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SDGs and the role of national and regional science systems

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“Mapping Research Related to the Sustainable Development Goals” Workshop

September 4, 2020

Main argument:

One cannot divorce STI for SDGs from national development priorities, which both benefit from strong national and regional STI structures

- *Measuring or assessing STI contributions to SDGs must consider the organizations themselves, particularly in the Global South*

Outline

1. Context and assumptions
2. North-South collaboration and funding flows
3. Organizational capacity-building at the national and regional level
4. Some considerations for a path forward: from “what” to “who” / “how” / “where”

1. Context and assumptions



 SUSTAINABLE DEVELOPMENT GOALS



All photos by IDRC / Matthew Wallace

Assumptions

- New knowledge, technology, and knowledge translation mechanisms are needed to achieve SDGs
- The main challenges for achieving SDGs at a global level lie in the underfunded Global South
- National STI capacity is needed to develop and adapt context-specific technologies and knowledge

Broader context

- Intentionality, causation and knowledge/information flows in STI for SDGs: policy-for-science, science-for-policy
- What is the role of national governments, regional organizations, multilateral agencies
 - Science is about institutions, norms, etc., which are often defined at a national level
 - Science is also fundamentally international: 'invisible colleges', collaboration networks, etc.

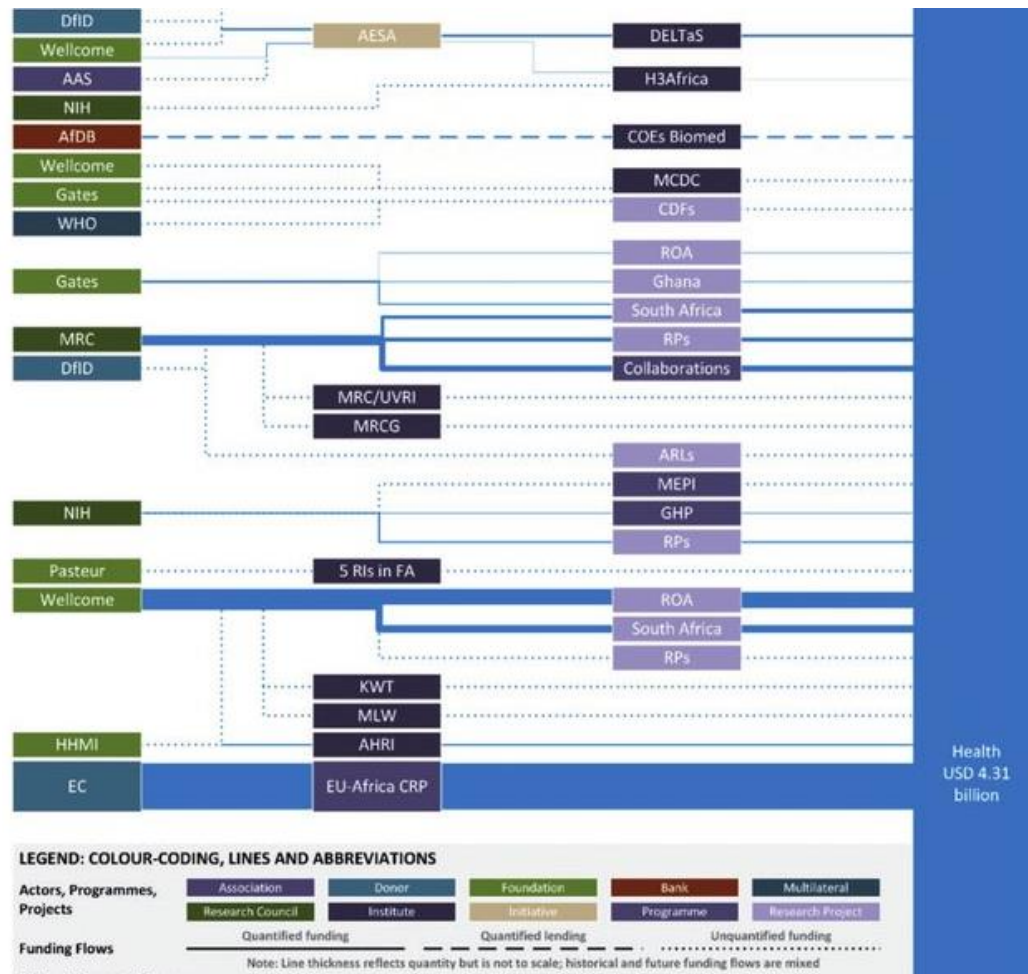
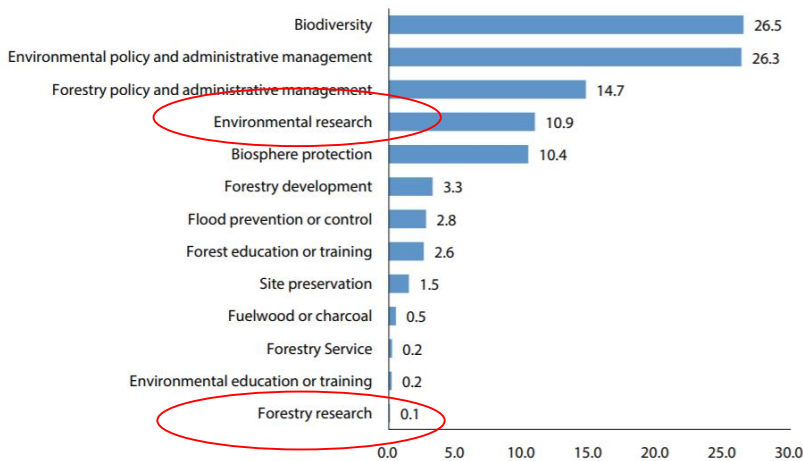
Drawing on IDRC programming directions and results:

