SUB-SAHARAN AFRICA REGIONAL MEETING OF THE GLOBAL RESEARCH COUNCIL

VIRTUAL MEETING, 18 NOVEMBER 2021

OVERVIEW

Since 2015, the African SGCs have hosted an annual series of high-level dialogues and engagements to strengthen partnerships, share experiences and practices on a range of emerging topics, and network amongst themselves and with other science system actors within and outside the African Continent. Chief among this annual series of events are the Science Granting Councils Initiative (SGCI) in sub-Saharan Africa Annual Forum, and the Global Research Council (GRC) Africa Regional Meeting. The 2021 series of events were held during 15-18 November 2021 in a virtual format.

The 2021 Africa Regional Meeting of the Global Research Council (GRC) was co-hosted by the Research Council of Zimbabwe (Zimbabwe), the Ministry of Tertiary Education, Research, Science and Technology (Botswana) and the Fonds National de la Recherche et de l'Innovation pour le Development (Burkina Faso). Alongside the Regional Consultation, the Science Granting Councils Initiative (SGCI) in Sub-Saharan Africa and the GRC provided feedback on the Gender Working Group, and a session on the *GRC Strategy: Actions Towards the Development and Implementation of the GRC's Vision and Roadmap* was facilitated.

There were 45 participants from 17 research councils (including science and technology ministries and public science funding agencies); joined by representatives from the Secretaría Nacional de Ciencia, Tecnología e Innovación (SENACYT, Panama) and the National Science Foundation (NSF, United States) who will co-host the 2022 GRC Annual Meeting. The meeting agenda is attached as Annex 1.

Participants discussed, and provided the Africa regional context for, the two topics proposed for the 2022 GRC Annual Meeting – science and technology workforce development, and research ethics, integrity and culture in the context of rapid results research.

The discussions reflected the diversity of African agencies and identified areas of strong consensus. Summarised below are the key points of discussion from the Sub-Saharan African region to be presented to the GRC International Steering Committee and the Executive Support Group for consideration at the during the 2022 GRC Annual Meeting.

The participants at the meeting highlighted the importance of both 2022 GRC topics to ensure that science will be able to make its anticipated contribution to social and economic development – in particular, challenges that require a rapid response (e.g., COVID-19 or climate change). There are also some critical intersections between the two topics, and specifically that the capacity of the scientific workforce is needed to undertake responsible research.

SCIENCE AND TECHNOLOGY WORKFORCE DEVELOPMENT

There are global and national imperatives for investing in the development of the science and technology workforce; however, needs and priorities differ by context. This does not necessarily pose a conflict of interest. There are many overlaps between global agendas such as the Sustainable Development Goals (SDGs), African agendas (such as Agenda 2063), and national development plans. There is thus scope and support for national efforts and broader collective efforts.

Participants at the Africa Regional Meeting acknowledged that research funding councils have multiple roles to play in developing the science and technology workforce at national and global levels, and building this capacity is embedded (to varying degrees) in the mandates of councils across Africa.

The Africa Regional Meeting discussed and highlighted different roles, functions and models for how councils can and should contribute to developing the science and technology workforce. Key roles included (i) supporting education and training through developing and funding programmes, and embedding capacity development into other initiatives, such as research grants; (ii) working with knowledge institutions, such as universities, to co-create programmes; (iii) promoting regional and international collaboration around developing the workforce across the entire career pipeline, and (iv) advising governments on the importance of investing in this.

In the Africa context, many challenges need to be addressed with regards to developing the science and technology workforce. Some of these challenges are shared globally, but others are specific to Africa. Key challenges include that coordination between stakeholders is not optimal, and weak governance structures. There is also an under-investment in workforce development and overreliance on government funding. Participants agreed that continued advocacy is needed to build the requisite support for capacity development across the continent and that there is a need for multisectoral approaches and broader collaboration to overcome these challenges. Other challenges that need to be addressed include limited impactful science communication. The councils reiterated the importance of not only ensuring that science is orientated to society, but also that the shared value created through developing the workforce is clearly communicated.

Developing the science and technology workforce needs short- and long-term strategies to address immediate needs and ensure that future sustainable plans are in place. Participants from Africa gave their strong support to focus on sustainable programmes and fellowships that build the scientific workforce. Several excellent examples of how this could be done were discussed. Centres of Excellence were identified as one promising vehicle for developing the scientific workforce. Centres of Excellence are already established across the continent and operate across geographies and disciplines; their experience and networks thus provide a robust platform. Councils and agencies should adopt a learning-by-doing approach – sharing lessons and good practices on building and managing programmes amongst each other.

Diversity and inclusivity should be embedded into the development of the science and technology workforce. The participants at the meeting affirmed the need to ensure that there is an emphasis on diversity (including a strong focus on gender and intersectionality) across capacity strengthening initiatives. Acknowledging that the emphasis on diversity and inclusivity is growing, with greater acceptance of the urgency of these imperatives, the participants identified the need for programmes and policies to further promote these important goals.

Councils play an essential role as boundary-spanning organizations in facilitating and sustaining partnerships between research and other sectors. Partnerships were identified at the meeting as one of the fundamental

mechanisms to develop the science and technology workforce, including with the private sector. There is wide variation between councils regarding the extent to which partnerships with the private sector has been leveraged. This was highlighted as an underdeveloped area for many councils.

