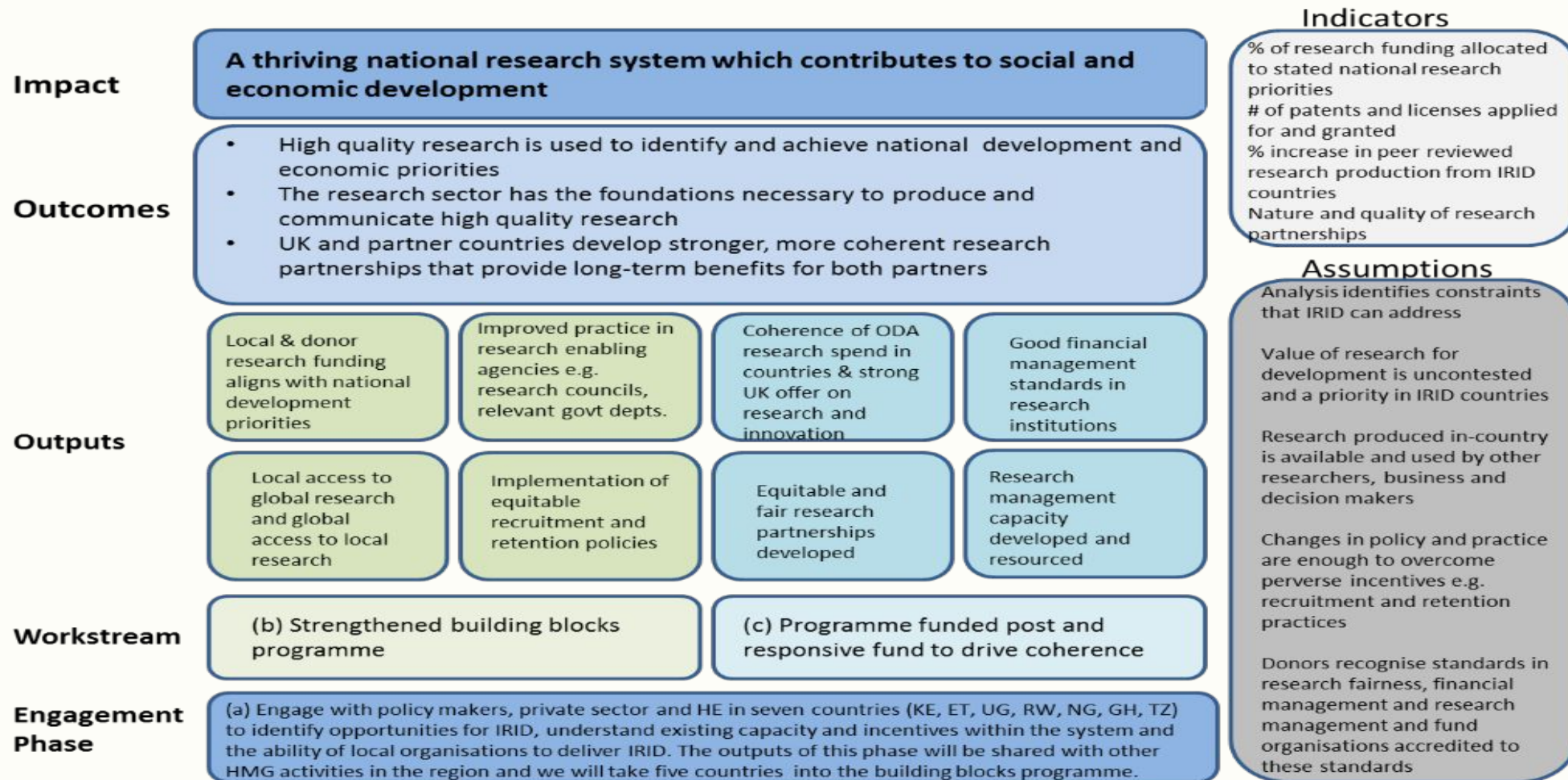
- Works in partnership with 17 African science granting councils to strengthen their capacity to support evidence-based policies contributing to economic and social development
- Multi-donor partnership launched in 2015 by FCDO (UK), IDRC (Canada) and NRF (South Africa). Later joined by German Research Foundation, Swedish Sida, NORAD
- In West Africa:
 - **Burkina Faso:** *Fonds National de la Recherche et de l'Innovation pour le Développement*
 - **Senegal:** *Ministère de l'Enseignement supérieur, de la Recherche et de l'Innovation*
 - **Côte d'Ivoire:** *Fonds pour la Science, la Technologie et l'Innovation*
 - **Ghana:** *Ministry of Environment, Science, Technology and Innovation*
 - **Nigeria:** *Tertiary Education Trust Fund*
 - **Sierra Leone:** *Ministry of Technical and Higher Education*