- Individual and organizational capacity-building to supporting science systems in the Global South

2. North-South collaboration and funding flows driving SDG-related research in the Global South

Funding flows

- Bilateral and multilateral ODA for research tends to be scarce
- Research funds flow relatively “poorly” to the Global South
- Donor funding generally bypasses national institutions → a missed opportunity for capacity-building



Chataway et al, Science and Public Policy, 2019

ODA funding in the area of forestry. Favada et al., Source: Centre for International Forestry Research, 2019

Bilateral and multilateral funding

Funding Agency	United States dollars
Government of Sweden	62,380,000
Government of Norway (NORAD)	39,809,385
USAID	28,926,924
Rockefeller Foundation/IDA/WB	24,468,824
Carnegie Corporation of New York	16,591,000
European Union (EU)	9,992,885
CDC	5,670,572
African Capacity Building Foundation	5,150,000
Netherlands Government (NUFFIC)	4,750,000
IDRC	4,073,651
DFID	3,621,209
Ford Foundation	2,826,000
Millennium Science Initiative	2,134,453
World Health Organisation	1,288,325
Uganda National Council for Science and Technology	1,245,898

	Subject area	Research publications	Percentage
1	Medicine	3441	39.5%
2	Agricultural and Biological Sciences	1039	11.9%
3	Immunology and Microbiology	702	8.1%
4	Social Sciences	686	7.9%
5	Biochemistry, Genetics and Molecular Biology	624	7.2%
6	Environmental Science	405	4.7%
7	Computer Science	206	2.4%
8	Pharmacology, Toxicology and Pharmaceutics	168	1.9%
9	Engineering	155	1.8%
10	Psychology	147	1.7%
11	Veterinary	138	1.6%
12	Nursing	128	1.5%