Assessing and communicating the impact of investing in developing the scientific workforce research will increase investment and broad stakeholder support. The participants at the African Regional Meeting identified the need to adopt monitoring and evaluation approaches that demonstrate the value impact of investing in the scientific workforce. This should be translated (through analysis and synthesis) into insights and knowledge about the investment's value. In turn, this creates the opportunity to engage with stakeholders and decision-makers through tailored science communication around the value to leverage further support. A focus on creative and diverse communication should be promoted across the GRC, including documentaries, publications, dissemination workshops, or exhibitions. The aforementioned together form a foundation for demonstrating the benefits and impact of investment in science and technology workforce education, nationally and globally.

The GRC plays several important roles in developing the scientific workforce. Participants at the Sub-Saharan Africa Regional Meeting affimred their support to the GRC to work towards achieving the following:

i) The GRC, through statements of principles and good practice guidelines, can help foster a *shared understanding of the importance of and an awareness of approaches to* develop the science and technology workforce amongst its members.

ii) The GRC provides a *platform for building capacities* among councils by sharing knowledge and creating opportunities for collaboration and peer learning.

iii) The GRC provides a platform for participating councils to *identify potential collaborating partners* who can work together to design, support or deliver programmes to develop the science and technology workforce.

iv) The GRC serves as a *collective voice, articulating a common position* among its members, strengthening their individual efforts to influence decision-makers to support and increase their investments in developing the scientific workforce.

RESEARCH ETHICS, INTEGRITY AND CULTURE IN THE CONTEXT OF RAPID-RESULTS RESEARCH

Funding agencies are responsible for promoting and supporting the highest levels of research ethics and integrity in national and international scientific communities. Ethics is integral to the scientific enterprise and necessary to ensure public trust in science.

The participants at the Sub-Saharan Africa Regional Meeting expressed their commitment to responsible research more broadly and in the context of the topic within rapid-results research. They affirmed that rapid response research requires the same level of ethical responsibility and higher levels of transparency.

The participants strongly supported the eight principles put forward in the GRC discussion paper and agreed that there is a need to ensure that the principles are adhered to in rapid-results research. The meeting affirmed the responsibilities of councils to support establishing norms and cultures that support both individual ethical practice on the part of researchers and collective ethical practice. The principle of promoting trustworthiness was highlighted as critical to enhancing public trust in science. Participants further acknowledged the need for adjusted and expedited processes around ethics for rapid-results research.

In the African context, some challenges need to be overcome related to the conduct of responsible research. There is insufficient knowledge and skills around ethics, including pertaining to rapid-results research. There is also low public awareness about research ethics, how it works and how this impacts trustworthiness. In some contexts, there are not yet adequate national systems and policies related to ethics.

The basics need to be put in place. At the Sub-Saharan African Regional Meeting, the participants acknowledged the need for policies, processes, and guidelines related to ethics that are embedded in grants application processes and ethics approval processes. Mechanisms for monitoring how ethics is considered throughout the research life cycle, not only at the ethics application phase, should be a priority, along with reporting mechanisms for non-adherence. Incentives for adherence – although not the typical approach – should be considered. In the context of rapid-results research, these strong foundations can enable innovation in ethical approval processes without compromising ethical principles.

Opportunities for new ways of doing and innovative processes. There are many opportunities for a new way of doing without compromising the principles of responsible research. Participants at the Sub-Saharan African Regional Meeting discussed several suggestions in this regard: blending international and national reviewers, blending written reviews and synchronous discussions, decentralizing processes to work directly with universities where strong foundations are in place, putting in place lead agency agreements, and leveraging technologies to identify and discourage unethical practices.

Communicating responsible research conduct as a mechanism for building trust. Participants at the Sub-Saharan African Regional Meeting acknowledge the expectation that science should have a tangible impact on society and bring about outcomes that lead to a better life for all. This is, however, juxtaposed with varied levels of distrust in science among multiple publics. Responsible research conduct and effective communication were noted at the as mechanisms to strengthen relationships and build trust between scientific communities and multiple publics.

The GRC plays an important role in supporting its members in their efforts to ensure responsible research. Councils need the capacities and the resources to engage effectively with their mandates around responsible research (broadly speaking and related to rapid-results research), and the GRC provides opportunities for support and collaboration at several levels.

Participants at the Sub-Saharan African Regional Meeting expressed support for the GRC to:

i) continue to provide a knowledge-sharing and peer-learning platform for member councils to *share examples, case studies and exemplars of what works* in terms of responsible research,

ii) *develop a set of principles and guidelines for responsible research, specifically rapid response research,* that councils and funding agencies can adapt in their national contexts.

The Sub-Saharan African Regional Meeting also identified several key examples where GRC members could collaborate to develop practical tools and resources that could be shared among members for their mutual benefit. These included training materials, Memorandum of Understanding templates and starter documents that could be used to quickly set up collaborative agreements for rapid-results research without compromising on the quality of the agreements, and a shared database of reviewers that could be quickly called on in rapid research situations.