Strengthening Research Institutions in Africa (SRIA)

- [Ongoing collaboration \(since approx 2018\)](#) between Wellcome Trust, Oxford Policy Management, African Academy of Sciences & Chemonics Intl funded by FCDO
- *“Strengthening research systems in FCDO partner countries in Africa, so that both local and donor research investment achieves economic and social impact.*
 - *Strengthening the institutions that regulate and shape research in country to ensure that research investment is aligned with national development priorities*
 - *Investing in the building blocks of research, for example, access to global research, recruitment and retention of researchers and more equitable research partnerships between northern and southern researchers.”*
- As part of its design phase, carried out [seven country research system assessments](#) including Ghana and Nigeria

SRIA's Theory of Change



GDN's Doing Research Assessments in West Africa

- [Exploring national systems for social science research](#), including indicators on funding structures since 2014
- Funders have included Gates Foundation, AFD, Swiss Agency for Development & Cooperation
- In West Africa:
 - Côte d'Ivoire and Cameroon were pilot countries in 2014-2016.
 - In 2022-24 assessments are happening in Benin, Cameroon, Burkina Faso, Chad and Mali

Doing Research Assessment framework and its indicators

| FACTOR | INDICATORS | TYPE | SOURCES |
|--|---|-----------------------|--|
| 1. Production (generation) (1/3) | | | |
| 1.1 Research inputs (30% of the production score) | | | |
| People and resources needed to produce robust social science research | | | |
| 1.1.a People | <ul style="list-style-type: none"> • No. of social science researchers, per million active people • % of social science researchers with PhD • % of female researchers | Ratio % % | Desk review/UIS Desk review/Survey Desk review/UIS |
| 1.1.b Funding | <ul style="list-style-type: none"> • Government Expenditure on Research and Development (GERD) in social sciences, per researcher | Absolute | Desk review/UIS |
| 1.1.c Infrastructure and data | <ul style="list-style-type: none"> • Quality of access to data • % of open access output • Quality of research infrastructure | Rating % Rating | Survey Scopus (SciMago)/Survey Survey |
| 1.1.d Time for research | <ul style="list-style-type: none"> • Time allocated to research | % | Surveys + interviews |
| 1.2 Research culture and support (30% of the production score) | | | |
| Set of cultural rules and principles, activities and interactions supporting the production of research. | | | |
| 1.2.a Institutions and policy | <ul style="list-style-type: none"> • Quality of a social science research body • Quality of national research policy | Rating Rating | Desk review + Survey Desk review + Survey |
| 1.2.b Peer review culture | <ul style="list-style-type: none"> • Quality of mentoring • No. of peer-reviewed publications, per researcher | Rating Absolute | Survey + interviews Scopus/Survey |
| 1.2.c Capacity building | <ul style="list-style-type: none"> • Development of research capacities • Funding for Research Capacity Building, per researcher | Rating Absolute | Survey + interviews Desk review |
| 1.2.d Research support and administration | <ul style="list-style-type: none"> • Quality of administrative support | Rating | Survey + interviews |



Country examples

Côte d'Ivoire | Senegal | Ghana | Nigeria



Côte d'Ivoire: FONSTI and Swiss cooperation



The [Fonds pour la Science, la Technologie et l'Innovation/Fund for Science, Technology and Innovation \(FONSTI\)](#) was created in 2008.

Designed on the model of the Swiss National Fund and building on several decades of Swiss support to the Ivorian research system, FONSTI is a support fund for research, intended to finance high-quality scientific research and technological innovation programs and projects likely to have an impact on the socio-economic and cultural development of Côte d'Ivoire.

FONSTI's strategic aims are:

1. Building a sustainable funding mechanism for research & innovation
2. Strengthen capacity of research & innovation funding structures
3. Contribute to scientific & economic valorisation of research results
4. Ensure operational excellence of FONSTI & encourage international collaboration

After the formal transfer of funds from the Strategic Support Programme for Scientific Research to the new FONSTI, the Swiss National Science Foundation has remained a strategic partner to FONSTI. The two organisations signed an MoU in 2023 to share experiences in research funding.

Côte D'Ivoire: MESRS and the Plan National de Développement

Ministry of Higher Education and Scientific Research (MESRS) oversees research and development activities, including funding for education research projects conducted by universities and research institutions.

Since the Doing Research pilot report in 2016 there have been a number of reforms.

Under the National Development Plan (PND) 2021-2025 and the Education-Training Sectoral Plan (PSE) 2016-2025 and the National Research Policy, the main actions of the Sub-Sector of Higher Education and Scientific

Research to be implemented is as follows:

- strengthening the legal, institutional and steering framework of the ESRS;
- Strengthening the Research and Innovation system and capacity;
- the development of community resources;
- the implementation of National Research Programmes;
- strengthening research and innovation funding;
- strengthening the partnership framework with socio-economic sectors;
- popularization and exploitation of research and innovation results.