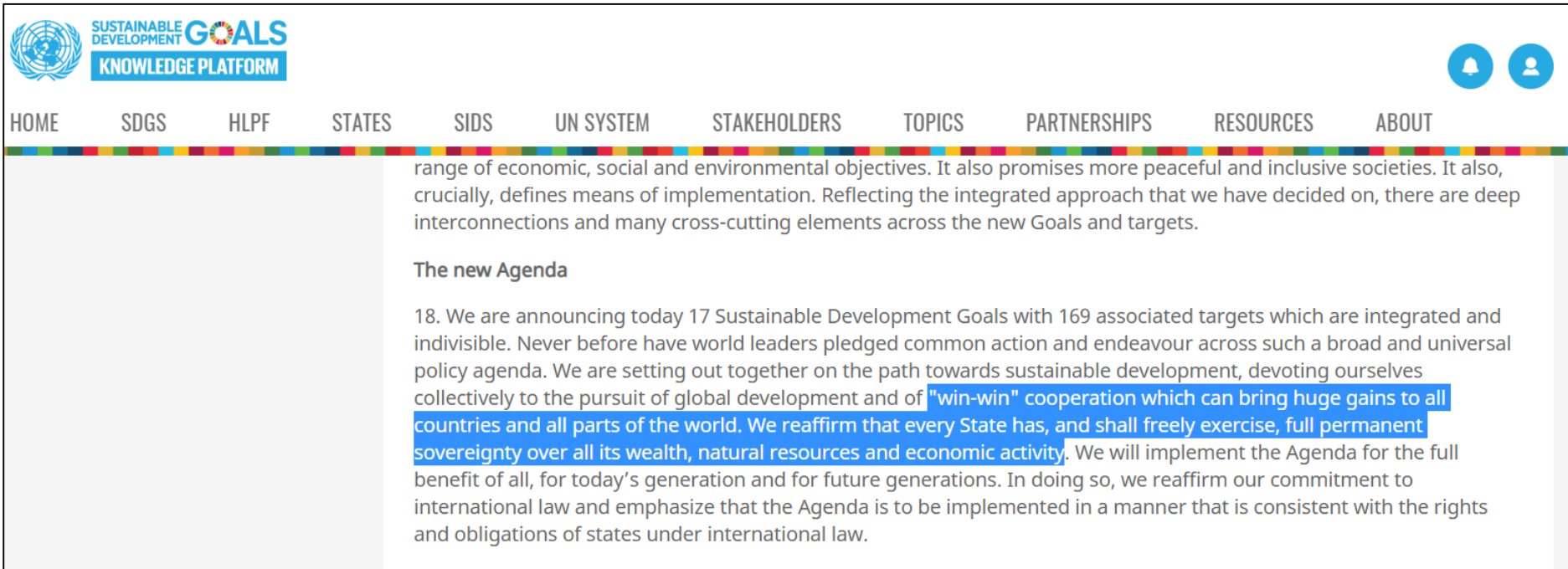
Left: Funding for Makerere Research (2000-2012); Right: Research publication output (2008-2016)

Source: Ssembatya and Barugahara (2020) in: Kraemer-Mbula, Tijssen, Wallace, MacLean (eds), *Rethinking research excellence: new perspectives from the Global South*. Johannesburg: African Minds.



3. Organizational capacity-building: a national and regional approach

A national-level perspective on SDGs

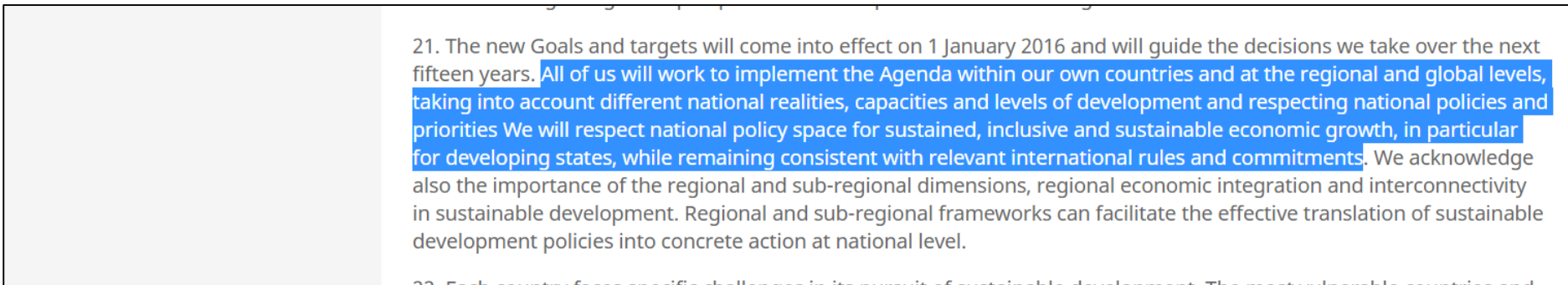


The screenshot shows the top portion of the Sustainable Development Goals Knowledge Platform website. At the top left is the UN logo and the text "SUSTAINABLE DEVELOPMENT GOALS KNOWLEDGE PLATFORM". To the right are notification and user profile icons. A navigation bar contains links for HOME, SDGS, HLPF, STATES, SIDS, UN SYSTEM, STAKEHOLDERS, TOPICS, PARTNERSHIPS, RESOURCES, and ABOUT. Below the navigation bar, a decorative horizontal bar with colored segments is visible. The main content area features a paragraph about the range of economic, social, and environmental objectives, followed by a section titled "The new Agenda" which contains the text of paragraph 18.

range of economic, social and environmental objectives. It also promises more peaceful and inclusive societies. It also, crucially, defines means of implementation. Reflecting the integrated approach that we have decided on, there are deep interconnections and many cross-cutting elements across the new Goals and targets.

The new Agenda

18. We are announcing today 17 Sustainable Development Goals with 169 associated targets which are integrated and indivisible. Never before have world leaders pledged common action and endeavour across such a broad and universal policy agenda. We are setting out together on the path towards sustainable development, devoting ourselves collectively to the pursuit of global development and of "win-win" cooperation which can bring huge gains to all countries and all parts of the world. We reaffirm that every State has, and shall freely exercise, full permanent sovereignty over all its wealth, natural resources and economic activity. We will implement the Agenda for the full benefit of all, for today's generation and for future generations. In doing so, we reaffirm our commitment to international law and emphasize that the Agenda is to be implemented in a manner that is consistent with the rights and obligations of states under international law.



This block shows the continuation of the text from the previous block, specifically paragraph 21, which discusses the implementation of the new Goals and targets starting on 1 January 2016.

21. The new Goals and targets will come into effect on 1 January 2016 and will guide the decisions we take over the next fifteen years. All of us will work to implement the Agenda within our own countries and at the regional and global levels, taking into account different national realities, capacities and levels of development and respecting national policies and priorities. We will respect national policy space for sustained, inclusive and sustainable economic growth, in particular for developing states, while remaining consistent with relevant international rules and commitments. We acknowledge also the importance of the regional and sub-regional dimensions, regional economic integration and interconnectivity in sustainable development. Regional and sub-regional frameworks can facilitate the effective translation of sustainable development policies into concrete action at national level.

National and regional-level science agencies

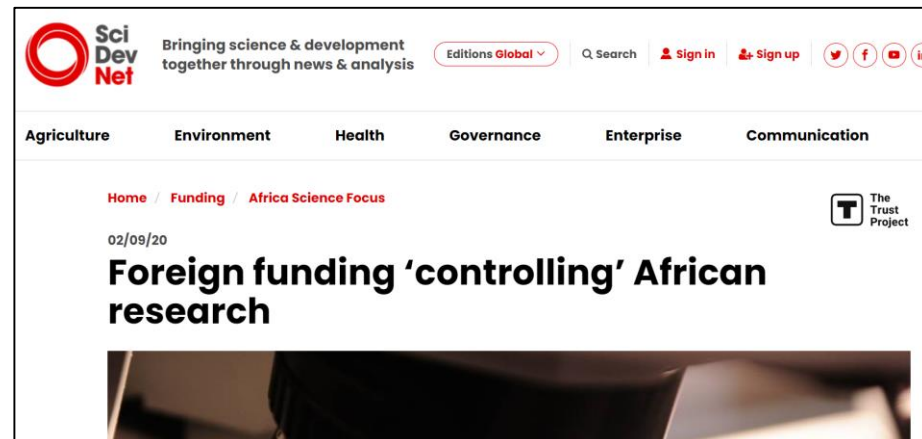
- Alignment between SDGs and regional and national strategies, via government structures, includes generating, mobilizing knowledge
- Also supported by think tanks, NGOs, universities, etc.
- Gaps in resources, structures or mechanisms for research priority-setting and science advice
- Granting agencies are often catalysts for effective STI systems (Tigabu & Khaemba, 2020)