National research programme clusters do not mention education as area of competence, rather, Innovation, Technology, Mathematics and Sustainable development (Ministry of Economic Planning)

“[this study] calls for the revitalization of scientific research in Social Sciences [in Côte d'Ivoire] in line with the objectives set out in the country's emergence strategy.

Reforms aimed at improving the research environment, working conditions, incentives for researchers and the sector's governance need to be undertaken.”

*Centre Ivoirien de Recherches
Economiques et Sociales, 2016*

Senegal



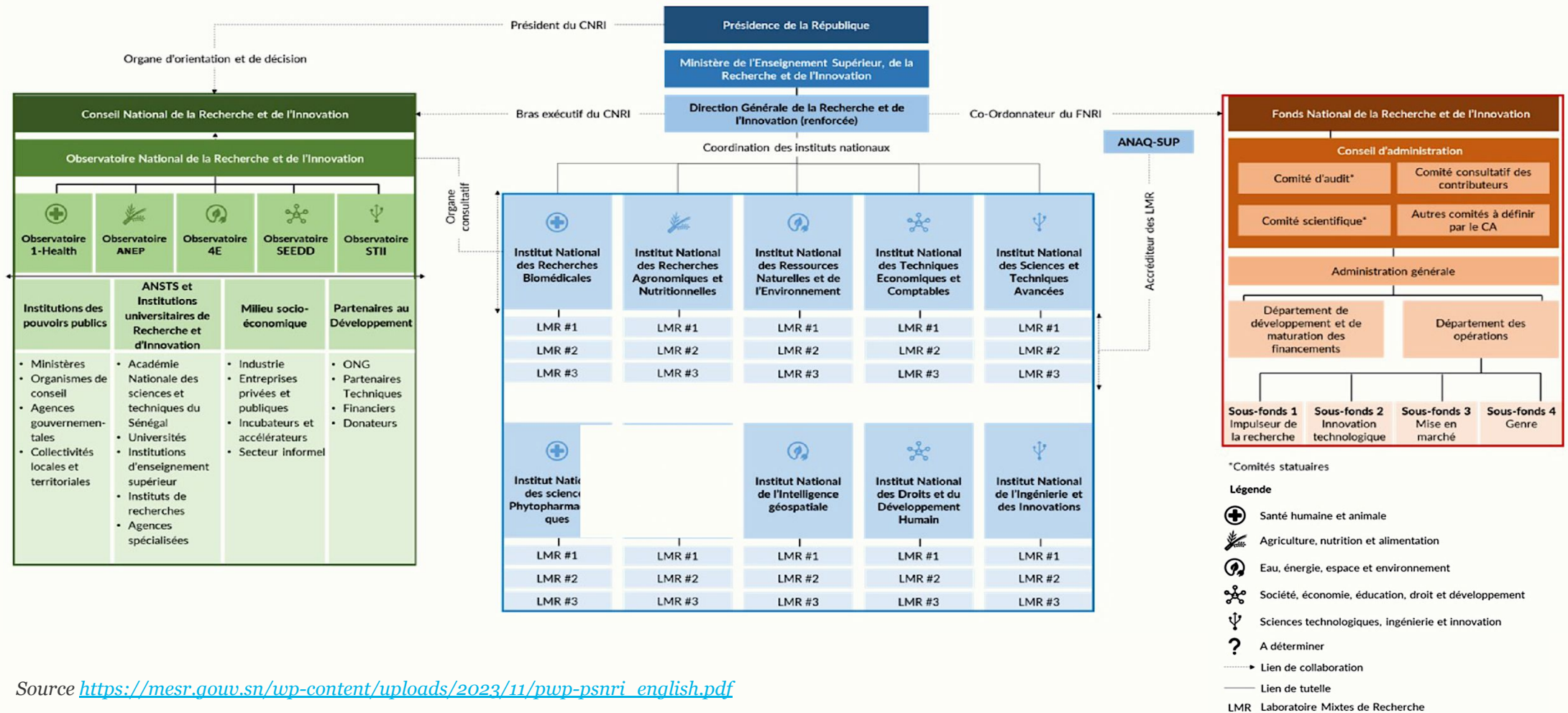
- [Direction Générale de la Recherche et d'Innovation \(DGRI\)](#) is the national research funding body (under MoE) operating through national calls for proposals on selected research themes
- Government initiatives include:
 - [National Strategic Plan for Research and Innovation 2023-2032](#)
 - Recommends a National Council for Research and Innovation, a National Research Fund, and a National Observatory for Research (including education as a focus area)
 - Programme of Governance and Financing of Higher Education
 - Research funding especially for female researchers and applied research

“Public universities and research institutes predominantly depend on dwindling public subsidies and unpredictable international donor support.”