African research projects are failing because funding agencies can't match donor money

By Christopher Bendana | Apr. 15, 2019, 1:50 PM

ENTEBBE, UGANDA—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 at a meeting held here on 4 and 5 April.

Science, April 15, 2019



The screenshot shows the Sci Dev Net website interface. At the top, the Sci Dev Net logo is on the left, followed by the tagline "Bringing science & development together through news & analysis". To the right are navigation elements: "Editions Global" dropdown, a search bar, and "Sign in" and "Sign up" buttons. Below this is a horizontal menu with categories: Agriculture, Environment, Health, Governance, Enterprise, and Communication. The main content area shows a breadcrumb trail: "Home / Funding / Africa Science Focus". The date "02/09/20" is displayed. The article title is "Foreign funding 'controlling' African research". A small logo for "The Trust Project" is visible in the top right corner of the article content.

Regional and national capacity-building examples








Convocatoria regional de proyectos para la organización de redes centroamericanas de intercambio y colaboración científica

Fecha límite de recepción de propuestas: 30 de septiembre de 2020.


www.sica.int/innovacioncientifica

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home » risa directorates » funding » or tambo africa research chairs initiative: transforming the african research landscape

OR Tambo Africa Research Chairs Initiative: Transforming the African Research Landscape

Relevance of capacity-building activities

- Tools for priority-setting, research evaluation
- Promoting international and inter-sectoral research collaboration
- Strategies for knowledge translation and dissemination
- Develop national and regional STI policy frameworks



- Empower STI organizations within the broader political economy
- “Level the playing field” for South-based research
- More effective use of funding
- Greater impact domestically and internationally

4. Considerations for a path forward:
from “what” to “who” / “how” / “where”

“How”: questions on STI structures and intentionality

- Do mechanisms exist for capturing national research outputs to inform progress on SDGs?
- Are priority-setting exercises for STI at the national or regional level informed by SDGs, and how are they integrated with national/regional development plans?
- How are decisions made, tradeoffs recognized, etc., and what incentive structures are dominant?
- What is the agency of researchers and research organizations within a national/regional science system to work on SDGs?

“Where/who”: Situating STI contributions to SDGs (and national development priorities)

- Recognizing differences in content of South- and North-driven research
- Understanding dynamics of collaborative international SDG-related research: infrastructure, access to data, roles, etc.
- Focusing on the role of multilateral and bilateral institutions in defining and implementing research agendas, and providing science advice
- Gathering more evidence of national or regional research uptake of South-based research for SDGs

Concluding remarks

Considerations for a **research** agenda:

- Understanding dynamics within/among organizations (STI and other) for setting research agendas and informing SDGs
- Expanding mapping work by *situating* research and *tracking* how agendas are set and policies for SDGs are informed
- Describing biases against Global South research in terms of SDGs

... and a policy/funding **agenda**:

- Capacity-building of key STI organizations fosters a longer-term perspective on STI for SDGs
- Rethinking incentives that allow researchers and organizations to better contribute to SDGs
- Building regional and national structures (Chairs, networks, consortia) for longer-term impact, more equitable North-South collaborations

Thank you!

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