ESSA 2021

Senegal's new national research & funding structure

Gouvernance de la R&I | Plan strategique national de la Recherche et de l'Innovation 2023-2032



Source https://mesr.gouv.sn/wp-content/uploads/2023/11/pwp-psnri_english.pdf

Ghana



- National Research Fund Act passed in 2020 to establish a new national research fund which is currently in development:
 - Priority areas are STEM (25% of funds) but will also support social sciences (13% of funds)
 - 50 million cedis (\$3.7million USD) seed funding contribution by govt with additional contributions from donors and an ambition to approve 1% of GDP annually via Parliament*
 - Will be operationalised by Ministry of Education, Science & Technology in collaboration with Ministry of Education
- As of Feb 2024, Ghana Tertiary Education Commission will continue to disburse research funding and will continue to do so until the new Fund is operational
- Book and Research Allowance (BRA) also continues. A (limited) payment received by academics regardless of research activities, which has been the subject of recent controversy and efforts to restructure into a research fund.

Sources: [Parliament of Ghana 2019](#); [SRIA 2019](#); [CSIR 2020](#); [Ghana Today, 2023](#); [SciDev.Net, 2024](#); [Mujoyonline](#)

*Note that bill text indicates government contribution 50 million cedis whereas SciDev.Net indicates \$50 million USD. Authors have been unable to verify correct amount.

Nigeria



- No national organisation focused on research funding
- [Tertiary Education Trust Fund \(TET\)](#) distributes resources raised through 2% tax on Nigerian-registered companies, with a focus on improving the tertiary education system. TET is part of the SGCI
 - A National Research Fund is part of this, with education as one thematic priority area
- Government agencies receive research funding both from government and philanthropic sources—but this is difficult to track.
 - MoE hosts a number of international partnerships and also has an [internal research department](#) similar to SRIM in Ghana.
- Social sciences and humanities mainly a feature of universities—no government-funded education research institutes.

“Lack of funding is widening the gap between policy and practice and has increased Nigerian researchers’ reliance on international research funding and responsiveness to international agendas rather than national priorities.... no sectoral research policies or strategies appear to be in place that translate the general objectives of the Science, Technology and Innovation Policy into more specific sectoral policies.”

[SRIA Nigeria country overview](#)

Too early to assess impact of reforms in West Africa

“The governance and regulatory frameworks – the structures and policies put in place by national and local governments – such as research councils, national funding agencies, or national research policies, have a significant influence on the production of academic knowledge [in social sciences in LMICs].”

GDN Doing Research framework p15

“Policies from emergent [African] national authorities concerned with science and technology, and newly established national funds dedicated to funding research have still little impact.”

Research Flows in and for Africa: a SGCI Masterclass Working Paper, Oct 2023



Conclusions



In conclusion: **four key messages**

1. The West African research funding **landscape is in flux**. Reforms in several countries in the last year including new policies & new funds being established (Benin, Nigeria, Côte d'Ivoire, Ghana, Senegal)
2. There are **ongoing efforts to strengthen national research funding & prioritisation structures** in West Africa, but education is overlooked.
3. There is a significant '**policy influence**' **opportunity** to connect education research with development outcomes (as has already been done in other sectors)
4. There is a **lack of information/data on government research spend** (both of public funds and donor funds) which makes it difficult to track this issue from desk research alone.

Questions we weren't able to answer: areas for further exploration

Government research funding in general

- How will the recent and upcoming elections in West Africa shape the emergent STI policy landscape?
- What political economy factors are shaping public investment in R&D in West Africa?
- What can be learned from other global examples of reforms to national STI funds and structures?
- How will the current national research funding reforms in West Africa affect the research sector more broadly and education in particular?
- How can international funders fund and sustain national granting councils to fund social sciences?
- To what extent do government research funding structures/processes in the STI architecture link to those in other parts of government (eg in ministries of planning, or in sector ministries like health and education?)

Questions we weren't able to answer: areas for further exploration

Government education research funding in particular

- Of the small proportion of government research funding which is spent on education: what is this funding being spent on and how are priorities identified?
- Who in government has the resource & mandate to commission education-related research, and what mechanisms do they use?
- What does government investment in education research look like when compared to other forms of evidence? (eg primary research vs admin data systems vs evaluations vs synthesis and gap maps)--which forms of evidence are most valued by governments for education policy and why?
- What is the relative role of donors in education research funding compared to other sectors' research funding?
- What are the existing spaces for dialogue between (in-country/national) education researchers and governments regarding research priorities and how do those work?
- To what extent are STI sector level funding and structural reforms linking with similar discussions at the sector level in education? What factors are affecting this?



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